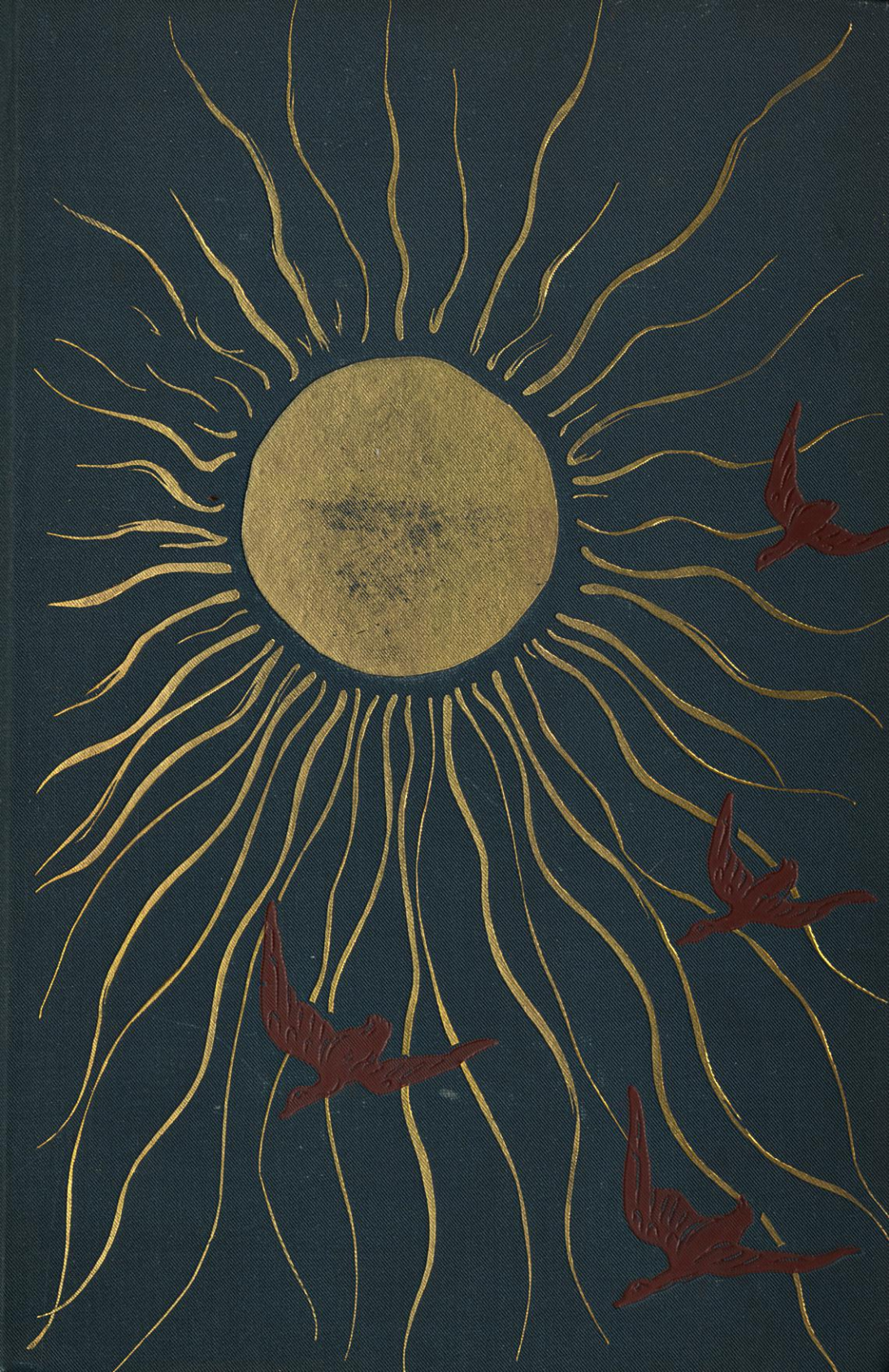


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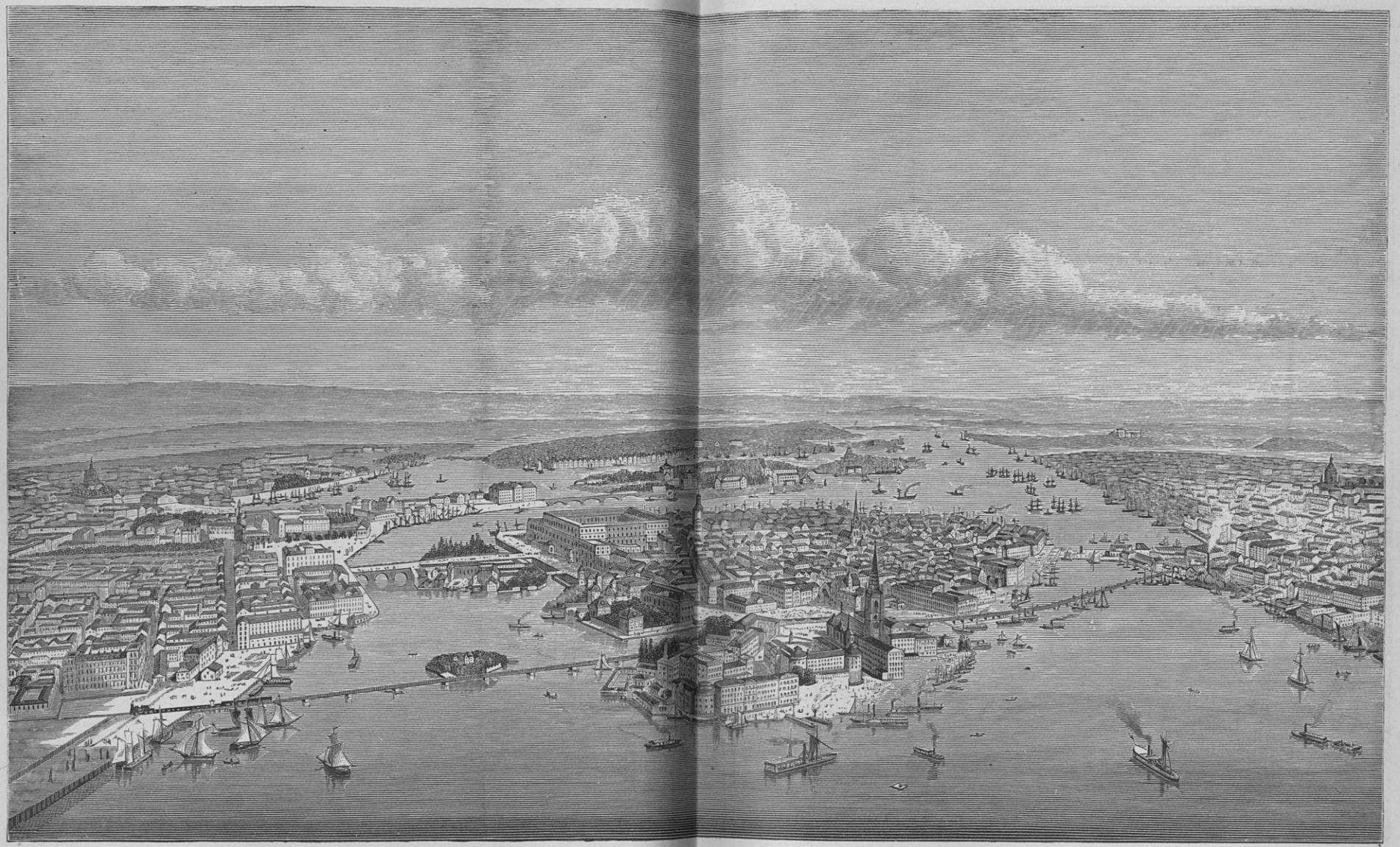

STOCKHOLM.

THE

LAND OF THE MIDNIGHT SUN

Summer and Winter Journeys through

SWEDEN, NORWAY

LAPLAND AND NORTHERN FINLAND

BY

PAUL B. DU CHAILLU

AUTHOR OF

"EXPLORATIONS IN EQUATORIAL AFRICA" "A JOURNEY TO ASHANGO LAND"

"STORIES OF THE GORILLA COUNTRY" ETC.

WITH MAP AND 235 ILLUSTRATIONS

IN TWO VOLUMES

VOL. I.

NEW YORK

HARPER & BROTHERS, FRANKLIN SQUARE

1882

TO

ROBERT WINTHROP, Esq.,

OF NEW YORK.

To you, my dear Winthrop, who have been so faithful and steadfast a friend, under all circumstances, I dedicate this work, "The Land of the Midnight Sun," as a token of the high regard I entertain for your noble character, and in grateful recollection of the delightful hours we have spent together at your happy fireside, which were always made the more pleasant by the hospitable welcome of your amiable wife, and by the shouts of greeting from your loving children. Whatever my lot may be, either at home or in foreign lands, the memory of yourself and yours will always be dear to

PAUL B. DU CHAILLU.

New York, *October*, 1881.

PREFACE.

The account of the Peninsula of Scandinavia, and of the life of its people, given in these volumes, is the result of a series of journeys made at different times, from 1871 to 1878, embracing a sojourn in the country of nearly five years.

From the beginning, my intention was to write something more than a mere narrative of travel. The object of my journeys was to make a study of the physical characteristics of the country, and to closely observe the manners and customs of its inhabitants, by participating in the home-life of all classes. I felt sure that no such description could be faithful unless I so won their affection and confidence that they would consider me as one of themselves. In pursuance of this purpose, I acquired some knowledge of their languages, knowing that there could be no genuine sympathy between the rural population and myself, and I should obtain no real acquaintance with them, if we could not converse with each other.

In order to become thoroughly acquainted with the country, I travelled in an irregular course, by routes often crossing each other, and at different seasons of the year, either from the Baltic to the Polar Sea, or from the east to the west. I have observed the whole coast from Haparanda to the extreme north-eastern point of Norway, a distance of 3200 miles, the greater part of it both in winter and in summer; and, besides, I have sailed on almost every fjord, whose shores have in the aggregate an extent of 3000 miles or more.

I have paid special attention to the prehistoric and Viking ages, and have availed myself of the most recent researches of the Norwegian and Swedish archæologists in that direction, and of the illustrations lately published, to aid me in eluci-

dating those subjects, as their remains throw much light on the character and customs of the present inhabitants—probably the most independent, honest, and faithful of the European nationalities.

I have depended solely on personal observations for my information, and the reader may be assured that my descriptions of primitive customs are not taken from hearsay, but from the evidence of my own eyes. On scientific points I have consulted the highest local authorities.

My illustrations are mostly, the portraits entirely, from photographs, which have been taken exclusively for use in this work. Those representing winter scenes in Lapland are the work of a Swedish artist—Hasse Bergman—who has visited that country.

The title of the book is derived from one of the most striking phenomena in the north of the country, and one which I witnessed with wonder and admiration on many occasions.

I have adopted the spelling of each country when referring to the names of places and people, etc.; but, as the Swedish and Norwegian languages are very similar, and both now in a state of transition, gradually conforming the spelling to one standard, no confusion will result from this plan.

I submit this work to the public, with the hope that they may share with me in the interest attaching to the Scandinavian people and their country.

I cannot refrain from thanking my publishers for the patience they have shown me in the preparation of this work. The first book I ever wrote was published by their fathers, in 1861. For their memory I have the greatest love and respect. Their mantle has fallen upon their successors, and I wish to acknowledge the high regard and affection I entertain for them.

PAUL B. DU CHAILLU.

NEW YORK, *October*, 1881

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THE LAND OF THE MIDNIGHT SUN.

CHAPTER I.

Characteristic Features of the Peninsula of Scandinavia.

THERE is a beautiful country far away towards the icy North. It is a glorious land; with snowy, bold, and magnificent mountains; deep, narrow, and well-wooded valleys; bleak plateaux and slopes; wild ravines; clear and picturesque lakes; immense forests of birch, pine, and fir trees, the solitude of which seems to soothe the restless spirit of man; large and superb glaciers, unrivalled elsewhere in Europe for size; arms of the sea, called fjords, of extreme beauty, reaching far inland in the midst of grand scenery; numberless rivulets, whose crystal waters vary in shade and color as the rays of the sun strike upon them on their journey towards the ocean, tumbling in countless cascades and rapids, filling the air with the music of their fall; rivers and streams which, in their hurried course from the heights above to the chasm below, plunge in grand water-falls, so beautiful, white, and chaste, that the beholder never tires of looking at them; they appear like an enchanting vision before him, in the reality of which he can hardly believe. Contrasted with these are immense areas of desolate and barren land and rocks, often covered with boulders which in many places are piled here and there in thick masses, and swamps and moorlands, all so dreary that they impress the stranger with a feeling of loneliness from which he tries in vain to escape. There are also many exquisite sylvan landscapes, so quiet, so picturesque, by the sea and lakes, by the hills and the mountain-sides, by the rivers and in the glades, that

one delights to linger among them. Large and small tracts of cultivated land or fruitful glens, and valleys bounded by woods or rocks, with farm-houses and cottages, around which fair-haired children play, present a striking picture of contentment. Such are the characteristic features of the peninsula of Scandinavia, surrounded almost everywhere by a wild and austere coast. Nature in Norway is far bolder and more majestic than in Sweden; but certain parts of the coast along the Baltic present charming views of rural landscape.

From the last days of May to the end of July, in the northern part of this land, the sun shines day and night upon its mountains, fjords, rivers, lakes, forests, valleys, towns, villages, hamlets, fields, and farms; and thus Sweden and Norway may be called "The Land of the Midnight Sun." During this period of continuous daylight the stars are never seen, the moon appears pale, and sheds no light upon the earth. Summer is short, giving just time enough for the wild-flowers to grow, to bloom, and to fade away, and barely time for the husbandman to collect his harvest, which, however, is sometimes nipped by a summer frost. A few weeks after the midnight sun has passed, the hours of sunshine shorten rapidly, and by the middle of August the air becomes chilly and the nights colder, although during the day the sun is warm. Then the grass turns yellow, the leaves change their color, and wither, and fall; the swallows and other migrating birds fly towards the south; twilight comes once more; the stars, one by one, make their appearance, shining brightly in the pale-blue sky; the moon shows itself again as the queen of night, and lights and cheers the long and dark days of the Scandinavian winter. The time comes at last when the sun disappears entirely from sight; the heavens appear in a blaze of light and glory, and the stars and the moon pale before the aurora borealis.

Scandinavia, often have I wandered over thy snow-clad mountains, hills, and valleys, over thy frozen lakes and rivers, seeming to hear, as the reindeer, swift carriers of the North, flew onward, a voice whispering to me, "Thou hast been in many countries where there is no winter, and where flowers bloom all the year; but hast thou ever seen such glo-

rious nights as these?" And I silently answered, "Never! never!"

This country, embracing nearly sixteen degrees in latitude, is inhabited chiefly by a flaxen-haired and blue-eyed race of men—brave, simple, honest, and good. They are the descendants of the Norsemen and of the Vikings, who in the days of old, when Europe was degraded by the chains of slavery, were the only people that were free, and were governed by the laws they themselves made; and, when emerging from their rock-bound and stormy coast for distant lands, for war or conquest, were the embodiment of courage and daring by land and sea. They have left to this day an indelible impression of their character on the countries they overran, and in which they settled; and England is indebted for the freedom she possesses, and the manly qualities of her people—their roving disposition, their love of the sea, and of conquest in distant lands—to this admixture of Scandinavian blood, which, through hereditary transmission, makes her prominent as descended chiefly from Anglo-Scandinavians and not Anglo-Saxons.

We will now travel from one end of this land to the other, crossing it many times from sea to sea, over well-made roads and wild tracts, in summer and in winter, and linger among its people.

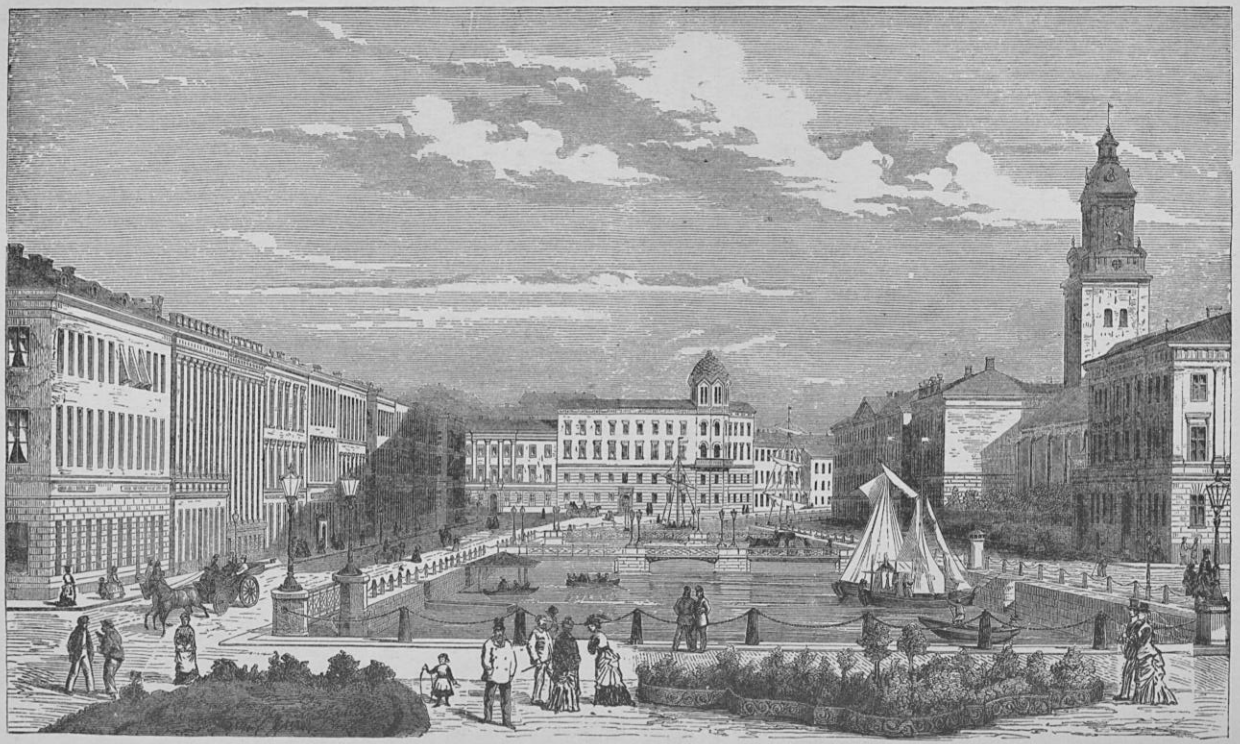
CHAPTER II.

From London to Göteborg.—Native Hospitality.—A Swedish Dinner.—Strange Dishes.—Railway Travel in Sweden—A model Dining-room.—Picturesque Scenery.

In the latter part of May, 1871, I sailed from New York for England; and early in the beginning of June, at three o'clock in the morning, I drove from my London hotel, and went on board the weekly steamer bound for Sweden. After one of those long drives which give to the stranger an idea of the vast size of that marvellous city, I found myself by the Millwall Docks, and just in time to jump on board the boat, which was passing through one of the locks. The weather was thick and foggy, and we steamed slowly and carefully down the Thames. The river, as usual, was crowded with vessels of all nations, coming from and going to every part of the world. Our destination was Göteborg, in Sweden. There were few passengers, and all except myself were Swedes.

The fog increased, and at night became so dense that there was danger of running into some of the fishing-smacks, great numbers of which were in our course. The Swedish captain was very courteous, and spoke English perfectly. I never heard him utter an oath; before partaking of his meals he used to bow his head and silently ask a blessing—a custom which I found almost universal in Scandinavia.

This part of the passage was not so quick as we expected, on account of the fog, and, moreover, the vessel was very slow. On Sunday morning, about ten o'clock, the sky suddenly cleared, and the weather remained fine to the end of our voyage. In the afternoon we saw the coast of Jutland, which was low, and appeared bleak and sandy; in the evening we passed the Skau light-house, situated near the extreme northern part of Denmark, and witnessed a most beautiful sunset—the deep yellow glow which followed the disappearance of the sun re-



STORA HAMNGATAN, IN GÖTEBORG.

minding me somewhat of the zodiacal light at the equator; at ten o'clock the twilight was so strong that we could see only Jupiter and three stars.

Early on Monday morning we came in sight of the barren, granite-bound coast. Soon afterwards our steamer ascended the Göta-elf (river), and at five o'clock we were along-side one of the quays of Göteborg, after a voyage of three days. Our baggage having been examined by the custom-house officers, I found quarters at the Hotel Götha Källare, the best in the place, but inferior to many hotels of less pretension in smaller Swedish towns. Göteborg, called by the English Gothenburg, is the second city of Sweden, and is its principal seaport. It has a population of seventy-six thousand, and is situated on the western coast, in 57° 42′ N. I was impressed at once with the cleanliness of the place; its canals, passing through the middle of the streets, reminded one of some Dutch towns, but the architecture of the houses was decidedly French, the people living chiefly in apartments, while the villas were of the English style.

I had obtained letters of introduction from Herr Stenersen, the minister of Sweden and Norway at Washington, and, while passing through London, had received others from the former consul in New York, and from other friends. Among the letters was one addressed to a leading firm in Göteborg; the senior partner, Herr W——, was a member of the First Chamber of the Diet. I was struck by their amiability and refinement, and by the quiet and unpretending manner in which they sought to help me. The softness of their pronunciation modified the excellent English they spoke; and they gave me "Welcome to Sweden! welcome to Scandinavia!"

There are three ways of going from Göteborg to Stockholm —by railway, which takes twelve hours, by water, from sea to sea, or by post stations. If the traveller can command the time, the steam canal and lake route is preferable. It requires two or three days, but affords an excellent opportunity to see the country without being wearied; and most of the steamers are very comfortable.

"But you must take dinner with me," said the eldest broth-

er of the house; "for you cannot go before to-morrow morning; we have only one train a day to Stockholm." Thus, at my entrance upon Scandinavian territory, I was made acquainted with the hospitality of its people.

We dined at 3 P.M., and I found, but too late, that it was proper to wear a dress-coat and a white cravat, even when dinner is served so early in the day, and that in this respect the Swedes are very particular. I had the honor of escorting the hostess to the dining-room. Dinner in Sweden is invariably preceded by a *smörgås*, a series of strange dishes eaten as a relish.

I was led to a little table, called *smörgåsbord*, around which we all clustered, and upon which I saw a display of smoked reindeer meat, cut into small thin slices; smoked salmon with poached eggs; fresh, raw, sliced salmon, called *graflax*, upon which salt had been put about an hour before; hard-boiled eggs; caviare; fried sausage; a sort of anchovy, caught on the western coast; raw salted Norwegian herring, exceedingly fat, cut into small pieces; *sillsallat*, made of pickled herring, small pieces of boiled meat, potatoes, eggs, red beets and raw onions, and seasoned with pepper, vinegar, and olive-oil; smoked goose-breast; cucumbers; soft brown and white bread, cut into small slices; *knäckebröd*, a sort of flat, hard bread, made of coarse rye flour and flavored with aniseseed; *siktadt* bread, very thin, and made of the finest bolted flour; butter; *gammal ost*, the strongest old cheese one can taste, and *kummin ost*, a cheese seasoned with caraway; three crystal decanters, containing different kinds of *bränvin* (spirits); *renadt*, made from rye or potatoes; *pomerans*, made from renadt, with the addition of oil of bitter orange, and somewhat sweet; and *finkelbränvin*, or unpurified spirit. Around the decanters were ranged tiny glasses, and the gentlemen of the party drank one or the other of these potations as an appetizer; the dishes and the spirits were alike strange to me. Everything was tastefully arranged upon a snowy cloth—the plates, knives, forks, and napkins being placed as at a collation; but when, as the guest, I was invited to help myself first, I was at a loss how to begin; the meal was eaten standing. Observing my predica-

ment, the hostess came kindly to my rescue, and helped herself first—taking a piece of bread and spreading butter upon it, and then selecting tidbits with a fork. I kept up a conversation with the host, but observed the proceedings warily all the time, in order to know what to do next; knives and forks were used in common. I began with bread, butter, and reindeer meat, which were good; and seeing that every one was enjoying the graflax, I resolved to try it; but the slice was hardly in my mouth before I wished I had not made the experiment. It was too late; I had to eat it; there was no possibility of escape. My stomach was ready to give way; but the only thing to be done was to swallow what I had taken; a small glass of renadt, drank immediately afterwards, saved me. I did not repeat the experiment of eating graflax that day, nor for many days thereafter. The smoked salmon was an improvement upon the graflax, but that was bad enough; the sillsallat, which is considered a great delicacy when the herrings are fat, I found to be palatable; and sundry other dishes I liked very much, the smoked goose-breast being particularly delicate; but I shall never forget my first impressions of the raw salmon. Afterwards I became very fond of sillsallat, and, in fact, of everything that was put upon a smörgåsbord, with the exception of graflax, which I can now eat, but have serious doubts whether I shall ever be able to enjoy. The Swedes regard it as a great delicacy; and as the first salmon caught in the spring are dear, the graflax is considered a luxury.

The smörgås, however, was only a preliminary to the dinner —an appetizer. We went to a large table close by, and took seats, the place of honor on the right being assigned to me. The dinner and the wines were like those of any other country. At the beginning of the meal the host welcomes his guest with a glass of wine, then bows to the hostess and to him, and during the repast, host, hostess, and guests, glass in hand, bow also to each other, and sip their wine. It is customary for each gentleman to escort back to the drawing-room the lady he takes to dinner; then follows the charming and invariable custom when every guest shakes hands with the hostess, say-

ing, *Tack för maten* (thanks for the meal, or, literally, thanks for the food), to which she answers, *Wälbekommet* (welcome to it). The same ceremony is repeated in honor of the host and the rest of the family; and then the children follow, with the same form of thanks addressed to their parents, thus being taught from their youth to be grateful to those who support them. A general interchange of civilities ensues, often accompanied by hand-shaking and the bowing of the guests to each other, and a considerable interval of time is occupied by conversation before coffee is served. I was, indeed, at a loss to know the meaning of this hand-shaking, and accordingly neither gave thanks nor shook hands. So I had made two blunders on my first day: I had appeared at dinner without an evening suit, and had not expressed my thanks for the hospitality I had enjoyed.

The weather being delightful, a promenade was proposed. "You must see our little park," said the host and hostess; and I found that their praise of that beautiful pleasure-ground was not extravagant. This was the favorite summer resort of the inhabitants of Göteborg. It was tastefully laid out, with paths winding through shrubbery and along the banks of a little river, and with flowers springing up everywhere in profusion; a small fee was charged for admission, and carriages were excluded. The spring was said to be a week or ten days behindhand; but the hawthorn was beginning to bloom, the lilacs and the apple and horse-chestnut trees were in full blossom; the poplars, elms, and lime-trees were flourishing; the oaks had just put out their young leaves; the grass was green, and the whole scene a lovely picture. Under a central pavilion a band of good musicians were playing; flocks of tame sparrows were twittering around; beneath the shadow of the trees hundreds of visitors were strolling, lounging, or conversing, taking refreshments at the little tables provided for the purpose, or exchanging the gentle courtesies characteristic of this people.

So passed the first day of my visit to Scandinavia. The charming family who had received me as their guest exacted a promise of another visit on my return to their city.

The railway from Göteborg to Stockholm was built by, and is under the management of, the Government; it is the main road from west to east, connects with the north and south and other points of Sweden, and also with Christiania: this and the grand trunk railway from the south are the two finest roads in Scandinavia.

At six o'clock the next morning (June 13th), I was on my way to Stockholm—the distance being 42.6 Swedish miles. The cars were similar to those in use in all the countries of Europe; only seventy pounds of luggage were allowed to each passenger, and the charges on the amount in excess of this limit were very high. I was not permitted to take my gun with me, this being against the regulations, and it had to go with my luggage. After leaving Göteborg, the scenery at times reminded me of that of New England. The country was barren and rocky in many places, and some of the fields were surrounded by stone walls, precisely like those commonly built in America; others were fenced with split wood. Little lakes, woods, swamps, cultivated fields, and some magnificent oak-trees, were passed in succession; the farm-houses were painted red. As we travelled farther inland, the vegetation seemed more backward, and the scenery became peculiarly Swedish—low, bleak barrens and polished granite hills showing the action of glaciers; forests, chiefly of fir, pine, and birch, alternating with arable tracts, marshes, and long stretches of moorland; with here and there patches of sandy soil covered with boulders or stunted trees.

Great care had evidently been bestowed upon the construction of the road, the bed of which had been solidly made, under the supervision of Government officers, with the best material. Economy was consulted in the management of details; waste iron was gathered into heaps along the line, every piece being preserved for remelting; even the oiling of the engines and the car-wheels was so performed as to prevent loss by dripping. The stations were kept in perfect order, the name of each being displayed upon its front in large characters, with its distance from Stockholm and from Göteborg; nearly all were surrounded by flower-gardens, and the conven-

iences for the use of travellers were admirably arranged. The railway officers were studiously polite, and uniforms were invariably worn by station-masters, conductors, porters, and other *employés*. At intervals of about three miles, little red houses had been erected for the use of the watchmen who guarded the road; these were numbered consecutively, and the business of each man was to walk half-way up and down the track, to see if everything was in perfect order; at every cross-road a watchman was also stationed, the Government regulations requiring the companies to adopt every precaution to insure safety.

In the afternoon we stopped at a station called Katrineholm, one of the best dining-places on any railway in Sweden. Hearing the cry, "Twenty minutes for dinner," I rushed from the train and hurried to the *matsal* (dining-room), for the bracing air had given me an appetite. Remembering railroad experiences in America, I thought it not improbable that the stipulated limit of twenty minutes meant ten; hence my haste. But when I entered the hall, I felt ashamed of myself for having elbowed my fellow-travellers as I had done; everything was quiet, orderly, and clean, and I stopped to survey the spectacle, impressed by its novelty. In the centre of a spacious room, the floor of which was spotless, was a large table, covered with a snowy cloth, upon which was displayed a variety of tempting dishes, including large fish from the lakes, roast beef, lamb, chicken, soup, potatoes and other fresh vegetables; different kinds of bread; puddings, jellies, sweet milk, cream, butter, cheese, and the never-failing buttermilk, which many ate first, and before the soup. Every article of food was cooked to a turn, and the joints were hot, having just been taken off the fire. Piles of warm plates, with knives, forks, and napkins, lay ready to the traveller's hand; and the whole aspect of the place was tidy, cheerful, and appetizing; one might have fancied a banquet had been spread for the entertainment of a private party. The purveyors had been apprised by telegraph of the exact time of our arrival; and, as the railway trains are punctual, unless delayed by sudden snowstorms or accidents, all was in readiness for us. I was much

interested in observing the manners of the travellers; there was no confusion; the company walked around the central table, selected from the dishes they liked best, and then, taking knives, forks, spoons, and napkins, seated themselves at the little marble tables scattered in the room, rising when they desired to help themselves again. I noticed particularly the moderation of the people: the portion of food each one took was not in excess of that which would have been served at a private table; and every person in the company seemed to remember that his neighbor also might fancy the dish of which he partook. The sale of ardent spirits in the railway stations being forbidden by the Government, only beer or light wines could be procured, and these were served by alert and tidy young girls. From a large coffee-urn placed upon a table, the travellers helped themselves to that beverage; milk was provided without charge.

The dinner concluded, and the given period of twenty minutes having expired, we stepped up to a desk to pay the reckoning, which was received by the girls; the price charged for this excellent meal, including coffee, was one rix-dollar and twenty-five öre*—now it costs one rix-dollar and fifty öre: an additional sum of twenty-five öre was charged for the bottled beer. I observed that the word of each guest was taken without question as to the quantity of wine, beer, or coffee he had consumed, and no one was at the door to watch the people going out. Leaving the dining-room, I was more than ever impressed with the unfailing courtesy of the people.

The scenery had become more and more beautiful, even before reaching Katrineholm, the railway skirting a picturesque narrow lake, well wooded with pine, fir, birch, and oak: some of the oak-trees, with their spreading branches, were striking features of the landscape. As we approached Sparholm, the scene grew finer—rich fields, groves, forests, lakes, and rivers passed before us in quick succession, forming a charming panorama. At six o'clock we reached Stockholm, and soon after

* The rix-dollar is now called krona, divided in 100 öre, and is equivalent to 26 cents.

my arrival I was comfortably settled on Gustaf Adolf Square, at the Hotel Rydberg, where from my windows I had a commanding view of the royal palace and of the most lively part of the capital.

The next morning, surprised at seeing the servant lay a bill upon my table, I drew the natural inference that I was expected to pay by the day, and accordingly tendered him the amount necessary to meet the obligation; but, with much politeness and apology, he declined to receive the money, explaining that it was the custom to present each guest with his bill daily, with a memorandum of the amount due on the previous day—the purpose being to provide for the immediate correction of mistakes. This custom might be copied with advantage by hotel-keepers in other parts of Europe. It is an honest habit, and served still further to strengthen the good opinion I had formed of the people.

My first call was at the American Embassy, where I was warmly welcomed by the minister resident, General C. C. Andrews, of Minnesota. No one has ever represented the United States with more credit abroad. During his seven years of residence in the country he won the respect of the inhabitants, and few foreign representatives have left behind them so many friends and pleasant recollections. Like myself, he is a great admirer of the Scandinavian people.

CHAPTER III.

Stockholm.—First Impression.—Great Politeness.—Sociability of the People.—Out-door Life.—Charming Ladies.—Long Twilights.—Parks.—Beautiful Suburbs.—Sunday.—A Seat of Learning.—Free Institutions.—Schools.

A DELIGHTFUL impression is made upon the stranger, who, on a bright June day, enters the picturesque and charming city of Stockholm. Built partly upon eight islands, connected by bridges, in the short river which forms the outlet of Lake Mälar, it possesses romantic features unlike those of any other capital.

The massive palace, the open squares, the museums, gardens, libraries, scientific institutions, schools, churches, statues, and bridges; its splendid quays, which form the finest feature of the city, and at which vessels are continually loading and unloading; the numerous miniature steamboats, which fill the office of omnibuses, carrying passengers to and fro, either from one island to another or to the main-land; and the abundant evidences of good government and prosperity, all combine to make it one of the most attractive of European cities.

The lake is about seventy-five miles long, and studded with islands, over fourteen hundred in number, and its deep and indented shores are lined with towns, villages, hamlets, churches, ruins, chateaux, old castles, modern villas, farms, and meadows, alternating with huge masses of rock, wild and silent forests, and limpid rivers; while its waters are ploughed by steamers and sailing-vessels on their way to or from the sea. The Baltic winds its way through a clustering archipelago and a charming fjord marked by the characteristic features of Swedish scenery. The city covers a great deal of ground, on account of its squares, parks, wide quays, and water, the latter running swiftly between the islands. Many of the

streets are narrow, without sidewalks, paved with cobble-stones, and badly drained, with gutters in the middle or at the sides in place of sewers; yet the town is clean. Most of the houses are high and stuccoed, not unlike those of old Paris; but some quarters are adorned by handsome residences. The sidewalks are so narrow, even in some of the leading thoroughfares, that the custom is to take the left, and if by chance on the wrong side of the street, to yield the right of way. The oldest quarter is built on the island of Stadsholmen,* where the royal palace towers far above the surrounding houses. This is an extensive and noble structure, containing a large library, many objects of curiosity, and a fine picture-gallery; but in its neighborhood are found some of the ugliest and narrowest streets of Stockholm: there are very few handsome private city residences. The people rarely spend more than from a sixth to a tenth of their income for rent, and only a small number occupy houses of their own; the majority live in apartments, as on the Continent, and only in the better houses is a *concierge* employed. As there are no names on the front-door to indicate the flat where the people reside, the stranger is often puzzled in the attempt to find the person upon whom he desires to call. The opera-house has a very fine orchestra that would do credit to London or Paris, Berlin or Vienna. The several theatres and other places of amusement are sometimes closed in summer. There are also several summer-gardens or parks; and to stroll in them, listening to the music and looking at the crowd, is an unfailing source of pleasure.

Kungsträdgården is a very fine square, with large trees, and many varieties of flowers, and adorned by a beautiful fountain and bronze statues of Charles XII. and XIII. Berzelius Park is a charming spot, having a life-size statue of the great chemist in whose honor it is named. Strömparterren, ornamented with flowers and trees, is delightfully situated at the foot of the Norrbro Bridge, the stream running swiftly on either side.

* The eight islands upon which the city is built are called Kungsholmen, Riddarholmen, Helgeandsholmen, Stadsholmen, Skeppsholmen, Kastellholmen, Strömsborg, and Djurgården.

No stranger should fail to visit the hill called Mosebacke, the summit of which commands the finest view of the city and its surroundings.

There are several large hotels, with well furnished and comfortable rooms, and their charges are moderate. The most modern, the Grand Hotel, is not situated so pleasantly as the Rydberg, but is the only one that had an elevator and baths. Private houses rarely contain bath-rooms, and, as in most cities of Europe, people have to go to the public establishments for their ablutions, and the old-fashioned way of carrying water up was prevalent till lately.

As the stranger wanders through the streets, he notices numerous signs, upon which are written, "Rum för resande," which excites the astonishment of an American or Englishman unacquainted with the language, who take these places to be rum shops; but they only announce "Rooms for travellers." The Swedes who come to the city on economical principles generally lodge in them.

The contrast of the business communities of Göteborg and Stockholm is very striking; in the former the merchants attend strictly to their affairs during office hours, but in the latter the shopkeepers are often not found at their establishment during these hours; and many of them pass much time daily at the cafés.

Numbers of stores are kept by women, who manage their business exceedingly well, and are examples of thrift, supporting themselves and their families; in other cases the wives and daughters are helpmates to their husbands or fathers: in a word, unless wealthy, every member of a family helps in its support.

I was surprised at the neatness of the apartments of the humbler class of shopkeepers and other people; all tried to keep up appearances, and generally had some refreshment to offer, in the shape of a cup of coffee or glass of wine, to friends and visitors.

In Swedish or Norwegian, Herr corresponds to our word Sir, or Mr.; Fru, to Mrs., Madam, wife.

Young ladies of education are addressed as Fröken; formerly the term was applied only to daughters of noblemen.

There are three titles of nobility in Sweden: Grefve, earl, being the highest; Grefvinna, countess; Friherre, baron; Friherrinna, baroness — the words baron and baroness are also used. The last grade of nobility has no title, and is addressed as Välborne Herr, or Fru.

In writing to an earl or countess, one should address — Högvälborne Herr, or Högvälborna Fru, with the name following: high—well-born, Herr Grefve, or Fru Grefvinna; and the same to the Friherre or Friherrinna.

To other persons the title should always be prefixed, as Herr Doctor, Herr Professor, or that of any other civil or military grade. All the sons, as everywhere on the Continent, inherit the title of nobility of their father; and if the daughters of noblemen marry untitled gentlemen, they may add the title of their father to the name they assume. Strange to say, the word Mamsell, a corruption of the French Mademoiselle, and Madame, are used in addressing the people of the humbler class of society.

Jungfru is spoken to farmers' daughters and servant-girls. Flicka is the general word for girl; tjenst flicka, servant-maid; dräng, man-servant.

People of education address each other in the interrogative form, as, Will Herr A—— go with us? Does not Herr B—— think that it is very stormy?

The personal form ni (you) is now getting more used.

Du (thou) is used among friends. When two gentlemen wish to use this term towards each other, they say, Skola vi lägga bort titlarna? (Shall we lay by our titles?) They stand with a glass of wine and say, "Skål brother," and empty the glass to the bottom, after which they say "thanks."

There is a tone among the ladies of Stockholm and Sweden which is perfectly charming. Not only are young ladies of title and wealth thoroughly educated, but they are also taught to cultivate simplicity of manner and dress, which is shown by them in after-life, and which gives them a most agreeable air of modesty and refinement. They wear but little jewellery, no matter what their station may be, and that of the simplest kind. Silk dresses are very seldom worn by

them, and even then generally not before they come out in society.

The wearing of decorations is a little piece of vanity which is a prominent weakness among the Swedes, and, in fact, among all the nations in Europe except England. Military men are exceedingly fond of wearing their uniforms on all occasions. To an Englishman or an American, the first impression is that the country is under a despotic government; that the civil is, if not in name, in fact subordinate to the military power; fortunately the land is not groaning under such a curse. Freedom of speech and of the press are untrammelled; the repeal or modification of any laws can be freely discussed, and they are so framed that the liberties of a citizen cannot be at the mercy of the king or any arbitrary power; there is no secret police except that required for malefactors. There is no freer people in Europe than the Scandinavians; no passports are required from any one, either coming to or going from the country.

The better class of people of the cities were in mourning, as a mark of respect to the deceased queen. This dress for ladies was black, with white collar and cuffs, and white ruche in front; a white apron or short skirt is also worn, and the gloves must be black. Almost every gentleman had a black band on his hat, and black gloves and necktie; and many were in full mourning costume.

One of the most striking of the peculiarities of the city is the air of cheerfulness and contentment which marks the manners of its people. In the streets, acquaintances are continually saluting each other—gentlemen taking off their hats and making most graceful bows, their heads remaining uncovered while talking even to the humblest women.

Extreme politeness and amiability are national characteristics, and belong equally to all classes — the poor saluting the rich, and the rich the poor. Refinement of manner is seen even in the servant-maids: these are treated with consideration, and there exists a friendly feeling between them and their masters.

I was surprised, while meeting ladies of my acquaintance,

not to receive the courtesy of recognition from them; but I learned that it was the invariable custom for a gentleman to bow first, and I had been apparently rude without being aware of it.

The Swedes are very strict in the observance of etiquette; the calls of a stranger are invariably returned the following day. As a nation they are the most polite people in Europe; they are not very demonstrative, but will often go a great deal out of their way to render a stranger a service.

The sociability of all classes is characteristic. Whole families and parties of friends are seen dining together at the restaurants in the suburbs of the city, or groups of pleasure-seekers amusing themselves in the parks. Merchants invite their acquaintances to spend the day at their picturesque and unpretending villas, which overlook the waters of the lake or fjord; and these are often the scene of simple and unostentatious merriment.

When a large company is invited to a dinner, the guests eat, either standing, or with their particular friends seat themselves at little tables in a cosy corner in some of the parlors, or on the piazzas. The hostess and her daughters do the honors with charming grace and simplicity, serving one, or urging another to come to the table, or to take something more. There is generally a little speech-making—the health of one or more of the company being proposed by the host. These dinners have the advantage of being comparatively informal.

It is the custom, at the end of a repast, for the honored guest, or for the person who stands highest in the social scale, to bow and propose the health of the host and hostess in a few words.

There is hardly any Swede, who has any claim to education, that does not speak at least one, and generally two foreign languages; and, if with time he has forgotten to speak them fluently, he can usually read and often write them. After the Russians, they are the best linguists in Europe.

Though the official correspondence is in French, and more persons in the higher circles speak that language better than

others, I noticed that, among the rising generation, German and English were more studied.

Summer is the best season to visit the city. The month of June—especially the last two weeks—is the pleasantest time of the year, as many of the people have not yet gone into the country, and the inhabitants then make the most of the fine weather. Rich and poor pass their leisure hours in the open air, and in the afternoons and evenings the pleasure-gardens and parks are thronged; good bands of music play; and, while the strolling citizen or stranger listens, he may sit at little tables, where beer, coffee, soda-water, Swedish punch, and other refreshments are served. Whole families—father, mother, children, uncles, aunts, cousins, or friends—spend many of their evenings there. Every one is neatly dressed; there is no roughness, and no vulgarity.

The breaking of the long winter opens the ice-blockade to the North; and at first the docks are lively with the loading and unloading of vessels bound for the ports of the Baltic, the Gulf of Bothnia, St. Petersburg, Norway, Germany, England, and France. The navigation of the canals and lakes is resumed on the return of warm weather, and steamers leave daily for the towns on the southern and northern coasts, giving the tourist opportunity to go whither he likes.

The longest days in the south of Sweden have then come. The sun rises in Stockholm, from the 17th to the 21st of June, at 2.45 A.M., and sets on the first day at 9.16 P.M., and on the others at 9.17. For a number of days there is no darkness, and twilight for only about three hours. Then the days shorten one minute in the morning and one in the evening, till the end of July, on the last day of which the sun rises at 3.44, and sets at 8.27. In August the days shorten more rapidly, and on the 31st the sun rises at 4.55 and sets at 7.4; on the 30th of September it rises at 6.3, and sets at 5.35.

The absence of night seems at first very strange. The quays where steamers lie are alive with business; vessels are loading and unloading; a large number of stevedores are putting the cargo on board of the boats. At 1 A.M. there is a sensible diminution in the number of promenaders on the streets;

and by two o'clock only a few stragglers are to be seen. All the inhabitants are then fast asleep; the window-blinds are closed, and the shades and curtains carefully drawn down in order to exclude the light; the town is silent. Now and then one can hear the voice of the watchmen from the churches crying the hour of the night—an old custom still prevalent; policemen can be seen walking to and fro on their beats; and the footsteps of a few soldiers going to relieve guard, resound strangely through the streets. On the quays, the custom-house officers are watching to see that no one defrauds the revenue, and there alone are signs of life visible the whole of the night.

The city has a population of 174,000, is in latitude 59° 21′, and lies opposite the long, broad, fjord-like arm of the Baltic called Finskaviken (Finn Bay), which leads to St. Petersburg; and although situated thirty-five miles farther south than the capital of Russia, its climate is three or four degrees cooler in summer, and in winter six or eight degrees warmer. This difference is caused in summer by the winds blowing over the Baltic and Lake Mälar, and in winter by the exposure of St. Petersburg to the cold blasts from the land. It is very seldom that the thermometer in Stockholm rises above 88°, or in the coldest weather falls to 25° below zero. The warmest months are July and August, the average temperature varying from 62° to 66°. The mean temperature of the year averages from 41° to 43°.

The suburbs of the city constitute its great charm. Days may be spent in exploring the neighborhood by water and by land, the landscape being thoroughly Swedish and sylvan in character; on the shores of the fjords, bays, and islands are seen rocks alternating with clusters of oak, linden, elm, ash, poplar, alder, birch, fir, pine, and other trees, and every little spot of open land under cultivation. Small but fast iron steamers plough their way in every direction, taking people to or from their homes, or landing the pleasure-seekers or lovers of nature at some favorite spot of their selection.

The most beautiful of the parks is the Djurgården (Deer Park); there is nothing equal to it in Europe. It occupies an

island about eighteen miles in circumference, and is adorned with villas, romantic drives, lovely walks, paths through glades, forests of magnificent trees, lakes, and masses of rock: some of the ancient oaks are superb. There are places of amusement, cafés, and restaurants, the most popular place of resort being Hasselbacken, where great crowds dine every day. The park is easy of access from the city by small steamboats, which run at short intervals from Norrbro and other points, or by a short drive over a bridge, which lands you on its shores in a few minutes.

In this park is the small, charming, but unpretending palace of Rosendal, then the residence of the queen-dowager. This most delightful retreat is almost hidden from view by trees. Before this mansion stands a magnificent porphyry vase, made at the manufactory of Elfdal, in Dalecarlia. There are several other parks and palaces in the suburbs of the city.

Carlberg Park, with its grand linden, elm, and oak trees, is a favorite summer resort. The palace has been transformed into a military school.

Others are Marieberg, on the island of Kungsholmen, which has a high-school of artillery; Bellevy, almost opposite Haga, with magnificent trees; the palace of the Ulriksdal, and its fine park. Drottningholm is the most imposing palace near the city, and is situated on the Lofön, one of the islands in the Mälar. Svartsjö, Rosersberg, Rydboholm, and a sail down the fjord, and on the Mälar, should not be missed.

What surprises the stranger is that at all the royal residences there are no fences or walls, soldiers or policemen. No one ever thinks of plucking the flowers; visitors walk in the grounds to the very doors and under the windows, even when the members of the royal family are at home—they are evidently not afraid of being shot at; and if the family be absent, the public can visit any of the palaces, by simply asking one of the servants. There is so much freedom, and so few attendants, that the plain and honest people, who do not understand etiquette, often make mistakes, and, entering the palaces, are surprised to find themselves face to face with royalty.

Villas and summer-residences are seen in every nook and

corner of the rocky shores. The houses, with very few exceptions, are of wood, and kept carefully painted, surrounded often by beds of bright flowers. Every such home has a landing-place, on which steamers can leave or take passengers, also a bathing and frequently a boat-house.

The only way of communication with many of these country places is by water. Little steamers have each their particular route, and go daily to and from the city, stopping at the different country-seats on their way. It was a source of never-failing pleasure, at my different visits to Stockholm, to make excursions on these boats. At every landing wives and children came to meet their husbands and fathers, and friends to greet friends, all appearing cheerful and happy, and welcoming each other as they returned from the city. Here was the mistress with her maid, returning from the market in Stockholm, with an enormous basket filled with provisions to last a week.

The land along the roads is under a high state of cultivation, and now and then you see a tobacco-field.

Sunday in Stockholm is observed by closing the stores and suspending business, and during church-time no places of refreshment are open; but, as among other Protestant nations on the Continent of Europe, it is a day of recreation, when the toiler rests. After the morning service in the churches, the libraries and museums are thronged by the industrial classes, who have no other day for rest or intellectual improvement. The parks are crowded with the families of artisans and tradesmen—fathers and mothers taking part in the gambols of their children, and enjoying the summer days. These people are mostly of the working-class, or shopkeepers, who have no country-seats in which to spend their leisure hours, no watering-places to go to, nor money for luxuries, and who are glad when Sunday afternoon comes. After church in the morning, they go with their wives and children to breathe the pure and bracing air, which gives them new life before they return to the close factory rooms where they are employed for six days of the week. The refining influence of parks in every city has not, I think, been sufficiently appreciated; they do a great deal of good; many a man, instead of idling away

the hours in drinking, would gladly go with his family to enjoy such innocent pleasure.

It is the height of selfishness for men who live in the country, or enjoy the comforts of life in the cities, or can absent themselves when they please for a holiday, to find fault with the working population because they go out on a Sunday to strengthen their body or improve their mind. I would like very much to put those who oppose such movements in the place of these poor people, and see how they would like a sojourn in a crowded and warm room in a tenement house, upon the walls of which the warm July sun shines all day.

The city is the centre of several large private and corporate banking establishments. The most important is the Riksbanken, under the control of the Diet; then the Stockholm's Enskilda Bank—the latter founded in 1859. The managing director, Herr W——, to whom I am indebted for many acts of kindness, and whose friendship I appreciate highly, is acknowledged to be one of the ablest financiers of the country. He represents Stockholm in the Diet, as a member of the first chamber. His life has been as remarkable as that of any man in the New World. The son of a Lutheran bishop, as a boy he went before the mast, and sailed three years under the American flag. When a very young man, he had bought in New York Harper's "Family Library," which he keeps carefully, and showed me with great pride at one of his entertainments, remarking that he had bought it out of his hard savings. He is very much interested in American affairs, and in politics places himself among the Liberals and Reform Party. He was among the first, if not the first, in the three Scandinavian kingdoms who drew the public attention to the necessity of going over to a gold standard. As early as 1853, he tried also to further the adoption of the metric system of weights and measures. He also inaugurated the employment of females in a bank over which he is a director; and several ladies hold very responsible positions; he thought that the field of occupation for women ought to be extended, and said that in many cases, by their education, they were not so subject to temptation as men.

The capital of Sweden is not only a city of pleasure and commerce, but also a great seat of learning and science. The museums, hospitals, scientific institutions, numerous schools, and the general spread of education have attracted to it a highly intellectual, refined, and delightful society, which contributes to make the city one of the pleasantest in Europe. Professors, doctors, rich merchants, persons engaged in every branch of art, science, and literature, men of leisure, and high officials, unite in themselves the finest qualities of the people, and are always ready to serve those who are drawn to the capital.

The Academy of Sciences is a large building of no architectural pretensions, but possesses a very fine library and an extensive collection, the mineralogical and geological part of which ranks among the finest in Europe, while the botanical and zoölogical specimens are also very valuable. Among the rare curiosities are numbers of aërolites of all sizes, one of which is the largest yet found; it was discovered by Professor Nordenskiöld, whose explorations in the North have been so valuable to science, and weighs over forty-nine thousand pounds. In one of the rooms, where the regular meetings of the academy take place, now often presided over by the king, there are hung upon the walls the portraits of former academicians, some of whom have left imperishable names in the annals of science; among them are those of Linnæus and Berzelius. The Carolin Institute has a library, chemical laboratory, and valuable collections; the Technological Institute is another public building, which no stranger should fail to visit. The Landtbruks Akademien (Agricultural Academy) is an institution having a farm, where experiments in agriculture are made. The Seminarium, a college in which ladies are instructed in the higher branches of knowledge, is a splendid nursery from which to recruit the ranks of public and private teachers; the professors of the Academy of Sciences deliver regular courses of lectures in this institution and other schools; the Observatory, the schools, and the hospital are also worthy of careful inspection. The National Museum, a very fine building, contains a gallery of good paintings and statuary,

and a valuable collection of coins, mostly found in Sweden, some of which are very rare; also gold and other ornaments of great antiquity, and implements belonging to the stone, bronze, and iron ages. A very interesting part of the exhibition is the historical collection of old garments: there is a shirt which the great Gustavus Adolphus wore at the battle of Lutzen, the dark spots showing where the blood of the hero stained the garment; also, the costume of Charles XII. and his felt hat, with a hole made by the bullet that killed him while all alone in the trenches making military observations before Fredrikshald; and the domino worn by Gustavus III. when he was murdered; besides an interesting array of shields, helmets, and other warlike paraphernalia, each of which has its history.

There are numerous churches, but none of them have any architectural pretension. The most interesting is the Riddarholmen church, with an iron spire over three hundred feet in height. This church is dear to the Swedes, and is used only as a mausoleum: within its walls are buried some of Sweden's greatest heroes; here is the tomb of Gustavus Adolphus, the hero of the Thirty-years' War, the champion of Protestantism. With what profound respect I stood before that tomb! Upon his sarcophagus are written the words "*Moriens triumphavit;*" by his side lie the remains of his queen, Maria Eleonora. This church also contains the tombs of Charles X. and Charles XI., and their consorts; of Charles XII.; and of several heroes of the above-named war. The floor is covered with slabs, under which lie the remains of many great men, whose names are world-wide, and have shed glory on Swedish history. The Riddarhus is interesting only on account of its historical association; it was formerly the house where the nobles held their sessions as one of the four bodies constituting the Diet; it is adorned with a large number of shields, bearing the arms of Swedish nobles, many families of whom are now extinct.

At the opening or closing of the Swedish Diet the stranger will see in the audience all classes of people represented, from the simple servant-girl, with her handkerchief over her head,

to the high-born and rich of the land. The king generally, unless prevented by sickness, opens and closes the Diet in person. This is done with much formality, accompanied by a mummery of olden time which makes the Swedes laugh. The sovereign is surrounded by the knights of the Order of Seraphim, founded long ago, dressed in what appeared to me most grotesque costumes.

The public schools are numerous, and education is compulsory. The number of children in Stockholm of school age (from seven to fourteen years), according to the census of 1870, was 16,843.

Number attending school every day	12,849
Attending other schools	2,313
In business or work of some sort	970
Disabled by disease	116
Not at school	595

Of the whole number of 15,162 actual scholars, 5194 paid for their schooling, 2313 paid for part of it only, and 7655 paid nothing—this last class attending the people's school (*folkskolan*); and the city paid for education 185,795.38 kronor, or 24.26 öre for each child. There were 208 male and female teachers, with an average of 38.8 children to each; the average age of the scholars was 10 years. Of the 7655 free pupils on the roll, 99.9 per cent. were instructed in Christianity, the Swedish language, arithmetic, and writing; 62.6 per cent. were taught, besides, history and geography; 57.6 per cent., natural history; 52.7 per cent., drawing; 9 per cent., geometry; 56 per cent., singing and gymnastics. Among the girls, 2180 were instructed in sewing, etc. The absentees from school at one time or another were only 9.6 per cent.: with sufficient reason, 3.2 per cent.; without reason, ½ of 1 per cent.; on account of illness, 4 per cent.; for poverty, 1 per cent. So, during the year, those who had missed school at one time amounted to only 721 children. This speaks well for the people, and for the enforcement of the school-laws.

There is another class of schools, called *Högre Elementarläroverk* (High Elementary), in which the dead and foreign

languages are taught, together with the advanced branches of science, and in which students are also prepared, if they desire, to enter the universities. A small sum is paid by them for instruction; but if one be unable to pay, he is instructed gratuitously. Numerous gymnasium halls are attached to these schools for exercise.

The Slöjdskolan is an industrial free school, in which the students are instructed in the practical branches of mathematics; geometrical construction; ornamental, spherical, linear, and free-hand drawing; mechanical engineering; general architecture; engraving; modelling; painting; lithography; papier-maché work; the Swedish, French, English, and German languages, and book-keeping; the pupils are chiefly working men and women. This splendid school, which does so much credit to Stockholm, was attended in 1871 by 1765 pupils, 992 of whom were males and 773 females. Besides the evening classes, there are also day classes; but these are only for females, who are each charged a fee of fifty öre per month. They receive special instruction in drawing, painting, modelling in clay and wax, Parian work, lithography, wood and copper engraving, perspective art, calligraphy, japanning, paper-work, book-keeping, arithmetic, geometry, French, English, and German. These classes were attended by 791 pupils, making a grand total of 2556 scholars in this institution. It is a pleasure to walk through its numerous halls, and observe the humble but intelligent men and women, whose energies seem to be bent upon their own improvement. This school is open from the 1st of October to the 1st of May.

One of the most important institutions is the Kongliga Gymnastiska Central Institutet (Royal Gymnastic Central Institute), which ought to be introduced into every country. Its purpose is to develop gymnastics practically, and to educate medical students and instructors in calisthenics for all the schools, and to put under treatment the sick who require physical exercise; the cures effected under this training are often remarkable. Anatomy is also studied, in order to obtain a knowledge of the muscular system. The average number in attendance is about 1500, the majority being school children.

A free Academy of Fine Arts provides instruction in painting, sculpture, architecture, etc. A Royal Academy of Music gives free instruction in music and singing; the number of its students being about 250, of whom one-half are females.

These statistics speak well for Stockholm and its inhabitants, and many of its institutions might be copied with advantage in other countries. No land is nearer its decadence than that which in its pride refuses to accept the improvements and inventions of other countries because they are not its own, or which teaches its people from childhood that they stand foremost, and that the world must follow their lead.

CHAPTER IV.

King Carl XV. of Sweden and Norway.—His friendly Welcome.—Conversation on various Matters.—His Sympathy for the French People.—Opposed to the Death Penalty.—A Visit to the Ulriksdal Palace.—His Majesty's Tastes.—The Haga Park.—A Sunday in Sweden.—Palace of Rosendal.—An Early Visitor.—Photographs.—Death of King Carl.—Regrets for his Loss.—His Resting-place.

From Gustaf Adolf Square, looking over Norrbro, one sees the massive royal palace; to the right there is a low, small wing attached to it. The simple and unostentatious taste of Carl XV. had made him choose this comfortable and homelike part of the extensive building for his own abode; the larger rooms of the main building were used only on state occasions.

On my arrival, I wished to see the king, not as a matter of idle curiosity or vanity, but to pay my respects to the head of the State before travelling through the country, and to become acquainted with this popular sovereign. On inquiry, I found that this was no easy matter. The queen-consort having died some time before my arrival, the court was in mourning; the king himself was just recovering from a serious illness, and was not living at that time in Stockholm. Nevertheless, I made a formal application for an audience, and, to my surprise, the next day the following letter, written in French, was received by the American minister:

"The Minister of Foreign Affairs has the pleasure to announce to Monsieur Andrews, Minister Resident of the United States of America, that his Majesty the King will receive Mr. Du Chaillu in a private audience, to-morrow, Saturday, at eleven (11) o'clock in the morning, in the small apartments of his Majesty, in the Palace of Stockholm.

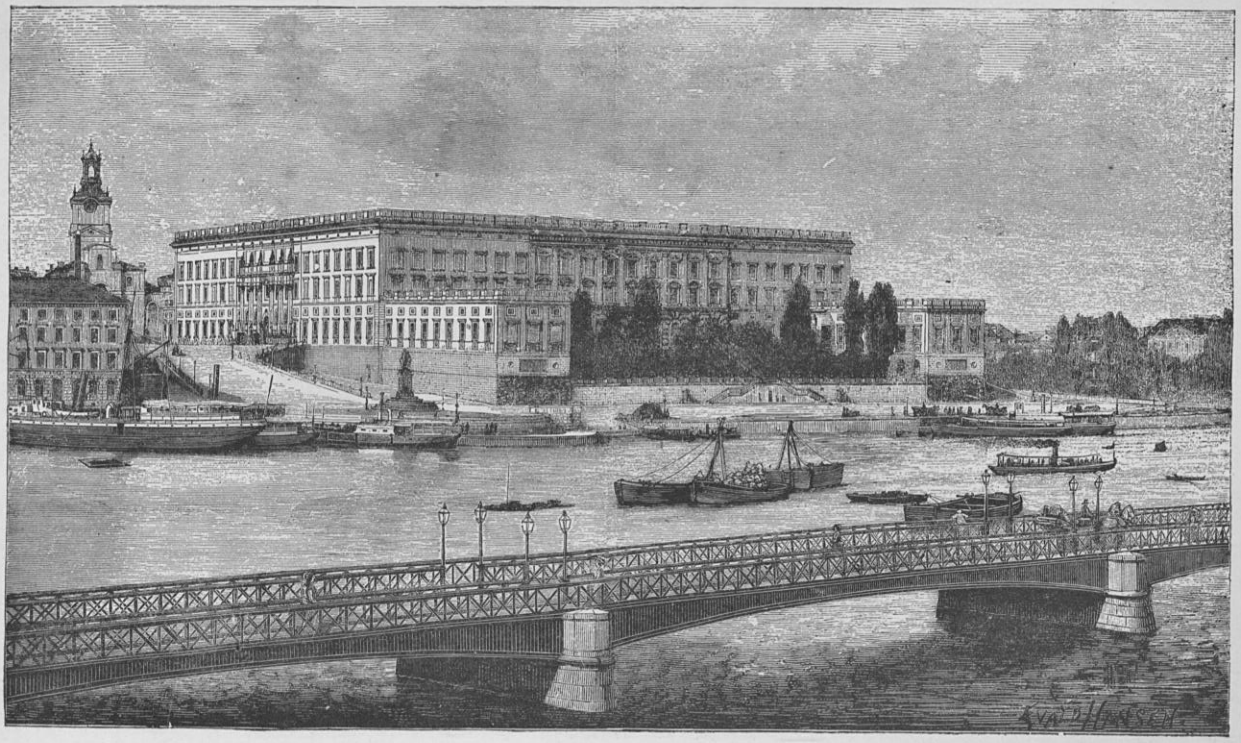
"The Count of Wachtmeister takes this opportunity to present to Mr. Andrews the assurances of his most distinguished consideration.

"Stockholm, June 16th, 1871."

Not only had my request been at once granted, but his majesty paid me the compliment of coming to Stockholm and granting me a private audience. I arrived at the unpretending entrance of the private apartments of the palace three or four minutes before the time appointed for my reception; a sentry was on duty at the door outside, but he did not ask me where I was going. Accompanied by the servant from the hotel, who had come to show me the way, I ascended a flight of stairs, and there saw a sailor, and by him stood two servants dressed in mourning. I asked for the king; they opened a door, and I found myself in an unpretentious library, in the centre of which was a billiard-table; the books were bound simply, and were evidently intended to be used—not merely to be looked at. I had been hardly three minutes in this room, when a gentleman, plainly dressed, walked quickly through, as if in a great hurry, followed by two military officers. He said "Good-morning" to me as he passed by, and disappeared into the next room—the door being shut behind him. So quickly did he salute me, that he gave me no time to return his salutation. The officers returned, and, with a bow, said, "The king is ready to receive Mr. Du Chaillu;" and, opening the door, introduced me to the presence of the sovereign, and, closing it, left me alone with him. Carl XV., of Sweden and Norway, came towards me; I advanced at once, but had hardly time to bow, when he extended his hands and gave me a warm greeting, saying that he was very glad to see me in Sweden. His friendly welcome, his frank and open countenance, and the total absence of formality, drew me, instinctively and sympathetically, towards him, and made me feel at once quite at ease.

The king was tall and slender, and of a dark complexion. Although he bore the marks of sickness in his face, I did not wonder that some years before he had passed for one of the handsomest of living sovereigns.

I thanked his majesty, in behalf of the literary men and travellers of America, for giving me an audience, and added that many among us in the United States knew of him as a poet and an artist, and that we all admired him as a monarch



ROYAL PALACE IN STOCKHOLM.

who ruled over a free country. "Yes," he replied, "we are free, for we have a constitutional government. I am glad to hear that you are to travel in Sweden and Norway, and see us as we are." I answered that I intended to explore the Peninsula of Scandinavia thoroughly, from one end to the other, for several years, and become acquainted with the people. Little then did I know of the many courtesies that were to be extended to me everywhere.

"Let us seat ourselves," said King Carl; and at the same time he pointed to a chair by a small table at one of the windows looking out upon Gustaf Adolf Square. The king took the seat opposite, and, taking a case from his pocket, he offered me a cigar. Learning that I had never smoked in my life, or used tobacco in any form, he said, before lighting a cigar,

"Will the smoke annoy you?"

"Not at all," was my answer.

The king continued, "I am astonished that a traveller like you does not smoke; you do not know how much you miss," sending out at the same time a puff of smoke.

"Ignorance is bliss," said I.

"We know you in Scandinavia," he added. "Several of your works have been translated into Norwegian and Swedish; and you will find that you are not a stranger among us."

"Will your majesty do me the honor of accepting my works in English?"

"With pleasure," he replied; and he added: "Travel well; visit our public schools in Norway and Sweden, our universities, our scientific institutions: we all believe in education. See our railways, our canals; observe everything. You will probably get acquainted with many of our scientific men, who will take great pleasure, I have no doubt, in showing you our collections."

We talked of agriculture. "Before I was a king," said he, "I was a farmer. I was fond of that life, but had to abandon it; I have now no time to spare, for I have much to do." Then he spoke again of the progress Sweden and Norway had made in education. "The uneducated must be partly educated. We have an excellent law; every child must go to school;" and

his eyes beamed with earnestness as he spoke. "I am very glad," I replied, "to see that your majesty is not one who, being educated, believes that others should remain ignorant; that you are not like those who think it is best for the world that there should be one class instructed and another left in entire ignorance, nor like those who are opposed to general education, but are unwilling that their own children should be uneducated."

Then we spoke of telegraphs, of railways, of manufactures. "We must have more railways, more capital, and more people, for we have a large country; and if it were thoroughly improved, we could support a much larger population."

We conversed about Lapland and the north of Sweden. "I have walked a great deal through Lapland," remarked the king; "I love to walk." Then the conversation turned upon hunting, and he incidentally mentioned that he had never worn a morning-gown in his life. Glancing around the cosy room, with low ceiling, filled with an exquisite collection of antiques, armors, and old curiosities, I asked permission to examine them. "Certainly," he replied; he took great interest in showing them, and explained the history of many valuable specimens gathered by him.

Coming back to the table, we talked politics; we spoke of the state of Europe—the disastrous war into which France had plunged herself having just ended.

I said, "I have heard that your majesty is opposed to the penalty of death."

"A man has not the right to take the life of another," said he, musingly and sadly. "I have been obliged to sign a death-warrant or two; it was because I could not go against the public opinion of the country." Looking then at his watch, he said: "You know that I am in mourning; I am not in good health, and I do not live in Stockholm. Come to-morrow (Sunday) to the Ulriksdal, where I reside now. It is but a short distance from Stockholm." He kindly explained to me the way to go there by boat, and when to start; and added, "I must write the name and how to go there on a card, for fear that you might forget." Having no paper, I begged

him to write on one of my visiting-cards; but the king's plain pencil-case was out of order, and I lent him mine; and, after writing the directions, he rose, which was a hint for me that it was time to leave. His majesty gave me a warm grasp of the hand, and said, "To-morrow!" and I retired after an audience of one hour.

A charming sail of two hours brought me to the landing leading to the Ulriksdal. On the way the steamer passed through a floating bridge, twenty-seven hundred feet in length, connecting the shores of Lilla Wärtan fjord. The palace is most delightfully situated on the shores of the Edsviken (*viken*, the bay). The building occupies three sides of a square, and was built by the great Captain Jacob de la Gardie. King Bernadotte, the grandfather of the present king, used it as a barrack; Carl XV. transformed it into a beautiful summer residence, where he chiefly lived during the warm months. On my way from the landing to the palace, not a soldier, policeman, or liveried servant was to be seen; and the people were walking to and fro. The doors leading to the different staircases were open, also the lower windows, through which any one could easily have entered, and persons were fishing in front of the royal residence.

I paused at the foot of the leading staircase, but saw nobody; then went to the next, and still found no one to accost. Then I called, "Nobody here?" from the bottom of the stair; when a man from the upper story peeped over the balustrade as if to say, "What do you want?" "Is the king at home?" I asked. "No," was the answer. "Yes," said I; "I have been invited to come." The individual disappeared, and soon afterward descended, made a profound reverence, and showed me the way up the stairs. On reaching the first landing, he gave me to understand that his majesty was at the end of a suite of apartments, whither I proceeded. As I came to the fourth room, I saw the king engaged in painting. As soon as his majesty heard my steps, he put on his coat, exclaiming, "Welcome to the Ulriksdal, Mr. Du Chaillu;" and gave me a warm grasp of the hand. "As you see," he continued, "I am painting and finishing a landscape;" and at the same time

he presented me to his instructor. "Why does your majesty take the trouble of putting on your coat?" I asked; "you will not be able to paint so easily." But he kept it on, and we fell into conversation. "I have had great trouble in finding your majesty," I said, "for there are no soldiers or policemen to keep watch over you, or servants looking on, to prevent people from getting into the palace." "Soldiers to guard me!" said he, smiling; "indeed, no: the soldiers are for the country, not for me. I would rather not be a king if I were obliged to have soldiers to watch over me. We are all free here."

Such was the simplicity of Carl XV. The people seem to know so well the proprieties of life that they abstain from intruding, or dogging the steps of a man, though he be a sovereign. This want of curiosity may be also attributed, in part, to the fact that the king is seen everywhere, like any other citizen of the country, and the people therefore become accustomed to his presence.

I begged his majesty to continue painting. "No," said he; "let me show you the curiosities of all sorts that I have collected in this palace. I love this place so much that I always spend a great part of the summer here." He bade me put on my hat, and, placing upon his own head a broad-brimmed soft felt one, led me, in the most unpretending way, from room to room, showing me, with great pride, a beautiful and rare collection of furniture, china, Gobelin tapestry, old pottery, tankards, drinking-cups, horns, etc., many of the objects being very old and of great beauty, and some of much historical interest, and all testifying to his artistic taste.

Then we came to his own room, where he opened a cabinet and showed me some of his own photographs; asked if I thought they were good, and gave me one, and at my request wrote his name under the picture. Then, taking up a little book containing many autographs of illustrious persons, that he had secured, he suddenly said, "Do me the kindness to write your name in this," which I did, with great diffidence.

When the hour of departure came, he accompanied me to the foot of the stairs and to the door, and, as he said adieu, gave me a warm shake of the hand, wishing me success and

health in my journey to the far North, and adding, "Do not fail to come and see me on your return."

The next morning an orderly brought me a package containing two lithographs representing the dining-room of the Ulriksdal, sent to me by the king, and a letter from one of the chamberlains accompanying the present, with the best wishes of his majesty for my journey.

Such was my first acquaintance with this amiable monarch. The more I saw him afterwards, the more I appreciated his friendly feeling towards me, and, like his countrymen, learned to admire his many noble traits of character.

He was very often seen in the streets of Stockholm and Christiania, and to visit the shops like any other gentleman; and, when recognized, every one felt that the sovereign had the same right as any other man to walk the streets without being followed or stared at. Hats were doffed in salutation; but this custom is so prevalent that any well-known citizen has but little time to do anything else than to salute those whom he meets while promenading. Several times I have seen him get out of his carriage to talk to gentlemen, and get in again when the conversation ended—showing, in this respect, the true rule of politeness. His punctuality in all his appointments was proverbial.

His death occurred on the 18th of September, 1872, and he was mourned from one end of Scandinavia to the other. In many humble cottages, where his portrait hung upon the walls, I heard sincere regrets for his loss. He went under the name of "Good King Carl." His best friends were among the peasants and the lowly; many a Swede has told me that they thought that since the time of the Wasas there had not been a sovereign so much regretted. He was loved in spite of all his faults; popularity he never courted, for he was independent, and hated state ceremony; and it was that very independence which made him dear to the masses: they loved his simplicity of manner, his kindness of heart, his frankness, and even his abruptness. There was a certain magnetism in his bearing which attracted men to him. I heard a few persons censure him for his free and simple habits, declaring

CARL XV.

that he should have been more formal. He had faults—who has not?—but they were forgotten in the light of so many good qualities. He had only one daughter, who is married to the Crown-prince of Denmark. He was succeeded by his brother, now Oscar II., who is in many respects unlike him. The present king is an accomplished scholar, a good musician and poet, and a man of great tact; he speaks several languages, and English perfectly; and to him I can only wish long life and prosperity, and as great popularity as was enjoyed by his father, Oscar I., and by his brother, Carl XV.

CHAPTER V.

Sailing towards the Midnight Sun. — Steam Navigation in the Baltic. — Characteristics of Passengers. — Accommodation. — Ice Floes. — Appearance of the Coast. — A Landing. — Festivities on Board. — A Country Hamlet. — Haparanda. — Mode of Travelling.

At the extreme northern part of the Gulf of Bothnia, near the right bank of the picturesque Torne River, lies Haparanda, the most northerly town in Sweden, to which tourists from the South resort, in order to see the midnight sun, and to observe the coast scenery. During the summer months comfortable steamers leave Stockholm weekly for that part of Sweden, stopping at different points. By taking one of these boats, towards the 13th or 18th of June, the traveller can make a short and pleasant trip, and can enjoy the sight of the midnight sun without any exertion. The passage lasts about three days, and one should not fail to secure a state-room in advance, as the boats are often crowded. The only drawback is the noise made by discharging and receiving cargo at the different stopping-places, which prevents one from sleeping.

There are two ways of entering or leaving Stockholm to or from the Baltic—one by the fjord, and the other by the Mälar, which is connected with the sea by the Södertelge Canal. The coast on each side of the fjord is literally lined with a maze of islands, many of them mere rocks above the water; some are quite large, under cultivation, or covered with woods of coniferous trees, while others are the abode of fishermen.

On one of those fine June mornings so common in Sweden at that season of the year I left for the North, just as the sun had risen, gilding with its rays every hill. The steamer passed Waxholm, which guards the approaches to Stockholm; year by year its fortifications are being strengthened. Island after

island came into view, and gradually the scenery became wilder, and the shore more barren; the coast grew bleak; fir-trees, often wide apart, covered the rocky islands; occasionally a windmill or a fisherman's house being visible, or a few cows, belonging to some little farms, grazing near the water. After a sail of four hours we came abreast of the island of Arholma, upon which is found one of the old-fashioned semaphore signal stations, in appearance not unlike a windmill with its projecting arms. Farther on we passed between the main-land and the island of Åland, and entered the Gulf of Bothnia, and then gradually lost sight of land. Our steamer was heavily laden, and ploughed its way at the rate of about ten miles an hour. The sea lay with its surface like that of a mirror; the winds came off the Swedish shore, from forests of pine and fir and fragrant meadows; there were no swells, and hardly a ripple on the water, which was very dark colored, contrasting singularly with the pale-blue sky. I was particularly struck by the absence of aquatic birds. We saw no ducks, gulls, or other water-birds. We sailed in a straight line, keeping away from the numerous islands along the coast. The Baltic and the Bothnia are rich in fish, and along the shores, and on some of the islands, fishing is carried on extensively.

Our steamer did not have many first-class passengers, owing probably to the few places at which we were to stop, and the fear of being detained by ice. Among those in the cabin were the captain's wife, and a young lady about eighteen years of age, who was very refined and extremely self-possessed. She spoke English and French slightly, was returning from Stockholm, where she had been at school, and was going to her far Northern home: there was another lady travelling with her husband. Among the gentlemen were a young custom-house officer, bound for duty at Haparanda during the season of navigation, who proved to be a most pleasant and valuable companion, a young actor, and two merchants.

All were polite to each other, and especially so to me. The captain presented me to his wife, and his wife to the two other ladies; and, as usual on board of vessels, the gentlemen got acquainted with each other without knowing how—a matter

very easily accomplished in Scandinavia—and soon we were all good friends.

The deck passengers were numerous. To observe these on board either Norwegian or Swedish steamers was to me always a source of pleasure, for one sees in them the peculiarities of peasant life. It is very seldom that a farmer, however rich he may be, takes a first-class passage; to him money spent that way is wasted, with no equivalent in return. They are always jolly and light-hearted; no conventionalities of fashionable life trouble them; they shout, they laugh, they slap each other on the back; there is a freedom in everything they do, which might appear shocking to the prim inhabitant of a city. There is a genial kindness and innocent fun in their manners which are very pleasant to see. These people seemed to be the happiest of all on board; they were evidently bent upon travelling in the cheapest way, paying only for their passage, and carrying their food in wooden or birch-bark boxes. Their fare consisted of salt raw herring, butter, cheese, etc., etc., and black coarse soft bread. They had another kind, called Stångkakor, if anything darker than Knäckebröd, but of such a hardness as to render it very difficult to eat, and which, like the latter, is kept for months, strung upon poles passing through a hole in the centre. Now and then old friends or new-made acquaintances treated each other with a bottle of beer at the bar, or oftener with a glass of bränvin, which they drew from a bottle carefully packed in their chests, or safely put in their side-pockets.

When the time to go to sleep came the sight was ludicrous; they had to find room and beds the best way they could, in the midst of boxes, casks, and all sorts of miscellaneous merchandise, and in every conceivable posture, some of which would have shocked the sensibilities of prudish people. Husbands and wives, brothers and sisters and lovers slept in each other's arms, all perfectly unconcerned as to what people might think. Many would lie as close to one another as they could, putting their blankets over them for warmth, or in corners or under tarpaulins. Those who were so unfortunate as to have nothing to cover them would keep awake, or take a nap till the

cold aroused them, and obliged them to take a walk to warm themselves. The nights were chilly, though during the day the sun was quite warm.

These deck passengers have often to endure great hardships when the passage takes several days, and when the weather is stormy, as it often is in the fall of the year; but they would rather be wet, cold, and uncomfortable, than pay a higher fare.

I have always been struck with the uniform politeness of the captains, and of all the officers, on board Norwegian and Swedish steamers. I believe that there is no country where those having command in the steam mercantile marine show so much courtesy and appear so well educated; they always speak some foreign language, generally English, and often French or German, and sometimes the three languages. Their refinement of manner is probably owing to the fact that most of them belong to the navy, or were formerly connected with it.

I was especially pleased to notice how well the second-class and deck passengers are treated. Every one on board is civil to them, and their luggage and other possessions are not roughly knocked about. They are sure of a polite answer to their questions, and no profane language is permitted.

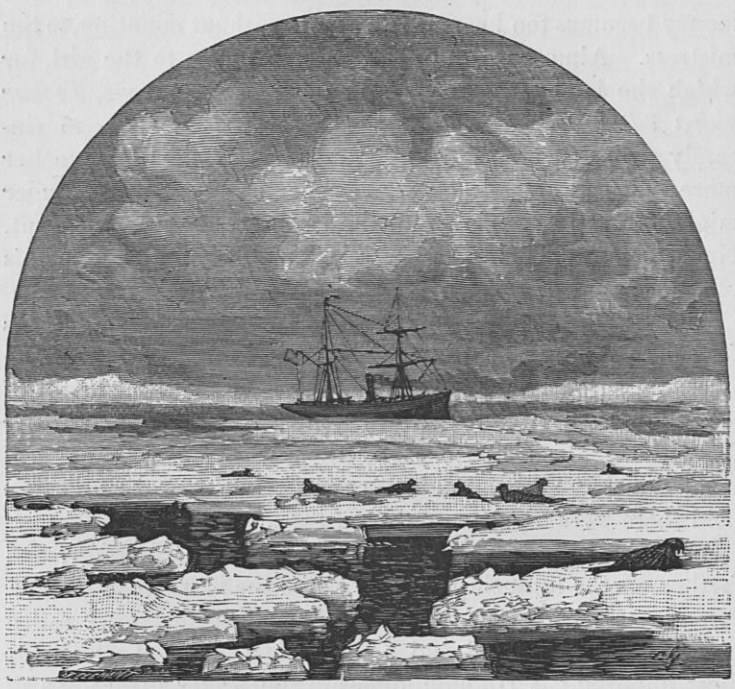
The cabin had good accommodations, and was heated by steam; everything was clean, and our state-rooms were exceedingly comfortable: in the saloon there was a good piano. I did not wonder that everything was so tidy, for all the servants on board of Swedish steamers on the Baltic, including the cooks, are females, and are under the supervision of a stewardess, who is general overseer, and has charge of the culinary department. This custom of employing female servants is said to date from the time of Charles XII., when his wars took away the male population.

The dining-saloon was on deck—a great improvement, for we had none of the smell of food in our cabin. We had three meals a day — breakfast, dinner, and supper — with beer and wines of good quality. Meals were not included in the price charged for passage. The cooking was good, the service excellent, and the tariff of charges very moderate.

There is a custom on board these steamers which well illus-

DECK PASSENGERS.

trates the general honesty of the people. I noticed that after every meal, or at other times, gentlemen wrote in a large book in the saloon. At the end of the second day I found, upon inquiry, that every passenger was expected to write his name after every repast, and to record what he had taken, with such extras as wine, soda-water, lemonade, coffee, liquors, beer, cigars, etc. Where there is a regular bill of fare, and every dish is charged, he has to do the same.



STEAMING TOWARD THE MIDNIGHT SUN.

I was in a great dilemma; for, not knowing this rule, I had not written my name or recorded my orders; I only knew that I had not missed a meal, and that I had treated my friends, as they had treated me, to coffee, cigars, etc., especially the etceteras. I at once requested one of my fellow-passengers to help me out of my trouble; the waitress was called, and, putting our heads together, we made everything right. When

there was a doubt in regard to the order, I put down the maximum. After everything was settled, I told the maid that hereafter she must write down my orders, and not trust to me, as I was very forgetful. Her look, as she answered yes, told plainly that she had enjoyed the fun occasioned by my ignorance of the customs of steamboat navigation. When the passenger is ready to leave, he calls the girl, and gives his name; she puts the price against every item, adds up the amounts, puts the sum she receives in her pocket: when the money becomes too heavy, she gives it, without counting, to the mistress. Almost every one gives a small fee to the girl, for which she is very grateful, and with a courtesy says, *Tackar aldra ödmjukast!*—"Thank you ever so much!"—so sincerely that you almost feel sorry that you did not give her more. The restaurant-keeper runs some risk, for a passenger might forget to put down all the items of his entertainment. Nevertheless, all is left to the honesty of the people, and this confidence makes every one very particular.

The Swedish coast, from the Åland Sound northward, as far as the town of Umeå, forms a horseshoe, and between the two points you lose sight of land. We found great drifts of ice in the sound called Qvarken: a maze of islands rising from the Finnish side checked their drift, and the easterly wind sent large masses towards the shore. On one immense field there were a great number of seals.

We passed the light-house on the island of Norrskär, and farther on the light-ship *Snipan* warns the mariner of danger. After a trip of thirty-two hours from Stockholm we sailed between the main-land and a group of islands, of which the most important is Holmön, opposite the pretty little town of Umeå, but at quite a distance from the coast. Here we met a considerable number of large ice-floes, driven from the Finnish coast towards the Swedish shore. The winter of 1870–1871 had been exceptionally severe, and the fields of ice were met till the latter days of June.

The weather was cool, and overcoats were very comfortable on deck; the little wind we had came from the north. There were still many large fields of rotten ice, and when it blew over

them the thermometer would fall to 42° or 43°; then rise in a few minutes to 50° or 51°; and at night it would remain at 44° or 46°.

Numerous boats, especially built for the hunting of seals in the Baltic or Bothnia, were seen in different directions. These were of very peculiar shape, the forward part rising gradually from the centre to the bow; the head is rounded and high above the water, so that the boat can go over cakes of ice, or land the crew on the ice-floes, to enable them to approach the seals on foot. With a fair wind these boats sail very fast. As we proceeded the sea became darker, and almost fresh; for at that time of the year the body of water coming from the melted snow of the interior and from the range of mountains is enormous. The coast was low and monotonous, and covered with firs, pines, and birches.

As the steamer approached the station, where a wooden wharf has been built, farm-houses, hamlets, and saw-mills came in sight. Each landing has a characteristic of its own; some of them are merely outposts of towns or villages farther up the stream, and are forlorn-looking. As the stranger wanders near their surroundings the woods appear lonely, and the small size of the trees is apt to give him a wrong impression of the vegetation, for all the large ones have been cut down. The rocks are covered with lichens, and boulders are scattered in every direction.

At each stopping-place a black-board is hoisted, upon which is written the hour for the departure of the vessel, as a notice to the passengers. Three sharp whistles, blown at short intervals, call those who have gone ashore for a ramble, and the steamer leaves soon after the last warning. Here passengers were left or taken, their number increasing as we advanced farther north, and the crowd became merry.

Though so early in the season that the Bothnia was not yet free from ice, a large number of sailing-vessels had already come to take cargoes of timber.

There is a look of sadness about the country, which is happily relieved by the deep-blue sky characteristic of the clear atmosphere of Scandinavia. Dwarf forests of pine and fir

lined the roads, while here and there meadows, fields of barley, oats, and rye, relieved the monotony of the landscape. Wild flowers were abundant; a few butterflies flitted hither and thither, and an occasional magpie or crow disturbed the solitude. Along the road a cart was rarely seen. It was a great charm for me to gather, at twelve o'clock at night, in the midst of broad daylight, sweet violets, which grew among the rocks or by the side of the roads, with golden buttercups, and to hear perchance the notes of the cuckoo. The air was so invigorating, the scene so novel, that I hardly ever felt sleepy.

On land it was much warmer, the rays of the sun being so powerful that the heat at noon sometimes reached 70° in the shade. Vegetation was making rapid strides; the pine and fir had already sent out new shoots four inches long. The little towns were quaint, with no sidewalks, the streets paved with cobble-stones; the houses were of wood, with stone foundations, some very large, with one or two stories, and almost all well painted; the windows were gay with roses, carnations, geraniums, and other flowers in full bloom. No persons in rags, no beggars were seen. The men were independent looking; the women comely, wearing handkerchiefs over their heads, and, no matter how poor, always cleanly dressed when in the street. Barefooted and bareheaded boys and girls, happy as all children are, filled the school-houses. The church towered over the other buildings.

As our boat arrived at one of the chief places the whole population appeared to be on the wharf to greet us. Our arrival was to them a great event, and we were hardly along-side the wooden wharf, or quay, when the crowd came on board. How welcome are the first steamers of the season to the inhabitants of that far North! How glad they are when the ice blockade breaks! for with its breaking sunshine has come; they have then an open highway to the seas of the world; their rivers bring down the trees that have been cut during the winter months; their saw-mills run; hundreds of vessels come to load with the immense amount of timber which waits for shipment; their friends come to visit them; families who dreaded the long winter land journey meet again, while others

can go to Stockholm, or to the sunny south of Sweden, or to the Continent; the merchants get their new stock of goods; luxuries from a warmer latitude appear; the fishing-season opens; salmon come into the streams, and are very plentiful; and the husbandman is busy, and looks forward with hope to a good harvest.

Steamers here are a sort of floating restaurant; and while cargoes are being loaded and unloaded, crowds of men come on board to eat and drink—to taste of radishes, asparagus, salad, etc., for as many hours as the vessels stay in port. Some go, most remain till the departure; there is no night, and all the visitors are determined to have a frolic after their meals. Our visitors had a good time, but in the midst of all this jollity there was no coarseness and no vulgarity. The deck over the cabin was crowded; the dining-saloon was jammed; and it was a great day for the good restaurant-keeper; her happy face beamed. There was no rest for the waitresses; they flew about from one place to another, laughed at the compliments thrown at them by their new admirers, and attended strictly to their business; there was no sleep for them; they had to work, no matter how long since they had slept; though tired they were quick, and always in good-humor, and remembered every order. No one could withstand the sight of all this feasting: the feeling that one must eat or drink something became irresistible; and between the general hilarity and the noise of landing the cargo, I felt that it was of no use to go below.

While looking round I observed one group of four or five gentlemen, before whom stood a bottle of wine. They were all standing after the glasses had been filled; they had been invited by one of their number to drink to the health of a friend present, whom he had not met for several years. He made his speech, alluded to the years gone by, and to the old friendship, talking for ten or fifteen minutes. They all bowed, and drained their glasses. The recipient of the toast returned thanks in a speech, and the glasses were replenished.

Another company of friends about to part drank to their future meeting, and again speech-making followed; while

others were laughing and enjoying themselves, the wine and the Swedish punch having evidently exhilarated their spirits. They seemed ready to embrace one another. There was also a party engaged in drinking coffee, and talking upon business matters—evidently merchants, thinking of making money, and probably driving a bargain.

These festivities went on during the whole of the night, until the departure of the steamer, which took place at 5.30 A.M. The last whistle having been blown, there was a general stampede for the shore; the people paying in a hurry, and giving a little money to the good-looking waiter-girls, whom they had kept awake all night.

The total abstinence man may probably be shocked at such a display, but if he tries mildly to remonstrate, the people simply answer him that the Swedes and Norwegians have the longest lives of any people.

After such a scene of merriment the next stopping-place may be at a solitary landing, or some fjord, with only a wooden wharf and a shed, sometimes with hardly a house in sight. But one must not be deceived by this apparent solitude, for often, not far off, between the rocky hills or behind the forests, are farms, hamlets, saw-mills, and at some distance the highway.

As the voyage drew to a close, and we approached the upper end of the Gulf of Bothnia, the twilight had disappeared, and between the setting and rising of the sun hardly one hour elapsed. We came to Strömsund, our last point of destination before reaching Haparanda. Here the steamer remained several hours.

The spot seemed lonely enough. Close to the landing was a small lake, on the outlet of which was a grist-mill, a farm or two in sight, with rocks covered with lichens, interspersed with boulders of granite, small pine or fir trees, and sterile soil. Everything appeared so deserted, that involuntarily one asked himself where the large cargo landed was going to be distributed. A few swallows, high in the air, assured us of a continuation of the fine weather.

Strömsund is at the end of the Råne fjord, not far from the

river of that name, upon the banks of which were farms and saw-mills.

Råneå was about four miles distant, on the highway which skirts the Baltic, and during the navigation season connected with Strömsund by telegraph. The road, like the country, was silent; on my way there I met only two carts, the drivers being women, who walked up the hills instead of riding, for fear of tiring their horses.

The village contained the parish church, a large edifice, which could seat about twenty-five hundred persons, and is often crowded; it had white painted walls, with seats of bare boards. Over the altar was a silvered figure of Christ on the cross, with imitation of blood coming from the nailed hands and feet and from the side. Above the pulpit was written, "Praise be to God in Heaven."

There were no religious paintings on the walls; on the steeple was a cross, over which was a weather-cock. The graveyard surrounded the church, and looked neglected.

At a short distance was a well, common to all, about twenty or thirty feet deep. Inside, somewhat above the water, there was a crust of ice several feet thick, which sometimes remains there all the year round. The water was delicious.

A fair takes place in the beginning of July, and many empty wooden houses, not painted, which are used at that time, gave an abandoned look to the place. Now and then a woman or man was seen walking, making one feel that the hamlet had not been entirely left to itself.

The doctor of the village was at home, and received me most kindly; he told me that the winter had been very cold, the thermometer falling to 40° and 45° below zero; and there was still snow on the ground on the 2d of June. But now, in the gardens, the pease were about two inches above the surface of the ground, and would be fit for the table at the end of August or the beginning of September. The polished pine floor of his house was so clean and white that I was almost afraid to walk upon it. In the unpretending little library there were scientific and medical works, and volumes in English, French, and German; everything was simple and com-

fortable; the rooms were large, and every window was crowded with flower-pots.

He kindly invited me to stay to dinner, but being afraid of missing the steamer, I declined. Still, the country hospitality would not permit me to leave without taking some refreshment, and, if I had been a smoker, to enjoy a pipe or a cigar.

Returning to Strömsund, all was life. I wondered where the people could have come from. Numerous carts had arrived from different parts of the country, to take the cargo that had been landed by the steamer—composed of rye and barley flour, a complete steam apparatus for a saw-mill, barrels of snuff, boxes and hogsheads of claret and other wine, iron pots, casks of nails, dry goods of all sorts, bags of coffee, sugar, and in fact all the commodities found in a country store.

Another steamer had arrived crowded with men from the inland districts, and here two hundred more were to be added to the number. They were all farmers, belonging to the *beväring*, one of the military organizations, and were going to drill and exercise for several weeks, under competent officers, at some point lower down the coast.

From the Råne river the coast, which forms the head of the Gulf of Bothnia, runs east and west. A sail of a few hours brings one to the mouth of the Torne river; but, on account of the shoals and shallowness of the water, vessels have to stop a few miles below. At that time a small steamer took the passengers to Haparanda, a few miles higher up.

The town is in 65° 51′ N. lat., and forty-one miles south of the arctic circle, and has a population of about one thousand, mostly Finlanders. It is 1° 18′ farther north than Archangel, and in the same latitude as the most northern part of Iceland. The sun rises on the 21st of June at 12.01 A.M., and sets at 11.37 P.M.

From the 22d to the 25th of June the traveller may enjoy the sight of the midnight sun from Avasaxa, a hill six hundred and eighty feet high, and about forty-five miles distant, on the other side of the stream; and should he be a few days later, by driving north on the high-road he may still have the opportunity of seeing it.

Haparanda is quite a thriving place, with many large and well-painted houses; it has several stores, and is a sort of commercial depot for the population farther north, its exports being chiefly timber and tar. It has risen to its present dimensions since the cession of Finland by Sweden to Russia. Formerly the seat of commerce was on the island of Torneå, lying almost opposite. It has two churches; a high-school, where students can prepare themselves to enter one of the universities, and where French, English, German, and the dead languages are taught; and public schools for primary education; it also has a newspaper.

This is the last telegraphic station in the north of Sweden whence messages can be sent to any part of the world. The telegraph-operators are all educated men, who have passed a rigid examination, and are required to understand English, German, and French. The same regulations are also enforced in Norway. The postal-telegraph system has always existed in both countries, and the tariff of charges is uniform, whether the distance be short or long.

There is a good hotel, where the rooms are comfortable and the fare excellent; indeed, there are very few towns between Stockholm and this point where you can be so well entertained. The size of the landlord, and that of his good and pleasant wife, spoke well for the food and the climate of the country.

The news of my arrival was soon spread over the little town. The judge, clergyman, custom-house officers, schoolmaster, postmaster, banker, and others came to the hotel to see me, and they all welcomed me to Haparanda. Though living in the remote North, they had all the politeness of their countrymen of the more populous districts of the South.

When I told them that I intended to go as far north as I could by land, they seemed somewhat astonished. When they heard I wanted to cross to the polar sea, "There are difficulties in the way," they said; "the people do not speak the Swedish language; after awhile there is no road, and the country is wild, sparsely populated, and the people will not be able to understand where you wish to go. Will you be able

to eat their food? If not, you must buy what you want here." "The food," said I, "does not trouble me in the least; I can eat anything."

They did not see how I could ever get along. "Just go as far as the high-road, and come back," was their counsel. "No," said I; "I must go as far as North Cape."

When they saw me resolved to go, they took as much interest in my undertaking as if I had been one of their dear relatives; they got an excellent guide for me, and seemed overjoyed that they had been able to find me one, and said that they knew I would be in the hands of a good man. They were not mistaken. His name was Andreas Jacob Josefsson, and proved to be as good and honest a fellow as any one whose services I could have secured. He was a tall Finlander, and had a kind face. He had lived in California quite awhile, and could speak a little English; he had come back to Sweden to rejoin his sweetheart, and be married; he wanted to go back to America, but she did not, and accordingly he had settled here—the home of his wife.

The great charm of travelling in Scandinavia is by the relay stations, called *gästgifvaregård* in Sweden. The conveyance given to the traveller is a cart called *kärra*, drawn by a single horse—a light vehicle, with only two wheels, the body and shafts continuous, generally without springs, and with a seat large enough for two persons, and a moderate amount of luggage.

There are more than sixteen thousand miles of roads in Sweden, all with post-stations, numbering over fifteen hundred. There are four kinds of roads; the *kungsväg* (king's road) being the finest; *häradsväg* (country road), most of which are very good; *sockenväg* (parish road), which is not so good, and often bad; and the *byväg* (village road), which is narrow, and very rough. It may, therefore, be judged that before one can see the country thoroughly there is a good deal to do. In the sparsely inhabited districts some of the stations are very humble, but the traveller is glad to reach them after a hard day's journey.

The distance between each station is generally about one

and a half Swedish miles; seldom less than a mile, or more than two miles, although in some districts the intervals are greater, on account of the scantiness of the population. Most of these stations are farms, and at all of them food and lodging can be had; and many of them are exceedingly comfortable, especially on the high-roads which connect the towns or cities; but in remote or unfrequented districts the fare is very poor, and a stranger finds it hard to get accustomed to the diet. The people who keep them generally receive compensation from

THE KÄRRA, WITH SPRING ATTACHED TO THE SEAT.

the Government, but the amount paid is proportioned to the extent of the traffic. The State makes these arrangements with the most responsible farmers in each district, and good and faithful service is therefore insured. At each station there is a register in which travellers record their names, with their destination, the place they have left, their vocation, and the number of horses they take. On the cover of this book the rules relating to the road are inscribed. The number of hours during which the traveller is required to wait is accord-

ing to the number of horses taken before. The tariff of prices from one station to another is indicated with the utmost precision, so that no mistake can be made. Generally the rate is one krona and twenty öre per Swedish mile in the country, and one krona and sixty öre in the towns. Every month the records are taken up by Government officers, and if any traveller has any complaint to make, he registers it, with his name appended.

In Sweden all the farmers within a specified distance of each station are obliged to furnish horses upon the requisition of the station-master. This law seems to be rigorous; but it is, doubtless, the only practicable way to accomplish the end desired. Hence the stations are established in places where constant supplies of horses can be obtained. The traveller is charged an additional sum for the use of vehicles and harness —the usual rates for the sleigh or cart being three öre per mile for a cart without springs, and six öre for one with springs. The station-master provides the driver. The cost of ferries or bridges is borne by the traveller.

The amount of weight allowed is four hundred pounds, including the passenger; but there is never any difficulty, unless the traveller has an unusual amount of luggage: two together pay fare for one and a half. A driver is fined twenty-five kronor for overcharge. If the traveller hurts the horse by fast driving, he is responsible for damages. The speed allowed by law is one Swedish mile for every hour and a half; but they always drive faster, and the average is a little over five English miles an hour. When sending a *förbud* (that is, ordering a horse in advance), either by messenger or letter, if the traveller comes too late he has to pay twenty-five öre every hour, and the driver is compelled to wait only four hours. Sometimes the post department has to change the stations, either on account of the farmers refusing to have them any longer, or because they are not properly kept.

CHAPTER VI.

The Country within the Arctic Circle.—Leaving Haparanda.—A Finnish Station.—The Mosquitoes.—Female Drivers.—Kindness of People to Beasts of Burden.—Comfortable Farms.—A Hamlet.—The Midnight Sun.—Sattajärvi.—Willing to come to America.

The country, which extends from the Gulf of Bothnia to the northern extremity of Europe, is almost entirely within the arctic circle, and presents a vegetation not seen elsewhere at such high latitudes. Vast areas are covered with forests of pine and fir, the latter predominating, while many hills are clad with the white birch to their very top.

One can travel long distances by water, boat stations being found on the shores of the lakes and streams. A glance at the map shows how well watered the country is: the rivers swarm with salmon, and the lakes with other fish.

The Lule, the Kalix, and the Torne are the main rivers in those regions. The Kemi flows through Finland.

The Torne River is the longest and the most northerly stream falling into the Gulf of Bothnia, and it now forms the boundary between Sweden and Russian Finland. Its northern branch, the Muonio, rises in Lake Kilpijärvi, 69° N., three hundred miles from the sea; while the Alten, Tana, and other less important streams flow northward into the Arctic Ocean. The mountains slope gently on this side, but fall grand and steep towards Norway.

On the banks of some of the rivers are numerous farms and hamlets, often surrounded by fine meadows and fields of rye, oats, and barley. Vegetation is wonderfully rapid under the influence of almost constant sunshine, seven or eight weeks only intervening between the sowing and the harvest.

The journey from Haparanda to the Arctic sea is extremely interesting, both in summer and in winter, the distance in an

air-line being over five degrees of latitude to the most northern extremity of the land; but the route traversed to Cape Nordkyn and to the Magerö Sound is about five hundred miles. The country is inhabited by Finns, who are cultivators of the soil. The Laplanders roam over the land with their herds of reindeer. The summer climate is delightful, and during the period of continuous daylight one can travel all night if he pleases. But there are great drawbacks: from the end of June to nearly the end of August the country is infested with swarms of mosquitoes, which are very annoying. The fare is coarse, and, to one not accustomed to it, not very palatable.

From Haparanda the high-road goes northward as far as Pajala and Kengis, a distance of over seventeen Swedish miles, passing at times through a beautiful country, and then through forests, moorlands, and desolate regions. There are eleven post-stations, where horses are changed, and where food and lodging may be obtained. On the journey very little luggage should be taken.

We will now for awhile leave the shores of the Bothnia, and go northward, to gain a knowledge of the summer climate of those regions.

The afternoon of my departure the yard of the hotel presented an unusually animated appearance. The judge, the custom-house officers, the banker, and other newly-made friends, had assembled to drink to my health, and to the success of my journey. Speeches were made, and a last admonition was given to my guide, Josefsson, to take good care of me. As my horse started all raised their hats and gave three cheers. I returned them, and, with a crack of the whip, started: as I turned my head to get a last look, they were still cheering and waving their hats. My wiry animal paced at a very rapid gait, without a touch of the whip. We passed two or three farm-houses, well painted, with nice enclosures around the gardens. The Torne River, with its numerous islands, appeared at times; in the distance rose Avasaxa; while woods, meadows, cultivated fields, painted houses, and far-off hills completed a charming landscape. The weather was delightful, the atmosphere dry and bracing, the thermometer marking during the

day 68° to 70°. Late in the evening I stopped at a post-station where the family spoke Swedish, the hamlet consisting of a few scattered farms. The people were at first shy; but, after hearing that I was from America, they became friendly, for several persons from that district had emigrated to the United States. The farm was about twenty miles from the arctic circle. The disappearance of the sun below the horizon was short, and the sunset very brilliant. The sunrise which followed a short time afterwards was indescribably beautiful.

During the night of bright daylight several carts entered the yard. The men unharnessed their horses, put them into the stable, gave them the hay that they had carried with them, and water, and then went into one of the houses, where they could rest and sleep; for in this part of the world the doors of the dwellings are not locked. Some stopped only to rest their horses, while others remained to get the sleep they needed. Most of these carts were loaded with miscellaneous goods, on their way to some country store or hamlet; others had bags of Russian flour, the supply from the farm having run short.

After a breakfast of smoked reindeer meat, butter, cheese, and hard bread, and an excellent cup of coffee, I left the station. The wife at first refused payment, as I had, she said, given more than an equivalent in presents to the children.

At this time of the year the men were busy, either in the fields, floating timber down the stream, or at the saw-mills.

At every station I had a young girl for a driver, and these children of the North seemed not in the least afraid of me. My first driver's name was Ida Catharina: she gave me a silver ring, and was delighted when she saw it on my finger. I promised to bring her a gold one the following winter, and I kept my word. She was glad indeed, when, at the end of the drive, after paying, I gave her a silver piece. Another driver, twelve years of age, was named Ida Carolina. The tire of one of our wheels became loose, but she was equal to the emergency; she alighted, blocked the wheel with a stone, went to a farm-house and borrowed a few nails and a hammer, and with the help of the farmer made everything right in a few minutes; she did not seem in the least put out by the acci-

dent. She chatted with me all the time, though I did not understand what she said, for I did not then know the Finnish language. She was a little beauty, with large blue eyes, thick fair hair, and rosy cheeks. From early life children are taught to depend upon themselves.

Niemis was the next station: the little farm stood by itself, looking poor enough; there were four or five low buildings, with roofs covered with turf. The small house for travellers was scrupulously clean, but had only one room, with two beds, a few chairs, a table, a looking-glass, and a bureau, in which the family stored their wealth; next to this room was a little closet where the milk was kept.

The dwelling-house, close by, was a humble one, and dirty. Its occupants were an aged man, with long, shaggy, black hair, his wife, and a niece, a fair-haired girl named Kristina, who, when I arrived, immediately washed her face and hands, combed her hair, put a clean skirt over her dirty one, adjusted a clean handkerchief on her head, and her toilet was complete. The coffee-pot was then put on the fire, and a cup of coffee was made. The old woman was dark-complexioned, and her hair was almost black—traits certainly not of the Scandinavian or Finnish type; she reminded me of a gypsy. When she heard where I had come from she suddenly hugged me; I, in good-humor, returned the compliment, regardless of consequences, for her hair looked suspicious. When ready to leave, the old fellow, who was my driver, had managed to put on his best coat, which appeared to be some fifteen or twenty years old.

The next station was Ruskola, the best stopping-place between Haparanda and Pajala. The farmer and his wife spoke Swedish, and both understood what comfort meant. The farm was large and productive. At a short distance was the hamlet of Matarengi, with a strange-looking red church, quite old, with a separate belfry, and the parsonage close by. There were several country stores, which reminded me of those found in little villages in America. Many of the farms seemed thrifty, and there was a large tract of cultivated land and fine meadows. We were in the *socken* (parish) of *Öfre* Torneå, which had a population of about twenty-seven hundred.

Should one be detained, he may drive as far as Pajala, and from the high hills on the other side of the stream at that place may enjoy the sight of the midnight sun a few days later. How strange to those living in more southern latitudes are those evening and morning twilights, which merge insensibly into each other! to travel in a country where there is no night, and no stars to be seen; where the moon gives no light, and, going farther north, where the sun shines continuously day after day! The stranger at first does not know when to go to bed and when to rise; but the people know the hours of rest by their clocks and watches, and by looking at the sun.

I fell into a deep sleep, and when I awoke the sun shone brightly; but this was no sign of a late hour, as it was only three A.M. I slept again; and when I awoke everything was so still in the house that I took another nap; when I awoke for the third time, I found that my watch had stopped; then going into the next room, I saw by the clock there that it was one o'clock P.M. The family laughed, for they had kept quiet for fear of disturbing me.

In these latitudes the snow has hardly melted when the mosquitoes appear in countless multitudes, and the people have no rest night or day. They had already appeared, and their numbers increased daily; they became more voracious, and their sting more painful; in wooded districts they are a perfect plague in the month of July and until the middle of August, after which a gnat appears. This bites very hard during the day, but at night leaves one in peace, for it never enters the houses. Last of all comes a species of sand-fly, which also is very disagreeable. I was surprised, at a turn of the road, to see a black cloud, apparently composed of minute flies. It was a swarm of mosquitoes, so thick that it was impossible to see anything beyond. I was hurrying the horse through it when the animal suddenly stopped, and then I saw three men working on the road who had previously been invisible. This seems incredible, but such are the facts. Josefsson laughed, and observed, "We have a saying here, that when a traveller comes he writes his name in a bed of mosquitoes, and when he comes back the following year he sees it again."

We drove rapidly through the cloud, but a part of the swarm followed us like birds of prey. They surrounded us in myriads, and their hum was far from charming. I had never seen such immense swarms before, and had never met anything of the kind in the swamps of the Southern States, in New Jersey, or in Equatorial Africa. One should wear a veil around a broad-brimmed hat, to protect the face. The natives bear the plague with apparent equanimity. These mosquitoes are a distinct species, being heavy and easily killed, and not

ATTACKED BY MOSQUITOES.

taking to wing like the better-known varieties; their bite was less painful than that of the common kind, but it was by no means pleasant. I was obliged to put on gloves, for I had hardly crushed hundreds when the next instant the number of my assailants became as great as before.

Everywhere I noticed the kindness of the people towards their beasts of burden. Horses cannot be hurried where the country is hilly, though I suppose it is sometimes done when a man is under the influence of liquor, or is wicked at heart.

A horse, as soon as he comes to the foot of a hill, stops when he thinks it is time for the people to get out, turns his head towards the vehicle to see that every one is off, and then ascends. If all are not out, he waits, and, when urged by the voice, or by a slight, harmless touch of the whip, he seems quite astonished, and often during the ascent stops and turns his head, as if to say to the remaining occupant, "Why don't you get out?" The farmers and their families invariably walk up-hill; hence the horses are disagreeably surprised when their load remains, especially when the whip slightly touches them on the back. From one station to another the driver often stops, cuts his black bread into small pieces, gives them to the horse, caresses him, treats him to a handful of hay, and then continues his route. This kind treatment not only speaks well for the people, but it also makes the horses exceedingly gentle and docile; vicious ones are seldom found. Colts are much petted, and often come into the kitchen, where they are caressed, and treated to salt, or something else they like.

The station where I remained for the night was poor enough. The building for travellers had only one room finished, and men were sleeping on skins on the floor, and others on benches, in their ordinary clothing. An old woman with her daughter and her baby were in one bed, an old man was in another, and everything looked dirty. I could get only cold fish to eat; one of the men offered to go and spear some, but I concluded to eat this and go to sleep. Some fresh hay was placed on the floor, two reindeer skins were spread over it, a sheep-skin blanket was put over all, and my couch was complete.

The traveller is surprised to meet so many comfortable farms, with large dwelling-houses, which, with the barn and cow-house, are the three prominent buildings. There are several other houses besides, such as sheds, storehouses, blacksmith shops, etc. In the yard, which is generally enclosed by the houses on three sides, is the old-fashioned well with its sweep, a bucket at one end and a stone at the other. From the well a trough communicates with the building where the

cows are kept. This structure is peculiar; the ceiling is low, the windows very small, giving but little light; the place is entirely floored, and pens are built on each side; along these a gutter gathers all the manure, which is preserved with great care. The cattle do not lie on straw or hay. At one end of the room is a large piece of masonry, encasing an iron pot three or four feet in diameter and three feet deep, used for cooking food for the cattle; this food is generally coarse marsh grass, mixed with the dust coming from the threshing of the grain; this pot is also used as the bathing and washing-tub. Sheep, when numerous, have a house by themselves; if not, they are penned in a corner. There is a separate stable for the horse.

The dwelling, with few exceptions, consists of a single story, usually containing two rooms, one on each side. One is used as bakery and kitchen, and also as a sleeping-room; at one corner is the fireplace, a strange structure, six or eight feet square, made of solid flat slabs of stone, generally plastered over. Wood is placed in these ovens, and, when it is consumed and only charcoal remains, a sliding iron trap-door prevents the heat from escaping, warming the walls. The heat thus produced for the first few hours is very great, and often the room is made unbearable to those who are not accustomed to such an atmosphere, which is often retained for two or three days; in one section of the structure there is an open fireplace used for cooking. Beds are placed along the walls, in number according to the size of the family. These are a kind of sliding box, so that they can be made of different widths, according to the requirements; they are filled with hay or straw, furnished with home-made blankets or sheep-skins, and sometimes with eider-down covers and pillows. In the morning the box is drawn in, and, when covered with a board, answers for a sofa, upon which people rest during the day. The whole family, including servants, males and females, sleep in this room. On the other side is the guest-room, which is also used as a sleeping apartment. One or two bedsteads, the beds filled with the down of the eider-duck, the blankets made of the same material, form the chief part of the furniture.

There are many small and poor farms, where a large family has to work hard to get a living from the soil; in their homes, dirty and crowded, typhus fever often makes great ravages. The farms are generally by the banks of rivers or near lakes, for there the land is better, and fish is plentiful.

The living eked out of the soil in this northern region would be scanty indeed but for the fish caught in these waters, and the abundance of game-birds. The money obtained from the sale of these, together with the revenue derived from the dairy, often constitute the farmer's sole income.

From Matarengi the road ascends a steep hill, out of sight of the river, passing for several miles through a desolate country, made more dreary by the burning of the forests.

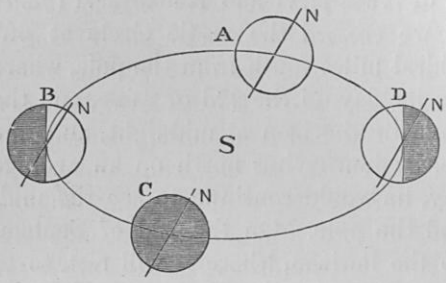
Between the stations of Kunsijärvi and Ruokojärvi (*järvi* means lake in Finnish) we crossed the arctic circle at 66° 32′ N., or 1408 geographical miles south from the pole, where the sun shines for an entire day on the 22d of June, and the observer will see it above the horizon at midnight, and due north. After that date, by journeying north on an average of about ten miles a day, he would continue to see the midnight sun till he reached the pole. On the 22d of September the sun descends to the horizon, where it will rest, so to speak, all day long; on the following day it disappears till the 22d of March.

When returning southwards at the same rate, the traveller will continue to see the midnight sun in his horizon till he reaches the arctic circle, where for one day only, as we have seen, the sun is visible.

The sun at midnight is always north of the observer, on account of the position of the earth. It seems to travel around a circle, requiring twenty-four hours for its completion, it being noon when it reaches the greatest elevation, and midnight at the lowest. Its ascent and descent are so imperceptible at the pole, and the variations so slight, that it sinks south very slowly, and its disappearance below the horizon is almost immediately followed by its reappearance.

I will now try to explain the phenomenon of the midnight sun: the earth revolves about the sun once every year, and

rotates on its axis once every twenty-four hours. The earth's orbit, or path described by it in its annual revolution about the sun, is, so to speak, a circle somewhat elongated, called an ellipse. The axis, about which the daily rotation takes place, is a straight line passing through the centre of the earth, and the extremities of which are called poles—one the north, and the other the south pole. The axis is not perpendicular to the plane of the orbit, but is inclined to it at an angle of 23° 28′, which angle is called the obliquity of the ecliptic. The earth, therefore, in moving about the sun, is not upright, but inclined, so that in different parts of its course it presents always a half, but always a *different half*, of its surface to the sun—which will be plain from the accompanying diagram.



EARTH IN ITS ORBIT.

S represents the sun; *A*, the position of the earth March 21st; *B*, the position of the earth June 21st; *C*, its position September 21st; and *D*, its position December 21st.

Twice in the year, March 21st and September 21st, the exact half of the earth along its axis is illuminated. On these dates, therefore, any point on the earth's surface is, during a rotation of the earth on its axis, half the time in light, and half in darkness—that is, day and night are twelve hours each all over the globe. For this reason these dates are called *equinoxes*—March 21st being the vernal, and September 21st the autumnal equinox. As the earth moves on in its orbit after March 21st, the north pole inclines more and more towards the sun till June 21st, after which it turns slowly from it. On September 21st day and night are again equal all over the earth, and immediately after this the north pole is turned entirely from the sun, and does not receive its light again till the following March. It will thus be seen that from the vernal to the autumnal equinox the north pole is in sunlight, and has a day of six months' duration. As the north pole becomes more and more inclined towards the sun, more

and more of the region around that pole becomes illuminated, and therefore any point in that region is, for any given twenty-four hours, longer in light than in darkness, and its day is longer than its night. The nearer any point is to the pole the longer during this time is its day.

The number of days, therefore, of constant sunshine depends on the latitude of the observer; and the farther north he finds himself the greater will be this number. Thus, at the pole, the sun is seen for six months, at the arctic circle for one day, and at the base of the North Cape from the 15th of May to the 1st of August. At the pole the observer seems to be in the centre of a grand spiral movement of the sun, which farther south takes place north of him.

We have here spoken as if the observer were on a level with the horizon; but should he climb a mountain, the sun, of course, will appear higher; and should he, instead of travelling fifteen miles north, climb about 220 feet above the sea-level each day, he would see it the same as if he had gone north; consequently, if he stood at the arctic circle at that elevation, and had an unobstructed view of the horizon, he would see the sun one day sooner. If he should climb to a greater height, and have the same unobstructed view, he would see the midnight sun for a correspondingly longer time. Hence the tourists from Haparanda prefer going to Avasaxa, a hill 680 feet above the sea, from which, though eight or ten miles south of the arctic circle, they can see the midnight sun for three days.

The brilliancy of the splendid orb varies in intensity, like that of sunset and sunrise, according to the state of moisture of the atmosphere. One day it will be of a deep-red color, tinging everything with a roseate hue, and producing a drowsy effect. There are times when the changes in the color between the sunset and sunrise might be compared to the variations of a charcoal fire, now burning with a fierce red glow, then fading away, and rekindling with greater brightness.

There are days when the sun has a pale, whitish appearance, and when even it can be looked at for six or seven hours before midnight. As this hour approaches, the sun becomes less glaring, gradually changing into more brilliant shades as it

dips towards the lowest point of its course. Its motion is very slow, and for quite awhile it apparently follows the line of the horizon, during which there seems to be a pause, as when the sun reaches noon. This is midnight. For a few minutes the glow of sunset mingles with that of sunrise, and one cannot tell which prevails; but soon the light becomes slowly and gradually more brilliant, announcing the birth of another day —and often before an hour has elapsed the sun becomes so dazzling that one cannot look at it with the naked eye.

At the hamlet of Pirtiniemi, on the banks of a small lake, the high-road suddenly ended, being continued on the opposite shore. A few farms were seen, but considerable patience was required before a traveller could pursue his way; the horses had been let loose in the wood, to seek their own food, and it took some time to find them. Arriving at the shore, we crossed in a large flat-boat, which could take two carts and two horses; it was managed by two old women, who by their vigorous pulls showed that they understood their business; ten minutes were occupied in crossing to the northern side, where there were several farms. The cattle were mostly of small size, but very fine; there was also a superb herd of twenty-six cows, nearly all of which were white.

My driver, a girl of about thirteen, seemed to have no fear of me, although not another soul was to be seen on the high-road, and Josefsson was far behind. I gave her some candy, with which she was delighted, and, putting her arm around my neck, gave me a kiss.

The drive continued to be monotonous, but I loved to tarry at the different hamlets. At Sattajärvi, the last post-station before reaching Pajala, old and young flocked around me, and Josefsson held them in conversation. They marvelled when they heard that he had been in America; and, pointing to me, shouted, "Talk American to him!" and then all became silent to hear us talk.

Children came up in swarms to join the merry party. I thought I never had seen such a gathering of beautiful young people. Their coarse diet seemed to agree with them, for they were pictures of health. The girls had such pretty names as

Ida, Kristina, Lovisa, Margarita, Elsa, and Helena. They were handsome, with light hair, deep-blue eyes, rosy complexions, and pearly skins; and presented a marked contrast with the older women, who appeared careworn, and bore the traces of hard work.

Girls in Scandinavia do very little hard work until they are confirmed. Their early years are passed in school; but they develop early, for they have household duties to perform, and plenty of exercise in milking and feeding the cattle, and working a little in the fields. All this tends to health and the development of muscle. Between the ages of fifteen and seventeen many are extremely beautiful; but they soon fade, their features becoming coarse later in life. I asked some of them if they would like to go to America, and the answer was an enthusiastic "Yes!"

I especially noticed one, named Kristina, about sixteen years of age, who followed me, in company with many others, wherever I went. She seemed to be attracted towards me, often holding my hand, and entering into animated conversations. "Would you like to be my driver, and come with me to America?" I asked. "Yes!" said the girl, her beautiful northern blue eyes looking at me; and "Yes!" said her mother. Mother and daughter suddenly disappeared, and I thought I had frightened them away; but they had gone to prepare dinner for me.

When ready to leave the place, the following adventure awaited me: I was astonished to see Kristina coming towards me with all her fortune—a bundle of clothes—wrapped in a handkerchief. Her father, mother, sisters and brothers, were by her side. All the population of Sattajärvi had come to say good-bye to the girl. She was dressed in her best clothes, as if going upon a journey; and as I stepped into the cart she followed me, and all the people shouted, "Good-bye! Live well! Write to us, Kristina!"

"Are you going to take that girl to America?" said Josefsson to me. "The road is too hard for her to follow us."

"Certainly not," said I. "She is to drive us to Pajala."

"No," said he; "they expect you to take her with you to

America. Don't you see? all her family are here. Her father has come from the fields; all the people are here to say good-bye; and she has all her clothing in that parcel. They all believed you were in earnest."

"Tell them," said I, "that she is going to drive me, as several other girls have done before, but only to Pajala; that I cannot take her through the hard country in which I am to travel; and that she would not have strength to follow me."

The mother began to cry; she wanted her daughter to go to America with me. "Man!" said she, "are you going to listen to your guide? I am sorry for you, that you have no will of your own; I pity you."

Kristina got out of the vehicle, became angry, and would not drive me. As we left, the mother sent a volley of reproaches after poor Josefsson, who said they had all believed that but for him I would have taken the girl with me to America. Visions of wealth for their daughter had appeared to them; but the castle they had built in such a short time was already a ruin. The people, however, called after me to "come again."

A drive of about two hours brought me to Pajala, the spire of whose parish church, gilded by the rays of the midnight sun, was seen in the distance.

The hamlet is near 67° 10′ lat., on the right bank of the Torne River, which it overlooks, a little above its junction with the Muonio, at which point the stream is three hundred and thirty feet above the level of the Gulf of Bothnia.

The population is about one hundred and fifty, with twenty-five homesteads, thirty-five horses, two hundred and twenty head of cattle, and about six hundred sheep; so that there was plenty of wool for homespun clothing. The richest man was said to be worth about ten thousand dollars, and several others are worth from one to four thousand—the former sum buying here a pretty good farm, with a comfortable dwelling-house, and other buildings. The parish numbered three thousand five hundred and twenty-five souls. It has now a fine school-house, which is a credit to the small population of that northern region. The place has a very comfortable inn, whose

charges were very moderate. At that time of the year salmon was abundant, and this, with delicious soft bread, dried or smoked reindeer meat, milk, good coffee, excellent tea (which no doubt came from Russia), and Swedish beer, made up the bill of fare: everything was served in a cleanly way, and constituted a repast fit for a king.

The salmon rarely bite at the hook, but are caught in traps or nets placed just above the rapids, or where the water runs swiftly. While I was in Haparanda several boat-loads were landed daily. This year the price was considered high—five kronor for twenty pounds' weight, while in some years it is not more than three or four kronor; but it will become dearer year after year, as, with the introduction of steamers, the people have begun to export fish.

The parsonage, where I was received with great kindness, was large, with everything in it scrupulously clean and simple; the pine floors were without carpets, but spotless; the books revealed the culture of the owner, and the newspapers from Stockholm, received weekly by post, showed that even here the people could know what was going on in the world.

The church was a fine building, in the shape of a Greek cross. The ceiling was concave, the pulpit simple—a relic of the old church: on the altar was a picture of the Saviour crucified, and Mary Magdalene coming to him. The burial-ground, not immediately adjacent, was enclosed by a rough stone wall, the entrance being through a white-painted gate. The first object that struck my eye was the coffin of a little child lying on the ground, covered with a white pall, which had been sent to be buried on the following Sunday. Then I came to a grave, surrounded by a painted railing about eight feet square; in the centre was a circular mound, in the middle of which was a rose-bush in a pot, and a young girl was watering it. "This is the grave of my mother," said the worthy parson. "We have no grave-diggers," he added, "and the families of the dead dig the grave themselves. In the old graveyard lies the body of Læstadius, who did so much good in preaching to the Lapps against the vice of drunkenness." On our return he talked for awhile of America, and of the numerous sects found

there, and then brought out a bottle of Swedish beer, which I enjoyed greatly. When I left, he expressed the hope that we might meet again. "You will be always welcome to the parsonage."

Before my departure I visited several of the farms, and was received everywhere with kindness; question after question was asked of Josefsson about me, and all wondered why I wished to go so far away from my home to indulge in sight-seeing.

CHAPTER VII.

Two ways of going North.—Crossing the Torne.—Ascent of the Muonio.—A Boat-station.—The Making of Tar.—Ants.—Muoniovaara.—The Palajoki.—A Thunder-storm.—Solitary Farms.—Fishermen.—A House of Refuge.—Descent towards the Arctic Sea.

From Pajala the journey northwards may be continued in two ways: by ascending the Torne, or by crossing the narrow tract of land opposite Pajala, and going up the Muonio River. The first is the outlet of the Torne Lake, a considerable sheet of water, 1308 feet above the sea, the upper extremity of which is 68° 25′ north, almost on a line parallel with the Ofoten fjord and the Lofoden Islands in Norway. On its banks are found the hamlets of Vittangi and Jukkasjärvi, the latter being a great rendezvous for Laplanders.

The Muonio is decidedly the better route, as it runs through a larger extent of country; it rises in Lake Kilpisjärvi, the northern shores of which are a few miles above 69° lat., and form a part of the frontier between Russian and Swedish Finland. The country for twenty miles westward of Pajala is somewhat thickly settled, especially on the banks of the Tärendö River.

The only way to travel in summer is by water. There are regular boat-stations, which supply lodgings and food. The fare, regulated by law, is at the rate of one krona a man for every Swedish mile, with a small additional sum for the use of the boat.

The journey on the Muonio is very exciting; rapid after rapid is encountered, all danger being avoided by the wonderful dexterity of the boatmen. No fatigue is experienced, for during the nearly three hundred miles ascent one has to walk only now and then in order to avoid some of the worst parts of the river. Towards the end of June the river is much

swollen. The rush of the water was very fine—the angry billows filling the forest with their roar.

On the last day of June, an hour and a half before midnight, we crossed the Torne. Following the boatman, who carried my luggage on his back, after about an hour's walk I came to Kieksisvaara, the first boat-station, situated on a hill commanding a fine view of the country, and overlooking the river Muonio. The people were all asleep, as it was midnight; the sun had become paler and paler, its golden glow shedding a drowsy, quiet light over all the landscape, and a heavy dew was falling; the house-swallows had gone into their nests, the cuckoo was silent, and the sparrows could not be heard—nature seemed to have gone to rest in the midst of the sunshine.

The hills were covered to their tops with dark fir-trees; contrasting with them was the green new foliage of the birch, the white trunks of which seemed, in the distance, like pillars of silver.

Suddenly a door opened, and a maiden stood before me, looking at the sun, as if to ask what time it was. Her eyes were as blue as the sky above, and her complexion rosy; she was bareheaded and barefooted; her yellow hair, hanging carelessly over her shoulders and falling below her waist, seemed to have been dyed by the rays of that midnight sun; her feet rested upon the green grass, which made them appear doubly white. Seeing me, she started, not expecting to meet a stranger, and was about to make a hasty retreat, when the voice of Josefsson in her own language reassured her. She stopped, and, looking at me, said: "Stranger, are you looking at the midnight sun? now the sun shines night and day. But the summer in our far northern land is short; it gives us hardly time to collect our harvest. Our winters are long and often stormy."

From this maiden my eyes were directed to the sun. Just after midnight I began to notice a change; the glow brightened, and increased rapidly to a magnificent red. The sun's rays gilded the forest and the hills, and nature seemed to be awake again; the sun gradually became more brilliant, until at last it was so dazzling that I could not look at it.

Three boatmen were to take us up the river. One of them seized the little hand-bag containing my luggage, and we started. We soon stood on the banks of the clear Muonio, and we could hear the roar of the rapids, but the vapor rising from the water prevented us from seeing anything. It was then 1.30 A.M.; the thermometer marked 51°—a fall of 6° since 10.30 P.M.

Our boat was made of only four planks, and very light; its length was twenty-seven feet, and its greatest depth one foot nine inches; the broadest part was two feet eleven inches, at a distance of six to ten feet from the bow; the keel was two and a half inches wide. This form is the best for the turbulent stream and rapids; they have but little draught, and are very buoyant; the keel is strong, and protects the bottom when among the rocks, while heavy ribs protect the sides. Each boatman had a pole ten or twelve feet long, of great flexibility and strength, and no oars or rudders are used. My chief boatman, Hendricks Wilh, was at the bow, and the two others took their stations at the stern. We were soon confronted by a rapid, where the water was rushing between boulders with great force, and I was able to judge of the dexterity and strength required in this navigation. The poles are put under the boat instead of along-side, and are often much bent by its weight; Hendricks supported himself and the other two boatmen against the inside, and soon was in a dripping perspiration. These currents have to be studied, in order to know how to steer.

As we pushed along we frequently disturbed stray flocks of ducks. Where the stream was not very swift we ascended rapidly. The river was deep, and its waters so clear that we could see the rocks and boulders resting upon its bed at a great depth.

After a journey of four hours we reached Kolare, having travelled about three Swedish miles.* When we came to the house the silence of the place showed that every one was fast asleep, but our arrival was the signal for all the family to get

* A Swedish mile is 6.64 English miles.

up. The fare at these stations is of the plainest kind, and consists of bits of dry mutton, as tough as leather, smoked reindeer meat, butter, cheese, milk, hard bread, and sometimes fish. The coffee would be very good, but is often spoiled by putting in a large quantity of salt, to give it flavor. They often have only the stångkakor.

In the travellers' room there is a fixed tariff for every article supplied, so that no imposition can be practised; but, of course, when a rich stranger comes, an effort is made to improve the fare—the coffee, for example, is made stronger—and for such attentions a little more is expected, and it should be given. I was charged only sixty öre for my breakfast.

Near the house two boats were being constructed. These boat-stations are very convenient, allowing one in a hurry to travel fast, as at each place he gets fresh men, and has generally to wait but a short time; in twenty-four hours nine Swedish miles can be easily accomplished.

My new boatmen were brothers, whose appearance was singular. Their long, frizzly, fair hair fell below their necks, and it was so thick that they used a wire-card comb, similar to those formerly employed in carding wool by hand.

Between the stations of Huuki and Kilangi the distance is over four Swedish miles, and the ascent required nearly ten hours. Rapid after rapid was passed, and often I expected to be pushed back by the force of the water, and sent against the rocks or gigantic boulders; the poles of my boatmen fairly bent under the pressure, but they never slipped from their hands. At times we had to pass between rocks where there was just space enough to allow the boat to go through, while at other times we were sent back by the rush of the waters against the boulders. Accidents are rare, but when they happen it is almost always in the descent, when the navigation is more dangerous than during the ascent. At the foot of long and dangerous rapids we went on shore, two of the boatmen pulling the boat with a long rope, while the third remained in it and steered close to the land.

The descent of the rapids at this time of the year, when the snow is melting, is full of excitement; the rafts of timber and

The red fir-tree has two varieties — the *Pinus sylvestris*, and another with shorter needles, the *Pinus friesii*. The tree here is exceedingly rich, and produces a great amount of resinous matter. Only the roots of trees that have been cut down are used, and thus no timber is destroyed; hence the forests that have been burned are not entirely valueless. These often remain in the ground for years, and are then dug out, and split into medium-sized pieces during the winter or spring; they are of a deep red color, exceedingly hard, and so rich that when burned in an open fireplace the tar exudes. It is then prepared in the following manner: a favorable place is selected, where less labor is required in its manufacture, the spot chosen being on the declivity of a hill, or between two hillocks sloping gently towards each other. A hole or gully is excavated, from three to five feet in diameter; rails are put close together on the ground, gradually inclining towards the centre, so that the tar may flow into it; over these rails is placed a layer of birch-bark, which is covered with several inches of clay-like soil, the whole having the appearance of a basin, which varies from twenty to thirty feet in diameter. The pieces of wood from which the tar is to be extracted are piled carefully and closely in the hollow; then, when all is completed, the whole mass assumes something of the shape of a bee-hive, and is covered with earth. The roots are then set on fire, and, being smothered, burn slowly for several days, the tar dripping into the basin, and flowing out through the hole into a gutter placed in position to receive it. When by chance there are not barrels enough, the tar is kept for a time in hollows of the earth.

The tar is floated down the river in a singular manner. One or two rows of barrels are made fast, above and below, to long poles, and this sort of impromptu raft is then committed to the current, reaching its destination safely. Great quantities of tar come down from the rivers of the North. Sweden has some years exported over one hundred thousand barrels.

While I wandered in the forest I often met several species of ants, among them was the *Formica rufa*, called in Swedish

stackmyra, common even thus far north. Following a well-beaten path I came to the ant-hills, which are about two and a half feet in height, apparently built of small pieces of wood. Great numbers were coming from every direction, each carrying its little stick, and depositing it somewhere on the hill. When they ascended the sides of the hill the sticks under them would often give way, but they never relinquished their task till they had accomplished it. I had often to demolish their hill to the depth of about one foot before I found them. Many were carrying eggs, and when I placed a stick before them they would stand up on their hind legs and seize it, thus showing their bravery.

About twelve and a half Swedish miles from Pajala we came to the Muoniokoski rapids, below which is a miserable hamlet called Muonionalusta, with a chapel, where services are held only a few stated Sundays during the year. Here my boatmen left the river, and after a walk of three or four miles through very swampy soil, covered with fir and pine, we found ourselves suddenly at a fine farm. Above the door of the house were written the words—

"KUNGL: POST-STATION."

This was Muoniovaara. I was received by Herr Forsström, who was a Swede, and by his wife in a most kindly manner. Two pleasant, modest, bashful young ladies, who bore the characteristic Swedish names of Hilda and Hedda, and three sons, Gustaf, John, and Oskar, composed the family of that comfortable northern home.

The farm overlooked the Muonio, which here widened into a lake, the meadows extending to the water's edge. Near the house was a vegetable garden, in which pease were about two inches above the ground, and carrots, potatoes, and barley were well forward; but grazing and butter-making were the chief industry, as the grain crops in this region were uncertain, and the farmers accordingly planted hardly enough for their own wants, preferring to buy their flour.

On the other side, in Finland, is Muonioniska, which has a church, and is the residence of a clergyman. There, as in

Sweden and Norway, the people are Lutheran; for, since the acquisition of that province by Russia, the efforts of that government have failed to turn the Finlanders from their Protestant faith to that of the Greek Church.

Herr F—— was postmaster: the mail brought the letters and newspapers semi-monthly. The only society they had were the clergyman and the länsman from Muonioniska, for the farmers have not the education that can enliven their solitude; they depend upon themselves and the journals for recreation.

The farm was a very good one, and the milch cows, fifteen in number, were the finest I have seen in the north of Sweden; the dairy had to be looked after, and a large herd of reindeer were pasturing on the mountains. The young ladies were excellent weavers, and made the garments for the family. Herr F—— had, in addition, a store, just like one of those little country stores in which the people can find the things they want; it was largely patronized in winter by the Laplanders—who, however, are not to be seen along the route during the summer.

The house accommodated travellers, and, considering the distance the articles had to be brought, the charges were exceedingly moderate. The clergyman was invited to partake of the good cheer, and it was pleasant to see the host and good pastor smoke enormous pipes while enjoying their toddy. At this place, far from the sea, within a few miles of 68° N., every luxury had to be transported in winter from the Gulf of Bothnia.

The Muonio, from Muoniovaara northward, takes a more westerly direction; the population becomes more scarce, long stretches being passed without seeing a single house. The ascent of the river is laborious, the stream often being but a succession of rapids, the most formidable being the Kelokortje, up which the boat had to be hauled. A hard pull of fourteen hours brought us to the Palojoki (joki, in Finnish, river); the boatmen were nearly exhausted, for we had passed twenty rapids, and the day had been very warm, the mercury rising from 77° to 82°, and at 6 P.M. still marking 70° in the sun;

at 7 P.M., 68°; and at 9.30 P.M., 64°. At the mouth of the river is the hamlet of Palojoensa, or Palojoki, composed of eight or ten scattered farms, looking bare enough: the inhabitants seemed to be a cross between the Finns and the Lapps. The grass the people could gather was hardly enough for their cattle, which had to be fed on both lichen and hay; barley and potatoes still grew, although the latitude was above 68° north; but these were uncertain crops, frosts often occurring in August. The inhabitants possessed herds of reindeer, but these were now pastured on the mountains. A room in one of the farms was used as a school-house, a teacher coming to take up his residence in the hamlet during his term of service. The station was one of the best of the farms.

From Palojoensa there were two ways of going north: one by continuing the ascent of the Muonio, famous for the beautiful scenery of its upper part, to Lake Kilpisjärvi; the other, by stopping at Karesuando, about four Swedish miles higher up, and thence overland to the Lapp village of Kautokeino. I had determined to take the latter, as being more direct, when I heard from one of the villagers, who had been fishing in the lakes in the interior, of a much better one, almost all the way by water, and by ascending the Palojoki. All agreed that I should take this last.

The Palojoki, one of the affluents of the Muonio, is a small river running nearly north, having in its course a great number of rapids. The boats used for its navigation are smaller than those on the Muonio, but built on the same principle, with four planks strongly ribbed, and a heavy keel, to resist the thumping which they receive. Two boatmen are required, and two passengers only can conveniently be taken. This route had a great advantage, having never before been taken by any Swede or Norwegian, as I was subsequently informed by Herr F—— on my return to Muoniovaara the following winter, 1872–1873. My boatmen rejoiced in the names of John Mathias Bass and Erik Gustaf Laïgula, or some name of that sort.

The river was low on account of the long drought. As I came on the banks, and saw the boulders in the stream and the

small amount of water, I thought we should never be able to ascend, notwithstanding the great skill of the Muonio boatmen. Our boat, however, was equal to the occasion, and bounded from rock to rock like a cork or an India-rubber ball, and we succeeded in getting over the first rapid, and for awhile into deep water. We had ascended a short distance when we heard a bell ringing in the wood, and in an instant saw twelve reindeer running towards the river and looking at us. They had recognized the voice of their master, and seemed glad to see him — some of them even entering the water to get to him. These were the first reindeer I had met. Their owner told me that they were worth twenty-seven kronor per head.

The shores were lined with forests of firs, mingled with birch. The sound of the rushing water in the rapids was very pleasant to hear. Even though so far north, the cuckoo was heard; flocks of ducks flew away at our approach, and sometimes a goose would be startled from her young ones. Now and then we passed a queer bird-house, made fast to a tree, varying in size from eighteen to twenty-four inches in length, and from eight to twelve inches in diameter; some were dug out of a tree, with the top and bottom covered with bark, and others were made entirely of the latter. These were intended to entice a species of water-birds which lay their eggs in the hollows of trees; and there was a hole in the centre large enough for a man to put in his hand and remove the eggs. Some of these birds lay a score of eggs or more, which are taken by the owner of the nests. These bird-houses were the only sign of human neighborhood we could see.

The river a little farther up widens, and its banks are skirted with meadows, from which a great deal of hay is obtained. The forests were carpeted with long reindeer-moss of a greenish-white color, the finest I saw during my travels in Scandinavia.

This 5th of July was the warmest day I had met here, the temperature at seven o'clock A.M. being 67° in the shade and 109° in the sun; at nine, 72° in the shade; between noon and one o'clock, 82°, and 118° in the sun. A thunder-shower fol-

lowed, without cooling the atmosphere: at 3.30, 82°; at 4.30, 79°; at 6, 78° in the shade, and 98° in the sun.

At one of the rapids, where the men had to pull the boat with a cord, I ascended the steep, sandy bank, about eighty or one hundred feet high, in order to observe the country. It was an extensive, slightly rolling region, entirely covered with lichens, which could furnish an immense amount of food for reindeer; small knotty birch-trees were scattered far apart, and there was a solitary fir-tree. A patch of snow was in sight, and the country looked arid and desolate, and had evidently been under water at a former period. There were myriads of mosquitoes; where they came from I could not tell, for there were no swamps in the vicinity.

A short distance farther on the men dropped their poles, and stopped on the left bank of the stream, at the foot of a path. "We are going to spend the night at a farm not far from here," said Mathias, "for we are tired." I did not wonder at it, for we had gone up more than forty rapids, had rowed about four and a half Swedish miles, and had been fourteen hours on the way. We hauled our boat on shore, leaving everything in it. I felt somewhat anxious about the satchel containing my money; but my boatmen were apparently not afraid of thieves in that part of the world. After a walk of twenty minutes, partly through a wood of birch-trees and large patches of lichen, we came to a beautiful spot, a sort of oasis in that northern waste, on two little lakes, called Leppäjärvi and Sarjärvi.

The houses, built of fir-logs, were low, with roofs covered with earth, upon which grass was growing; they were far from clean, and the clothing of the people was dirty; two or three of the dwellings were more pretentious, and had small windows. A few nets were drying, and two men were busily engaged in mending them. The buildings were at a considerable distance apart, as a precaution against fire.

Everything was of the most primitive kind — the plates, dishes, and spoons being of wood; pails or scoops were used as drinking-vessels; forks were unknown, or if they had any, they were not used. The only crockery I saw were coffee-

cups. The accommodations for strangers were far from inviting; I preferred a bench to the bed, and my guide and boatmen took possession of the dirty floor.

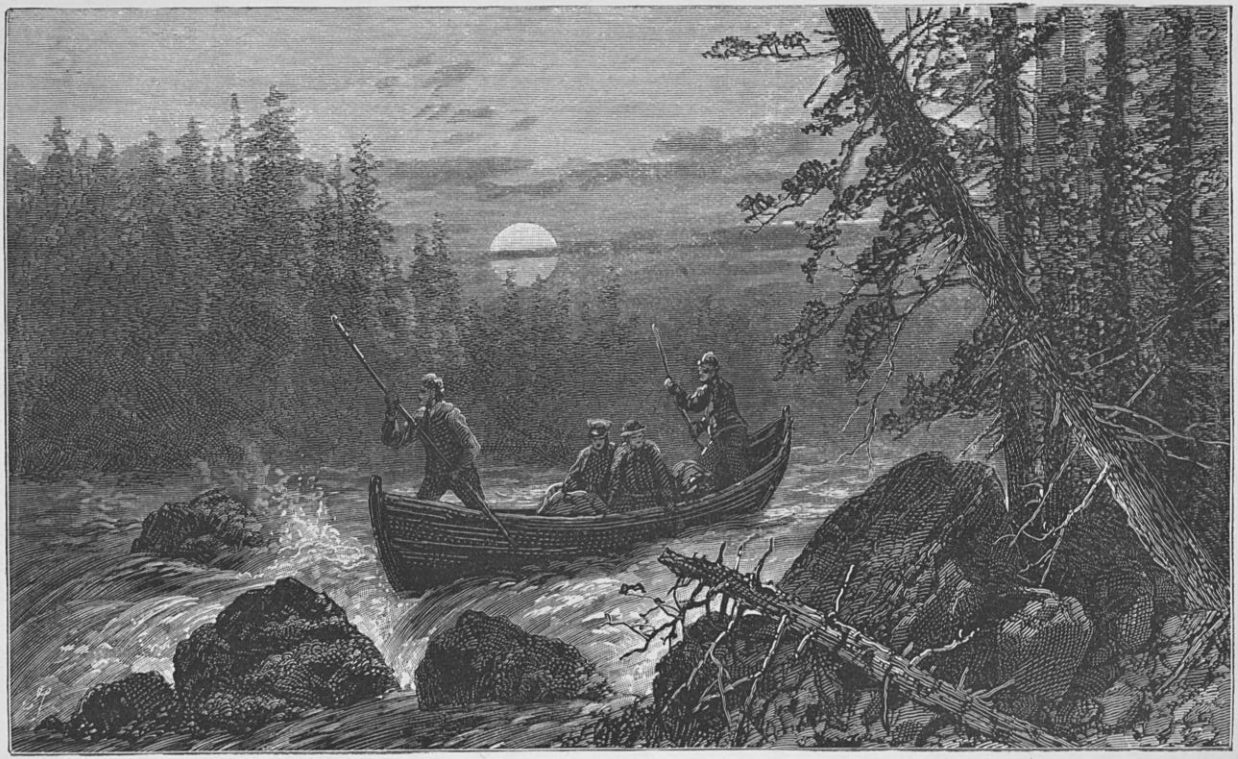
The season was backward on account of the continued dry weather, and I wondered how the crops could be ready towards the end of August, after which month the frost is sure to appear. This was the last barley I was to see, for we were now above 68° 35′ N., and this grain does not ripen farther north inland. Birch-trees are numerous, and they have plenty of wood to keep their dwellings warm.

The nearest doctor is about two hundred miles away; the church is at Palojoensa, but the people have always at home some religious books, either the Bible, a psalm and hymn book, or *postilla* (collection of sermons). Money is very scarce, and in seasons when the crops fail the inhabitants suffer from want of food; they scrape birch-bark and mix it with flour, or cook reindeer-moss with milk, and, with the addition of flour, make a palatable dish.

This settlement possessed twenty-two cows. One of the cow-houses was a low, long, narrow building, with a roof covered with over a foot of earth, upon which the grass (which is harvested) was now green; the stalls were separated by a wooden partition, and in the rear was a gutter to receive the drainage, for manure here was as precious as gold, the soil being poor; the floor was made of planks; at one end was the usual thick stone structure, supporting a huge iron pot, used to cook the coarse grass, or lichen, for the cattle.

The people were healthy and strong; there were several old people, among whom was a hale old man who had attained the age of ninety years. Men, women, and young girls smoked; but this custom is also prevalent in many parts of Sweden and Norway.

After passing several rapids, and a two hours' pull from Leppäjärvi, we emerged into Lake Palojärvi, from which the Palojoki River flows, having ascended the stream for a distance of about five and a half Swedish miles. Palojärvi is one of the lakes on the slope of the plateau forming the southern water-shed, and is, I think, 1100 feet above the sea; a range of



DESCENDING THE RAPIDS.

sandy hills, covered with shrubs, flanks the western shores; looking towards the east and north-east, I could see a high hill, called Isticconära, which was whitened by large patches of snow. There is something impressive in the solitude and stillness of that northern land, in those silent and lonely lakes, in the murmur of the swift rivers meandering amidst the rocks barring their course, in the wonderfully clear atmosphere, in the pale-blue sky, and in the bracing air. Often was I seized with an indescribable feeling of loneliness, and, at the same time, a desire to wander farther away.

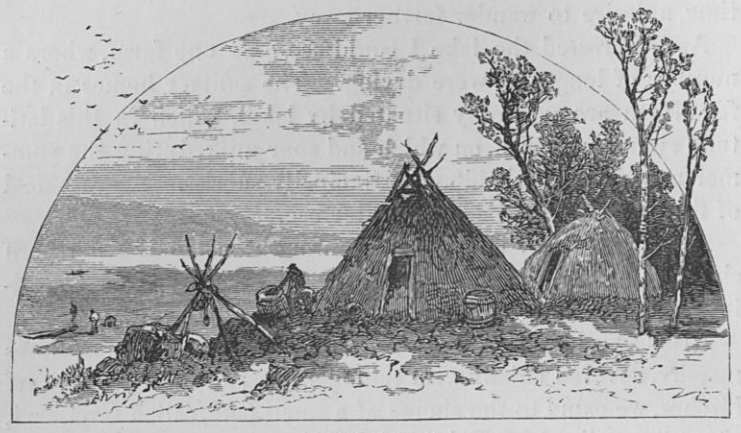
As we crossed the lake I could see only one farm, where a number of long nets were drying. The solitary homes in the far North are generally situated by lakes, which in this latitude swarm with fish, on which and sour milk, during the summer months, the inhabitants principally subsist. A great deal of fish is salted or dried for winter use.

A pull of about half an hour brought us to the northern shore, to a narrow and crooked river—the Rastajoki; ascending it about a mile in a northern direction, we landed.

After two hours' walking through a bleak country, at times marshy, covered chiefly with reindeer-moss and scattered dwarf birches, we came to the shores of a small lake, called Givijärvi, about five miles from Palojärvi, forming the boundary between Russian Finland and Norway. On the way I had seen, at the foot of a rocky hill, large numbers of round stones, ranging from twice the size of an orange to thrice the size of a man's head; they seemed to have been gathered by human hands in the days of old. Since leaving Leppäjärvi I had seen only one coniferous tree; we had now reached the region where these did not grow, but birches were plentiful, though small.

On an island a large patch of snow, which the warm summer sun had not succeeded in melting, reached to the water's edge. Smoke curling above two sharp, cone-like huts, showed that it was inhabited. We found a leaky old boat, with which to reach the other side; it was as dry as a piece of cork, rickety and disjointed; happily there was a wooden bucket near, which would serve for bailing. We made a sail with leafy birch branches, and it was all we could do to bail

the water out; I tried to steer with a stick, and the men also paddled with sticks; it took us an hour to make a distance of about three English miles. When we landed, two men, who were watching our approach, came to invite us into the huts we had seen from the other side. These were about twelve feet high, some eight or nine feet in diameter, and built with sods of grass, supported inside by a frame formed of branches of trees. The interior and surroundings were filthy; entrails



LAKE FISHERMEN.

and heads of fish had been cast at random around the place, and two barrels were partly filled with those that had been salted, and their rotten smell was anything but pleasant. The nets which they had been mending were lying on the ground, and were to be set in the evening.

A fire was burning in the centre of the hut, the smoke escaping by an aperture above; large quantities of fish had become mixed with the earth; the beds were made of dirty grass, and the blankets were of sheep-skins, the original white of which had become black with filth. I did not dare to enter. A coffee-kettle hung over the fire, and an old cup was the solitary drinking utensil; their food consisted entirely of fish.

These two occupants of the island were dirty; their shaggy hair, which hung down their necks, protected them from the

mosquitoes, but to all appearance it contained something a great deal worse. They were of medium size, with high cheek-bones, and the type of the face was that of a mixture of the Finnish and Lapp blood; they were dressed in pantaloons, home-spun woollen shirts, and queer-shaped pointed boots; but they were kind, and insisted on my taking a cup of coffee.

From Givijärvi the overland route northward was through a very dreary country leading to Aitijärvi. The walking at times was tiresome, enlivened only by an occasional ptarmigan; lakelets or ponds were seen in every direction.

The mosquitoes had again increased in number, and, although a good breeze was blowing, swarms of them followed and annoyed us terribly. The plateau seems to be the dividing-line for the outlets of the lakes towards the south and north; the birch-trees had become dwarfed, and the bend of their branches showed the force and direction of the winter winds.

Very lonely seemed the station of refuge at Aitijärvi, as we got a glimpse of the buildings from the brow of the hill; in a little less than one hour and a half from the last lake we reached the place.

The farm was intended as a place of refuge, far away from any other human habitation, in one of the bleakest and coldest districts of Northern Europe, the thermometer reaching even 45° below zero; and welcome must be its shelter during the winter, when approaching storms threaten the weary traveller. The house was comfortable and clean; there were two rooms—one for the family, and the other for travellers; the luxuries of soft bedding and fine linen are not to be looked for in that part of the world. Two cows and a few sheep were all the stock on the premises, the reindeer being in the pasturing-ground.

The station is near the small lake of Aitijärvi, and by the banks of the river Sitcajoki, close to the point where their waters mingle; before falling into the lake the stream forms a gentle rapid, below which is a small island covered with grass, the soil having been well manured. The husband and

wife were the only people at home, and they gave us a hearty welcome. Adam Triumf was a nice, queer old man, of medium size, with long black hair, tinged with gray, falling over his shoulders. His wife, Kristina, was quite a sight in her way, with her head adorned with a close-fitting, smooth cap; her long, glossy black hair hung over her shoulders, and, although the wrinkles in her face showed she was aged, she had hardly any gray hair; to complete the picture, she had on a pair of her husband's boots, and both were dressed in homespun garments. They had lived here for twenty-six years, and twelve children had been born to them: one of the sons dwelt with them, but was absent at the time of my visit.

The Norwegian Government pay the old people a stated sum yearly for keeping the place; in winter they are less lonely, as some of their children visit them, and the Lapps come and go. Old Adam Triumf and Kristina had a great deal to do during the short summer, when the long days were chiefly occupied in the fisheries. Large quantities of fish were salted down for winter use; but, besides the fishing, they had to cut and stack the hay, procure wood, and collect supplies of reindeer moss, which latter article is gathered into great heaps, to be taken away in winter by reindeer sledges to furnish winter food for the cattle. Collecting the moss is a very important matter, for that must be done while the ground is free from snow. The dairy likewise had to be looked after, for butter and cheese are among the necessary supplies. Soon after our arrival the wife brought us a large wooden bowl of delicious milk, besides butter and cheese, and a loaf of coarse black bread, just baked, kindly remarking, "You must be hungry."

I asked for a boat; but Adam said that he must first go after the nets and get the fish, which was no sooner said than done. Both the old people left us in entire possession of the house, nothing being locked; they were not in the least afraid that we would help ourselves to the unburned coffee, or the sugar, or the provisions they had brought from the sea-coast. In the course of two hours they came back with a large quantity of fine trout—some of which were from twenty to twenty-two inches long, and would have gladdened the heart of any

angler. Kristina immediately cooked a few of these, and, putting them into a wooden dish, said to me, "Stranger, eat; eat as much as you can; you have a long journey before you." She then refilled the wooden bowl with milk, and made some coffee; when I took leave I put two kronor into her hand.

The weather was getting warmer every day: at nine o'clock the thermometer stood in the sun at 100°; the temperature of the water was 60°, showing that the snow had melted. At eleven, when we stopped to rest, it was 72° in the shade, in the sun 105°; and that of the water, 62°. At one o'clock we again rested, as the men were fairly exhausted: although we were in latitude 67° 30′, the thermometer marked 74° in the shade, and 109° in the sun at noon. This was the second hottest day I had experienced.

On the 5th of July, at one o'clock in the morning, I took leave of Aitijärvi. Adam Triumf saw us off, and wished us a happy journey; he shook hands with me, and said, with hospitable earnestness, "Welcome back!"

Givijärvi and Aitijärvi are on the southern part of the slope we had crossed after leaving Palojärvi, and now the watershed was northward towards the Arctic Sea; and we followed down the streams, over many dangerous rapids, as far as Kautokeino, about four Norwegian miles.

Looking southward, the moon was visible far away; in the opposite direction was the sun. One was pale, and shed no light, the other was shining brightly. The weather was superb, and the sky cloudless; the thermometer marked 57°, and a heavy dew was on the ground.

At the start the river was narrow, not very deep, the average width not exceeding fifty feet; birch woods lined both banks. I had not before heard so many birds singing together after midnight, enjoying the spring, since I left Stockholm. I could not but wonder at the little sleep they had in such continuous sunshine; some days they appeared to rest from eleven to one or two o'clock, while at other times they seemed always active; the swallows, which had reached this extreme northern latitude at this season, would remain in their nests for a couple of hours or so. The trees were short in pro-

portion to their thickness; their leaves were just opened, and the white trunks and drooping branches contrasted beautifully with the fresh green leaves. Vegetation was more backward than on the southern slope, and several patches of snow were seen; one drift was several hundred yards in length, and from it the grass came to the water's edge. The river was as clear as crystal, and, where the water was still, our boat seemed to glide on a bed of greenish glass. As we were carried northward, rapid after rapid was passed, the boat quivering as it shot over the waves. The boatmen knew every bend of the river, all the dangerous boulders and hidden rocks over which the water coursed; they could judge by the appearance of the foaming water whether we could go over safely. Often we passed within an inch or two of a boulder which threatened to dash us to pieces, when, by a skilful manœuvre of the men with their long poles, and just in the nick of time, we escaped, and floated along till another rapid was reached. A mistake or error of judgment would have been fatal. The dexterity of my boatmen was extraordinary. The excitement occasioned by the descent was far greater than that of the ascent of the Muonio.

After a descent of five hours we came to a farm, the first seen on the way; the dwelling was very dirty, though the farmer was well-to-do, and possessed twelve cows and some two hundred reindeer; there were several children, and the family seemed to be of Lapp extraction. I saw on the table a book, which I found to be the New Testament. Around the place were hay-stacks, upon which the hay was placed ten or twelve feet above the ground, to prevent it from being covered with snow, and supported by a number of long poles, some going through the stack, to keep it from being blown away by the wind.

Lower down, after a series of rapids, the stream widened into a small lake, called Suddumælopaljärvi, and, after passing through a mild rapid, we entered the Sopatusjärvi, from which the river throws itself into the Alten, above Kautokeino, which place I reached after a journey of nine hours.

The task was a much easier and more interesting one than

to have ascended the river as far as Karesuando, and then to have made a land journey of about sixty miles, partly over marshes, bogs, and other obstructions. I had walked about three hours only during the whole journey—a distance of about eighty-four miles from Palojoensa.

Kautokeino is near 69° lat.; like all the villages of the Laplanders it is in summer almost deserted; few people are to be seen, as they are in the mountains or fishing, and the reindeer and cattle are in the pastures.

This hamlet had ten or twelve homesteads; the dwellings were built of logs, and those for the cattle either of turf or stones. The live-stock of the place consisted of about fifty cows, one hundred and fifty sheep, four or five oxen, and some two hundred and fifty reindeer, more than half of which had been broken to harness; there were no horses.

It has a parish church, with a resident clergyman during the winter; the district judge holds court twice a year, remaining a week each time; a school in winter is attended by about seventy children.

A Norwegian mile distant is the hamlet called Autzi, with about the same population; beyond are a number of scattered Lapp farms, on the banks of the Alten; the whole district possessing nearly two hundred cows.

The region is now almost denuded of trees, as this is an old settlement, and the people have to go a considerable distance to obtain firewood; large pines and firs were once abundant, as the remains of trunks and roots found in marshes testify, but they have now entirely disappeared.

The village-store was used as an inn, but the merchant had gone on his summer vacation, as there was nothing doing at this season, and his house-keeper, with a servant-maid, had charge of the establishment.

There is a resident *lensmand*,* whose duties are those of a sheriff; he has to see that the laws are executed, and, in such a small place as this, he has prisoners in his custody. A room in his house, with iron bars to the window, is the prison,

* *Lensmand* is the Norwegian form of the Swedish *länsman*.

but it is seldom occupied; it would not take long in America, or in most countries of Europe, for a prisoner to break through such weak barriers and escape; but here, as a rule, people are awed by the majesty of the law. With two Lapps under him, acting as policemen, he has charge of the whole district. Both he and his wife received me with great kindness, and it was an agreeable surprise to find that the husband could speak a little English.

Near his house was the garden, where radishes and turnips were growing, and these attain a good size. Potatoes here are very small, their vines growing so rapidly that the tubers have but little chance to develop, and it is not every year, therefore, that he can enjoy the luxury of this esculent; the same may be said of pease, which, however, had yielded well the previous year. Barley is sometimes grown, but has to be cut before it is entirely ripe; it is so very uncertain that the people rarely plant it; the hay crop is often very abundant.

The summer is very short; the Alten River freezes sometimes in the last days of September, and the ice breaks up only at the end of May or the beginning of June.

I concluded to send Josefsson back, as I foresaw the difficulties he must encounter on his return, if I took him farther away from his home.

On the 7th of July the weather was sultry and oppressive, and a violent storm burst over us; the claps of thunder were very loud and the lightning vivid, and a heavy rain poured down for four hours. This was the third shower I had encountered since I landed in Scandinavia; all were within the arctic circle, and two had been accompanied by thunder. After the rain the wind changed, and the mercury fell from 78° to 47°—a difference of 31° in a few hours.

Two guides—brothers—were provided for me by the lensmand, regular postmen between the hamlet and Bosikop; their names were Mathias Johannesen, and Johannes Johannesen Hætta; the distance between the two places is about eighteen or nineteen Norwegian miles.*

* A Norwegian mile is 6.91 English miles, consequently somewhat longer than

The banks of the Alten near Kautokeino are of fine white sand, sometimes of clay, the district having evidently been once the bed of a lake. The ground, in many places, is covered with a spongy wet moss. The river runs nearly due north, passing through a hilly and mountainous country, its course impeded by rapids, which make its navigation farther down the stream impracticable; so that the journey to Bosikop on the Alten fjord has to be made by water and by land.

The stream became wild as we approached the first rapid; our voices were almost drowned at times by the noise of the dashing waters. As we were swiftly borne along, I heard the booming sound of a water-fall. I confess I felt somewhat anxious, for I had not as yet been able to judge of the skill of my boatmen, and thought we had come to a dangerous place; in the mean time, as a not very cheering reminder, they said that three men had been drowned here in the year 1858. Suddenly we shot into a sort of eddy at a bend of the river, and made for the shore, and it seemed to me none too soon. Indeed, at no great distance the river plunged, with one leap, over a ledge of rocks, twenty to twenty-five feet: the rushing water was confined on both sides by walls of solid rock. The fall was called Njejdagorze. We hauled the boat overland to below the falls. After passing another rapid, and a descent of nearly five hours, the river became lake-like in appearance, called Ladnejärvi. On its banks there was a shelter station for the postmen and travellers going to and from Kautokeino and Alten.

Having been fifteen hours on the way, we stopped at a small log-house built by the Norwegian Government. It was about eighteen feet long and twelve feet wide, banked with turf all round at its base to prevent the wind from penetrating; the roof was covered with earth and sod. In a corner was an open fireplace, and there were two beds made of boards. Some clothes were hanging on a pole inside, and food had been left by some persons for their return journey: no one would dare to help himself. The little place was surrounded by

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the Swedish. The Norwegian and Swedish mile is 36,000 feet; the Swedish foot, 0.974 English foot; the Norwegian foot, 1.029.

birch-trees, which supplied the travellers with fuel, and a water-fall was close at hand. We found some wood ready for use.

For the first time since I had left Stockholm I felt perfectly exhausted from want of sleep. During the journey down the river I kept awake in order to see the country, and while eating fell asleep with food in my hand. I had slept only two hours at one time and five hours at another from 9 A.M. on Wednesday to 4 P.M. on Saturday. We made a thick smoke to drive the mosquitoes out, shut the door, and fell into a deep slumber of four hours' duration.

We collected firewood to replace that which we had burned, as is customary, so that the weary traveller may find fuel ready on his arrival; when we got ready to leave, we poured water on the fire to extinguish it, and then locked the door with a wooden pin.

As this was the end of the water journey, we climbed the steep, birch-clad banks, and reached gradually an undulating plateau, barren and desolate, with the ever-present massive boulders scattered over the surface. Lichens were abundant, and, though we were in the second week of July, the dwarf birches and willows were not yet in leaf at this altitude.

The sky was clear, and the mercury had fallen to 45°; the ponds were still covered with ice, and patches of snow were seen in the distance. The walking was good, the ground hard, and we could easily have ridden on horseback. Coming to a tract of snow, which we had to cross, the faces of my Lapps brightened; they threw themselves flat and rolled in it, washed their hands and faces, and eating it, thus showing their joy and love of winter.

We were nearly two thousand feet above the level of the sea, and were still slowly ascending. Four hours after leaving the station of refuge we came to the foot of a high rocky hill, standing by itself, and towering above the plateau. It was called Lodigen, or Nupp Vara, 2650 feet above the sea. From its summit, where I waited for the midnight sun, the view was weird and solemn in its dreariness. In sight were lakes, frozen and unfrozen, while in the distance appeared the peaks of

snowy mountain ranges; the rocky surface was covered with boulders, and gray with reindeer-moss. The brightness of the sun was gradually fading, and his last mellow rays rested upon the mountain-tops, turning the patches of snow into rose-tint, and casting their reflection upon the sky above. There was in the scene an impressive air of repose.

Even at this height, with the mercury at 44°, the mosquitoes were terrible pests; it was impossible to imagine whence they came, for their swarms certainly had not been produced in the frozen lake near the foot of the hill. They were so numerous, and attacked so fiercely, that I could hardly make my observations; I broke an aneroid barometer and two thermometers, which dropped from my hands while I was trying to defend myself from these minute persecutors.

The effect of the atmosphere upon me beyond a certain height, which varies according to the latitude, was remarkable. I felt as light as a cork, and as full of life and spirit as if I had been exhilarated with champagne; the rarefied air acted upon me like a stimulant, and my men looked at me with astonishment, acknowledging that I could beat them in walking. I have had the same experience on the mountains of Southern Norway; there were days when it seemed as if I could not get tired. In no other country have I been able to undertake such long marches as in the mountains of Scandinavia.

In such barren solitudes the sight of man is strangely welcome, and we met with singular pleasure the two postmen who carried the mail to Kautokeino. Continuing our way, and passing over a wet dark soil, sinking at times almost knee-deep in the mire, we came into a verdant valley—a wonderful contrast to the dreary country we had left—where rills of clear water poured from the sides of the hills, where the grass was green, and violets, buttercups, and dandelions were interspersed with the lovely forget-me-not. The birch-trees were quite large; I measured two fir-trees by the side of the path, one of which was seven and the other a little more than nine feet in circumference near the ground; but they were not nearly as tall as those growing farther south.

I could hardly believe I was so far north, the birds were

so numerous. Here one meets the *Sylvia hortensis* (garden warbler), *Fringilla cœlebs* (bullfinch), and others of the finch family; *Turdus pilaris* (mountain thrush), several species of *Parus* (titmouse), *Alauda arvensis* (common skylark), *Luscíola suecica* (blue-throated warbler), *Motacilla flava* (gold-hammer); some varieties of fly-catchers (*Muscicapa*), the cuckoo, sparrow, and swallow; *Plectrophanes nivalis* (snow-bunting), *Garrulus infaustus* (red jay), the woodpecker; *Pica caudata* (magpie), *Corvus corax* (raven), and *Corvus cornix* (crow), *Ampelis garrulus* (waxwing), and *Loxia curvirostra* (crossbill). The *Cinclus aquaticus* (dipper, or water-ouzel) is a high northern singer, which is found principally by the mountain streams, near the snow boundary, and only goes down into the valleys to breed.

Twelve hours after leaving Ladnejärvi we found ourselves at Wind, on the banks of the Alten, a few miles from the sea, and were now but a short distance from latitude 70°.

After refreshing ourselves at a farm we took a boat, and, after a pull of two hours, landed, and ascending a high hill, where we found a carriage road, we walked towards Bosekop, at the head of the Alten fjord.

Suddenly I discovered that I had forgotten my satchel, which had been left at one of the stopping-places. By pantomime I tried to make my Lapps comprehend the nature of my mishap; they looked at me in amazement. I was quite anxious, for I had not a single copper with me; my letters of credit and introductions to Hammerfest were also in the missing bag. I had little doubt that the people were honest, but I felt that they were liable to temptation, and that even here the people might sometimes steal.

If, in spite of all my endeavors, my guides could not be made to understand what I meant, there was no alternative but to go back. My anxiety had been so great that I had not noticed that while making all these pantomimic gesticulations I had been walking past a farm-house, from which a gentleman and three ladies—a mother and her two daughters—came towards me. One addressed me in French, and the others in English and German, asking politely if they could do any-

thing for me. I looked at them in amazement, astonished to hear the English tongue so well spoken in that far northern region. I explained what had happened.

"My father will send a man on horseback to fetch your satchel, for your men say they are so very tired," said one of the young ladies in very good English. "You will get the bag; you must not be afraid; it will be all right."

I was invited to enter the house, but tried to excuse myself, as I was covered with mud. "Never mind; come in," was the instant reply; and I accepted the hospitality so cordially offered.

The dwelling reminded me of that of a well-to-do farmer in the United States. In the parlor were books and a piano; the furniture was plain and comfortable, including a sofa, an article almost always found in the homes of the more refined class in the country; at some of the windows hung coquettish but simple little curtains, while roses and other flowers were blooming and basking in the sunshine. Everything indicated culture and refinement, and I felt myself even more unpresentable than at first. I had not recovered from my astonishment, having expected to meet only rude people in these parts, and here I was brought face to face with education and good-manners, and three foreign languages had been spoken in my hearing.

My host was a member of the Storthing (the Norwegian Congress) for Vestfinnmarken, and he and all his family gave me a most hearty welcome. An invitation to dinner was urged so pressingly that it could not be declined.

Bosekop is composed of scattered farms, with a church, a school, several stores, and a comfortable inn, owned by an elderly widow and her daughter; it is the seat of a fair, and in winter is a place of great resort for the Laplanders; court is also held here.

There is a small society of educated people, comprising the families of the judge, storthingsmand, clergyman, and others. My arrival was on Sunday afternoon, which is used by the Norwegian as a time of recreation and rest. After dinner two young ladies called, who invited me to join a social gathering

of the young people. We all started together, and went to the inn where my luggage had gone. When I came down-stairs, dressed in my best (that is not saying much), I found in the parlor a dozen blooming girls and a few gentlemen waiting for me, to whom I was introduced. My guides wished to go back, and wanted their pay; a cloud came over my face, and I had to explain that they must wait. A gentleman offered to advance the required amount; but the men had scarcely been paid when the good farmer's wife made her appearance. She had walked all the way to restore the lost bag, not caring to intrust it to any one else, for she believed that it contained a large sum; she refused to accept a reward when I offered it, saying that she did not want to be paid for being honest, but I at last prevailed upon her to take a present.

All the company could speak English, and some French and German besides. In a short time the friendly manners of all made me forget that I was a stranger.

The day after my arrival several ladies called upon me, and courteously invited me to their houses, saying that they wished me to have a pleasant time, and to preserve a kindly recollection of my visit to Bosekop.

I was fortunate in meeting here with Professor Theodore Kjerulf, of Christiania, one of the most distinguished *savants* of Scandinavia, whose works on the geology of Norway will insure for him an enduring fame, and who was then engaged in examining the formation of the country. He was somewhat astonished at the paucity of my luggage, which consisted, as he said, chiefly of writing-paper and maps. My shoes also attracted his attention, on account of their thin soles; for forced marches, where I have to walk fast, and where the ground is not too stony and wet, I always prefer such.

After a pleasant conversation we went into a little garden, in which there was a pavilion ornamented with leafy branches of the birch, and containing a table covered with refreshments. Eggnog, lemonade, and cakes were handed round, and a game of tag was started, while the elders came out to look at the fun. We played till we were tired, and then adjourned to the large room of the hotel to enjoy the sport of blind-man's-buff.

I succeeded in persuading the learned professor to join in the amusement. The game is played in a curious way: all who take part in it are seated on chairs in a circle; the blindfolded person, placed in the centre, goes around trying to seat himself on some one's knees. When seated, his hands must be folded, that he may not touch anything with them; all disguise their voices, and he guesses the name of the person on whose knees he is sitting; if he does not give the right name, he must start again around the circle; and so the play goes on. Here, as in other countries, the marriageable young people enjoy this game greatly. There is much fun in a game of tag when the reclaiming of the forfeits takes place, and many ways to tease a suspected lover or sweetheart, in telling what one must do to redeem forfeits, and in showing preference for one without letting others notice it. I liked the game amazingly. At 11 P.M., the sun shining brightly, they bade me good-night, and went to their homes, leaving me full of admiration at their simplicity, innocence, and gentle manners.

I was made welcome in every family I visited, and gave an entertainment to the young ladies, who had invited me to theirs, in the parlor of the hotel. Suddenly there was a pause, and all the guests looked at each other and whispered; some of the ladies, headed by Professor Kjerulf, came towards me, and asked, in the name of the company, if I would be kind enough to tell them something about my travels in Africa and the gorillas. I had never uttered a word about my explorations, and felt sorry to have been recognized: this is one of the disadvantages of bearing an unusual name. It was impossible to refuse; and there, in 70° of north latitude, in the quiet parlor of the hotel at Bosekop, I delivered a lecture on the equatorial regions of Africa, and on the gorilla, before as pleasant an assemblage of people as one would wish to meet; and, as the newspaper wishing to compliment a lecturer with a small audience would say, the address was delivered before a select and very distinguished assembly.

Not very far from Bosekop, on the Kaa fjord, is a copper mine, the most northern mine in the world which has been

successfully worked, producing metal of the best quality; about five hundred persons were employed on the works. Within the last five years many of the miners had emigrated to America, wishing to try their fortunes in the New World, led by two of their fellow-workmen, who had come back with glowing accounts of the good pay. The mine belonged to an English company, and the manager, an Englishman, had been here forty-three years, which spoke well for the climate. The miners were Finlanders, receiving an average pay of forty to fifty cents a day; many were married, and had large families. The manager told me that he had promised to stand godfather to the twentieth child of a woman from Pajala; but she stopped at number nineteen, and died at the age of seventy.

Even here Englishmen had come to fish. The Duke of Roxburgh, who holds the Alten River to himself, leaves his estates every year to enjoy the pleasure of sleeping in a log-house, catching salmon, and being eaten up by mosquitoes. The people spoke of him with respect and love, and praised his kind heart and genial manners; they said the poor were never sent empty-handed from his house, and many a needy family had been the recipient of his bounty; I know of no other Englishman more esteemed in Norway. He has been fishing here for twenty years, and is known in many parts of the country. In an evil hour the good duke was robbed by the son of his house-keeper, to the great sorrow of the people of the region, who, it seems, are not wholly exempt from the evil of thievery; the amount taken was, I believe, about two thousand dollars, of which nearly all was recovered; the thief had never before seen so much money, and did not know what to do with it, and the sight of so many bank-bills scared him.

THE ALTEN FJORD.

There is no part of our globe where vegetation is so thriving *at so high a latitude* as on the Alten fjord. At the Kaa fjord, an arm of the Alten, and near Bosekop, rhubarb, barley, oats, rye, turnips, and potatoes grow well; carrots attain a length of from five to seven inches; garden strawberries ripen at the end of July or the beginning of August, if the season

is a warm one; currants thrive well, and the blackberries mature in one year out of three or four; pease bear every year; I found these last from ten to fifteen inches high on the 10th of July, having been planted about four weeks, and ready to blossom. The grass is rich, and four gallons of milk yield, on an average, a pound of butter; oats or barley are harvested in nine or ten weeks after they are planted.

The hottest season is from the beginning of July to the middle of August, the thermometer sometimes rising to 85°. The weather at Bosekop had become cooler, the warmest temperature during my stay being 63° in the shade, the coolest 55°.

The usual way of going farther north is by taking the weekly steamer from Bosekop to Hammerfest.

The scenery on the Alten fjord is often superb; there are numerous raised beaches and sea-markings on the solid rocks, high above the present water-line; two of the latter are very distinct at a place called Kvæn Klubben, being about twenty and fifty feet above the sea-level. Weird, indeed, is the sight at times, from the dark masses of rock which line the shores, and the general dreariness of the landscape.

The steamer stopped at a number of places; then, leaving the fjord, we passed between the islands, and, after a run of thirteen hours, reached Hammerfest, on the north-western extremity of Kvalö, an island near the main-land, in latitude 70° 40′, said to be the most northern town in the world.

These Norwegian seaports are hidden by high mountains or hills, and generally come suddenly into view. I was surprised to see in so high a latitude such a thrifty commercial town, there being more than fifty vessels, chiefly schooners, lying at anchor. English, Russian, Norwegian, Swedish, and German flags were represented; two steamers were ready to leave; here was an English vessel unloading coal, and a Russian vessel from Archangel discharging flour in sacks; others were taking cargoes of salted or dry codfish, cod-liver oil, etc.

Boats, lighters, and little fishing-craft lay at the wooden wharves, near or upon which the warehouses were built; the port is sheltered, and shipping rides in safety; the town has

a population of about 2500 inhabitants. Wandering through the streets or along the wharves one sees Russian captains, with their long beards; fishermen and sailors; Finlanders and Norwegians dressed in the most approved style of fashionable cities, for the crinoline, chignon, and "stove-pipe" hat had made their way here.

There are few towns in the world, if any, built upon a spot more barren, or surrounded by such a dreary, desolate landscape; not a tree is to be seen, but only bleak, dark rocks. No road leads out of the place, for there are no farms to be reached, and no wood to be brought from the surrounding country; the streets are narrow, the principal one following the bend of the bay; some of the dwelling-houses are large and commodious, and there are a considerable number of warehouses of different sorts and sizes.

The stranger is disagreeably affected by the fishy odor which pervades the town, for the inhabitants manufacture cod-liver oil, chiefly of the brown sort, and the smell and smoke are by no means pleasant; but, as one of the leading merchants observed, the smoke that brings money is never unpleasant. A considerable number of cows are kept, which are fed on fish, reindeer-moss, and hay.

The port is never closed by ice, for the Gulf-stream laves the bleak and desolate coast, which at certain seasons of the year swarms with fish; if there were no fishing there would be no Hammerfest. Its geographical position is excellent; it is in direct telegraphic communication with Christiania, and thence with the rest of the world; it has three newspapers, and a small hotel, which furnishes comfortable rooms and a fair table. The schools are good, and attended by all children, as education is compulsory.

There is an American vice-consul resident at the port. Immediately after my visit to him the Stars and Stripes were hoisted over his residence, and I found, to my astonishment, that my name was known in this remote part of the world; for my "Equatorial Africa" had been translated into Norwegian, which was shown to me, and also the original in English. I was fortunately provided with letters of introduction

to one of the leading merchants, Herr F——, who introduced me to his friends, and I was made welcome in several homes, and not the least at the house of the American vice-consul.

The people live very comfortably. There is a great abundance of fish, one of the chief articles of diet; beef and mutton come from the fjord Tromsö and the adjoining southern province; in winter, game and reindeer meat are abundant. Coffee, tea, spices, and other luxuries find their way here; and dinner-parties are given which would do credit to many a place less distant from the centres of civilization.

Wood is dear, as it has to be brought from the surrounding fjords; but the people burn a great deal of coal, which comes from England, and which that year cost only five dollars a ton, a cheapness which surprised me.

All this northern part of the coast of Norway is accessible both in summer and winter. Steamers come to Hammerfest from different cities along the coast, and from Christiania, the voyage taking a fortnight, as the boats stop at many places, and the distance is over two thousand miles. There is also a semi-monthly line of Norwegian steamers from Hamburg; these boats, being the largest and most comfortable, are generally taken by tourists who wish to see the coast scenery or the midnight sun; this line brings miscellaneous goods, and in return takes Norwegian produce, and has been in operation for a number of years.

Towering hills, the highest of which rises 1335 feet above the level of the sea, form the background, and leave hardly any room for the town to grow; their crests seem wonderfully sharp, and some of the boulders resting upon them appear to be so nicely balanced that a slight push would hurl them down the slopes.

Looking towards the land, I could see little lakes scattered everywhere over the dreary waste; in the distance are the weird, barren islands of Sörö and Seland, the latter rising 3408 feet above the sea, and having the most northern glacier of Norway. From the top of the hills the midnight sun can be seen as late in the season as on North Cape, but the scenery is not so impressive.

CHAPTER VIII.

Island of Magerö. — Gjæsver. — Filth of the Fishermen's Houses. — Charming Northern Home. — Carnivorous Cattle. — Rainy and Changeable Weather. — Verdant Fjord. — Ascent of North Cape. — View from the Top. — Desolate Landscape. — A Bird Wanderer. — The Midnight Sun.

THE island of Magerö forms the most northern land in Europe, and is separated from the main-land by a deep channel — Magerösound — more than a mile wide. It is an elevated plateau, with very abrupt sides, and indented with well-sheltered bays and fjords, the greatest altitude being about 1700 feet above the sea; North Cape is its northern extremity. In order to see the midnight sun from its summit, one should land either at the fishing-station of Kjelvik, or, what is still better and easier, at Gjæsver (*gjæs* being the Norwegian word for "geese"), which belongs to a group of small islands lying near, on the west side of Magerö, and with a boat land near the cape, when the weather permits.

On the 21st of July, a little after midnight, in the midst of a pouring rain, accompanied by the American consul, the collector of the port, and Herr F——, I made my way in a small boat to the steamer. These gentlemen wished to recommend me specially to the captain, and make some requests in my behalf. The passage was anything but agreeable, the weather being misty and rainy, and the thermometer at 45°.

Four Russian vessels from Archangel were at anchor before Gjæsver, waiting to take in their cargoes of fish; our steamer was obliged to cast anchor on account of the strong current. Passengers, mails, and merchandise were huddled together in a boat; and the entire population then on shore, numbering in all about twenty souls, awaited our landing, eager to hear the news. This settlement was composed of a few fishermen's

houses. The surroundings were anything but attractive; entrails of fish, barrels of liver, blood, and filth were all around, and the combined stench was very offensive. Inside the huts there was an appearance of slovenliness which I had not before seen; instead of fireplaces there were stoves, as economy was observed in the use of fuel. A single apartment served for the sleeping-room of the whole family, the beds and coverings being made of the down of the eider-duck, sheets seeming to be unknown articles. There was a merchant on the island, and his house was in pleasant contrast to the others; cleanliness, comfort, and taste were apparent everywhere; in one of the parlors was a piano, and newspapers and books were on the table. The hostess, whose husband was in Hammerfest, and to whom I had a letter of introduction, received me with great kindness.

It was a pleasant picture of home — one which a stranger would never dream of meeting in such a place — and many such are found on this most barren coast of glorious old Norway. Around the house were the various out-buildings required for storage of wood, fish, and provisions. There were five small cows, measuring only from three feet two inches to three feet four inches in height; there were a few sheep and many goats, the latter thriving on the grass which grows between the rocks; but, as the pasture was not sufficient, they were fed twice a day on *fish!* I was amazed when, for the first time, I saw cows, goats, and sheep flock around a tub filled with partly cooked, and often raw pieces of fish, and devour the mess in a most voracious manner. It would be interesting, from a Darwinian point of view, to ascertain whether the feeding of herbivorous creatures on animal substances year after year, for a considerable part of the time, would tend to modify their digestive apparatus—whether the molars would be rendered narrower and sharper, and canines and upper incisors would appear—whether the first three stomachs of the ruminating animal would be less developed, and the fourth become like the digestive stomach of the carnivorous or omnivorous creature—and whether the long intestinal canal belonging to the ruminant would approximate to the short in-

testine of the quick-digesting carnivora. During the fishing season great numbers of fish-heads are dried, and kept for the cattle for winter use, and are cooked before being served to them.

Even here magpies, apparently quite tame, were flying around, but swallows were not to be seen; ducks and gulls were innumerable.

The beautiful weather that had followed me as far as the Alten fjord had now come to an end. The chances of the tourist who comes in such a high latitude to see the midnight sun are often not very great, and rough seas, snow-storms, rains and fogs occur in winter, while in summer there are alternate days of warm sunshine, rain, mists, cold winds, and fogs; as a rule the summer climate is uncertain, the north and north-east winds bringing fog and wet weather. That year, from the 11th to the 23d of July, there were only two dry days, two with alternate sunshine and rain, and the remainder either stormy, foggy, or misty, with often a heavy sea.

The warmest temperature had been at Hammerfest, where the mercury rose to 59°, and that on only one day; the average since had been from 44° to 45°, and at Gjæsver it was several times as low as 41° and 40°, the variation being not more than 5° during the day. I began to fear that after all I should not see the sun at midnight from the North Cape, on account of the cloudy and stormy weather.

On the 20th of July the boat was ready. The morning was charming, and even this bleak landscape appeared smiling in the rays of the sun, which had been hidden for several days; the sea was of a deep-green color, not very salt, and so clear that the sandy bottom could be seen at a great depth; the cliffs, which from a distance looked abrupt, now appeared to fall into the sea at an angle of from 30° to 40°. Immense numbers of gulls were flying over our heads, probably taking us for fishermen; ducks were also numerous, and many of them shy, but the eiders seemed to be aware that no one would molest them, shooting them being forbidden.

The island of Fruholmen, 71° 5′ N., towered above the water as we entered a little fjord on the west of Magerö, leaving

THE NORTH CAPE.

to the northward another one which lay opposite the entrance; and, when we reached the head of the fjord, there was a remarkable change in the entire aspect of nature. As we landed I saw thick green grass, dotted with buttercups and dandelions, violets, and forget-me-nots, with stems more than a foot long; the dwarf birch and willows were abundant, as also the plantain (*Plantago major*). I had seen the last-named plant everywhere in my journeyings in Scandinavia, but was surprised to find it so far north; I think there is no other which has a wider range of latitude; I found it common under the equator in Africa; it was flourishing at 71° north.

Springs and streams seemed to burst from the earth, and the rays of the sun poured warmly down into the narrow dell, which is the greenest little spot to be found anywhere so far north; even a few small birds had found a home there.

The ascent was often so steep that I was obliged to stop several times before gaining the summit, in order to take breath; the thermometer indicated 48°, and climbing was warm work. From the top I could see our little boat, diminished to a mere speck in the distance; two of the men had remained on board, while the other three accompanied me. There was no path, but the walking was generally good, the soil being hard and stony; we passed several little streams, and thick patches of snow, the remains of former drifts, and a number of small ponds still covered with floating ice.

After a walk of several miles I stood upon the extreme point of the North Cape, in latitude 71° 10′, nine hundred and eighty feet above the sea-level. This bold promontory is a huge mass of mica-schist, rising dark and majestically from the sea.

Before me, as far as the eye could reach, was the deep-blue Arctic Sea, disappearing in the northern horizon; it was as quiet as the wind, which hardly breathed upon it, as if fearful of arousing its wrath, and disturbing one of the rare, bright, and lovely days of that cold North, which once enjoyed a climate as temperate as that of England at the present day. I could not see the sun, for at that time of day its course was at my back, that is, southerly from where I stood.

Far beyond was that unknown region, guarded by a wall of ice, which bars all approach, and has baffled the efforts of all who have tried to unravel its mystery and to reach the north pole; behind me were Europe with its sunny climes, and Africa with its burning deserts and malarial swamps—on my right was Asia—on my left was America—misnamed the New World.

Wherever I gazed, I beheld nature bleak, dreary, and desolate; grand indeed, but sad. The ground was covered with fragments which had been riven from the rocky strata by the action of frost and time; not a human habitation or tree was in sight; the immense cliffs all around bewildered me. On the western side of the cape were four large fissures in the rocky walls; beyond, the land formed a cove, the opposite side of which was comparatively low and rounded, sloping gently to the sea; there was a rocky islet, upon which the surf was dashing, and upon its shores lay stranded the trunks of two large trees, which the waves were trying to recapture—perhaps they had grown in the New World, and had been floated hither by the Gulf-stream. Projecting still a little farther northward is Knivskjælodden, but it lacks the grandeur of the North Cape; there was also in view a high, indented, and a precipitous line of coast, which appeared to arise abruptly from the sea; while far off, and the last land that could be seen, was Cape Nordkyn, the most northern point on the mainland of Europe. All along the shore the waves were beating incessantly against the rocks which opposed them, and, as they dashed against the base of the cliffs, were broken into a continuous white fringe.

It is only from a distance that the cape itself, like the coast, seems to be vertical; skirting the shores in a boat the appearance of the promontory is much changed; as the engraving shows, the point falls into the sea with a gradual slope.

A sad repose rested upon the desolate landscape, which has left an indelible impress upon my memory; I would have left then, for a feeling of oppression had seized me, which I tried in vain to shake off; but I had travelled a long way expressly to see the midnight sun for the last time from the

summit of that grand cliff, the terminus of Northern Europe; and for this I had nearly ten hours to wait.

Taking my mineralogist's hammer, I went to the extreme point of the cape, which for a distance falls abruptly—lying flat on the ground, to look over the edge of the cliff, and, while one of my guides kept firm hold of me, I succeeded in breaking off a fragment of the solid mica-schist rock, to be preserved as a memento of my journey.*

I thought of the winter season, and how terrific must be the tempests which then sweep over the cliff; how the winds must whistle, how thickly the snow must fall, and how furiously the ocean must beat against the gigantic walls which oppose it, dashing its waves into immense masses of spray.

The weather, even on this beautiful summer day, was cold, although the sun was shining brightly; the thermometer at 2.30 P.M. stood at 46°. The sun was so pale that it looked almost white, and the sky was of a hazy bluish tint, shading off into white towards the horizon.

Back of the extreme point of the North Cape, and sloping gently towards it, is a knoll a little higher; then comes a depression crossing the whole breadth of the promontory from east to west, and connecting with the two coves on each side. The second range of hills is more stony than the first, with a morass, stream, and a pond, and here the grass, being sheltered, was green, and wild flowers grew; the third range is still more rocky than the second, and was covered with patches of snow. On the very end of the Cape a few blades of grass were sprouting.

A little farther inland the dwarf-birch makes its appearance, growing larger when sheltered, but so small at first as to be scarcely visible, in the former case attaining a length of about a foot, with a diameter of from a quarter to a third of an inch, requiring a generation or two to reach those dimensions; it did not raise its top towards the sun, but crouched to the earth, clinging to it like a creeping plant, to escape being torn

* On my return to Christiania, my friend, Professor Kjerulf, asked me for a piece of the rock, to be deposited in the museum of the University.

away by the force of the winds. Many a time since, while crossing mountain ranges, I have observed the same phenomenon.

As I walked to while away the time, south of the cape, I saw a spider, a humblebee, and a small bird; I brought my gun to my shoulder, intending to shoot and preserve it as a memento of the North Cape, but, when the little creature fluttered down, I had not the heart to take its life. It flitted from spot to spot, its shrill cries showing its anxiety; evidently it was not at home. I said to myself, "I will not kill thee; for thou, like me, art a wanderer in these far-off northern climes." The thought had hardly passed in my mind when it soared upward, and took its flight towards the south.

I began to grow anxious, for during an hour or more a bank of clouds had been gathering from the east to the south, slowly rising higher and higher; at eleven o'clock a great portion of the sky was overcast, but towards the north it was still clear; and, if the black mass did not advance too quickly in that direction, I could yet see the sun.

Lower and lower the sun sunk, and as the hour of midnight approached, it seemed for awhile to follow slowly the line of the horizon; and at that hour it shone beautifully over that lonely sea and dreary land. As it disappeared behind the clouds, I exclaimed, from the very brink of the precipice, "Farewell to thee, Midnight Sun!"

I had now seen the midnight sun from mountain-tops and weird plateaus, shining over a barren, desolate, and snow-clad country; I had watched it when ascending or descending picturesque rivers, or crossing lonely lakes; I had beheld many a landscape, luxuriant fields, verdant meadows, grand old forests, dyed by its drowsy light; I had followed it from the Gulf of Bothnia to the Polar Sea, as a boy would chase a will-o'-the-wisp, and I could go no farther.

I now retraced my steps to where we had left our little boat. The men were watching for us; it had begun to rain, and, when we got back to Gjæsver, I was wet and chilly, and my feet were like ice. I was exhausted, for I had passed two-and-twenty hours without sleep, but to this day I have before me

those dark, rugged cliffs, that dreary, silent landscape, that restless Arctic Sea, and that serene midnight sun shining over all; and I still hear the sad murmur of the waves beating upon the lonely North Cape.*

I shall return to these northern regions in winter, to wander with Laplanders and reindeer over snow mountains and along frozen valleys and rivers, to see the coasts lashed by tempestuous seas and enveloped in blinding snow-storms.

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* The following tables give the dates of the appearance and disappearance of the midnight sun within the Arctic circle:

THE CONTINUOUS NIGHT.

Where the Sun is last seen.		Where the Sun is first seen.	
Bodö	December 15	Bodö	December 28
Karasjok	November 26	Karasjok	January 16
Tromsö	" 25	Tromsö	" 17
Vardö	" 22	Vardö	" 20
Hammerfest	" 21	Hammerfest	" 21
North Cape	" 18	North Cape	" 24

THE CONTINUOUS DAY.

Where the Midnight Sun is first seen.	Upper Rim.	Half Sun.	Whole Sun.	Where the Midnight Sun is last seen.	Whole Sun.	Half Sun.	Upper Rim.
Bodö	May 31	June 2	June 4	Bodö	July 8	July 10	July 12
Karasjok	" 19	May 21	May 22	Karasjok	" 21	" 22	" 23
Tromsö	" 18	" 19	" 20	Tromsö	" 22	" 24	" 25
Vardö	" 15	" 16	" 17	Vardö	" 26	" 27	" 28
Hammerfest	" 13	" 15	" 16	Hammerfest	" 27	" 28	" 29
North Cape	" 11	" 12	" 13	North Cape	" 30	" 31	Aug. 1

CHAPTER IX.

Blending of Sunrise and Sunset.—Bodö.—Across the Scandinavian Peninsula.—Venset.—Saltdalen Valley.—Rognan.—My African Travels in Norwegian.—Simple and Contented People.—Primitive Race.—Deserted Hamlet.—Hospitality.—Village Maidens of Almindingen.—Family Dinner.—Storjord.—Legends of the Coast.—Kvæn Precipice and Dead Man's Bay.—Arctic Thunder-storm.—Lang Vand.—Scandinavian Fleas.—Skjönstuen.—Fagerli.—Larsen's Farm.—Candy, Coppers, and Kisses.—Grist Mills.—Preparations to cross the Country.—My Luggage and Provisions.

In the latter part of July I found myself sailing along the wild and superb coast south of Tromsö. At eleven o'clock the color of the clouds began to change to a golden tint, warning us that the midnight hour was approaching, and the sunset close at hand; soon they became of an intense red, while the sun was hidden from our view; and then they again changed their color, gradually becoming brighter, as if new life had been infused into them; when they were tinged with the hues of the rising sun the glow of the sunset was mingled with that of sunrise; the morning and the evening twilight were blended into one. The mountains and hills in the east assumed a rosy tint, which was strangely contrasted with the darker bases, and the calm blue sea reflected the images of land and sky, and, as the day advanced, the clouds changed into a fleecy whiteness.

The next day I landed in the town of Bodö—lat. 67° 20′—a small port on the coast of Norwegian Nordland. The place has an unfinished appearance, and derives its importance from the fisheries; it is a regular coaling station for steamers to Hammerfest. The church is very old, built of stone, and the Catholic altar is still retained; there are some queer paintings and coats of arms of Danish people, who are now forgotten; on the outer wall is a slab, with the date 1596–1666. Though

the town has only a few hundred inhabitants, it has its newspaper, and is the residence of the *amtmand* (governor of the province).

My object in coming to this place was to cross once more, if possible, before the summer was over, the peninsula of Scandinavia, and reach the town of Luleå, 65° 40′ N., in Sweden, on the Gulf of Bothnia, thus traversing one of the wildest and most uninhabitable districts of Sweden and Norway, and so skirting the grand glacier of Sulitelma. I had been furnished with a letter of introduction to one of the principal merchants, informing him of my plans, and requesting him to do all he could to aid me, and it proved of great service; I was not long in making friends among the kindly and hospitable people, who received me as one of their own kin.

With the exception of a commission of Swedish and Norwegian officials, appointed several years ago to settle the boundary between the two countries, I was the first to attempt this journey. For the greater part of the way there were no roads or even paths; the country was very wild, and for long distances wholly uninhabited; it would be necessary to find, at the head of the fjords, some of the mountain Lapps, who in summer cross the ranges from Sweden with their herds, and come down towards the coast, visiting the farmers on the way. Herr K—— decided that I should go by that route, and stop at a place called Venset, as one of his cousins lived there, and confer with him as to the best mode of performing the journey.

None should undertake the task of crossing the mountains to Qvickjock unless strong, and accustomed to long marches and hardships, for in case of bad weather the exposure is great.

At the entrance to the inner Salten fjord, called the Skjærstad, the latter forms a huge basin, partly emptied and replenished by the tides; the water rushes out and in through the channel with such a tremendous force that a boat would be ingulfed by the waves; at the turn of the tide the passage is safe.

When we reached Venset the captain pointed out to me the gentleman to whom I had a letter of introduction. He read

it carefully, and, with the warm-hearted hand-shaking characteristic of the Norwegians, welcomed me, saying that I had better let the steamer go, as he wanted to talk with me, and arrange the best plan for procuring guides. We walked together to his large and commodious dwelling, passing on our way fields of barley, rye, and potatoes, and meadows, for he was not only a merchant, but the owner of a large farm. Near the house was a kitchen-garden, in which strawberries and gooseberries were abundant; and there were fine turnips, pease, carrots, and other vegetables. Herr K—— excused himself for not being able to entertain me suitably, on account of the absence of his wife; but dinner was prepared, beer and wine served, and while we were drinking our coffee we discussed the subject of my intended journey.

"I have come," I said, "to explore the wildest part of Scandinavia; hardship I am accustomed to, and, as for food, I can eat anything. My health is excellent, and I can endure any amount of walking for many consecutive days."

"I will send you to Fagerli with two trusty boatmen, who will put you into the hands of an excellent farmer, and tell him to keep you until he can find Lapps to take you across the mountains to Sweden by way of Sulitelma; but as you want to see plain, honest, good people, they will first take you to Saltdal, and wait for your return. You will sleep at my house to-night, and to-morrow you will start by boat. I will send for the men, and in the mean time we will take a walk."

The scenery at Venset is beautiful; but while there the high peak of Sulitelma could not be seen, being enveloped in clouds.

The Saltdal valley, one of the most fruitful on the Norwegian coast of Nordland, is narrow, flanked on each side by mountains covered with fir and birch to their very tops; in some places the land-slides had denuded the rocks, showing that they had been covered with only a thin layer of soil, upon which the trees had grown.

Oats, rye, barley, and turnips were growing luxuriantly. The farms are situated on the beautiful terraces of the former water-level, rising in amphitheatre, at the base of the mountain; the highest terrace was about seventy feet above the

present river-bed. At one spot a huge mass of rock had fallen a few days before, and had fairly ploughed its way through a hill, shattering the trees in its course, leaving a deep furrow behind, and stopping near the path.

Not far from the sea stands the church, the only one in the valley. A few boat-houses, with nets drying around, and some scattered dwellings, form the lonely hamlet of Rognan.

Soon after my arrival I was enjoying a good meal at the parsonage, where I was welcomed by the pastor and his wife, both of whom could speak a little English; they showed me some translations of my narratives of travel in Africa, which they had just read in the *Skilling Magazine;* they had heard through the Christiania papers that I was to travel in their country. She showed much interest in missionary work, and, before her marriage, had thought of going to South Africa, to labor among the Zulus. The pastor pressed me to use his own cariole and horse; but I declined to accept the friendly offer, as I had already engaged a conveyance.

The inhabitants of the Saltdal are among the most primitive in Norway. They are shut out from the world, except by the outlet to the sea, agriculture being their chief occupation; many of them have never gone farther than the church at Rognan, and most have seen no town larger than Bodö. Though virtually secluded from their kind, they seem content; they have no craving for riches, for they do not know what riches are; the sum of their earthly desires is to add a piece of land to their farms—which is a most difficult thing to do—to get a few more head of cattle, a handsome horse, or a vehicle to go to church with, to build a new house of some sort, and to save a little money for the family. To bring up their children in the fear of the Lord is one of the chief aims of the parents; the young are religiously instructed, and are taught to read even before they go to school. Their pleasures are few and simple—a dance now and then on Sunday evening, social visits, a merry time at a marriage, or during the Christmas or other church holidays, make up the catalogue of their amusements.

In the summer the men work in the fields, fish, construct

buildings, etc.; their wives and daughters follow the cattle, the sheep, and the goats into the mountains, make cheese and butter, and help during the harvest-time. In winter the women spin, and weave hemp and wool, thus clothing themselves with the products of their fields and flocks, while many of the men go into the forest to cut timber.

Although the inhabitants were uniformly poor, keeping no bank accounts, and having no money invested, there was not one who was emaciated by hunger, or who shivered from cold; their food, if coarse, was wholesome, and their appearance proved that they were healthy. There is a prison, but years often pass without any of the farming population finding their way to the cells; the few offences committed are usually of a trivial nature.

There is a carriage-way for a distance of nearly twenty miles, and a bridle-path leading a few miles farther to the last farms. The principal hamlets on the way are Niestby, Medby, Sandby, Brænde, Drageide, and Qvale.

In Norway the *skydsskaffer* (station-men), who are farmers, are obliged, by their agreement with the government, to keep a stipulated number of horses in their stables, according to the travelling or traffic on the highways where they live, and are paid a certain amount yearly. The rules and regulations are also about the same as those of Sweden.

On account of the size and mountainous nature of the country, and of the more scanty population, there are not as many highways as in the latter country, but several of these are simply superb; and one can drive for hundreds and hundreds of miles on roads which might compare with those of the best city parks. The conveyance used is the cariole, with two wheels, having a seat for only one person, with his legs resting outside, and with a back-board behind for driver and luggage, which must be of a very small amount, or another conveyance is required. In several districts the farmers used also the kärre, as in Sweden.

The journey was pleasant, as there were no mosquitoes; the people looked at me as I drove along, and wondered who the stranger could be. I was very much amused, for wherever

I stopped the girls immediately put on their stockings and shoes: most were busy in the hay-fields—the men mowing, and the women and children, bareheaded and barefooted, turning the hay over and stacking it; others were on the river, looking at their nets to see if they had caught any salmon; while now and then a man was building a boat, either for himself or to sell.

THE CARIOLE.

In the evening, the cattle, sheep, and goats were brought in from the mountains, and were penned up in the mowed fields, and the girls were milking the cows; the children were playing about, and they all appeared happy. Everything wore a primitive aspect; the ploughs, the scythes, and other agricultural implements were of the same fashion that had been in use for hundreds of years; the wheels of some of the carts were of solid wood. It seemed as if I had been thrown far back into the past.

We stopped at the hamlet of Nedre Almindingen (*nedre* meaning "lower"), two Norwegian miles from the fjord, to rest for the night. I went from house to house, but failed to discover anybody, and began to fear that all the inhabitants had left for the mountains; the doors of every building were open. We shouted vigorously, but in vain—nobody came; we ransacked the barns, the stables, and the dwelling-houses; I was very hungry—in fact, much more hungry than sleepy. Finally, after making a great uproar, we saw a man and a handsome girl come out of one of the houses, rubbing their eyes, and not yet half awake.

"What do you want, stranger?" was their salutation.

"A bed and something to eat, and a horse for to-morrow," I replied.

"Welcome!" said they; and immediately the maid went into the storehouse, and soon returned with two blankets made of sheepskin, the wool almost as white as snow, with fancy work on the leather side; these were taken into the winter dwelling-house, which had been vacated in the spring, and was faultlessly clean; fresh hay was put upon the bed, as a mattress; one of the skins was laid over it, while the other was to be used as a covering, and a large feather pillow was added. Both then disappeared, and came back with bread and butter, a wooden bowl filled with milk, and a spoon made of horn, and, saying to me "Eat and drink, stranger—good-night—sleep well!" left me in entire possession of the premises.

A tall, old-fashioned clock was ticking in the room, plates and other articles of crockery were on the shelves, and a few common pictures adorned the walls; some wooden chairs, a table and a bedstead, both made of pine, comprised all the furniture; a ladder communicated with the story above.

I lay down between the skins, leaving the door wide open, and soon fell into a profound sleep, from which I was awakened in the early morning by the sound of voices outside. A hand-basin filled with water was brought in for my morning ablutions, and a breakfast of coffee, bread, butter, milk, and cheese was served to me.

The hamlet seemed to be the rendezvous for all the maid-

ens of the neighboring farms; some were very pretty, with flaxen hair, blue eyes, and rosy cheeks—pictures of health, cheerfulness, and happiness. At five o'clock they began to assemble; they had come from a little village on the other side of the river, called Övre Almindingen (*övre* meaning "upper"), and were going to the mountains. Each had a little wooden box, somewhat in the shape of a large book, containing the food for the day, which was soft pancakes buttered, and the ordinary flat bread; most of them also carried a little pail of milk in one hand, and a pair of shoes in the other; all were bareheaded and barefooted, and their hair fell behind in braids; the shoes were to be worn only when the ground was rocky, for in the rural districts money is hard to get, and shoes are precious.

The girls, chattering merrily, soon disappeared from sight, on their way to the mountains, where they were going with the cattle, or to cut hay. Those who carried no milk-pails were knitting stockings as they went along—for the women are always at work, except on Sunday; I could hear the sound of their laughter and the music of their songs as they ascended the hills. The poor hired dairy-maid and the rich farmer's daughter walked hand-in-hand, like sisters, for in this primitive land there is perfect social equality.

I forded the river to the hamlet of Övre Almindingen, which consisted of a few farm-houses with out-buildings. I was surprised to find in the inhabitants of this place a type somewhat resembling that of the Lapps; they were all busily engaged in cutting hay.

The road now lay on the right bank of the stream, and was getting poorer, though still pretty good. Almost all the farms farther up were without people, but at last I came to one where I found the family at dinner around the table; the father was dividing a large piece of raw salt fish, and they ate with a relish; I asked why the fish had not been cooked, and the answer was that otherwise they would eat too much of it. I was invited to partake, and a pleasant chat and numberless questions ensued. The farmer was much older than his wife, who had handsome features and a fine figure, with fair hair

and hazel eyes; but a shadow of sadness rested upon her face, and she appeared weary and worn. She was nursing a child whose mother had died three months before: this was a pure act of kindness, for she had been nursing her own infant for thirteen months.

Storjord, situated at the end of the inhabited part of the valley, is in the midst of wild scenery, and surrounded by a forest. The farm is on the bank of the river Jünkersdal, which, taking the name of the valley through which it flows, falls not far below into the river Löniselv; the streams thus united flow through the Saltdal to the sea; in the distance could be seen the snowy mountains of Vestfjeld, and not far off a magnificent cascade, seven or eight hundred feet high, and on the left the high mountain of Kimaanasen.

One night at that solitary but hospitable home was all that I could spare; my room was a picture of tidiness, and I was lulled to sleep by the murmur of the two rivers. The next morning, after a hearty breakfast, with coffee and plenty of milk, wine was brought in, small glasses were filled, and all joined in wishing me a prosperous journey to Sweden. At 9.30 A.M. the thermometer was at 68° in the shade, and 118° in the sun; and at noon, 125° in the sun, 72° in the shade.

On my way back I met the owner of Storjord, who, having heard of my visit, was hurrying home; he seemed disappointed at my departure. I liked his frank, open countenance, and felt sorry that I had not met him before. After a pleasant chat we parted, and I continued my way. At the parsonage the worthy pastor and his wife welcomed me once more, and I had to remain with them for the night. In the morning, before breakfast, we had family worship, the wife playing the accompaniment to the hymns on a melodeon; all stood up, with bowed heads and clasped hands, during prayer. A number of young girls, tidily dressed, had come to pass an examination before the pastor, in preparation for the ceremony of confirmation.

The midnight sun shone no more, and at that hour it was almost dark; it was now the 3d of August, and farther south the days were shortening fast, and it was high time for me to undertake my journey across the peninsula.

My boatmen being ready, we hoisted sail and started. I soon found that my sailor friends knew all the legends connected with that wild coast. "Do you see that?" said one of them, pointing to a high precipitous part of the fjord on our right. "Long, long ago, when Norway was under the rule of Denmark, there was a farmer living on a farm called Leifsets, who one day gave a great marriage feast to his daughter. Some Swedish (*Kvæn*) Finlanders, who had heard of the feast, crossed the mountains, intending to rob the farmer and his guests; but they did not know the way, and came to the house of one of the tenants of the farmer of Leifsets, and compelled him, with threats of death, to put them in the right path. The snow was very deep on the mountains, and the nights were dark; the tenant took a torch, put on his snow-shoes, and told the robbers to follow him. He was well acquainted with the country, and had made up his mind from the start that they should not reach Leifsets. On the journey he approached the edge of a precipice; placing himself in such a way that the glare of the torch prevented them from seeing him, suddenly he threw his torch over the precipice, and the robbers, following the light, fell and were crushed below. Hastening to the farm, the tenant fired his gun through the window, above the heads of the guests, to apprise them of their escape from a band of armed plunderers. The next day search was made at the place where the torch had been thrown over the brink, and below, in the snow, lay the robbers, dead, and frozen stiff." Pointing with his finger, my boatman added, "There is the spot where the robbers were killed, and to this day we have called this place the *Kvæn* precipice."

A little farther on, pointing to a bay, he said, "We fishermen call this the 'Dead-man's Bay,' on account of the sudden squalls which come from the mountains, often upsetting boats, and drowning the boatmen."

The weather became very warm; the mercury standing in the sun at ten o'clock at 118°, in the shade at 68°. At eleven o'clock the sky grew darker, heavy clouds appeared, while the wind was dead ahead, and rising; the fishermen were hurrying ashore, and the people on the banks were carting away

their hay as fast as they could, or piling it in heaps. Suddenly a storm burst upon us; the wind blew hard, and heavy claps of thunder were heard, accompanied with vivid flashes of lightning. Happily, we rounded the land in time, took two reefs in the sail, and, running before the wind, went over the waves at a rapid rate, the sea now and then washing over the side of our boat and thoroughly wetting us. The thunder-storm lasted an hour—the third I had seen within the arctic circle—and it was to be the last of that year.

With a fair wind we arrived at the mouth of a river which was the outlet of the lower Lang Vand (*vand* meaning "lake" in Norwegian); the water of the lake was rushing out with great force, as it was ebb-tide, and the boat had to be hauled along the shore through the short outlet. The lake is about one mile broad, and three or four miles long; the terraced shores were studded with farms, flanked for some distance back by high mountains, whereon you could see the paths by which the cattle were driven to their pastures during the summer.

After ascending a short river we came into a second lake, narrower and longer than the first, with gloomy, rugged shores. At the head is the hamlet of Skjönstuen, completely surrounded by mountains, the lowland having the appearance of the bottom of a kettle. I passed the night in a bed made of fresh hay, covered with sheepskins, but could not get asleep; the mystery was solved by the discovery that a prodigious number of fleas were feeding upon me, and there was no remedy but flight to a convenient table, which answered the purpose of a couch. This was the first time I had made their acquaintance in Scandinavia. Sheepskins, unless freshly taken from the storehouses, are a hot-bed for these pests during the summer, and, as a rule, in very primitive regions, are to be mistrusted.

From Skjönstuen the way is very rough, and sometimes there seemed to be no possibility of going farther, the path apparently ending at the foot of some steep ridge, which seemed to bar our passage; taking advantage of every stone, we slowly made our way up. When deaths occur here, the coffins are lowered down the cliff with ropes.

Twelve English miles from Skjönstuen we came to a farm on the banks of the Lang Vand River, a log-house and two other buildings of sugar-loaf form, made with sods. There was nothing to eat or drink except sour milk.

From this place navigation is resumed, though one may have to wait a considerable time before procuring a boat. After a short pull the upper Lang Vand is reached. We made a sail with birch branches, mounted it on the prow of our flat boat, and, the wind being fresh, made good progress. The lake lying between two high mountain ridges, the scenery was striking, and the occasional fall of a cascade from the rugged and wooded heights added to its beauty. Three rivers, the Ykien, the Lommi, and the Erva, foaming white, fall into the lake, which is filled with splendid trout. A sail and pull of two hours brought us to Fagerli, at its upper end. Three or four farms scattered on the shore made the hamlet of Fagerli. My trusty fishermen took me where they had been directed by the merchant of Venset. Larsen received us kindly, and listened attentively while they delivered their message, and in the mean time the wife prepared a meal for us.

At the foot of the hills, near the lake, stood the humble farm; close by was the river Ykien, on whose banks were stranded many fir and pine logs, which Larsen had cut during the winter, higher up in the mountain, and floated down after the melting of the snow. Some of these were from twenty-three to twenty-five feet in length, and from twelve to sixteen inches in diameter; others, about thirteen feet long, measured twenty-eight inches at one extremity and twenty-six at the other. The little farm had two houses, in one of which the stranger's room was assigned to me. There, while waiting for the Laplanders who had been sent for, I sometimes went fishing in the deep pool of the lake, and in less than half an hour would return with four or five trout, from eighteen to twenty-two inches in length, caught with worms as bait. Milk, cream, butter, cheese, flat bread, and wild strawberries, which the children gathered for me, made up the every-day bill of fare.

Calling at a neighboring farm on the other side of the Ykien, before reaching the house I heard a young mother

singing psalms by the cradle of her babe. She said, as I entered, "This is my first-born, and I want him from his birth to hear me sing praises to God; I want him to fear and love the Lord when he grows up, for God is good to us all."

When I visited the farms my pockets were always filled with candies bought in Bodö, on account of the children who came flocking around me, and I gave them coppers, which seemed to please them, for they shouted "*Penger!*" (money), and made haste to exhibit their treasures. Then I asked them to give me a kiss, which they did; whereupon the married women insisted that two of the grown-up sisters should do likewise. "Go and do so!" they said. This brought flushes to the maidens' cheeks, and they refused; but the matrons insisted, and, in order to have peace, each gave me a hearty kiss, and general merriment ensued. I may add that I was quite willing.

On the banks of the Lommi were two grist-mills; these are seen all over Norway, and in many districts each farm possesses one, or sometimes several farmers are its joint-owners. They are by the side of torrents, and are always picturesquely situated on the slopes of hills and mountains, a number of them often close together. After the hopper has been filled with grain the farmer goes away, coming again when he thinks it requires refilling; or, if the mill be far away from the farm, one of his daughters or maids remains in charge, whiling away the time by sewing or knitting, singing to the music of the murmuring waters, and thinking, perhaps, as little by little the corn is ground, of her lover and her approaching nuptials. The day's work finished, she goes home to milk the cows or to prepare the evening meal for the family, who have gone into the fields to work.

On the 9th of August two Laplanders and a Lapp woman arrived; they were to be my guides, and were old friends of Larsen. Preparations for our departure the next day were at once made. The less a man carries on such a journey the better. My luggage consisted only of an extra flannel shirt, pair of pantaloons and shoes, and a light overcoat; my provisions were hard flat bread, butter and cheese, a flask of brandy (to be

used in case of need), a strong coffee-kettle, a pound of roasted and ground coffee, and some tea. When the weather is wet and cold, or when very tired, I find tea and coffee very refreshing beverages; it is a great mistake to think that the drinking of spirits refreshes the system when overcome by fatigue; the immediate effect is stimulating, but half an hour after one feels more exhausted than before. My arms were a gun, with very little ammunition, for game, and two revolvers; I intended to rid myself of the latter at the first opportunity, for they were heavy, and, besides, I had begun to feel ashamed of having these with me, and carefully kept them out of sight. I had carried them for protection! I had for safety left in London some valuables, including a gold watch-chain; but here I was travelling, I may say without fear of contradiction, in the safest country in the world.

We were all ready to start, and had shouldered our luggage, when Larsen's wife exclaimed, "You must have more bread!" and this was hardly said before more bread and butter, packed in a little box made of birch bark, and cheese were put in my bags. The good woman forgot that we had to carry our provisions on our backs; but, after all, she was right, for even with this extra store, I found afterwards that I ran short of food. I have such a dislike to luggage that I have often been pinched with hunger; but happily I can go without food longer than most persons. When leaving, to each of the children I gave a little money, and in the good-wife's hand I placed a few dollars, whereat she burst into tears, and gave me a good motherly kiss, while the husband grasped my hand warmly, with the words "Thanks for coming to us;" and we said, "*Farvel! Adjö!*" Ole, the young son, went with me up the hill, carrying my gun; and the last words I heard were loud calls to my Lapland guides to "take care of Paul!"

CHAPTER X.

Lapland Summer Dress. — Wild and Desolate Scenery. — Sulitelma, and its great Glacier.—Lapp Camp.—Disagreeable Interior.—Uncleanliness and Vermin.—Kind Treatment.—Hard Life.—Lake Pjeskajaur.—Fording its cold River.—Lapp Tent.—Appearance of Women and Men.—Cups and Spoons, and novel Way of washing the Latter.—Arrival of a Herd of Reindeer.—The Milking and the Milk.—Reindeer Cheese.—Hard Travelling.—Njungis.—Qvickjock.—Niavi.—Jockmock.—Baron von Düben.—Devastating Fires.—Vuollerim.—Beautiful Falls.—Luleå.—Prison.—Drunkenness.—Reception by the Governor.

The summer dress of the Laplander is well adapted for the climate of the mountains. My two men wore a gray blouse of coarse woollen stuff, called *vadmal*, reaching below the knee, open at the throat, showing an undershirt of the same material; tight-fitting leggings of reindeer leather, bound closely around the ankles by strips of cloth; shoes of the same material, but heavier, with turned-up pointed toes; a coarse, woollen cap; a leathern pouch on the back to contain food, and a belt, on which hangs a knife. The female costume is the same as that of the men, except that the blouse is longer, and closed at the neck.

Wherever the Laplander goes in summer he takes with him a stout birch staff, about seven feet in length, which is used in climbing mountains or crossing streams.

After a moderate ascent we saw Lang Vand below us, hills covered with snow, the foaming Ykien, the Lommi, and the Erva.

In a few hours we were in the midst of very wild scenery. The bare rounded hills made a picture of desolation; the soil was covered with stones of different sizes and shapes, wrenched from the rocks by thousands of years of frost. Snow-drifts became more numerous, and sometimes formed arches over the streams; a mist covered the mountain-tops, and the peak of Sulitelma, 6326 feet high, was hidden in a black mass of

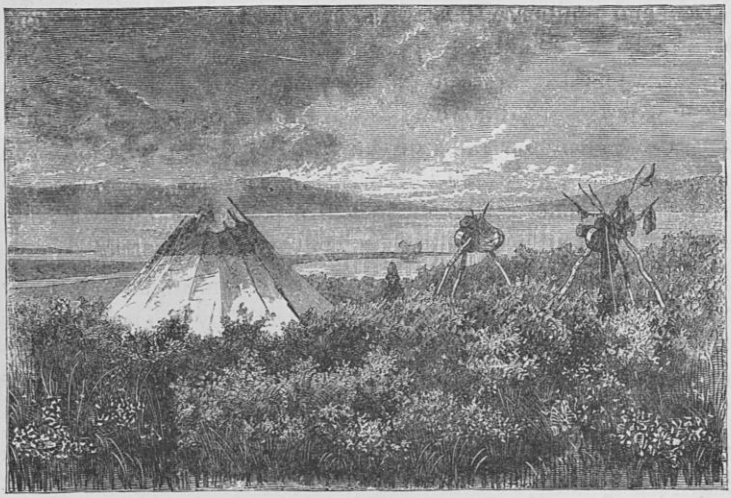
SULITELMA AND LAKE.

clouds. The glacier came in sight, and presented a superb appearance, the ice being very blue, as rains had melted the snow over a large part of its surface; in the distance its crevasses and sinuosities presented a strange spectacle. In the midst of this enormous mass of ice were two bare dark mountains, and for miles beyond the glacier ran from north-west to south-east. At the base was a lake, a hardly perceptible path leading to its lonely shore, where grew the willow, dwarf-birch, and juniper. In a rain storm one might skirt the shores of the lake without seeing Sulitelma. Our route lay by the water, the centre of the glacier bearing north. Rills were seen everywhere, and cascades formed by the melted snow and the continuous rains of the past few days, and there were drifts of snow in every hollow, while large patches stretched down to the shores. The fog had disappeared, and we could see high mountains in a southerly direction. We reached the outlet of another lake, separated from the first by a range of low hills, including some good pasture-land. We rested for awhile, and made a fire for a cup of coffee with the small birch-trees which are found in these high regions; without these the Laplanders could not roam over the dreary mountains. Our fire was the more enjoyable, as the mercury stood at 39½°; notwithstanding which, we got into a profuse perspiration from the exertion of ascending the hills, and felt the wind keenly when stopping to rest.

From the top of a high hill we had one of the dreariest views imaginable — mountains covered with boulders of all sizes rose in the distance, extending very far to the south and south-east, while at other points on the horizon we could see nothing on account of the mist. We never lost sight of the blue outline of Sulitelma, but the peak was hidden from view. The walking at times was extremely tiresome on account of soft snow, into which we sunk to our knees, wet and sandy soil, broken rocks, slabs, and boulders.

As Sulitelma began to bear east of us, with my glass I saw a deep ravine, over which hung a glacier with immense icicles clinging to its sides; the mercury had fallen to 38°, although the wind was from the west. We descended a long sloping

hill; and, as the ravine widened, a torrent-like river from one of the grand branches of the glacier wound its way towards a lake called Pjeskajaur (*jaur*, in Lappish, meaning "lake"). While I had stopped to take the bearings of the mountains and glacier, the woman, who was as wiry as any of us, had gone in advance; suddenly I heard the word "*Samé*" (Lapps), and saw in the distance an encampment of Laplanders, with



A LAPP ENCAMPMENT.

smoke curling up over their *kåta* (tent). Soon after we reached the place, and, entering their shelter, I recognized our female travelling companion; the inmates were her relations, and she knew the tract where they pastured their herds. As I looked around a feeling of disgust crept over me; the tent at its base did not seem more than eight feet in diameter; in the centre a fire made with juniper branches was blazing brightly, having been lighted on our account, for the people have to be economical in the use of wood. In the small space on one side of the tent—the other side, on the left of the door, having been cleared for us—lay huddled together, on reindeer skins wet with rain, three women, four children, two men, and four dogs. The dogs growled at me, but were soon silenced

by a heavy blow of the fist applied to the one which tried the hardest to disturb the peace. The clothes of the men, women, and children were of reindeer skins, with the hair turned inside; the faces of the children looked as if they had never been washed, and those of the grown people could not have been touched by water for a fortnight; they were continually putting their hands through the openings in their garments near the neck, and the suggestion was not pleasant; a large quantity of reindeer meat and other kinds of food lay on the skins on which these people were to sleep.

Such was the picture of the first Lapp tent I saw, and I may add that it also proved to be the worst.

These Lapps were very kind-hearted, and the woman who had been travelling with us was careful to provide for our comfort. A short time after our arrival the kettle was on the fire, and she was grinding coffee, while the head of the family was busily engaged in cutting up reindeer meat, and putting it into a brass pot hanging over the fire by a chain. The coffee was soon ready, and the woman, presenting me a cup, said: "On the road you have been kind to me; you gave me some of your coffee, and some of your food, though you did not know me—I thank you—now let me take care of you. Drink this, and soon you will have plenty of reindeer meat to eat." When it was cooked the father of the family gave to each his portion, but the choice bits were reserved for me and my two guides; we had no forks and no bread. The bones were thrown to the dogs, who watched all our movements with hungry eyes. When bedtime came, and the fire had been extinguished, wet and chilly, I did not know what to do, for I was afraid to remain in the tent, dreading the consequences; yet a hard day's work was before me on the morrow—in fact, it was already to-morrow, the hour being 2 A.M. As I did not wish to hurt the feelings of these people, I concluded to run the risk, and laid down on the skins and tried to sleep. After awhile I began to feel as if creeping things were making their way over me, but attempted to convince myself that this was only imagination; at last, fatigue being stronger than my will, I slept for one hour.

Towards four o'clock I was awakened by the entrance of a Laplander, who had gone during the night, with a herd of two hundred and fifty reindeer, to where the lichen was abundant, and had returned to take his rest; the fellow changed his wet woollen leggings, put on a pair of dry shoes, and soon was fast asleep, not even taking a cup of coffee which stood ready for him.

The life of these Lapps during the summer is a very hard one; they have to follow their reindeer day and night, lest the herds should wander; so that when they return to their tents they are exhausted, and readily fall into deep sleep. A stranger arriving at a kåta, or encampment, might easily get the impression that Laplanders are very lazy, which is far from the truth.

I saw a herd of reindeer crossing to the other side of the river; they swim very well, and sometimes have to go long distances across the fjords; I was told that they could swim about six miles in three or four hours.

Lake Pjeskajaur is about fifteen miles in length, and from two to five miles in width, and is near 67° latitude. The river flowing into it was deep, and the melting of the snow and glacier had made it so turbid that we could not see the bottom, and did not know where to cross. The Lapps tried to ford the stream, but had to return twice; at last we found a place, but it was with great difficulty that we could make headway against the powerful current, or walk over the round pebbles and shifting sand, which gave way under our feet; the water was so cold—being 37°—that it took my breath away when it reached as high as my neck. Gaining the other side, I discovered that there were two more outlets to be forded, but in these, fortunately, the stream was not quite so deep. The cold had so benumbed my legs that I could hardly put one foot before the other: alarmed at these symptoms, I resorted to my flask, and took a good swallow of brandy, and gave some to my Lapps, who seemed to be very grateful.

Our way lay through a morass, which made the walking tedious and difficult, but the severe exercise was precisely what I needed; my limbs after awhile began to lose their ri-

gidity, and a warm glow of the skin made me feel that I was all right again. The centre of the glacier seemed now to be north-west, and here appeared in the shape of an arc, running from north-north-west to north. Crossing another river, the water of which was much warmer, as it did not come from glaciers, we came to a few good-sized birch-trees (*Betula glutinosa*), the remains of a former forest; I have regretted ever since that I did not cut one, to count the number of rings and ascertain their age, for these grew at the highest elevation I had seen within the arctic circle.

On reaching the crest of a small hill we saw in the distance another kåta; there were several Laplanders outside, from Lule, Lappmark, whose pasture-grounds extended as far as Sulitelma; when they saw us they immediately went inside. On reaching the camp I found three young women and one man; the former were just giving the last touches to their toilets—one was putting on a handsome silver belt, another arranging her dress, a third fastening her shoes. Their dresses of thick blue woollen cloth, called *vuolpo*, were trimmed with red and yellow bands at the lower end of the skirt, and revealed a woollen undergarment—the overskirt reaching to the ankle; their undershirts were nicely embroidered at the openings, and looked quite pretty, the color contrasting well with that of the skin. They also wore belts, which are considered one of the chief ornaments, and some of them are expensive. Only one had a belt ornamented with silver, the others were made of copper; these ornaments, about one inch wide, were fastened upon the cloth so close together that the material could hardly be seen; a pretty clasp fastened the belt, and from it hung a little knife and a pair of scissors. Woollen leggings of a bluish color, fitting somewhat closely, completed the costume. One of them wore new summer shoes, made of dressed reindeer skin, without heels; the other two had no shoes, and I noticed that their feet were small, well-shaped, and very clean. The men's frocks (*kapte*) were shorter, like those of my guides, falling a little below the knees, and were trimmed at the bottom with a band of bright color, contrasting with the blue; the collars of their under-

shirts were embroidered with bright-colored thread. The belts worn by the men were sometimes two or three inches wide, made of leather, with bears' teeth, to show that the wearer had killed his prey; they often wore a sort of waistcoat, richly adorned with silver ornaments, showing through the opening of their kapte.

The women's faces had been washed, and their hair combed; their heads were covered with a rather graceful cap. I was surprised at the good looks of two of them; they had blue eyes, very small hands, and fair hair, of a somewhat reddish tinge; their complexions were rosy, and the skin remarkably white where it had been protected from the wind. The men's skins were quite red, having been tanned by exposure.

There was not the slightest appearance of shyness in these people; we were welcomed at once; the coffee-kettle was put over the fire; coffee, already roasted, was ground, boiled, and clarified with a piece of dry fish-skin, and served to me in a queer-shaped little silver cup, which I admired very much; it was a family heirloom, said to be about a hundred years old. The shape of the spoon was very graceful. This also was a family relic, and a great deal older than the cup; it was not clean, reindeer milk having dried upon it, and I was much amused at the way the girl washed it. As there was no water at hand, she passed her little red tongue over it several times until it was quite clean and smooth; and then, as if it had been a matter of course, filled it with milk from a bowl, stirred up the coffee, and handed me the cup. I did not altogether admire this way of cleaning spoons. Happily, her teeth were exquisitely white, and her lips as red as a cherry; and, although I have seen many Laplanders since, I think she was the prettiest one I ever met.

The coffee was excellent. I had hardly finished a second cup when a Laplander came in, followed by several dogs; he had just arrived with two hundred and seventy-three reindeer, which were around the tent, but the approach had been so quiet that we did not hear him. Some of the animals were eating the moss, using their forefeet to detach it, while others were lying down; the males were of large size, with spreading

horns, the females much smaller. Not one showed any inclination to move off, the whole herd being as still as the cows which come to the farm-yard to be milked; the bulls were quiet, though several were butting one another; I was told that their horns often become so entangled that the animals cannot be separated, and have to be killed.

I watched the milking with great interest. The women knew every animal around the tent, and if one had been missing they would have been able to designate it at once. Those which were to be milked were approached carefully, and a lasso was thrown gently over the horns, and knotted over the muzzle, to prevent the deer from running away; but they made no effort to escape. Sometimes one would hold the deer while another was milking; but the animals were so gentle that they required no coercion. The process was peculiar: the woman held in one hand a wooden scoop, frequently pressing hard with the other, for the thick fluid seemed to come with difficulty; it was poured from the scoop into a keg-like vessel closed by a sliding cover, and so contrived that it could be carried on the back of an animal. Skin bladders were also filled, to be used by the Lapps who were to remain the whole day with the herds. I was surprised at the small yield—some not giving enough to fill a small coffee-cup; but it was very thick and rich—so much so, that water had to be added before drinking; it is exceedingly nourishing, and has a strong flavor, not unlike that of goat's milk. The milk of the reindeer forms a very important item in the food of the Lapps, and possesses an amount of nutrition far greater than that of the cow or the ass; strange to say, the butter made from it is so bad that one might almost fancy that he was eating tallow; accordingly, the Lapps make very little butter, but cheese is produced in large quantities.

In the making of cheese, the milk is first heated, and the scum rising to the top is put in a wooden bowl, while the greater part is then placed in an empty bladder, which is afterwards hung up for its contents to dry; this dried scum, which they call *kappa* (cream), is considered a great dainty, and is always given to distinguished guests. Then rennet

is added to the milk. The cheese is pressed by hand, and is packed in round wooden boxes, or put in forms made of plaited spruce roots; after it is dried it is hung up in the smoke in the kåta; it is white inside, and tastes of the milk, a great deal of which is kept for winter use. The Lapps are very fond of thick milk, but, on account of the climate, they have to hasten the coagulation by adding fresh butterwort (*Pinguicula vulgaris*).

I had always thought that the Lapps had black eyes and dark hair, but these were fair-skinned and fair-haired, with blue eyes; the cheek-bones were prominent—in two of the women not unpleasantly so—and the nose was peculiarly Lapp and *retroussé*. Measurements of the three women showed heights of four feet and one-quarter, four feet and three-quarters, and four feet six and three-quarter inches; the height of the two men ranged from four feet five to five feet and one-quarter inch. The facial measurement of the women, from the top of the nose to the point of the chin, ranged from three and three-fifths to four, and that of the men from four and one-half to four and three-quarter inches.

While the men were enjoying their pipes the women busied themselves with cooking. A porridge was made of the dry skimmed milk, stirred into water with a wooden spoon—a palatable and very nutritious dish. Each person had a little bag, from which a spoon was taken for table use; the tongue was used in place of water and a towel, and the fingers were passed around the plate until every remnant of the porridge had disappeared. Forks are not used among the Lapps, but some of their silver-ware is very old, and their spoons are of the same shape as those found among the peasants of Sweden and Norway.

The hungry dogs, who had made their way into the tent, watched us with gleaming eyes; when we had finished, a little water was added to the porridge that was left, and a portion was given to each dog, who devoured it voraciously. Then the man whom I had first met started with the reindeer for some part of the mountains where he knew the moss to be abundant, and not very far distant from the tent; he was to

A LAPLANDER'S ENCAMPMENT.

remain with the herd until evening, when he would be relieved from duty; the other stretched himself on a deer-skin, and soon fell asleep, and we all did the same—bundling ourselves together the best way we could in such limited quarters.

The tent used by the Laplanders is very portable, and is conveyed from place to place by the reindeer. Its frame is composed of poles fitting into each other, easily put together, and so strong and well knit that they can resist the pressure of the heaviest storm; a cross-pole, high up, sustains an iron chain, at the end of which is a hook to hold kettles. Over the frame is drawn a cloth of coarse wool, called *vadmal*, made by themselves, no skins being ever used; it is composed of two pieces, and is made fast by strings and pins, and well secured; the porous quality of the cloth permits a partial circulation of air; a small door, made of canvas, is suspended at the top of the entrance. The woollen cloth is exceedingly durable, often lasting more than twenty years; the tents are frequently much patched, for a new covering costs from thirty to forty dollars. In summer their tents are usually pitched near a spring, or a stream of water, where the dwarf-birch and juniper furnish fuel, and not far distant from good pasture.

The encampment was about to be removed to another place, and trained animals had been brought to carry the luggage. It is far more difficult for the Lapp to move in summer than in winter, for then, instead of drawing their loads, the reindeer carry them on their backs, and therefore, at this time of the year, the outfit is much smaller; the animals used as beasts of burden are generally geldings, large and strong.

The tent had been taken down, the awning put by itself, and the supports divided into several bundles; clothing and other articles had been packed in wooden boxes about eighteen inches long by twelve wide and six deep, fastened with strings, and so arranged that one box could be placed on each side of the saddle; there were also bags, some of which were like strong nets. The *svaka*, or pack-saddle, is a curiosity; it consists of two pieces of wood, rounded so as to fit the shape of the body, with pieces of leather at the end; this is put upon the back of the reindeer exactly as we would sad-

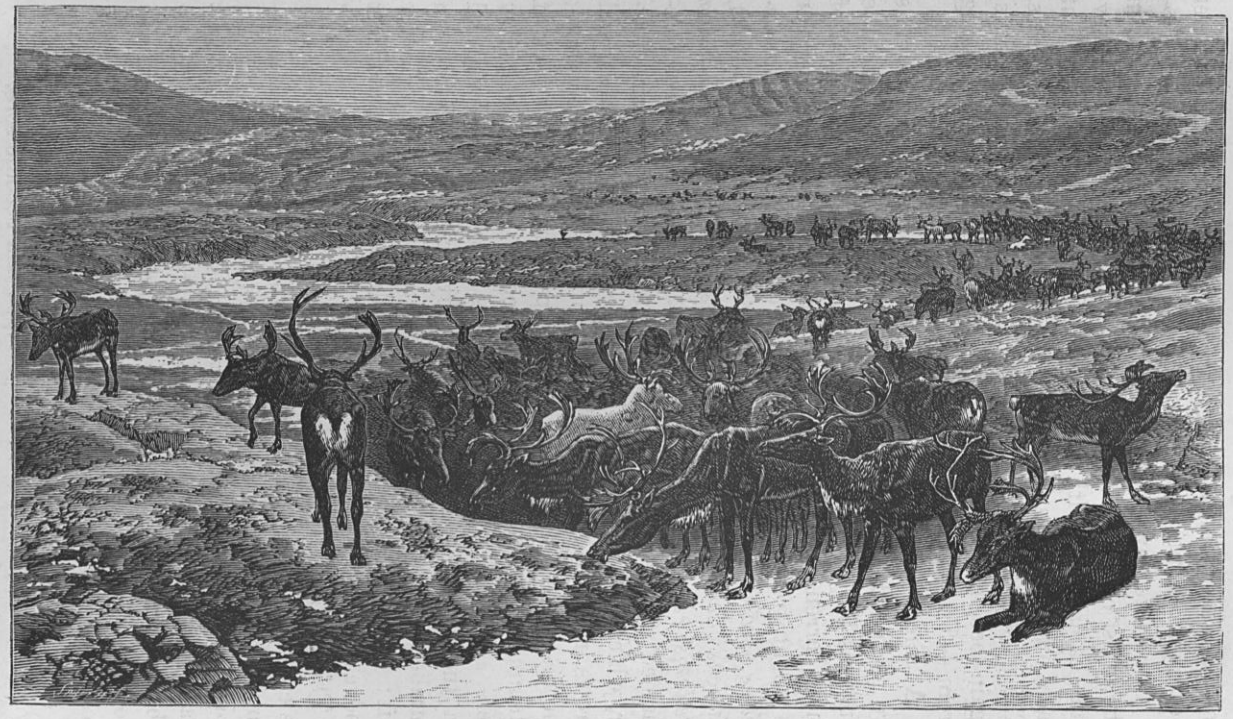
dle a horse, but more forward, a blanket of coarse wool or a piece of reindeer skin being placed under it to protect the back of the animal; the burdens are disposed on each side, so as to balance each other, and are then carefully secured: from eighty to one hundred pounds seemed to be the average weight each animal carried. A few of the poles were bound together, and thus drawn along the ground.

Seven reindeer were attached to each other by strong leather ropes, made fast to the base of the horns, and one of the guides led the file; a few unburdened animals followed in the rear, to take the places of those which might become weary; they were troublesome at first, and the Lapp ahead had to pull them along.

We parted from these kind-hearted people, and continued our route in an east-south-east direction, meeting here and there terraces along the river, indications of former risings of the land. Near the pools grew the famous Lapp "shoe-grass," of which there are two varieties—the *Carex ampullacea* and the *Carex vesicaria*. It is gathered in great quantities in the summer months by the Laplanders, who dry it and keep it carefully, for it is indispensable in winter. It is worn in their shoes, because it has the peculiarity of retaining heat, and keeps the feet so warm that the cold can be defied; it is also used in summer shoes, to protect them while walking over stony ground.

The great glacier was always in sight, but the upper part of Sulitelma continued to be hidden; as the clouds were moving swiftly, I hoped that the summit might be seen, and stopped to watch — suddenly the peak became visible for about fifteen minutes, bearing precisely north-west by the compass. As the sun shone upon the ice its hue was simply marvellous; it seemed in many places like a huge mass of sparkling topaz; its extent was enormous, and patches of snow were scattered over its surface. There were only two breaks of dark rock visible in the frozen mass; and towering above all was Sulitelma, dark and gloomy, looking down upon the sea of ice.

Farther on we reached the summit of another chain of hills



HERD OF REINDEER FEEDING.

in this great mountain range, from which I saw a small glacier bearing north-north-east by north.

Our route now was over a very hilly and desolate region, in the midst of which were numerous small lakes. We met several Laplanders, with many herds of reindeer together; but each owner knows his own by a special mark on the ears. The mosquitoes, which had let me alone for nearly two days, again became plentiful, and, with the thermometer ranging from 44° to 45°, they bit venomously.

At times during the day we reached the snow line. As we ascended, the bare spots became less numerous, and the line was broken only by ridges of rock. Yet, in the midst of these barren patches, where the mean temperature of the year is about freezing-point, many flowers flourish: the *Ranunculus nivalis* and *glacialis* (buttercups), *Rumex digynus* (dock), *Juncus curvatus* (rush), *Silene acaulis* (catchfly), and *Saxifraga stellaris*, *rivularis*, and *oppositifolia*. Many times have I remained standing in admiration before this last exquisite flower, which looks like a velvety carpet of purple moss, and grows in patches on the dark rocks, often surrounded by snow; the first time I saw it was on the top of the high hills back of Hammerfest, when it was in full bloom. These plants grow here, a little over four thousand feet above the sea-level, and on the snow line. Higher up they gradually diminish in number, until the *Ranunculus glacialis* is the only flower left; the lichens at last disappear about two thousand feet above the snow line.

The travelling was very hard; steep hill after hill had to be crossed, walking on nothing but broken stones, which sometimes lay thick upon one another, and of all sizes and forms; boulders were scattered everywhere, and the declivities of many of the hills were covered with them. I do not know which is the worst—to travel through the soft, black, wet morasses, where one often sinks knee-deep in mud, or to step from one boulder to another, and over loose stones, at the risk of a fall that might break an arm or a leg, or cause other bodily injury: even the feet of my Lapps had become sore.

Everything was bleak and dreary; the lichen was short,

growing on the bare rock; the grass in the hollow of the valley was hardly green yet, although it was the middle of August, and but few wild flowers were seen. Pointing to a series of lakes, my Lapps said they formed the waters of the Pite River.

As we were over-fatigued by the hard journey, and wished to see a kåta, the immense rocks seen in the far distance appeared to our hopeful imaginations like houses, so that often we made sure that some of these were Lapps' tents, only to be undeceived when coming near them. From every hill we had looked in vain for one of their encampments, for the weather was rainy and cold; sometimes we took refuge under a large stone, to protect ourselves during heavy showers.

In the evening, finding a huge boulder placed in such a position upon another that we could shelter ourselves under it, we concluded to remain there for the night, as there were junipers and dwarf birches growing near it. The thermometer stood at 44°, and we collected over a hundred dwarf birch-trees of that high altitude to keep ourselves from freezing, from the mosquitoes, and to dry our garments. We first tried one side, but the rain dripped heavily upon us; then we went to the other side, which was not much better; indeed, wherever we turned the rain and the cold wind beat against us, and added to this was the discomfort caused by the smoke and flame. I tried to sleep seated with my back towards the rock, but it rained so hard that I was driven out, and at three o'clock the weather became so cold, and we were so wet, that none of us could endure it any longer, and we thought it was far better to walk; so we arose with stiff limbs, which we hoped would gradually grow flexible as we went on, and, after each had taken a cup of hot coffee, we again set out at a quarter past four, the rain still pouring down: we were so weary that, whenever we stopped to rest for a few minutes, we were sure to fall asleep.

Our route continued south-east by east, the walking being very bad. We had to cross large morasses, to traverse stony soil, which gave way under our feet, to clamber over boulders piled upon each other, and to pass streams, rivulets, and

soft patches of snow, until at last we reached the highest point attained since our departure from Fagerli—over four thousand feet above the sea.

Of all the bleak landscapes I had seen on the journey this seemed the most dreary; it was absolutely grand in its desolation. There was an indescribable charm in the loneliness and utter silence; bare mountains of granite and gneiss formed the setting of the picture, and all around were stones of all sizes and shapes, piled in heaps. Over these we had to wind our way for hours, jumping from one to another almost continuously, until our ankles became sore from the weight of the body. All the hard pedestrian exercise I had ever taken was as nothing compared with this; worse stony ground and steeper hills I have seen, and even, for a short time, I have perhaps found tracts more difficult, but I have never gone through such a country for so great a length of time. Had my guides made a mistake in the road?

By noon, the weather having cleared, we rested in a sheltered spot, and on the rocks, covered with short lichen, well protected from the wind, stretched ourselves, for we needed sleep. The temperature had risen, the mercury standing at 54° in the shade made by my body, and at 95° in the sun, and our lichen-bed was soft and warm; no bed had ever seemed so good to me. I soon fell asleep, but was awakened an hour later by a chilling wind, and found the sky again clouded. I roused my Laplanders, and we started on our journey.

We had now reached a sub-alpine region, characterized by the *Betula alba*, variety *glutinosa* (birch), its upper limit being about two thousand feet below the snow line; but even here was vegetation on the warm side of the hills, where the sun-rays are powerful, and the *Sonchus alpinus* (sow-thistle), *Struthiopteris*, *Aconitum lycoctonum*, *Tussilago frigida* (colt's-foot), could be found.

Skirting the side of a hill, I could see, in the distance, Lake Saggat, on the shores of which is Qvickjok. On the other side of the valley stood Njungis, a little farm on the banks of the Tarrejoki. My guides proposed that we should cross the river and sleep there; I foolishly refused, contrary to my cus-

tom always to listen to their suggestions. There are days in these mountains when everything at a distance seems near, and the stranger must beware of the deception; this day was such a one. We came at last to the bottom of the valley, and found ourselves in a forest of pines, growing but a few miles south of 67°. From the branches hung long dark moss; under the trees it formed a thick carpet, which gave out a great quantity of water when trodden upon, especially after a rain. The stem is composed of small cells, which retain the water,

NJUNGIS.

and the mass is so compact that evaporation is very slow, and it never becomes entirely dry. In the midst of this velvety carpet were many ripe cloud-berries, and for an hour we ate them, for we had taken nothing since morning but coffee.

We forded a stream about four feet deep, and reached a sort of cave formed by boulders, where the Laplanders wanted to sleep; but I urged them to go on, for many persons had apparently slept there before, and I was afraid of the place, which looked dirty. A little farther on we encamped for the night under tall pines, not far from the Tarrejoki. We were completely tired out—for thirty-six hours we had been on the march, and all of us were lame. Since I had left Fagerli, four days before, I had not been dry.

We built a fire, about six feet long, on each side of every one of us, and covered it with moss, in order to produce a thick smoke, to drive away the mosquitoes; the moss formed a soft couch, but I could not sleep. At five minutes past eleven o'clock, looking up through the branches overhead, I was gladdened by the view of a star, the first I had seen for about three months; it was Vega, twinkling brightly—an old friend, who had often helped me to find my way through the African jungle. Later I was awakened by a burning sensation—the moss had taken fire, and, like tinder, had burned slowly till it reached me. I can realize from this how forests are set in a blaze by persons not extinguishing their fires as they leave their encampments.

Early the next morning resuming our journey, and still keeping to the shore of the Tarrejoki, we found ourselves in the midst of grassy fields, and groves of birch-trees, alders, and willows, which grew thickly on the river-banks. What a contrast with the day before! My Lapps climbed a tall birch, and shouted for the people to come over with a boat; but they shouted in vain, for the wind was contrary, and they could not be heard. I then fired my gun several times, and waited. Presently we heard voices, and after awhile the sound of oars; a boat containing two men was coming towards us, and soon after we landed in Qvickjok, which is said to be about sixty miles from Sulitelma.

The hamlet is near 66° 55′ N., at the head of Lake Saggatjaur, which forms the first large reservoir of a series of lakes in the water-shed of the Lilla Lule (*lilla*, little) River. The Kamajoki, a mountain-stream, rising from a little lake, filled the air with a constant murmur as it dashed against the rocks.

In the humble log-church, built in 1671, there was apparently sitting room for about one hundred and fifty persons; but I was told that on the occurrence of religious festivals two hundred and fifty could be wedged in. Over the altar hung a picture of the Saviour, represented as a little child; further, there was a portrait of King Carl, and scattered along the walls were some rude paintings of a religious character. Adjacent to the church was the little burial-ground; over some

of the graves were frames protected by glass, in which the names of the departed were recorded, written on paper.

There was a school-house, where the children of the nomadic and stationary Laplanders received instruction. The people of the place owned about twenty-five cows, twelve horses, and from eight hundred to one thousand reindeer.

The two most conspicuous homes were the parsonage (but the pastor was absent), and that of the *klockaren* (sexton). The latter farm had two houses, one of which was for travellers, as he had charge of the boat-station. Mosquitoes were here a perfect plague.

A book was shown to me in which travellers had written their names, and among the signatures were those of King Carl XV., who visited this place on the 16th of August, 1858, and Prince Oscar, now king, on July 28th and 29th, 1870.

The lake is 957 feet above the sea: fish were abundant. Above the limits of the fir and pine, perch and pike are not found in the lakes; but the char and trout occur as high as the upper boundary of the birch region, after which all fish disappear. The upper end of the lake presented a richness of vegetation which was the more gladdening to the eye after the weird mountains I had crossed.

Such flowers as these were cultivated at the parsonage: *Calendula* (marigold), *Reseda* (mignonette), *Iberis* (candytuft), *Baptisia* (false indigo), *Stellaria* (chickweed), *Malva* (mallow), *Tagetes* (French marigold), *Aquilegia* (columbine), *Campanula* (harebell), *Dianthus* (pink), *Convolvulus* (bindweed); also carrots, turnips, radishes, parsley, spinach, lettuce, shallots, and rhubarb.

The weather was pleasant, and on the 13th of August, at 11.30 A.M., the mercury stood at 59° in the shade, and at 119½° in the sun. The highest temperature I found here in the shade was 66½°, and the lowest 49°.

My two guides had fulfilled their promise to Larsen in Fagerli, and desired to go back to the mountains; I paid them, and we parted excellent friends.

From Qvickjok to the shores of the Gulf of Bothnia the distance is 19½ Swedish miles. The journey is easy, a great

part of it being by water, through a series of lakes communicating with each other by short rivers; but the latter, on account of their rapids, are not navigable. Roads form the communication between the lakes, and there are regular boat-stations. This chain of lakes, descending gradually from one to another, resembles a series of basins, and forms a striking feature of the landscape. The Saggatjaur is about 21 miles long, 957 feet above the sea, with a rapid at the lower end; the Tjåmåtisjaur and the Skalkajaur are connected, without rapid, 30 miles long, and 935 feet above the sea; the Parkijaur, 5 miles long, and 929 feet above the sea; the Randijaur, 894 feet; the Purkijaur, 894 feet; the Vajkijaur, 808 feet.

On August 14th I bade farewell to Qvickjok. At the lower end of the lake an island and a mass of rocks and boulders intercept the navigation, and the swiftness of the current warned us that we were nearing the rapids; but by a skilful move the boat came to an eddy, and we landed on the left bank of the river. A walk of twenty minutes brought us to the head of Tjåmåtisjaur, and to Niavi, situated near the shore, and not far from the point where the turbulent outlet of Lake Saggatjaur throws itself into the Tjåmåtisjaur.

Niavi was a very comfortable farm, and the dwelling-house contained several large rooms. The dining-room was a model of cleanliness; the walls were papered; the white pine floor could not possibly have been whiter; and the food was well cooked and well served. Ten cows, four horses, and about two hundred reindeer composed the stock; the cows and horses were pasturing in the woods. The hay crop was green, potatoes were growing finely, and the barley had a yellow tinge, and was nearly ready to be harvested.

My new boatmen were two stout young farm hands; their long straight hair, hanging low upon their necks, forming a good protection against the mosquitoes. Though they had worked hard all day in the field, they pulled hard. When the air grew chilly one of them insisted upon giving me his coat, over which his shaggy hair had fallen. There was no help for it; I could not say nay, although I knew very well what the penalty would probably be.

The shores of Lake Tjåmåtisjaur were uninteresting; the higher hills being remote from the water, and the country became less and less picturesque as we went eastward.

At a distance of about twelve miles from Niavi we came to Tjåmåtis, composed of several farms, near the outlet of a river formed by several lakes, the amount of water from which is considerable. Lake Tjåmåtis narrows and forms a channel for a few hundred yards, below which are a few islets, and the entrance to Lake Skalkajaur. At the lower end, near its outlet, is the island of Björkholm, with a boat-station. Everybody had retired; but the doors were not locked, and we entered one of the farm-houses without knocking. The husband was not at home, but the wife got up and gave me a supper of cold fish, bread, butter, cheese, and milk, and prepared a bed.

After a rest of an hour, my boatmen returned to Niavi, but not before shaking hands with me, according to custom. These men had worked all day when I arrived at Niavi, yet thought nothing of a pull of thirty miles. They had rested for only one hour, and were going back, for they were needed at home. They would have felt ashamed if they had taken advantage of the fact of their additional toil as an excuse for laziness.

A short walk through a narrow path brought me to the head of Lake Parkijaur, and an hour's sail to its lower end, where there is only one farm. After another short walk past the rapids I came to Lake Randijaur, and to a farm-house—the only habitation I could see on its shores. The single room presented such a picture of filth that it repelled me: I looked at the two beds, and shuddered at the thought of the vermin inhabiting the dark sheepskins, and thanked my stars that I was not to sleep here. The furniture consisted of some carpenter's tools, a coffee-pot, a few wooden bowls and dishes, two or three coffee-cups with saucers, a frying-pan, a kettle, some wooden benches, a wooden table, and a number of old and much-used religious books. There were eight children in the family, several of whom were married; but the old man and his wife and a Lapp woman were the only occupants of the house.

When ready to start, the old woman washed her face and hands, combed her hair, and put on a clean dress over her dirty one, while the old man attired himself in his Sunday clothes, to take me to the next station, as boatmen always dress themselves in their holiday attire on such occasions. The couple got tired after a two-hours' pull.

Another station was at the lower end of the lake. Here the clothing of the men and the jackets of the women were made of skins, from which the hair had been removed, and all were equally filthy. At dinner they had no bread, butter, or cheese, but ate boiled fish in enormous quantities at a very dirty table. They drank sour milk from a bucket, but insisted that I should take a cup of coffee, which they made specially for me.

Here, after a ten minutes' pull, and a walk of forty minutes over a good road through a forest, we came to the head of Lake Vajkijaur, where were a number of reindeer, which had been left to graze on the lichen. The scenery had now become very tame. I obtained new boatmen, two boys and their father, all of whom pulled as hard as they could; and, leaving the boat, a walk of an hour brought us to the Lapp hamlet of Jockmock. On my way to Jockmock an unaccountable fit of hunger had seized me. On arriving at the station I immediately called for food; but, unfortunately, the landlady was absent, and the minutes I had to wait seemed hours.

The village was completely deserted, and as no food was obtainable, I sought diversion by a ramble through it. While I was wandering, amusing myself by gazing at the log-houses with their earth-covered roofs overgrown with grass, and seeking for a human face, I saw a gentleman coming towards me, and remembered that I had a letter of introduction from the celebrated arctic explorer, Professor Nordenskiöld, which had been given me in Stockholm, to Professor Baron von Düben, whom I was told I might meet in Lapland, as he was engaged in the study of that people. Instinctively I felt that this new-comer was the baron. We saluted, and looked at each other, and I asked, "Are you, sir, Professor Baron von Düben?" "Yes," he answered. I said, "I have a letter of introduction to you. I have just crossed over from Norway." "I am glad to hear

it," said the professor, in perfect English. "I am so hungry," said I, "that I do not know what to do with myself. I am getting dizzy, and the servant at the station does not seem to be in a hurry, as her mistress is not at home." "Come with me," was the response; and we went to the parsonage, where he was a guest. I was presented to the hostess, and then to the baroness. The pastor's wife disappeared when she heard that I was half famished, and soon after I was invited to sit down to a bountiful meal.

The baron and his wife had spent the whole of the summer in Lapland. We concluded to travel together as far as the sea. To them I am indebted for a great deal of kindness, not only on our journey but also in Stockholm, and for many valuable letters of introduction, and also for several of the illustrations of Lapland which accompany this narrative—the original photographs having been taken by the baroness herself.

This Lapp village of Jockmock has a school and resident pastor. Its queer-looking church, with detached belfry, was built in 1753, a former one dating from 1607. It stands upon a hill, at the base of which flows the Lilla Lule River, the outlet of the lakes. In the well of the parsonage ice and snow seemed about two feet thick; and for only about three months the ground is without snow, the depth of which averages about four feet, and the ice three feet thick on the lakes. The frost penetrates the ground to a depth of six feet.

One of the occupations of the people is the mussel-fishery, in the river. Many of the shells contain pearls of considerable value.

There is a very large tract of country known as Luleå Lappmark, which has an area of 327 Swedish square miles, composed of two *socknar*, or parishes. The parish of Jockmock, according to the last census, contains 648 Laplanders. It is divided into four *byar*, or districts—Jockmock, Tuorpenjaure, Sirkasluokt, and Sjokksjokk; each one has its own pasture-ground in the mountains. Very few of these Laplanders ever go as far as the Norwegian coast.

From Jockmock, the Lule, as far as Storbacken, a distance of four Swedish miles, is not navigable, forming an almost con-

tinuous succession of rapids. A highway commences here, completed only a few years ago, and constructed during the great famine of 1867; a year memorable in the annals of Northern Europe, when, in consequence of an early and heavy frost in summer, the crops were destroyed, and desolation and death spread over vast districts. The lichen and the bark of the birch-tree, mixed with a little flour, became the food of the people after the cattle had been eaten up and nothing else was left. The year following a strong tide of emigration set out for America.

This road passes through a monotonous country, among morasses, through districts strewed with granite boulders. At the time of my journey the burned forest presented in many places features of utter desolation. These conflagrations are generally occasioned by the carelessness of the Lapps, or woodmen who neglect to extinguish their camp-fires. The loss is very severe, for trees in those regions grow very slowly, and it takes at least one hundred and fifty years for them to attain one foot in diameter; some are found not even half a foot in diameter, which are more than two hundred years old. There were thousands upon thousands of large fir-trees, either lying on the ground, blackened and charred, or standing, like black pillars, with their branches and tops burned off, while heaps of ashes and charcoal were seen everywhere. There was not a blade of grass or moss on the parched ground; but now and then a tree or a cluster of trees had escaped the fury of the flames, making one marvel how it could have happened, for everything around had been destroyed in the fiery storm.

The farms were fast improving. In some houses the walls of the rooms were covered with paper; porcelain stoves ornamented the premises; fine white linen cloth covered the dining-room table for the stranger. Sometimes there was a little garden, in which radishes, onions, lettuce, and green pease were growing. Here and there, suspended on some of the trees, a wolf-trap caught the eye.

Vuollerim is beautifully situated by a sheet of water, shaped like a horseshoe, and surrounded by fields of barley, oats, potatoes, and grassy meadows. The roofs of the houses were

covered with birch-bark, over which poles were placed very close together, as a protection against the wind; on the top of many was a platform for drying the flesh of reindeer and sheep, which are slaughtered in November.

Not far from the hamlet the Lilla Lule River unites with the Stora Lule (*stora* meaning "large"), which rushes down through a grand rapid, and then forms the Porsi Fall, which is about ten feet in height. Below the fall the dry gravelly bed showed that the water had subsided.

The Stora Lule is the outlet of a series of lakes, like those forming the Lilla Lule. The upper one, the Virijaur, rises near the base of the great glacier of Sulitelma, 1948 feet above the sea. By ascending the river, the traveller will see the fall of Niommelsaska, which is formed by the Stora Lule River. In July it is said to be very fine, for that is the time when there is the greatest quantity of water. Part of the stream is a wild rapid, with a total fall of 251 Swedish feet; in one place it leaps a distance of 102 feet. Grander still is the fall of Adnamuorki-Kortje, formed by the outlet of Lake Gjertejaur, at the point where the waters descend into Lake Pajiplolilujaur from a height of 134 feet. A few miles below Vuollerim the high-road ends at Storbacken, the river having fallen 650 feet from Jockmock. Here the marked changes between night and day are exhibited in the following thermometrical record for August 18th: At 8 A.M., 51½°; at 9 A.M., in the sun, 94°; at noon, in the shade, 60°; at 2 P.M., in the shade, 60°; at 3.30 P.M., on the water, in the sun, 106°. There was not a breath of wind during the whole evening, and I noticed that these great changes came gradually with a perfectly still atmosphere.

On the 19th, at 6 P.M., the thermometer stood at 54°; but the air became chilly as the evening advanced. The sky was quite clear, and by eleven o'clock the temperature had fallen to 42°, and there was fear of a frost. By midnight the mercury marked 38°. During the night the weather became colder; and when I went out at 4 A.M., August 20th, the grass was white with frost, and the thermometer stood at 32°, although the sun was shining; but luckily the grain was not injured.

It appears that from the 20th to the 24th of August, in some years, a heavy frost occurs in this region which injures or destroys the crops; but if the frost does not come, these are generally secure.

The wild raspberries were ripe, sparrows were numerous by the farms, and the swallows had not yet left for the south.

One of the facts which particularly struck me within the arctic circle was the great difference of temperature in the sun and shade. I have noted, in the course of this narrative, the extent of these variations; and the reader, like myself, has no doubt been astonished to learn how powerful were the rays of the sun. Going out of its warmth into the shade, one feels the cool atmosphere, which often produces a chill, so great is the change. The heat of the sun was the greatest when it shone between the heavy leaden-colored clouds. My observations were made simultaneously with several thermometers. In the sun I used only the glass tubes, blackened bulb, which were placed in my felt-hat, carefully guarded against the wind, for the least breath on the glass at once produced a change of several degrees.

From Storbacken the Lule River, on its way to the sea, forms two reservoirs or lakes, between which, at Edefors, a distance of about 26 miles, is a fine rapid; the second lake is 76 feet above the sea. Six miles farther navigation is resumed for a distance as far as Hedensfors, with another fall, below which, at Råbäck, a steamer takes you to the town of Luleå.

On the last two lakes the farms and hamlets are more numerous, and larger, and the landscape diversified with forests and fields.

The rye here often yields enormous crops, and was very good; many of the stalks were six and seven feet high, and some taller. The *Blåklint*, *Bluets* (commonly called bachelor's-button), *Centaurea cyanus*, and poppies were numerous, and their bright colors cheered the eye; two and a half feet beneath this luxuriant vegetation the ground was frozen.

At Råbäck we found the steamer *Gellivara* waiting, and soon after our arrival we steamed down the river. The governor of the province was on board, and I was presented to

him. As we descended, the stream became wider and wider: we stopped at several points, and passed the agricultural school, and in the evening of August 20th arrived at Luleå.

The journey from Qvickjock to the sea gives a fair idea of the water-shed of nearly all the rivers of Sweden.

Luleå, lat. 65° 41′, the most northern town after Haparanda, is situated at the mouth of the river from which it derives its name, and is the residence of the *landshöfding*, or "governor," of the *län* ("province") of Norrbotten, which jurisdiction extends to the most northern part of the country. The town consists of wooden houses, and there are several warehouses, for this is a centre of trade, like all the Swedish towns built at the mouths of rivers, and it is also a sort of *entrepôt* for goods. A large timber trade is carried on, and many vessels are loaded every year. During the summer months everything comes by steamer, for goods cannot be transported in winter by the land route except at enormous cost. The houses are large, many of them painted white and the others red.

The little town is adorned with a large stone church, built in the middle of a square. The interior of the building is very plain. No paintings adorn the whitewashed walls; but over the altar is a large gilt wooden cross, with a crown at the top; and at the base a heart and anchor, with a representation of what I supposed to be laurel leaves. The pulpit is gaudily gilded.

The prison is an octagonal stone building, which has been standing for a number of years, and is surrounded by a plank fence, painted red. The cells are seventeen in number, and of different sizes and shapes. On the upper story are the quarters of prisoners condemned to solitary confinement. The average size of the cells is about ten feet in length by seven feet in width. Hammocks are used instead of beds. Each cell has a little window, strongly guarded with iron bars; and every door has a thick glass, or bull's-eye, through which the watchman can command a view of the interior. I was surprised to find only six persons under sentence, and was told that the greatest number ever known was in the time of the

famine, when there were as many as twenty. The laws are rigidly enforced; disorderly conduct, shouting in the streets, and disturbances at night, fighting, mutilation of trees, violations of the game-laws, disobedience on board ships, disrespect to the police, and many other offences, being promptly punished; and, above all, the theft of any article, however small, subjects the offender to a severe penalty. In summer, when the ports are open, and when strangers arrive in search of work, the number of the prisoners is largest.

The sale of ardent spirits is permitted; and I am sorry to say that the inn was noisy, presenting at times a scene of drunkenness which left a bad impression on my mind. Of course, it is at the worst in summer; for then the sailors, lumbermen, and stevedores make the most of their time while in town; and the prison is often occupied by men merely guilty of disorderly conduct and drunkenness. Order is preserved in the streets by three or four policemen, or watchmen, whose voices are heard at night, and whose duty it is to give an alarm in case of fire.

I was invited to a reception at the residence of the governor, who was a widower, and his daughter, a young lady of twenty summers, was a charming hostess. Almost every lady present spoke English, or some other foreign language. Music and singing formed the chief feature of the evening's entertainment, and every one seemed to try, with unaffected courtesy, to make the stranger feel at home. "You must go and see old Luleå," said some of the ladies. "Will not some of you go with me?" inquired I. I invited two young ladies, and a married one to chaperone them; they accepted, good-naturedly remarking, "We know that in America gentlemen invite young ladies to drive."

The governor showed me his garden, in which he seemed to take great pride. The raspberries were quite ripe; garden strawberries were ripening; currants were getting red; gooseberries and blackberries were still green; beets, turnips, and carrots were in fine condition; cabbages and cauliflowers were yet to come to head; spinach and radishes were plentiful; pease had blossomed and podded.

I remarked the absence of apple and cherry trees, which do not grow in this latitude in Sweden; but dahlias, asters, petunias, dicentra, *Delphinium* (larkspur), Zinnia, *Bellis* (daisy), *Digitalis* (foxglove), *Hesperis* (rocket), *Antirrhinum* (snapdragon), lupines, violets, deutzia, double carnations, tulips, peonies, anemones, lilies, and lilacs were cultivated.

Though only the 24th of August, the days were getting shorter very fast; at 10.30 P.M. the shades of evening were upon us, the stars twinkling above our heads. It was pleasant to see the moonlight again after an interval of three months. Every night had been cloudy since I had left Norway; and at about eleven o'clock the first aurora borealis of the autumn was shining in the heavens. When it appears in this latitude before midnight, it is regarded as a sign of north and easterly winds; and if it appears after, of south-easterly winds.

CHAPTER XI.

Summer Climate within the Arctic Circle.—Vegetation.

THERE is no land, from the arctic circle northward, which possesses such a mild climate and luxuriant vegetation as Norway and Sweden. The countries situated in the same latitudes in Asia or America present a cold and barren aspect compared with the part we have just visited. This climate is due to several causes: the Gulf-stream, the Baltic and Gulf of Bothnia; the position of the mountains which shelter the valleys; the prevalence of southerly and south-westerly winds, which blow almost all the year round, especially in Norway; the long hours of sunshine, and the powerful sun. On the Norwegian side, along the coast and fjords, owing to the genial influence of the Gulf-stream, the spring begins earlier, and the summer is longer than in Sweden; but the days of sunshine are less, as the climate is more rainy; consequently the vegetation does not increase so fast. Summer succeeds winter more rapidly on the Gulf of Bothnia, and vegetation increases almost visibly, especially as the dew is very heavy. Owing to a less rigorous winter on the Norwegian coast, and a longer period of medium or milder weather, several trees flourish to a higher latitude than in Sweden. Rye, which in the arctic circle is planted at the beginning or middle of June, attains a height of seven and eight feet early in August, having reached ninety-six inches in eight or nine weeks, and, when first planted, sometimes grows at the rate of three inches a day. The barley at Niavi was ready for the harvest in the middle of August, six or seven weeks after being sown.

The larch (*Larix europæa*) extends in Sweden a little above the arctic circle, but in Norway farther. The bird-cherry

(*Prunus padus*) grows in Sweden within the arctic circle; in Norway, as far as 70° 20′; and on the shores of the Tana River attains a height of ten and twelve feet, bearing fruit. The mountain-ash (*Sorbus aucuparia*) bears fruit in Norway on Alten fjord, 70°; *S. hybrida* grows as a bush in Norway as far as Tromsö, 69°. The lilac (*Syringa vulgaris*) is seen on the Lofoden as high as 68° 30′. The maple (*Acer platanoides*), horse-chestnut (*Æsculus hippocastanum*), and the buckthorn (*Rhamnus* [*Frangula*]) grow as far as the polar circle; the elm (*Ulmus montana*) grows to 67°; *Cytisus alpinus*, as high as 68° 30′, and the hazel-nut (*Corylus avellana*) at Stegen, 67° 56′, but does not bear fruit there.

The fir or spruce region (*Regio sylvatica*) extends from the coast up to about 3200 feet below the snow-line, but towards the high latitudes the trees increase very slowly, are stunted, and found in bogs and marshes. With the disappearance of the fir, the following plants cease to be noticed: *Rosa cinnamomea*, *Carex globularis*, *Galium boreale*, *Lysimachia thyrsiflora*, *Phragmites communis*, *Smilacina bifolia*.

In the second region (*Regio subsylvatica*) trees continue to grow to a height of 2000 feet below the snow-line. Forests of Scotch pine, sometimes called fir (*Pinus sylvestris*), and of fir (*Abies*), extend in Sweden as high as 68° 30′, and at seven or eight hundred feet above the sea-level. As the land rises they become more stunted, and disappear on the loftier lands. In Norway they are met as high as 70° N.

The third and most characteristic region (*Regio subalpina*) is that of the birch, these trees growing at a higher elevation than any other. The *Betula alba verrucosa* grows at a height of 2000 feet in the southern part, but is not seen in Norway above 64°. The *Betula alba glutinosa*, or highland birch, is found to almost the extreme northern part, and grows in the southern, in some districts, as high as 3500 feet above the sea. The birch often attains a height of eighty feet, a spread of nearly the same, and fifteen or eighteen feet in circumference in the south.

In the fourth region (*Regio alpina*) the birch has disappeared, and the dwarf willow (*Salix glauca*), dwarf birch (*Betula*

nana), and the juniper (*Juniperus communis*) grow to about 1400 feet below the snow-line. The *Arbutus alpina*, *Trientalis europæa*, *Veronica alpina*, *Andromeda cærulea*, *Pteris crispa* and *Archangelica* are found in the fifth region. Still higher the willows and dwarf birch lose even their bush form; the *Betula nana* creeps along the ground. On the warm sides of the hills are seen *Lychnis* (*Sagina?*) *apetala*, *Ophrys* (*Orchis?*) *alpina*, *Erigeron uniflorum*, *Astragalus leontinus;* and in swamps, *Aira alpina*, *Carex ustulata*, *Vaccinium uliginosum*, even to 800 feet below the snow-line.

In the sixth region mountains never have melting spots on open ground. When the ground is free from snow, a few dark plants grow: *Empetrum nigrum* (without berries), *Andromeda tetragona* and *hypnoides*, *Diapensia lapponica;* on greener slopes, *Gentiana tenella* and *nivalis*, *Campanula uniflora*, *Draba alpina;* in colder places, *Pedicularis hirsuta* and *flammea*, *Dryas octopetala.* The region extends to 200 feet below the snow-line. Still higher up, as we have seen, vegetation shows itself in a few exquisite flowers and the reindeer-moss (*Cladonia rangeferina*), which grows almost to the snow-line, is abundant even at Spitzbergen, 80° N.; spirit has been made from it, as it possesses a small amount of farinaceous matter. The Iceland moss (*Cetraria islandica*) is also abundant, and contains eighty per cent. of digestible substance; it is often used as a substitute (mixed with flour) for bread in bad years.

In regard to cereals, we find that wheat does not thrive within the arctic circle in Sweden, though it does in Norway. The common and the other species of wheat grow as far as Skibotten, 69° 28′ N., and very rapidly; in the south it takes 110 to 120 days from sowing to harvesting. Rye — both the winter and summer varieties — thrives as high as Alten fjord. Barley is also seen at Alten, being planted in the last days of May, in bloom in the middle of July, and harvested at the end of August or beginning of September, yielding tenfold. Oats grow as far as 60° N., and in Alten to 70°; field pease, as high as Bodö, 67° 20′. Potatoes yield well in Norway on the coast, at Alten, and in warm summers even

as far as Skarsvåg, about 71° 4′, and at Vadsö. The climate is colder on the eastern side of the North Cape. At Vardö, 70° 40′ N., they cannot begin gardening or planting before the middle of June, and sometimes not before midsummer; fogs prevail from June to the end of July; August and September are generally clear.

Beets will grow as high as Vardö; also flax and hemp, though not extensively, up to 70° N., in the most northern region attaining a height of two or three feet. Timothy, meadow foxtail, wild oats, and red clover, up to 69° in West Finnmarken; white clover to 70°; and in Vardö, turnips. Carrots grow as far as Varanger fjord, and in Alten they attain a weight of one and a half pounds; parsnips not more than one and a half inches in thickness. Hops ripen as far as Lofoden.

The country is especially rich in berries. The wild strawberry (*Fragaria vesca*) is high-flavored and very sweet, and ripens beyond 70° N.; and in the southern part of Scandinavia, as high as 3000 feet. The wild raspberry (*Rubus idæus*) thrives as far as 70° N., and in the south, to a height of 3000 feet; the arctic raspberry (*R. arcticus*) is delicious, having the aroma of the pineapple. The cranberry (*Vaccinium oxycoccus*) and crowberry (*Empetrum nigrum*) are also found. Many varieties of the blueberry and whortleberry (*Vaccinium*) grow everywhere to 71°, and farther south to a height of 3000 or 4000 feet. The gooseberry (*Ribes*) is found as high as 70° on West Finnmarken, and in Syd Varanger to Jakobs River; it extends in the mountains between the fir and the birch limits. Black and red currants grow wild on the mountains; also the Alpine currant (*Ribes alpinum*), and the Swedish cornel (*Cornus suecica*). The most prized berry is the cloudberry (*Rubus chamæmorus*), growing everywhere as far as 71° N., and found south at 3000 feet above the sea; before ripening it is red, and when growing thickly together it forms a beautiful red *parterre*. The cherry (*Prunus avium* and *cerasus*) ripens sometimes in Norway at 66° N.

CHAPTER XII.

Seasons near the Arctic Circle. — Farm Buildings. — Reception-room and Kitchen. — Habits at Meals. — Holmsund. — Lumber Firm of D—— & Co. — Their Far-sightedness and Philanthropy. — Umeå. — Reception by the Governor. — Agricultural Schools. — A Hearty Welcome. — A Charming Garden. — Native Dishes. — A Religious Scene. — Pretty Names of Women. — Banks. — A Case of Typhus Fever.

From the arctic circle southward vegetation increases rapidly. A great part of the province of Westerbotten is covered with forests of fir and pine trees, the former predominating; these begin on the slopes of the mountains, at a height of ten to thirteen hundred feet, and extend to the sea, a distance of one hundred and fifty miles. The country becomes gradually more thickly settled; numerous saw-mills convert into planks the immense quantity of logs floated down the lakes and rivers; agriculture is carried on in a more intelligent manner; the farm-buildings are larger and well built, and the dwelling-houses are spacious.

Here I have seen at the end of April blinding snow-storms, and have found the little lakes near the sea, such as that of Stöcksjö, near Umeå, frozen till the 15th of May; but, nevertheless, the people were ploughing.

From the 20th to the 24th of May the farmers are busy sowing their grain, both men and women being in the fields. The contents of the refuse heaps of the year, which have been carefully kept, are by the women thrown with shovels broadcast over the land. On the 28th the first swallows made their appearance, and two days after the singing of a cuckoo announced the approach of summer. Inland the season was later; in the Ume Valley, at the beginning of June, there was much ice on Tafvelsjön, and patches of snow here and there at the foot of hills; farther up the valley vegetation was still

more backward; but in summer, even farther north, I have seen superb fields of rye.

The buildings of a farm are composed of detached houses, surrounding a sort of yard; all are painted red when the master is thrifty, and, at any rate, the dwelling-house: kitchen or flower-gardens may be said to be unknown among the regular farmers.

In the reception-room, kept scrupulously clean, the floor is more or less covered with home-made rugs, and a porcelain stove, rounded or square, generally white, reaches to the ceiling, a height of about ten feet. The sleeping-rooms have comfortable beds, and the mattresses and pillows are invariably filled with feathers.

The great room is the kitchen, with its bright open fireplace, which gives light in the evening, and gladdens as well as warms the household; here, of course, the cooking and preparing of the meals takes place, and its furniture is simple and serviceable. Along the walls are sliding beds of plain board, used as seats during the day, and filled with straw or hay for the night; these beds can be opened wide enough to accommodate two or three. The whole household sleep in that same room—brothers and sisters, men and maid-servants; the women always with their skirts on, and the men partly dressed.

In this general living-room poles are secured near the ceiling by the fireplace, upon which in the evening the clothing and stockings are hung to dry. The cellar is under this room, and is accessible through a trap-door in the floor; there the potatoes, beer, butter, cheese, and sundry other articles are kept. In this living-room the every-day company is received; the men smoke, spitting on the floor, which is washed every Saturday, when a general cleaning takes place. Table-cloths are not used, but the board is kept clean; forks are unknown, and plates are rarely used, the bread being used instead. A large bowl of potatoes is placed in the centre of the table, from which each one helps himself; the butter is generally portioned out beforehand, and often the meat or fish; each helps himself also from a large wooden bowl containing sour milk, after shaking it well.

The people, except on extra occasions, change their linen or underclothes once a week, on Saturday evening, after the work is finished. Often the family washing takes place only once in three months, and the amount is then enormous.

On a day in August I landed at Holmsund, at the mouth of the Umeå River—one of the many hamlets whose wharves are packed with millions of feet of lumber ready for shipment. Nothing can give a better idea of the extent of that trade here than the fact that the firm of D—— & Co., of Göteborg, employed at that time from three to five thousand persons in the saw-mills, or in drawing, floating, or shipping timber; the firm had the sagacity to foresee the inevitable advance in prices, and, accordingly, years ago purchased vast tracts of woodland from the farmers, when it was worth but little. The senior partner, Herr D——, has built a church and a school-house for his workmen, pays the salaries of a clergyman and a teacher, and, in fact, has created a village; his people seem to be well cared for, and by their good behavior do honor to his philanthropy. One of the members of this firm, actuated by a commendable public spirit, has borne the chief burden of Nordenskiöld's expedition, which involved a heavy outlay of money.

A few miles higher up is the town of Umeå, lat. 63° 49′ N., inaccessible to large vessels; it is a bright little town, with a population of about two thousand five hundred.

As in Swedish villages generally, I was struck with its extreme cleanliness; its streets were somewhat narrow, and paved with cobble-stones; all the houses were of wood, very long, and well painted, most of them having an upper story. A very fine wooden bridge, built on granite piers, crosses the Umeå River, near which I once counted over ten thousand barrels of tar waiting for shipment. There were numerous shops, for these little towns are the centre of trade for the surrounding country, and for the valleys and rivers at or near the outlets of which they are built. There was an air of comfort and prosperity among the inhabitants, all of whom were dressed like city people, and it was apparent that education had reached even the humblest. Numerous children, coming out of school, showed by their happy faces that their tasks had not been dis-

tasteful to them; Greek, Latin, German, French, English, drawing, music, astronomy, mathematics, etc., etc., are included in the course of study in the high-school.

The fondness of the Swedes for music and singing, even thus far north, was here well exemplified; as I walked through the streets I heard the sound of the piano in almost every house — children practising, while their elders were playing. There were at least one hundred pianos in the place, or one for about every twenty-five inhabitants; but many were not in the best order or of the first quality, as is the case everywhere in small towns.

My reception by the governor of the province was most friendly, though unpretending, except that a servant in livery ushered me into his presence. A portrait of the king and two other members of the royal family adorned the walls; the furniture was plain; there were no carpets on the floors, and everything was scrupulously neat. I was invited to meet a select party of gentlemen at dinner for the same evening. The table was tastefully decorated; in the centre was a melon, which had come by steamer from the south—a great luxury so far north: the *menu* was composed of a magnificent salmon, served whole, delicious corned-beef, chicken, capercailzie (large black grouse), potatoes, green pease and beans, salad, puddings, dessert, and various wines.

The governor proposed two toasts, one being for me, to which I responded in the best way I could. After dinner we descended to a sort of piazza, protected by glass, where cigars and punch were served, and pleasant conversation finished the day; at seven o'clock we said good-bye, my host pressing me to make another visit to Umeå.

Among the most useful institutions of Sweden are the agricultural schools. There are twenty-seven of these *Landtbruks skolor* distributed over the country, besides two agricultural colleges. These schools have greatly contributed to the development and improvement of agriculture, and they are looked upon with much favor by the people of the country, which popularity they certainly deserve. The object of these institutions is to elevate the standard of agriculture, and to teach the

sons of farmers how to improve their farming. The students are required to remain under instruction for two years: the course of study comprises the principles of agriculture and horticulture, the care of domestic animals, the improvement of breeds, drawing, surveying, drainage, carpenter and smith work, carriage-making, forestry, mathematics, agricultural chemistry, meteorology, veterinary surgery, botany, a little of zoölogy and geology, butter and cheese making, the art of building and of making fences and walls. Connected with some of the principal schools are dairy-schools for women, where they go through a year of butter and cheese making. The students, after passing their examination, may, if they like, go to an agricultural college for two years more; but most of them return to their parents' farms with a practical knowledge of farming.

In the schools the instruction is free, but the students give their labor; the expense is borne partly by the province, and partly by the State. The cost at the college, including board and lodging, amounts to about 600 kronor—$175—a year. There is also a forest institute, with six lower schools, for the training of practical foresters. The most northern agricultural school is on the banks of the Lule River; each län generally has one, and in the south, where the population is denser, sometimes two.

The price of a cow in that part of the country that year was 80 kronor, and when hay was scarce, sometimes as low as 50 kronor. A good farm-horse was worth from 200 to 250 kronor, and a sheep from 7 to 10 kronor; 20 pounds of mutton were sold for about 4 kronor; 20 pounds of salmon, in the season, from 4½ to 5 kronor, and of beef from 4½ to 5 kronor for the best quality; butter, 50 öre per pound. A cord of wood, eight feet long, six feet high, and three broad, was worth from 4 to 6 kronor, and hay 50 öre for 20 pounds. The pay of a laboring man was from 1½ to 2 kronor per day, and carpenters and masons received from 2 to 2½ kronor. These were the country rates, but the price of labor has since almost doubled.

I had come to Umeå with Herr Dannfelt, who was on a tour of inspection of the agricultural schools of the North. He was an excellent English scholar, and also spoke French and Ger-

man perfectly; I was indebted to him for many acts of kindness during my sojourn in his country. He was sent by his government as Royal Commissioner for Sweden at the Centennial Exhibition in Philadelphia, where many have had occasion to appreciate his courteous manners. In company with him, the governor of the län, and other officials, we drove to the agricultural school at Innertafle, a few miles from the town. Though it was morning, all were in evening dress, and wore their decorations.

The director of the school, Herr Dr. U——, had received his degree of Doctor of Philosophy from the University of Upsala: that far-famed institution does not confer degrees unless the recipient of the honor has proved his capacity by passing a searching examination, no exception being made in the stringent enforcement of this wise regulation.

The school at Innertafle, which was but a few years old, had under cultivation a little more than one hundred acres of land; but there were about eighteen hundred of unimproved land and forest which were to be gradually reclaimed for tillage, and the rocky and swampy nature of the soil offered to the students excellent opportunities for learning the art of drainage. Blacksmith and carpenter shops were in full operation; the barn was large, and all the out-buildings were very fine. The live-stock of the farm consisted of about thirty head of cattle, besides horses, sheep, and swine, of different breeds; and the results of the intermixture of blood were being observed with great care. Experiments were also made with wheat, which did not seem to flourish well so far north: in Norway, as has been before stated, it thrives farther north than in Sweden.

We were warmly welcomed. I was struck by the appearance of home-comfort of the house, where one could easily see that a woman presided. The parlor sofas and chairs were covered with white linen; the windows were adorned with flower-pots; the floor was so clean that a stranger might almost have been afraid to walk upon it; there was a piano, with a pile of music near it; an American sewing-machine stood near one of the windows; engravings hung upon the walls; little porcelain

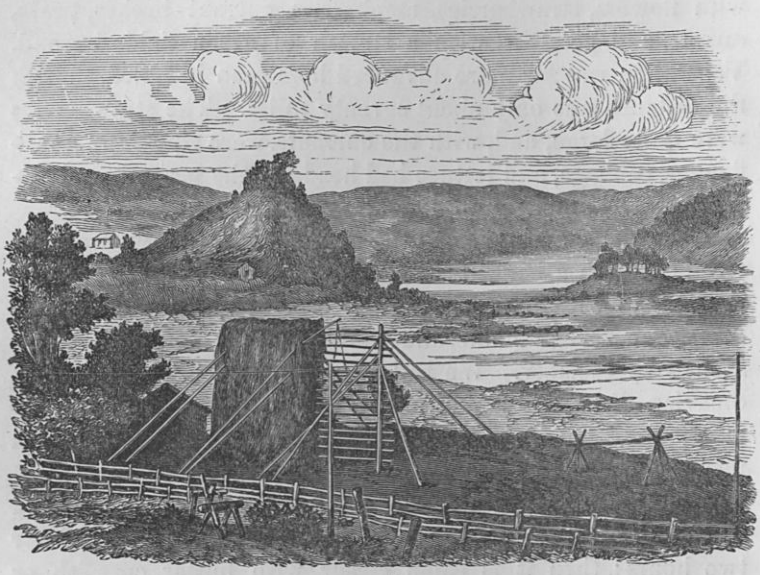
figures were scattered here and there; on the table were illustrated newspapers and books; in a bookcase were French, English, German, Greek, and Latin works; and among the practical books in English were essays on "The Art of Taming Horses," and "How to Farm."

From the rear windows there was a view of a garden filled with flowers, strawberries, raspberries, currant-bushes, pease, carrots, and potatoes, with a stretch of green fields beyond. Vegetation was far more advanced here than in Luleå, though the distance was only about seventy miles. The strawberries were quite large, and, with the currants, were ripening; cauliflowers, cabbage, and lettuce had headed; the pease were bearing fully, and melons were growing under glass.

When the examination of the school was ended, we were entertained with a bountiful repast, the lady of the house doing the honors with a peculiar grace and kindness which made every one feel at home, and the remainder of the day was spent very sociably. We had, among others, a peculiar Scandinavian dish—a fish pudding; in Sweden the pike is commonly used, in Norway the cod. The fish is cut in small pieces, and freed from bones, then chopped very fine with butter; after this it is mixed with eggs, milk, flour, and seasoned with pepper and salt, the whole being boiled in a mould for two hours; then it is eaten either with butter, crawfish, or lobster sauce. This dish is very delicious and very light. There was another, called Köttbullar, very popular, made of the best beef mixed with suet, and chopped very fine; after which it is mixed with eggs, milk, powdered cracker, spiced to suit taste, then rolled in small balls, and fried in butter. There was also a dish called Kåldolmar, prepared in the same manner as the one above, but rolled in boiled cabbage leaves, afterwards put in a pot with butter, and cooked on a slow fire till the cabbage has become quite browned. Highly-spiced cold salmon, with its own jelly, is also very much liked.

The weather in Westerbotten and in some of the adjoining provinces is often rainy in the autumn, and in some wet seasons it is difficult to dry the grain without its getting mouldy. The traveller notices, as he passes by every farm, a very con-

spicuous structure, called the hässja, which is used in the provinces of Ångermanland and of Jemtland. The hässja is a curiosity in itself, little used in other parts of Scandinavia, and unknown in any other country. It is used by the farmers for the drying of grain before the final storing of the harvest, and is often of great size. It is constructed of the trunks of



SINGLE HÄSSJA.

trees, set vertically in the ground, at distances of from ten to fifteen feet apart, with holes through which cross-beams are passed at intervals of about two feet. The height varies from twenty to thirty feet, and sometimes more, and the length is proportioned to the extent of the average of the crop on the farm. When the harvest is gathered, the sheaves of grain are placed in the hässja, and left to be dried. The sheaves are piled in regular rows, overlapping each other, and in case of rain do not become wet, while there is a constant circulation of air through the whole mass. Each vertical post is supported by braces, formed of trees of smaller size, so that the whole structure is made firm and substantial. When the structure is empty, standing out from the landscape like a skeleton, its sin-

gular appearance excites the wonder of the passing stranger. Double hässja are also used, built with two rows of beams, covered by a roof, and strengthened by cross-beams. At the end of this is a house in which the grain is stored; they are from sixty to one hundred and twenty feet long. Near or at the end of this structure is often placed the barn, where grain is also kept. The most common way of threshing rye or barley is by spreading it on the planked floor of the hässja, where a heavy roller with long wooden pins, drawn by a horse, is made to pass over and crush the stalks. In small farms the grain is threshed in the old-fashioned way—by beating with a flail.

It is rarely and only in sparsely-settled districts, where good land is very scarce, that one sees a solitary farm in Scandinavia. The people live chiefly in hamlets, not built in streets, but composed of a number of farms at various distances apart; they are thus able to enjoy frequent social intercourse, and can meet for innocent amusement, rendering their lives more cheerful, their hearts warmer and more charitable, and their habits less morose.

When travelling in the Western and even in some parts of the Eastern States of America, I have often had a feeling of sadness, as I saw the farms so far apart that at some seasons of the year the inmates of each must remain entirely by themselves for weeks and even months. Solitude, or practically solitary confinement, often unsettles the mind, and leads to insanity. Man requires a certain amount of social intercourse, of work, or exercise, mingled with recreation, in order to be in perfect health; any excess of one or the other becomes injurious to him in the course of time, and sooner or later he has to pay the penalty of any violation of the laws of nature.

Many times the people are glad of an occasion for a frolic. As I came to a farm, sometimes, I was welcomed by the farmer with the words, "Paul, you have come just in time; I am going to raise a hässja to-morrow, and all the neighbors will be here to help me; won't you come and help us, also? Afterwards there will be a kalas (feast)." Of course I consented gladly.

The day appointed we were on hand. The heavy ropes and cords were on the ground, and the hässja was raised after some three hours' hard work. All were then invited into the house, where a bountiful repast had been prepared by the wife, who welcomed us. As an appetizer, a glass of bränvin had to be taken, and beer and coffee were not lacking. Gradually the farmers became more lively and sociable, and all were happy and contented.

On a Saturday afternoon many of the farmers dress themselves in their best, and drive to the towns to buy provisions, not omitting to get a bottle of bränvin, with which to treat their friends and themselves during the week.

At a hamlet where I was staying a peddler arrived with his wagon and goods, to remain three or four days. He took up his quarters at one of the farms, spread his goods in one of the rooms, and then was ready for business. He was, besides, a *läsare*, a pietist, or sensational preacher, and wherever he went he held meetings, and exhorted and prayed with the people. At one of his stated hours I went to hear him, and found among the audience several women under very great excitement. One was in a violent fit of hysterics, crying loudly, and shouting that she felt that her sins were not forgiven, and that she would go to hell! Two or three of the cooler women were trying to pacify her by telling her that God forgave all sinners who believed, and came to him through the Lord Jesus Christ. In the mean time this maul-text preacher was reading in a loud voice verses of the Bible, always to be found appropriate for such occasions by a forced literal interpretation, to frighten her more and more, now and then putting in a hopeful text about forgiveness of the repentant. The poor creature remained in that dangerous state of excitement more than two hours, until she became calm from exhaustion, and left, accompanied by some of her friends, satisfied at last that her sins were forgiven.

All the women of the place seemed to be crazy after this preacher; but the men said nothing. Similar scenes, I am told, often occur in these country hamlets, especially in the winter, when people have nothing to do. Such preachers do a great deal of mischief, and no permanent good.

The women had pretty names, and always two—such as Maria, Olivia, Sara, Clara, Josephina, Christina, Carolina, Augusta, Lovisa, Gustafva, Engla, Cathrina (Catherina), Anna, Carin, Erika, Mathilda, Margareta, Albertina, Eugenia, Brita, Evelina, Eva, Magdalena, Ulrika, Kajsa, Sophia, Nina. The men have fewer names, among the most common of which are Gustaf, Olof, Anders, Carl, Johan, Erik, Nils, Elias, Pehr, Zachris, Thomas, Jonas, Frans.

On my return to Umeå I found that my exchequer was very low—a discovery that was far from being agreeable, as I had no letter of credit upon the bank of the place or anybody else, and Stockholm was five hundred miles away. Happily there was a telegraphic station here, and I sent a message to Stockholm to my bankers to telegraph to some one here to supply me with money. An answer was soon received, complimenting me with unlimited credit.

This establishment was a plain wooden building, without window-shutters, though it sometimes contained a large amount of money: evidently burglars had a bad time in this country, and did not dare to attempt to capture the booty. The president and the officials of the institution received me with that consideration which rises in proportion to the amount you are credited with—not unlike the custom in other countries. Reader, just think of my reception!

Somehow or other the news had spread in Umeå that I had bought large areas of forest, and my astonishment was great when the director of the bank asked me if I wanted thirty or forty thousand dollars; and when he told me the reason why he thought I required so much money, we had a good laugh over this idle gossip. A few hundred dollars was all I required.

My voyage up the Ume valley had been a subject of great talk. At that time Scandinavia was scoured in every direction by speculators, rich and poor, from the cities, eager to buy forests, even groves of trees. It had become a perfect mania: if they only could buy the trees without the land, their fortune, they thought, was made. Happy were they if the farmers were willing to sell their woods. At first many sold them

cheaply; but in course of time the value increased, and the more wide-awake ones who had not sold were now masters of the position, and obtained enormous prices, which kept increasing every day. At last the bubble burst; hard times reached Scandinavia, and the speculators in timber found that there was a limit to the price, at least for the present.

One day, as I entered a dwelling where typhus fever had attacked the family, a sad spectacle met my eyes. One of the children, a girl of about ten years, was expiring in her mother's lap, and even as I looked the breath of life departed. The mother caressed her child, and the neck, not yet stiffened by death, allowed the head to sway to and fro, as she passed her hand through the fair silky hair; but gradually the motion became less and less, and then she began to realize that her child was dead, and, though not a tear fell, the pangs of intense sorrow could not be concealed. To make the desolation of that home still greater, on a bed close by was another daughter, sick with the same disease, and looking so pale that it seemed that she was soon to join her departed sister. The smile of merriment had left me as I crossed the threshold.

"Have you seen the doctor?" said I.

"Yes, and he gave me a prescription, and it has done no good."

"Has he seen the other child?"

"No."

"Why have you not sent for him?"

"I am so poor," said she.

I remembered that I had in my luggage some medicine, which my beloved and now departed friend, Dr. F. L. Harris, had given me when he shook hands with me on board the steamer, on my departure from America, with the admonition, "take good care of yourself, my boy!"

"I will come back," said I, "and bring you some medicine for the other child, whose life I hope will be spared to be a comfort to you in your old age."

The medicine I gave was most beneficial, and before I left the province the child had recovered.

CHAPTER XIII.

Provinces South of Westerbotten.—Ångermanland.—A Beautiful River.—Örnsköldsvik.—A Picturesque Coast.—Hernösand.—Leaving Hernösand.—A Charming Road.—Rural Scenery.—Agricultural School at Nordvik.—Fine Buildings.—Students' Quarters.—Regulations.—An Hospitable Welcome.—A Dinner.—The Hostess.—Honesty of the People.—Improvement in Vegetation.—Apple-trees.—The Hamlet of Nora.—Changes of Temperature.—A Social Gathering.—Ascending the Ångerman River.—A Fine Farm.—Large Hässja.—Butter-making.—Harmånger.—The Parish Church.—Epitaphs in the Graveyard.—How the Poor are taken care of.—A Funeral at Njutånger.

South of Westerbotten are the provinces of Ångermanland, Medelpad, and Helsingland, situated between 61° and 64° of latitude. They are dotted with beautiful lakes and rivers, and forests cover large areas; the shores are indented with numerous bays and fjords, on the sides of which, near the sea, many picturesque towns and villages are nestled. After wandering among their woods and dales, and paying a visit to their hamlets and farms, we will cross once more the peninsula of Scandinavia from sea to sea, and compare its vegetation with that of the country farther north.

Ångermanland is a beautiful province, and many of its valleys are very productive. The Ångermanelfven, running through its whole territory, is the deepest river of Norrland and of Sweden, and may be ascended by steamboats as far as Nyland, a distance of nearly sixty miles, and by small craft to Holm, thirty miles farther.

The most northern place of importance on its coast is the village of Örnsköldsvik, in lat. 63° 15′, among the hills at the end of a fjord, with a population of 600 souls. It is composed of one main street, with large and commodious houses, two or three of which are about one hundred and fifty feet in length, and from forty to forty-five feet in width; most rest

on well-cut granite foundations, and are painted white or of a light yellow. There are several good stores, a telegraph station, a hotel, and a small public garden.

On the coast south of Örnsköldsvik the scenery increases in beauty, and as far as Sundsvall the coast is the highest in Sweden; numerous islands dot the sea along the shore, the principal ones being North and South Ulfö, inhabited by a few hundred fishermen.

The principal town and port of the province is Hernösand, on the island of Hernö, in lat. 62° 36′, with a population of 4700. It is finely situated on the declivity of a hill, and has some handsome residences; it is the seat of a governor and a bishop, and a court of justice, and its position near the entrance of the river Ångerman gives it commercial importance.

Not far from that city is the agricultural school of Nordvik, to visit which, on the 28th day of August, I took passage on board a little steamer. The morning was superb, the water without a ripple, and the air had the peculiar dry, cool property which gives strength to the weary and health to the sick; a light overcoat was necessary, for the mercury on deck was at 53°. After a sail of over an hour I landed, and found the director of the school waiting for us; we drove through a lovely country, on an excellent road which skirted the fjord. A light, cool breeze, laden with the fragrance of the pine, the fir, and the wild flowers, blew over us; birds and butterflies were flying about, and rivulets of clear water ran rippling by us, on their way to the sea: the road was bordered on either side with short grass filled with dandelions in full bloom. As we went up and down hill after hill, fjords, islands, vessels, woods, farms, meadows, and cultivated fields came successively into view.

The Nordvik school is an older institution than that of Innertafle, previously described, and is in a much more fertile and more thickly settled district; horticulture, therefore, has more scope, and experiments with different kinds of grain could be prosecuted with better results on account of its more southern situation.

The farm buildings were commodious, with an immense barn, about two hundred feet long, and broad in proportion. On the ground-floor were the stalls for the cattle, with a gutter, from which every particle of manure was conveyed to an adjacent shed, where it was kept from contact with the rain; also, a large space for carriages, carts, ploughs, and other farming implements; on the other side the grain was stacked.

The number of persons under instruction, as at Innertafle, was twelve; their quarters included a kitchen, a dining-room, a study-room, and bedchambers—all remarkably clean. At noon they came to dinner; they were strong, healthy young fellows, with faces reddened by exposure. I found that the students here were more advanced in writing than those of the first schools I had seen, and had received a better preliminary education; and I observed a continual improvement in this respect as I went southward through the richer districts. These young men, by study, work, and thrift, were preparing themselves for the life they intended to pursue as tillers of the soil—a noble vocation; they wanted to raise agriculture to a higher standard, and to keep up with the march of progress.

This school had only sixteen cows, but the breed was rapidly improving in appearance as well as in value. One of the cows had given in a year five hundred imperial gallons of milk, two and a quarter gallons making, on the average, one pound of butter: an accurate account of the quantity of milk given by each cow is kept, especially when the breeds are crossed, in order to ascertain the degree of improvement in the amount and quality of the milk and butter produced.

We were invited to partake of what the host called a country dinner, somewhat unlike those I had before seen. A large bouquet adorned the centre of the table, and the butter was surrounded by beautiful flowers; at one end was a silver bowl containing powdered sugar, while on the other side a silver holder supported a crystal dish, filled with raspberries just plucked in the garden, and a plain china pitcher was filled with delicious cream. The meal was chiefly eaten standing, and was a combination of the smörgåsbord and dinner on the

same table. After eating the dishes composing the smörgås-bord, a delicious vegetable soup, mixed with milk, was served, after which I helped myself, like the rest of the company, to raspberries and cream, thinking that the dinner was over, and that we had come to the dessert; but, to my utter astonishment, another course appeared, consisting of some large capercailzies, and after this a pudding. The beverages were milk and beer.

The hostess, who was rather tall in stature, with flaxen hair, soft blue eyes, and fair complexion, wore a light-colored print dress, made high in the neck, and fitting like a glove, with black trimmings, the only adornments being a lace collar and a black velvet ribbon fastened round the throat by a small gold brooch; a black silk net, through which the hair appeared still more flaxen, completed her toilet. Two maids assisted her, but her personal attention was given exclusively to her guests, upon whom the daintiest dishes were pressed with a soft voice and a charming simplicity of manner.

The traveller sees everywhere proofs of the honesty of the people. Though the house was on the highway, there was not a person visible when I entered the place, all being at work in the fields; the doors had been left wide open, and in the bedrooms watches were hanging on the walls: near the beds the students had hung portraits of their fathers, mothers, sisters, sweethearts, and friends.

A marked improvement in vegetation was apparent; although only eighty miles south of Umeå, the experimental gardens contained several apple-trees, growing the farthest north of any in Sweden, in about lat. 62° 40′. The fruit was small, but some of the trees, which were yet young, were overladen with it. This hardy species of apple comes from Russia, and is becoming acclimatized in this part of Sweden; it would probably grow well in the northern section of the United States. There were also several cherry-trees, with ripened fruit; gooseberries were maturing, strawberries were fine, and the vegetables were far more advanced than any I had previously seen: wheat and flax were cultivated, and the latter is exported. A breed of large horses, used by brewers, is raised in the district.

In the afternoon we took a drive to the hamlet of Nora, about three miles from Nordvik. Leaving the high-road, we passed through a valley, in which were scattered numerous farms, a small river adding to the charm of the landscape. We saw some rich fields of barley and flax—the latter being planted extensively, as linen is woven by the farmers for home use; the reapers were engaged in mowing the barley, while lads and girls where tying it in bundles. The large snow-ploughs along the road reminded us that this smiling picture was soon to pass away, and that winter would give another aspect to the landscape; indeed, so great was the change that I did not recognize the place at a later period, when on my way to the far North, and I inadvertently passed the Landtbruks skola without stopping to thank those who had been so kind to me.

The end of our drive was the little Nora lake, near which stood the church and the parsonage, while in the distance was the residence of the school-master. The red school-house was near the road, and thirty or forty log sheds, built close together, were intended to shelter horses from the winter winds and snow-storms while the people were in church.

I was surprised at the great change in temperature; sometimes we drove through a warm atmosphere, which was succeeded by a cold wave, and that again by a warm one. The weather grew cooler. At 7 P.M. the mercury stood at 50°, falling at 8 P.M. to 46°, and at 10 P.M. to 44°; though in the afternoon the temperature had been 59° in the shade, and 114° in the sun.

In the evening the pastor of Nora joined us, and his presence was welcome to all; for it is one of the characteristics of the Swedish clergy that they mingle in the pleasures of the people among whom their lot is cast, witnessing their simple dances, and enjoying their social gatherings. The clergyman is often seen looking on with a smiling face, happy at the sight of his merry and contented flock, and he is often considered an integral part of the family. I was always delighted at such scenes; for it was evident that a good moral influence was thus exerted over both clergyman and people, producing in the latter a pleasant restraining effect, and giving to the former an

insight into the heart which no man can have unless he mixes with humanity.

Leaving Nordvik, a drive of three-quarters of an hour brought me to Hornön, where we were ferried across the river to take passage on the steamer which ascends the Ångermanelf. The country became more and more picturesque as we sailed up the river, on whose terrace and alluvial soil were numerous farms. In the afternoon we reached Holm, the highest point of steam navigation, where we learned that white frost had occurred for three consecutive nights.

Not far from the landing, on the left bank, is one of the largest farms of Ångermanland, where, with true politeness, its owner was waiting to receive us. I was invited to become a guest at the farm-house, a mansion two stories high, about one hundred feet long by forty-five wide, with a sort of Mansard roof. At this farm there were about seven hundred acres of land under cultivation, the principal crop being barley.

On a small island near, containing about one hundred and fifty acres of pasture-land and woods, a herd of cattle belonging to the State had been let loose for the summer; they appeared overjoyed at our presence, running towards us, the goats and sheep joining in the frolic, and we caressed all as we pleased. The animals of a Scandinavian farm are always tame, on account of their being petted and treated with the utmost gentleness.

There were eighteen large out-buildings, separated from each other, as a precaution against fire, which in America would have cost a large amount of money. One of the hässjas was the largest I ever saw, to accommodate the large amount of grain harvested every year. It was one hundred and eighty feet long, and of great height; and not far from it was another, about one hundred and ten feet long, forty broad, and thirty high, which had eleven cross-beams supported by twenty other beams, placed vertically, with a large area in the middle, used as a threshing-floor. This was the first farm I had seen in the North with an ice-house; the ice was not used exclusively as a luxury, but was also employed for dairy purposes, the milk being surrounded by water at a uniform temperature of

42°. This is considered better than to keep the milk in a running spring or in a cold room, the cream never souring and the butter being much better, and is now used on many dairy farms.

After wandering in Ångermanland and in Medelpad I entered Helsingland, sailing along its coasts, driving along its shores, and spending some time at its comfortable farms. Its two chief towns are Hudiksvall, a seaport, in lat. 61° 50′, with a population of 3700, at the extremity of a fjord; and Söderhamn, in lat. 61° 25′, with a population of 6200, not far from the outlet of the river Ljusne, which rises among the mountains of Herjeådal and traverses the whole region. This province abounds in large forests, swamps, and bogs. Inland a number of the inhabitants are descended from the Finlanders. A high-road, passing through this district and Herjeådal, leads to Röraas, in Norway.

While travelling in this part of the country, one afternoon I halted at Harmånger, near the sea, before a farm, whose buildings formed a square, entered through a porch. On inquiring if I could remain for a few days, I was welcomed, and a maid conducted me to one of the guests' rooms up-stairs. After a simple repast, I went to the parsonage, where I was kindly received by the pastor, who at that time was preparing the youth of the parish for confirmation; he was an excellent man, and insisted that I should often take my meals with him and his family. When we went to visit the church he took the key with him. The keys here are always very large, especially those of the churches, the locks of which are often very old. This one was at least a foot long, and of such calibre that, by piercing a hole in the tube, it would have made a very good pistol of large size.

The old church of Harmånger was built of rough stones of different sizes, and, as usual, stood in the midst of the churchyard, enclosed by a stone wall. Two high ladders were resting on the roof, for there had been an addition to the edifice, one part being much older than the other. Near it was a tower about twenty feet square, whose very thick walls were smooth outside, but very rough and unfinished inside, the

stones being large and uneven; no one knew when or by whom it was built, and the pastor said that it dated from heathen times, and was probably used for sacrifices: the entrance was through a queer-looking stone-roofed porch.

As I wandered among the graves, reading the epitaphs, I could see the simple and strong faith of the people. The following are specimens:

"Farewell! now will I sleep and live in the home of peace."

"Oh ye be soon welcome to the same good rest. Delightful is the couch of repose, and the night is soon passed; farewell, my heart says. In the heavens we shall meet. Now all my thoughts I turn, oh Jesus Christ, to thee."

"Into thy merciful hands I commit myself. Now I can depart from sorrow, vanity, and want, and forever be with thee, oh Jesus Christ."

The altar is old, of wood painted and gilded, and over it is a representation of an angel with clasped hands and golden hair, surrounded by clouds, on the top of which is seated a lamb, holding between the forelegs a cross: the lower part of the angel is partly hidden by rays. On the left is a full-size representation of the Saviour, with ghastly wounds in his side, who holds scales, in one of which is a bleeding heart, in the other a sword. On the right is a representation of a female figure, holding in one hand a cross, and in the other the Bible; at the bottom of the cross is an anchor: under her feet stands a child (to illustrate darkness), and not far off an overturned jar, containing gold pieces. Over two windows are cherubim, one with a trumpet and a crown, and another with a palm-leaf and trumpet. There is also a large cross, upon which is an ugly representation of Christ crucified, covered with blood. These pictures date from before the Reformation, but the pulpit is modern. Old slabs stand in front of the altar, on one of which is the date MDC.: XXII., and on the other 1669–1691, with inscriptions in Latin.

Here I met with old Scandinavian names: Erik, Carin, Brita, Olof, Lars, Ingre (Inger), Ingrid, which were very rare further North.

The poor of this parish were taken care of in a very peculiar manner. While chatting at one of the houses an old man

entered, dressed in a suit of new clothes, and wearing a high silk hat, and was bidden to take a seat: when, upon inquiry, it was whispered in my ear that he was a pauper, I could hardly believe it. In some parishes the people prefer to have no poor-houses, as there are very few paupers. Each person who has to be supported has to prove before the Häradsting that he is too old or infirm to work; then he goes and remains six days on every farm of the parish. I was surprised to see how kindly they were treated—in many instances like visitors—having better food than that daily used by the family, and a good bed: and so they go from one farm to another. They are well cared for, for it would be a great disgrace if the report should spread that Farmer So-and-so was hard-hearted to the poor. It sometimes happens that a man is not fully able to provide for his wants, from imbecility or other cause; in that case the authorities of the parish make arrangements with some of the farmers to pay a fixed sum annually, stipulating what kind of labor the man may undertake, which is generally to tend the sheep or cows, split wood, draw water, or, in a word, make himself useful in a small way. They think this system less demoralizing than that of the poor-house; but it is sometimes attended with great inconvenience, for I saw in one instance a person so old and imbecile that he was not far removed from the brute in slovenliness, and caused much discomfort to the families who had to take care of him in their turn.

A little farther north you enter the picturesque parish of Jättendal.

On a Sunday morning, as I came to the church at Njutånger, I saw near the gate, just outside of the burial-ground, a coffin containing a dead child; the lid had not been put on, so that the neighbors and friends might take a look at the departed: the body was literally surrounded with flowers. In a group near by were several girls and women dressed in black, with white aprons, cuffs, and collars; they were the nearest relatives, and their dress was a sign of deep mourning. Some lads —the pall-bearers—wore a white muslin band around their arms above the elbow; two men had each a little bunch of

flowers in their button-holes. After awhile the clergyman came in his robes, and the service of the dead began; the men stood sorrowfully on one side, the women on the other. At the end of the ceremony the clergyman cast three spadefuls of earth over the coffin, and then went into the church for the performance of the ordinary services.

We will now leave Helsingland on our way towards Jemtland, and thence to Norway.

In Helsingland, as well as in other provinces of the North, the cultivation of flax is common, and the women are expert in the manufacture of linen. Here many of the homes of the peasantry are pictures of thrift, which delights the eyes of the stranger, who is reminded forcibly of the by-gone days of his own land.

Entering a house, I found myself in the large room, and saw two old-fashioned large looms—the same kind that has been in use for generations—and at one of these a daughter was weaving linen; near her on a chair lay a large roll of fine cotton cloth, which had been woven by a sister for dresses for the family. She was an expert, and could manufacture twelve *alnar* (24 feet) a day. At the other loom the mother was weaving a coarse woollen stuff for the winter clothing of her husband and boys, who were to have new suits on Christmas. Two of the younger daughters were busy at the spinning-wheels, while the servant-girl was carding wool.

We will now leave Helsingland on our way towards Jemtland, and thence to Norway.

CHAPTER XIV.

From Östersund to Norway.—Houses of Jemtland Farmers.—Landscape on the Road.—A Drove of Cattle.—The Town of Östersund.—A Trusting Landlady.—Frösö.—Grave-diggers.—Departure from Östersund.—Immense Forests.—Game.—A Picturesque Country.—An Intelligent Horse.—Åreskutan.—The Norwegian Frontier.—Descent towards the Sea.—Superb Scenery.—An Old Farm.—Levanger.—A Fruitful District.—Trondhjem.

THERE are several high-roads from the Baltic westward, converging towards the town of Östersund, in Jemtland, and thence to the Norwegian city of Levanger, and Trondhjem, on the North Sea, thus crossing the peninsula from sea to sea; from Hudiksvall the route traverses the whole length of the province of Helsingland, from Sundsvall through that of Medelpad, and from Hernösand, skirting the Ångermanelf, and crossing the Indalself to Östersund.

The most direct route is by way of Sundsvall, the distance to Trondhjem by this being over five hundred miles, but the road from the former place is at first tiresome and sandy; the most picturesque road is from Hernösand along the Ångerman River. There will soon be direct railway communication between the two cities.

On the 29th of August, passing through a beautiful country from Holm, I arrived at the hamlet of Sollefteå, where a fair is held twice a year, and was housed for the night at a very comfortable farm. All the way from the sea I had noticed that winter rye was raised more extensively than barley, but both crops seemed to be ripening at about the same time; oats were backward, requiring about ten days longer to mature, for the summer had been cold; the currants were ripe, and the carrots, turnips, beets, and pease looked well.

The next morning I reached the hamlet of Forss, on the banks of the Indalself, over a fine road from the Ångerman-

elf. I saw no hässjas, for the grain in this district is dried and stacked in the open air; the winter rye was cut, the barley was fast falling under the scythes of the reapers, the oats were getting yellow; on the coast there were fields of hemp, which is spun for the manufacture of fishing-nets and cord; potatoes were abundant, and each farm had its patches of hop-plants, used by the farmers in the brewing of their beer. Immense boulders were scattered over the face of the country. A few of the houses were painted white, but most of them red, with white borders around the windows and the corners, and a white strip following the line of the roof.

The hamlets are scattered wherever the soil is fertile, and the luxuriant waving fields and meadows appear the more cheerful, as they are separated often by large tracts of rocky or forest land. The houses of the well-to-do farmers of Southern Ångermanland and Jemtland are exceedingly clean. Many farms have two dwelling-houses, one of which is not occupied by the family, but always kept in perfect order; one house is used in summer, and the other in winter—"giving time to one to rest," as the people sometimes laughingly remarked.

The landscape was continually changing from charming tracts of cultivated land, the solitude of silent forests, smiling shores of lakes, dreary marshes, to now and then a glimpse of a white foaming stream dashing against rocks and boulders which lay in its course.

The cold nights—the mercury standing at 42°—showed that the summer had ended, though during the day the sun was quite warm, the mercury often standing at 68° in the shade at 1.30 P.M.; the swallows were massing together, preparing for their migration southward, and the cattle were returning from Norway.

We met a herd of about two hundred cows following a girl, whose shrill cries constantly urged them on; a short distance behind came twelve horses, led by a man whose vocation was evidently that of a cattle-driver. One of the horses turned and followed us, in spite of our endeavors to prevent him; we had to stop and give him in charge of a man who was passing in the opposite direction. Then we came to a flock of

sheep, which, as soon as they saw our horse, turned about, and at a quick trot went back to the old woman who was their shepherdess; she had in her hands a stocking, which she was knitting as she walked, but stopped her work to pacify the frightened animals, talking to them until we had passed.

The road then passed through long stretches of forest, the farms were fewer and the soil more barren. Some of the post stations were very clean and comfortable, but the food was plain. In one of the farm-houses the walls of the parlor were covered with blue paper of a small pattern; the curtains were of snowy muslin, and there were two sofas, a rocking-chair, a bureau, a table in the centre of the room, a portrait of King Carl, and a little painting representing the farm; adjoining was a bedroom, the furniture of which was made of highly polished pine, looking very much like satin-wood, so fine was its workmanship; glass candlesticks, placed on either side of the looking-glass, contained wax-candles; the floor was of bare pine, but clean and bright; the floor of the dining-room was partly covered by strips of home-made carpet, each about two feet wide, laid the whole length of the floor, and forming a contrast to the intervening spaces of wood, which could not have been made cleaner or whiter.

On the last day of August I came in sight of the Storsjö (*sjö* meaning lake), two or three hundred feet below me. The sun was near its setting, and its declining rays gilded the hills, and the dark woods of pine and fir; the shores of the lake were doubly golden with fields ready for the harvest; the sails of a few boats were visible, and a small steamer was ploughing its way towards the different hamlets.

On the eastern shore is the town of Östersund, in lat. 63° 24′, with a population of 2500. The stars were beginning to shine as I drove through its streets. I could find no room at the hotel, for the place was full of strangers, who came to attend a railway meeting. Much enthusiasm was displayed, as the people wanted the road built from Sundsvall to Trondhjem, across the peninsula, and the proposed line would necessarily pass through the heart of the provinces of Jemtland, and tend to develop its resources.

The landlord obtained lodgings for me at a neighboring house, where the sole drawback was the overtrustfulness of the landlady, who, in order to show her confidence in her guest, spread before me all her little treasures. In the evening, when I took possession of the pleasant room assigned to my use, I found on the bureau, in a little cup, her gold ear-drops, rings, a watch, brooches, and sundry other valuable articles, and not a drawer was locked; everything showed trust in me. I was ill at ease, however, for I did not know but that some of the servants or other persons would help themselves, and suspicion thus be cast upon me: two or three times during my stay I fancied the good woman shot towards me an inquiring glance, which made me think something had been stolen or was missing, and that I was suspected; but it was all imagination. It is not the custom of the country to secure anything under lock and key; indeed, no servant would have been willing to stay in a house where they were mistrusted. When I left the place I asked my landlady to see that all her property was safe. It takes some time for one who has been living in a large city to get accustomed to the honest ways of such unsophisticated country folks. I have often stopped in villages and towns of Sweden and Norway when none of the occupants were at home, but the key hung on a nail outside the door; and even when the family had gone upon a journey it was left there, so that in case of an emergency the neighbors might enter.

Two days after my arrival the post brought me a gold pencil-case which, in my hurry, I had left behind at the hotel in Hernösand: I had hardly left when I discovered my loss, and had made up my mind that I should never see it again; but when I spoke to my companion, he said, in the coolest way, "We will write to have it sent to you at Östersund:" the idea did not occur to him that it would be pocketed by any one, and he was right.

There is no striking peculiarity in the costume of the people, but some of the girls wore a kind of turban, which with some faces was becoming, as seen in the picture.

A dinner was given by the governor in honor of the railway

meeting, to which I was invited. There were thirty guests. There was no set table. The hostess did the honors in an affable and unaffected manner. In the evening there was a reception, with music and dancing, the governor being passionately fond of music, and himself a good performer; he and three of his friends were the musicians, the instruments consisting of three violins and a violoncello, with a piano accompaniment by the hostess and one of her friends. The national habit of courtesy caused a complete suspension of conversation. Later, refreshments were served in the garden, which was illuminated with Chinese lanterns. Choruses were

JEMTLAND MAIDENS.

sung in the open air, and, as we returned to the house, the host headed the procession while all sung. The reception closed with dancing, the favorite dance being the very rapid Swedish waltz.

The governor and his wife were attentive to every one. There was no servility of manner, but all were courteous; no one presumed upon his official position, civil or military rank, birth, knowledge, or wealth. If the inclination existed it was carefully concealed, for education and native courtesy checked the tendency towards such small exhibitions of vanity.

The Storsjö is a very picturesque sheet of water, 983 feet above the Baltic, nearly in the centre of the province, and is

one of the most lovely lakes of Sweden, its landscape being characteristic.

Close to Östersund is the pretty island of Frösö, rising 500 feet above the lake, and connected with the main-land by a bridge 1296 feet long. Here is a Runic stone, with the inscription, "Erected to the memory of Ostmadur Gudfast's son, who first christianized Jemtland." Frösö *kyrka* (church), on the highest part of the island, is built of stone, and is one of the oldest in Sweden. At the entrance the walls are about nine feet in thickness, and at the window seven or eight. Not far off is a wooden belfry, "Klockstapel," and the church-yard surrounds the edifice. As it was Saturday, the graves had been decorated with flowers by relatives or friends, according to the beautiful Swedish and Norwegian custom. On many of the tombs of the poor, garlands and bouquets of wild-flowers had been cast by survivors who had no other flowers to give. Hours had been spent in the woods and meadows, that morning or the evening before, in their search, and the part of the graveyard which lay next to the road appeared almost like a parterre of flowers. As I wandered from grave to grave, reading the epitaphs, my attention was arrested by an inscription which showed that three *syskonen* (brothers and sisters) lay buried below. The words inscribed upon a scroll at the head of the grave were these:

SYSKONEN.

ARVID ERLAND BEHM.

Född den 17de Maj, 1855; död den 1ste Jan., 1858.
Born the 17th of May, 1855; *died the 1st of Jan.*, 1858.

ARVID EMANUEL.

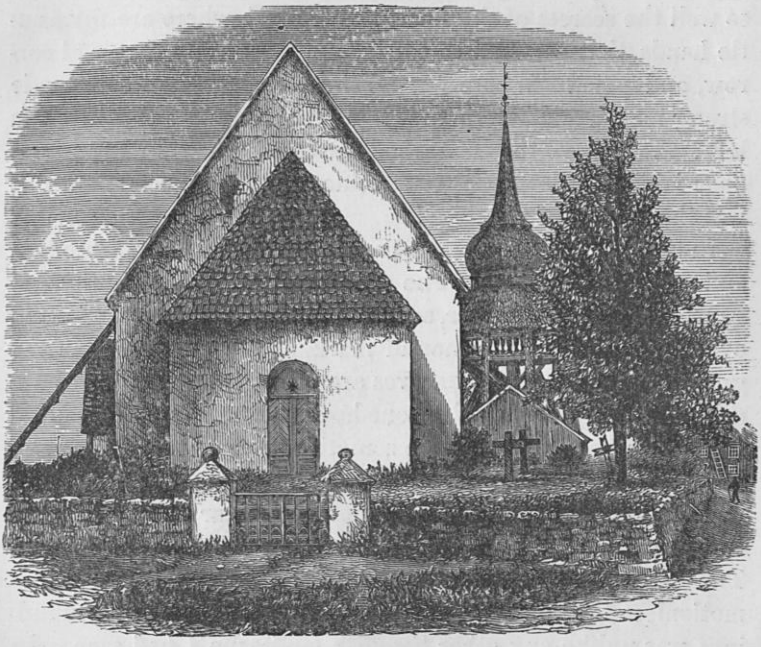
Född den 20de Febr., 1861; död den 1ste Juni, 1864.
Born the 20th of Feb., 1861; *died the 1st of June*, 1864.

EMILIA VIRGINIA MARIA CHRISTINA.

Född den 24de Febr., 1863; död den 25de Maj, 1864.
Born the 24th of Feb., 1863; *died the 24th of May*, 1864.

Little Arvid Erland had died just as the year was budding; he was not three years old. Emanuel had gone to rest the first day of June, when the sun here begins to be warm, the flowers to bloom, and the birds to love and sing. Emilia went to

sleep on her mother's breast, without saying how much she had suffered. But the little ones had not been forgotten, for three large bouquets were over their resting-place. Birds were singing, bees and butterflies were flitting to and fro over the graves, and all nature smiled. A gentle breeze from the lake wafted the perfume of the wild flowers and the pines over this last home of man.



FRÖSÖ CHURCH.

Hearing voices and a strange sound, as of some one digging, I went to the other side of the church, and there found a contrast to the scene I had just witnessed. The flowers were scarcer, the little mounds over the graves had been neglected and were going to ruin, and farther on there were no flowers to be seen. This was the resting-place of those who had died long ago, and they were forgotten. One side of the churchyard was a parody on the other. I again heard voices and the sound of the spade, and I saw two grave-diggers. The

grave they were digging was long, broad, and deep, for they were making room for more of the dead, the church-yard being full. At my feet lay the mouldering remains of a woman. As I looked at them, I said, musingly, "Woman! is that all that is left of thy beauty? Where are thy beaming eyes—mirror of thy thoughts—that told of thy love, sorrow, or anger? Where are those smiling lips, that kissed so lovingly? Where is thy comely cheek, that flushed and paled, and told so well the secrets of thy heart? Woman! where are thy gentle hands, that caressed so softly, and took away care, and sorrow, and pain? Where are all thy winning ways, that made strong men weak before thee? Is that grim sight all that is left? Why have they disturbed the couch where loving hearts once laid thee?" No answer came back. All was silent: it was the garden of the dead!

In Sweden and Norway graveyards are consecrated ground, and are not enlarged. The people of the same family are generally buried together, and there must be six feet of earth over the grave, a little mound marking the spot. When the graveyard is full, the old graves are opened, and the bones are collected and placed in the bone-house—a building constructed for the purpose, which I have sometimes seen partly filled with these relics of humanity.

The beauty of the scenery culminates near the church and by the school-house, from which twelve churches can be seen. The view was most extensive. I stood by the old edifice motionless for awhile, for the natural beauty of the surroundings was unlike any other Swedish landscape I had seen. In the far distance, towards the west, the outlines of the snowy mountains looked soft and hazy; the lake lay below, with its clear water studded with charming little islands, covered with dark fir or pine, and its shores indented by little fjord-like bays, penetrating deeply inland; the hills and trees mirrored themselves in the water, and beyond were dark forests; the banks sloped gently downward; red farm-houses were scattered everywhere, in the midst of golden fields of grain and meadows.

Jemtland is one of the largest inland provinces of Sweden,

extending westward as far as the frontier of Norway. In some parts it rises from 600 to 2000 feet above the sea. Often one sees, as far as the eye can reach in all directions, nothing but one dark, superb mass of trees, with hill after hill clad to the very tops with pines and firs. There was something very imposing in this vast sombre tract of country; while the blue sky above and the snowy white clouds formed a strange contrast to the millions and millions of trees.

Many of the valleys are very fruitful and well cultivated; but in the higher regions are vast tracts of barren land. In the recesses of these forests is found the elk or moose (*Alces malchis*), somewhat smaller and with narrower horns than the American moose (*A. americanus*). Wild reindeer (*Rangifer tarandus*) also roam in the bleak mountain region. The glutton or wolverine (*Gulo luscus*), foxes, and wolves, in some districts prove troublesome to the flocks. Bears (*Ursus arctos*) roam in the forests, and destroy annually a considerable number of cattle and sheep, and sometimes even horses. They attain their largest size and greatest number in Jemtland, Wermland, and Dalarne, and in Central Norway, almost equalling the grizzly bear (*U. horribilis*) of the Rocky Mountains.

Game is very plentiful in many parts of the province. The capercailzie, or wood grouse, "Tjäder" (*Tetrao urogallus*), is seen even near the road, and neither our presence nor that of our horses seemed to frighten them. These birds are the largest winged game found in the forests of Scandinavia, and, when properly cooked, are delicious eating. They weigh from ten to fifteen pounds each, and even more; great numbers are trapped in winter in Norrland, and forwarded to the cities. The black grouse, "Orre" (*Tetrao tetrix*), the hazel grouse, "Hjerpe" (*T. bonasia*), the ptarmigan, "Dalripa" (*Lagopus subalpinus*), and the mountain ptarmigan (*L. alpinus*) are also plentiful, as they are in many provinces. The partridge, "Rapphöns" (*Perdix cinerea*), is rare. Plover (*Charadrius apricarius*) and snipe (*Gallinago media* and *Gal. major*) are not uncommon.

As in many other districts, at certain seasons of the year,

several varieties of ducks and geese, and the swan, make their appearance on the lakes and seas.

The game and fishery laws are strictly enforced. The moose can only be hunted from the 10th of August to the last day of September; the beaver, which is nearly extinct, cannot be killed at any time; the capercailzie and other species of grouse, and the hare, cannot be shot from the middle of March to the 10th of August; the partridges and red grouse are shot in September and October. Experience shows that in the countries where the fishery and game laws are the most stringent these are most abundant. Fishing is excellent in most of the lakes and rivers of the province.

From Östersund the high-road to Norway follows the northern shore of the Storsjö, and, crossing its outlet at Flaxelfven, continues westward. There is also a new route, which is far more pleasant and less tiresome.

Steamers run from Östersund twice a week to Qvittsle, five Swedish miles, where can be taken the post-road to Bonäset, four miles farther, on the southern extremity of Kallsjön, 1281 feet above the sea; and a sail of four and a half Swedish miles more brings the traveller to Sundet, and a drive of about half a mile to Anjehem, on the Anjan lake, 1413 feet above the sea; thence a sail of two miles lands him at Melen, within seven miles of the Norwegian frontier.

By the old road from Östersund to the Norwegian frontier the scenery varies from long stretches of forest to fields of barley, rye, and oats. A species of pea or vetch is planted extensively, to be used as fodder for the cattle.

At the station I found an old woman was to be my driver. The horse provided was apparently as old as she, and was the laziest animal I had ever seen. The woman, manifestly in continual fear that he was getting tired, alighted at the foot of every hill, petted the beast, and gave him a piece of black bread from a loaf provided specially for the animal, and treated him to a handful of hay. Every time I got out to relieve the horse she was much pleased; but even then, with apparently no reason, she would stop occasionally to give him time to breathe, and feel his body to see if she could detect any moist-

ure. Once she discovered that he had been overheated, and we had to stop for a quarter of an hour to let him get cool again. The horse knew how tenderly he was treated, and was intelligent enough to know how to act, so that we could hardly put him to a trot; all the shouting and coaxing expended upon him would not make him move a step faster than he pleased. I was much delighted with my venerable driver, and, as the scenery was exceedingly beautiful, the time passed pleasantly. Our road ran between the river-like lake and hills, green with birch, pine, and fir, with mountains in the distance. As we approached Åreskutan the country became wilder, and I counted more than thirty patches of snow on that mountain.

I stopped at one of the farms at the base of Åreskutan, but there was no one in the house, all the inhabitants being busy in the fields; a servant-girl, who had seen us approaching, came to inquire who we were, and went to call Hans Benjamin, the farmer, who soon made his appearance, and welcomed us, and agreed to guide me to the top of the mountain.

This farm had two dwelling-houses. The one for winter, which was inhabited, had in a corner one of the open and spacious fireplaces, consisting of a platform about a foot high, above which hung a crane, the whole open space being four or five feet square; for the summer months, the opening had been filled with branches of juniper; the floor was clean, and, as was customary, juniper twigs had been scattered over it to give a pleasant odor; the other rooms were kept in the same good order; when no juniper, fir, or pine twigs can be obtained, the leaves of the birch and some other trees are used.

From the summit of Åreskutan, 4958 feet high, I had a glorious panorama of mountain ranges, thickly dotted with lakes, in which some of the largest rivers of Scandinavia find their sources, or a great part of their water-shed; the streams run either east and west or north and south; among the largest are the Ångerman, Indals, Ljusne, Stördal, and the Glommen —this last being the largest river in Norway.

I found upon the peak of Åreskutan a stone urn, in which was a tin box containing a blank-book; I added my name to the written list, fired two shots from the double-barrelled gun

I carried for shooting ptarmigan, and, after a descent of an hour and a quarter, arrived at the farm whence I had set out.

In the evening the farmers came in, and we had a good time; I had to *skål*—meaning "to your health"—with them; there was no help for it, for if the guest declines, the people are offended and call him proud; the drinking-cup in olden time was called a skål—hence the name.

Thence to Skalstugan and the frontier of Norway the scenery becomes monotonous, consisting mainly of forests and swamps—telegraph-poles being the only apparent sign of civilization beside the road; the soil is more sterile, and the farm-houses are unpainted.

About three miles before reaching Stalltjernsstugan is one of Sweden's finest water-falls—Tännforsen. The river is about eighty feet wide, and is divided by a rock called the "bear rock," on account of a bear which was drowned in the attempt to swim across; it plunges about ninety feet in a sheet of foam, and forms below a picturesque lake.

At Mestugan the farms appeared less thrifty, though considerable butter is made; at Skalstugan, also, was a fine butter and hay farm, and all the people were busy getting in the crop.

In less than an hour's drive from this last farm the Norwegian frontier is passed, at the highest point on the high-road between the two seas. The plateau was bleak enough; the rocky hills were clothed with reindeer-moss, and between the undulations were swamp-land, birch-trees, willows, and morasses; on one side a rivulet seemed to be on the line of the Swedish water-shed, while on the other flowed a stream going towards Norway. Upon a slab were inscribed the distances from Östersund, sixteen and a half miles, and from Trondhjem eleven and three-quarter miles. The ascent from the Baltic had been gradual, and I did not realize that the road was two thousand feet above the sea-level, so good had been the engineering work.

On the western slope of the range the scenery is among the finest of the kind in Norway. At first the trees were scarce, but as we went on the pines made their appearance — tall,

strong, and healthy, with dark mosses hanging upon their branches. The river below was a foaming torrent, with several water-falls, and the valley became very narrow and extremely wild. There seemed to be hardly a place for the road, which continued to be excellent, and is hewn out of the solid rock; walls had been built to the water's edge, to protect the way from the torrents, and blocks of stone were placed a few feet distant from each other as an additional safeguard.

A farm barred the road, which passed through a gate into the yard: it is Garnes, the buildings of which formed a square. Everything appeared strange, primitive, and old. This farm belonged to a widow. I found two pretty girls, about eighteen years of age, washing the floor of the parlor; one of them had the figure of a Venus; her under-garment was open, revealing her form almost to the waist; but the weather was warm, and she was perfectly unconscious of anything approaching impropriety.

The landlady gave me a good dinner, and did not want any money for it. "No, indeed!" said she; "and you must come again: you shall always be welcome. The Norwegians are kindly treated in America; so you shall be with me."

Farther on the road was barred by another old-fashioned square farm, called Næs. Passing the farms of Garnes and Næs, the vegetation improved as we descended towards the sea; the soil was formed of alluvial terraces. Now the yellow fields of rye contrasted with the dark pines; and soon a sublime view of the valleys of Suul and Verdal burst upon us. In the distance lay the superb Trondhjem fjord, and at my feet the country was covered with farms and farm-houses. Terraces overlapped each other; and a river flowed in the middle of a valley which was several miles broad, and flanked by mountains covered with dark forests. Rounded and oval hills formed little table-lands at different points, and were yellow with the grain crops: ravines, pastures, meadows, woods, mountains, and golden fields were all mixed together. The sides of the lower terraces by the river in many places had slid down, showing the gray color of the clayey banks. From the

place where I stood the scene appeared like fairy-land; there is not in all Norway a more charming landscape.

As we came down and caught views of the farm-houses near us, they appeared poor, and not so picturesque as when seen from a distance. There seemed to be too many of them, property having been too much divided. The roofs of the houses were covered with earth, and the cow-house was attached to, and often formed a part of, the dwelling-house.

Beautiful fair-haired Norwegian children were running about barefooted and bareheaded. Many of them had been in the woods, and had come home laden with young branches of birch, which were to be used as fodder for the goats and sheep in winter. There were a great many pigeons on these farms, and chickens were becoming abundant.

We finally reached the Norwegian town of Levanger, which was exceedingly clean, although the streets were not paved; the red-colored tiled roofs gave a cheerful appearance to the place; a few years before it had been almost entirely destroyed by fire: it also has a hospital, for the Norwegians take good care of their sick poor. The port is well sheltered, affording very safe anchorage. Two fairs take place here every year, and great numbers of Swedes from Jemtland and other parts of the country attend them.

Not far from Levanger is the hamlet of Stiklestad, celebrated as the place where St. Olaf was slain in a great battle. Upon the spot where the Christian warrior fell were the remains of an old stone pillar, with an iron cross on the top, while a modern one has been erected by its side.

The church is very ancient, built of stone, and is said to have sunk six feet below its former level. On the walls I counted twenty primitive paintings, which date from before the Reformation: they illustrate the stories of the Bible, representing Adam and Eve, both nude; Adam under the apple-tree, tempted by Eve, rather ludicrous; Matthew, Mark, Luke, and John and the different phases of the life of Christ, ending with his crucifixion.

From Levanger southward to the city of Trondhjem, about fifty miles farther down the fjord, the scenery, both by land

and water, is very beautiful. The superb road winds its way by thrifty farms and hamlets, among wooded hills here and there skirting the fjord. This part of the Trondhjem Stift is one of the most fruitful in Norway, and when, on the 9th of September, I left Levanger, the hay crop was being successfully gathered. The grain-fields were about as advanced as in the provinces of Sweden we had left. We were travelling between 63° and 64° lat., and the currants and strawberries had entirely gone.

The springs along the Norwegian coast and fjords are earlier than in Sweden, but vegetation is more backward, as the climate is not so dry, and with less sunshine; but it is also less subject to sudden frosts, which rarely occur in August, and none had appeared at the date of our arrival.

Near Levanger, by the high-road, was one of those large *herregaard* ("gentleman's farm") which one meets here and there in Norwegian Nordland, easily distinguished, by their clean appearance, flower and vegetable gardens, and planted trees, from the *gaard** of the bonde (*bonde*, farmer owning his land). This was remarkable for the size of its buildings. The dwelling-house was over one hundred and forty feet long, with an upper story, and broad in proportion; in front was a garden; at the back the yard was flanked by three other large buildings, which, with the dwelling, made an enclosure about two hundred feet wide and two hundred and fifty feet long; in the centre of the square the water came through pipes from the mountains. One building had stalls for more than fifty cows, and there was a stable for nine horses; above the cow-house was a barn, where a hundred tons of hay could be stored.

The people were busy harvesting; the women were binding sheaves, and seemed to suffer from the heat of the sun; many wore only a long linen chemise with sleeves, with a handkerchief as a belt around the waist; and in their simple innocence they did not seem alarmed when, bending over, they showed their snowy bosoms.

I did not wonder at the excellence of the Norwegian roads

* *Gaard, gård*, farm.

when I saw the manner in which they were built. First there was a foundation of heavy rounded boulders; over this were placed layers of pieces of cut granite or gneiss to a depth of fifteen or eighteen inches, and then the whole was covered thickly with fine gravel; I then understood why rain and frost did not affect them. The road at times was very hilly, and the ascents or descents consequently steep; the ponies at the station were in better condition than on many roads, as there were few travellers. In this region, as soon as the descent began, the reins were let loose, and immediately the horses plunged down the hills. The pace was fearful, but the animals are so surefooted that there is no danger.

The farms vary very much, according to the districts. From Forbord the valley was thickly settled, but the farms were small. Many of the dwellings on the poorer ones had only grass-covered roofs, while others were roofed with shingles, with one side of the house apportioned to the cows, goats, and sheep; others, again, had little low-built houses for the cattle.

The stations on this route were poor in regard to food; but eggs and bacon, with excellent coffee, milk, butter and cheese, with flatbröd, were readily procured.

The picturesque hamlet of Humlevigen (*vig* meaning cove in Norwegian), with its little cotton-mill, lay by the river. Its houses were covered with slates or red tiles, shingles, and earth. Near the shore stood a few fishing warehouses, built on wooden piles, and three smacks were stranded on the beach. The days were shortening fast, and at about eight o'clock the outlines of the mountains appeared dimly in the twilight; a little later the aurora borealis shot up its high flashes to the zenith.

As I approached Trondhjem the island of Munkholm arose from the fjord, upon which fortifications were in progress for the defence of the city. On the island a monastery of Benedictines was founded in 1028, a few ruins of which, within the walls of the fortress, are all that remain.

I learned to my cost the effect of cobble-stone pavements on the occupant of a cariole without springs, as we drove through the streets of Trondhjem. It seemed as if the bones of my body were all shaken to pieces; and I was glad when,

pounded almost to a jelly, I alighted at the hotel. The service was very neat, and everything seemed very luxurious compared with the fare at the stations.

Trondhjem is in 63° 26′ lat., and was formerly the capital of Norway. It is said to have been founded by Olaf Tryggvason in 997. It has a population of about 21,000, and is in direct railway communication with Christiania, and ranks the third city in population in Norway. It is built on the shores of a bay at the mouth of the river Nid; and here the King of Norway and Sweden is crowned as King of Norway. It had a cheerless look—numerous fires having destroyed the wooden houses in parts of the city at different times. The air of stillness about the place seemed to show that it had seen better days, and grass was growing in many of the streets. It is hoped that by its new railway communications it will recover some of its former grandeur and prosperity. It is the residence of a Stift Amtmand, and of a bishop, the seat of a high court of justice, and contains a large hospital. There are several daily morning, and one afternoon, newspaper. The schools are numerous, and here, as everywhere else, my visit to them was a source of great pleasure.

In summer the town is filled with tourists—principally English—most of whom like to travel from Christiania to this point by way of Gudbrandsdal. As they are in the habit of putting on airs of superiority, the inhabitants do not seem to care for foreigners, and have the reputation of being generally cold and more reserved than those of other cities. The great number of travellers has demoralized the lower classes, who have learned to be exorbitant in the charges for driving, ferrying, carrying luggage, or performing other services. Two Englishmen and myself, who had to cross the river Nid—not wider than a broad street—were charged two marks. I refused to pay the amount, but the Englishmen yielded, thus encouraging the ferryman in his extortionate demands upon foreigners. There is a regular tariff of only a few cents, and the fellow would have been heavily fined had I made a complaint.

The cathedral is very fine, and one of the oldest stone buildings in Norway. It is being restored, and will consequently

lose the quaint old look so much esteemed by the lovers of antiquity.

The entrance to the fjord from the south is amidst an archipelago of islands, and near its mouth is Hiteren, the largest island of Norway south of the arctic circle; beyond this you enter the Trondhjem fjord proper, with Skjören fjord to the north-east. It then bends to the south-east, throwing out a branch southward, and then eastward to Trondhjem. From the city it runs north-easterly into Stördalshalsen, Levanger, and Værdalsören, and connects farther north by a narrow strait with Beitstad fjord to Stenkjær; from this place one can drive as far as Namsos and up the Namdal, where the roads terminate. The length of the fjord, including Beitstad fjord, is over seventy-two miles.

One should not fail to visit the Lierfossen, about three miles distant. The river forming the upper fall plunges from a perpendicular height of 100 feet, and the lower one, a short distance farther down, from a height of 80 feet. The water is as clear as crystal, but the upper fall is by far the most picturesque. Saw-mills and smelting copper furnaces, however, detract much from the beauty of the landscape.

CHAPTER XV.

End of the Tourist Season.—Stormy Weather.—Travelling with a Young Lady.—"Take care of your Straps."—A Lazy and Knowing Horse.—A Mountain Farm.—The Dovre Mountains.—Destruction of Crops.—Frost.—Sorrow among the Farmers.—A Snow-storm.—Sleighing in September.—The Romsdal.—Fine Scenery.—Numerous Water-falls.—A Comfortable Country Inn.—The Molde Fjord.—The Town of Molde.—Dinner with the Governor.—Convenient Roads.

On a September day I was travelling once more on the magnificent highway which connects the city of Trondhjem with Christiania; I had finished my summer rambling in out-of-the-way places, unknown to the throng of tourists. The weather was very rainy, and the few pleasure-seekers or lovers of wild scenery were fast going back to Christiania. The herds were coming from the sæters,* for in the higher regions where these are found snow had already fallen; the wind swept through the valleys with great force, and the appearance of the mountains and hills had entirely changed in a single day. The hills were covered with snow, though there was a pouring rain mixed with sleet in the valley.

While quietly looking out of the window at one of the post-stations, waiting for less stormy weather, a cariole stopped before the door, and a young Norwegian lady alighted, and at once asked for a horse. She lived on the banks of the Mjösen, and was the daughter of one of the prosperous farmers of that region; she had come from Trondhjem, and was on her way home, for some one of her family was very ill. Love led her to brave the storm, while I, lazy and listless, had been afraid to face the cold rain and sleet. I felt ashamed, and asked myself what had become of the blood that once had made me encounter dangers in distant countries; had I become so effeminate that I was afraid of bad weather?

* Summer farm.

I said to the young lady, "I too am going, Fröken; if you can travel in such weather, I can." "I am very glad," she replied, in an innocent, good-hearted way; "it will be much more pleasant for me, for I am all alone." I ordered a horse; she had ordered hers before, and after she had taken a cup of coffee to warm herself, we were ready for the journey. I lent her my wrapper, for she had been thoroughly wet, and led the way in my cariole. I before this had had my experience of dishonesty in Norway. At the station of Aune I missed my luggage; it had been put into the station-house most carefully, but without the strap; and here the same thing would have happened if I had not been on the alert—the strap had been left in the cariole by my attendant, as if it had been forgotten. This is a common occurrence while travelling in several of the districts lying between Trondhjem and Christiania; the straps are not stolen for purposes of sale or profit, but for the private use of the pilferers; and those who commit these depredations would not take anything else. I hardly met a traveller who had not suffered in this way, and my young lady companion was complaining of the same.

The scenery, after I had left the city of Trondhjem, was very beautiful. At times the road was cut out of the solid rock, along the brink of precipices, with the river Driva seven hundred feet below. On approaching the Dovre fjeld the new road was built with such skill that the ascent seemed very gradual. Norway has produced some of the finest road-engineers in the world, whose skill has triumphed over difficulties apparently insurmountable, and there is no country, except Switzerland, where their ingenuity is more heavily taxed.

Though it was only the 17th of September, the wind was piercing cold, and the summits of the mountains of Dovre were covered with snow; the mercury stood at 24°. The rains of the last few days had swollen the torrent of the turbulent Driva, which, for a space of perhaps fifty yards, rushed with great force through a tortuous channel, and between rocky walls not more than fifteen feet apart. At the station of Drivstuen, at the foot of the Dovre fjeld, about 2200 feet above the sea, the scenery is very striking.

A little farther on is the lonely mountain station of Kongsvold, in a gorge in the Drivsdal, at a height of 3063 feet above the sea. The wind was blowing furiously, but my companion seemed to be indifferent, for she was anxious to reach her home. The horse I obtained at this station seemed to know that I had no whip, and all my endeavors to increase his speed beyond three miles an hour were of no avail, until I ordered my post-boy to cut a switch of the wild willow, the sight of which acted upon the animal like magic. When we reached the highest point on the road, 4594 feet above the sea, the thermometer marked 22°. After this we descended to a group of dark-looking houses at Hjerdkin, the highest mountain station on the Dovre fjeld, founded in the early part of the eleventh century, called Fjeldstuen. The people had preserved their honesty, notwithstanding the temptations of one of the most crowded stations between Trondhjem and Christiania. Both in summer and winter travellers stop there, and during the summer months the place is always full of strangers, especially Englishmen. There is a fascination in the place and its wild surroundings. The tourist may ramble over the plateau of the Dovre fjeld fanned by invigorating breezes; the botanist will find in abundance exquisite wild-flowers. The rides over the hills with one of the surefooted and gentle Norwegian ponies are very enjoyable; the pedestrian fond of Alpine climbing may ascend Snehætten, the highest mountain of the range, to a height of 7714 feet, and explore its glaciers; and although the reindeer are now scarce, a few small herds may be discovered by the keen sportsman. The fare is good, and the cream, milk, and butter delicious. Prices are a little higher than in many other places; but the distance from the sea is great. In Norway the traveller is not considered simply as fair game, and exorbitant prices are not asked for the comforts given.

The snow, which lay thickly on the ground at Hjerdkin, had gradually disappeared before reaching Fokstuen, 3150 feet above the sea.

At Dombaas, where there is a telegraph station, the scene had entirely changed, and fields of waving barley and potatoes

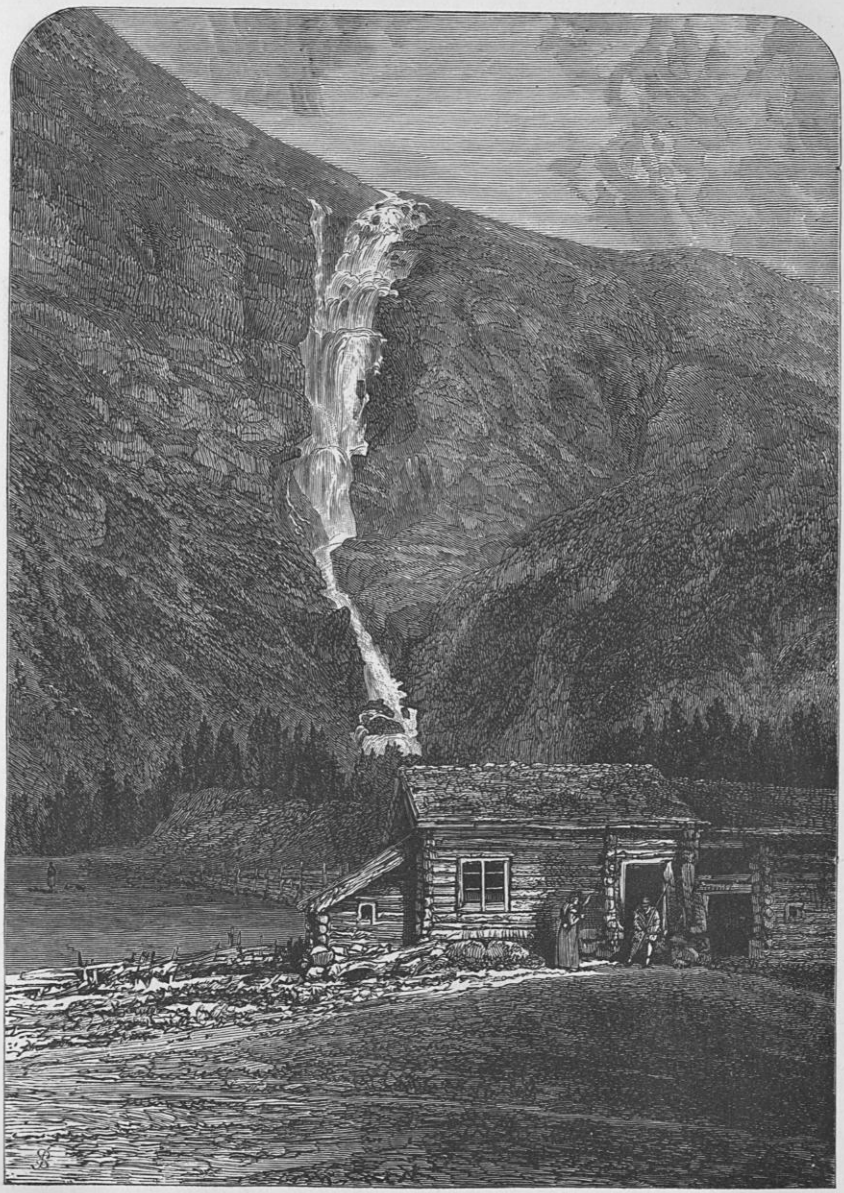
greeted the eye. Groups of small farm-houses were scattered here and there; but the district was a poor one, and many of the girls were glad to engage themselves at the rate of four or five dollars a year, including clothing, to their richer neighbors.

Here, at a height of 2000 feet above the sea, the crops were not quite ripe, the season being backward. Barley required a few more days of sunshine, and the potatoes were still in bloom. The evenings became cold, and the farmers' faces showed their anxiety. The wind was from the N.N.W., and for two consecutive nights black frost appeared. The potato-vines turned black, and the grain crop was seriously injured. After the first frost everybody was at work in the fields, women and men sheaving the barley, and every available hand digging the potatoes. There was sorrow in many a farmer's heart, for the people were now greatly distressed, and I detected tears on many a mother's cheek during these two days. After this sudden cold spell the weather became cloudy, a violent storm set in, and the ground was covered with eighteen inches of wet snow, though it was only the 20th of September. This compelled me to abandon the cariole.

The tourist, on his way from Trondhjem to Christiania, loses much fine scenery by not following the Romsdal to the sea, the main road branching off at Dombaas. The drive from there to the Molde fjord, a distance of seventy miles, is one of the grandest in Norway, presenting a rapidly changing panorama of superb scenery.

The valleys of Gudbrandsdal and Romsdal are separated by the Lesje lake, about seven miles long, and 2050 feet above the sea. It is one of the few lakes which have two outlets—one river flowing out at each side in opposite directions. The Logen runs south, through the Gudbrandsdalen, ending in Lake Mjösen, while the Rauma flows north through the Romsdalen.

Between Stueflaaten and Horgheim the finest and the grandest scenery of the road is to be seen, and this is the culminating point of the whole journey. The gorge or valley presents a spectacle of grandeur not easily forgotten—the high perpendicular walls, the bare and rugged mountains, with dark and deep crevasses, and the black striped abrupt sides of the hills



THE MONGEFOSS, IN ROMSDALEN.

and gneissic rocks, gave a peculiarly sombre aspect to the scene. At Ormeim, near the post-station, the Rauma receives the waters of a stream—forming a magnificent cascade—the Vermedalsfossen, which divides itself into three branches, each one tumbling down the sides of the hills in foaming billows. Where the valley was flat, the meadows, still green, contrasted with the dark perpendicular walls on each side, while the summits of the mountains were covered with snow.

The nights were cold, but in the morning the thermometer stood only a few degrees below freezing, and ice was seen on the sides of the brooks. During the day the mercury in the shade rarely rose above 46°, but reached 85° in the sun, which rapidly melted the snow. Since the storm the sky had been cloudless, the weather delightful and bracing.

In one part of the valley, between Stueflaaten and Fladmark, the view was simply sublime; from the abrupt mural wall numberless water-falls, created by the melting of the snow above, made the scenery wonderful. Many of these plunged from such great heights that they were lost to sight—appearing in the far distance like small silvery threads, which disappeared and reappeared, while the eye vainly tried to catch and follow them, and many seemed to have melted in a cloud of spray before reaching the ground. The cascade scenery was beyond description. In a distance of less than one English mile, before reaching Fladmark, I counted on both sides of the valley seventy-three water-falls, none of which were less than 1000 feet high, while some plunged down 2000 feet. All along the mountain sides were distinctly seen the marks of the glaciers in grooving, polishing, and scratching the rocks. Terraces were also distinct, even to the height of 500 feet, showing the ancient sea level.

A few miles before reaching the Molde fjord one comes to a charming inn, called Aak, where I tarried a few days. It was a small, white, nicely-painted house, and a very cosy and comfortable place, crowded in summer with tourists, but now deserted, for both the travelling and harvesting seasons were over. A few vegetables were seen in the kitchen-garden, where raspberry, currant, gooseberry, and blackberry bushes

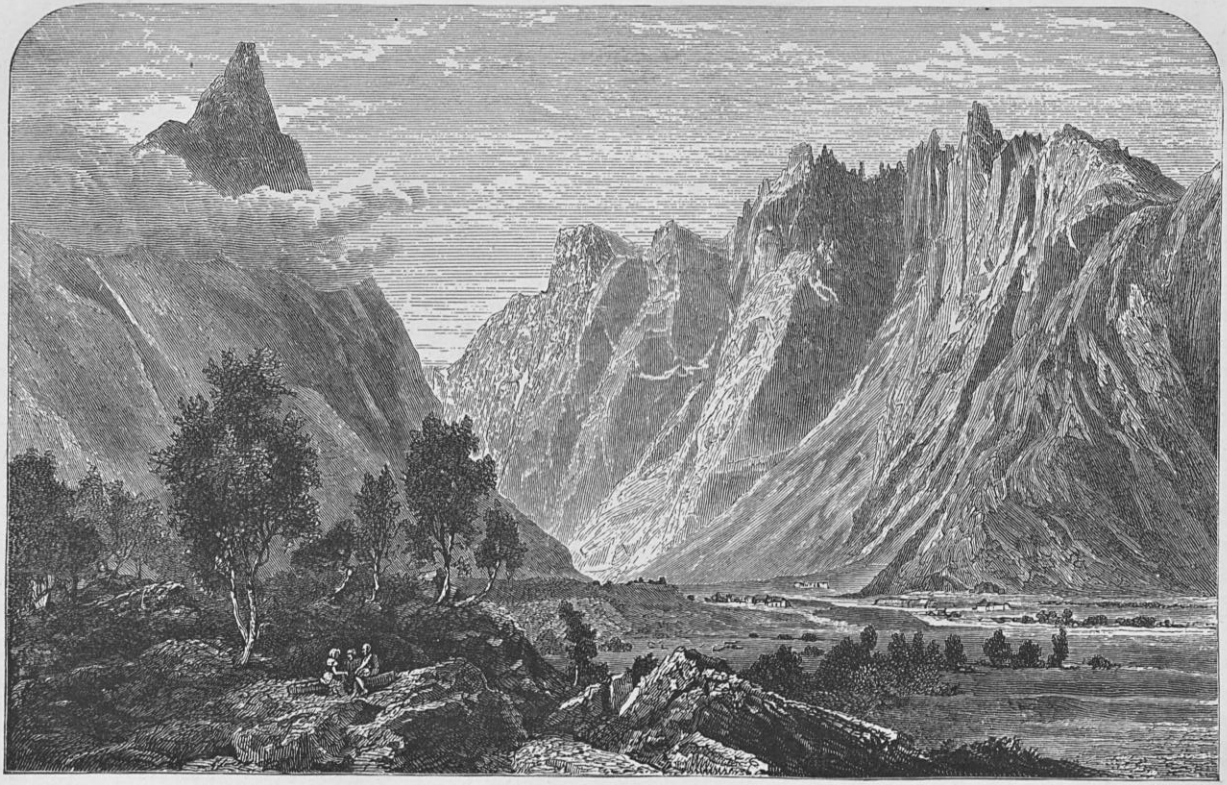
were abundant. The apple and plum trees were loaded; but the season had been cold, and the apples were not yet ripe. We were between 62° and 63°.

How luxurious seemed the fare of that little inn after my summer explorations in the mountains! The cooking was excellent; I had three meals a day—the bill of fare including soup, delicious fish, mutton, fowl, green pease and other vegetables from the garden, and made dishes; I also had all the cream, milk, and butter I wanted; the coffee was excellent, and the table-linen white. The rooms were small, but the reputation of this place is such that in summer it is crowded, the guests lodging at different farms. People spend weeks at the Aak to enjoy the fine scenery. It is one of the best country inns of Norway, and the prices are very moderate; and I hope that the good people who own the place, and keep it so well, will always retain their honest Norwegian ways.

Though everything was in repose in the valley, a gale was blowing on the summits of the mountains, where clouds of snow were flying in every direction, and to a great height, in the form of spiral columns. Now and then the quiet was disturbed by a booming sound, echoed from mountain to mountain, caused by avalanches of snow carrying rocks and boulders into the crevasses below, while the grand Troldtinden and the Romdalshorn seemed to preside over the picturesque landscape of the valley. Opposite Aak was one of those short narrow valleys which end abruptly in a gorge, with two or three sæters.

From Aak, after a pleasant drive of about three miles, one arrives at Veblungnæs, at the head of the fjord, where a little steamer takes passengers to Molde. After a sail of a few hours through the fjord the little town comes in sight, nestled at the foot of the hills by the sea. Its yellow and white painted houses, roofed with red or dark painted tiles, present a very picturesque appearance from the sea, and the clean streets and tidy appearance of the buildings are a very agreeable sight after landing.

I do not know of any town in Norway which presents a more extensive and beautiful panorama of fjord and mountain



PEAKS OF THE TROLDTINDEN.

scenery. The church is the principal building; the graveyard around it was redolent with the perfume of autumn flowers. Chestnuts, oaks, mountain-ash, pyramidal poplars, and birch-trees shaded many of the graves; most of the tombs bore no name, but each family knew the resting-place of their dead. In the town there is a very fine avenue of birches, some of which were five feet in diameter. On Sunday the church was crowded. Before ascending the pulpit the clergyman divested himself of his white surplice and appeared in a black cassock, with ruffles around his neck. He was very eloquent, and there was a dead silence in the congregation, interrupted only by the ladies. The sermon lasted for one hour and twenty minutes, and the clergyman appeared quite tired at the end. As usual in all congregations, some fell asleep, but in my pew a sleeper was aroused by a pinch of snuff, which had the desired effect; he sneezed and kept awake during the remainder of the service. After the sermon came the baptism of two children; this ceremony lasted twenty minutes—the rite being administered by the sprinkling of water on the forehead of each child three times, to represent the Trinity; the parents and godfather and mother passed behind the altar to deposit their thank-offering for the officiating clergyman.

In a Norwegian town the stranger should not look for the finest building as the residence of the Amtmand (governor), or any high officer in the employ of the government; it is a characteristic trait in Norway that a modest building, as a rule, is the residence of the official personage of the place. In Sweden, however, the residence of the governor of a province is always fine, and even imposing, compared with most of the other buildings of the town.

The Amtmand kindly invited me to spend an evening at his house, where a select party of gentlemen had been invited to meet me, among whom were some of the officials of the place. All the guests conversed in English, with the exception of the older people, who spoke French. English and German are now extensively spoken—the result of the increase of the trade with these two countries. The plain cosy parlor in

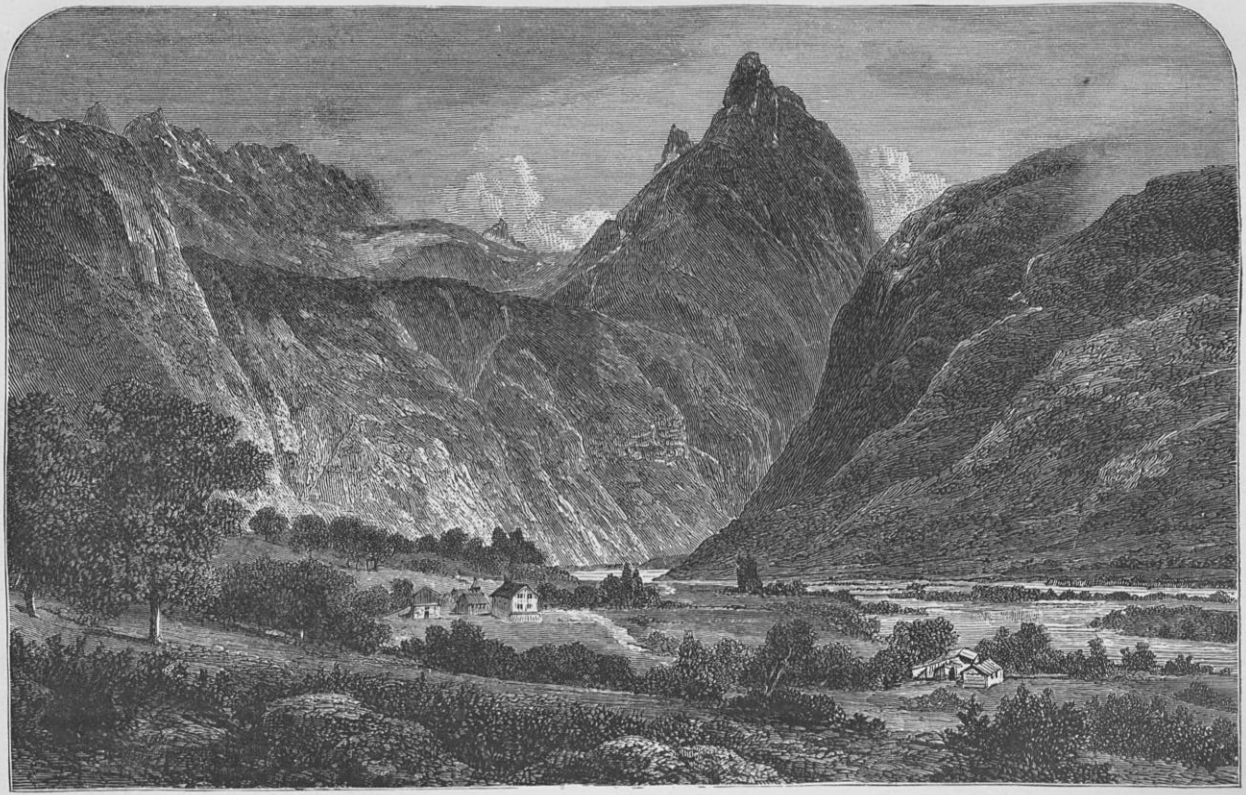
which I was received was a picture of neatness, and cheerful with flowering plants.

Shortly after my arrival tea was passed round, after which all the guests helped themselves to a glass of toddy. Then came supper. The host took my arm and led me to the dining-room, where his good unpretending wife presided. The custom of bowing the head, while asking a silent blessing and giving a "welcome to the board," was observed by the governor, with a glass of wine; and soon after he kindly proposed a toast in my honor, saying they were all glad that I had come to visit Norway and Molde, and hoped that I would see the country thoroughly, and live long, that I might work for the good of mankind and in the interest of science. This complimentary little speech being ended, each guest bowed to me. As the supper drew to its close, I proposed, as usual—this being the pleasant duty of the honored guest—the health of the governor's wife, after which all bowed their heads silently, in sign of thanks to the Almighty; then all rose, clapped their hands, bowed to each other, and thanked the host and hostess.

In a corner of the unostentatious parlor was a large collection of immense meerschaum pipes. A pouch of tobacco was brought in, and every one except myself began to smoke; they seemed amazed when they saw I did not indulge in a pipe. On the table were several decanters of wine and brandy and a kettle of hot water, and each one made for himself a glass of toddy, chatting sociably till nearly midnight.

The next day the governor visited the schools with me, remarking, "Though ours is a poor country, we love to spend money for education." He took great delight in having everything shown to me by the principals or teachers. I was pleased to observe the manly feeling displayed. He did not come with that haughty and contemptible demeanor so often assumed by officials on the Continent, and he was received with politeness, but not with obsequiousness.

In this modest town Hebrew, Greek, Latin, French, German, and English were taught. Some of the boys read English to me, translating it afterwards into French. The boys and girls are taught in the same room.



ROMDALSHORN.

I had arrived in Molde with a few dollars only, and the question naturally arose in my mind, What was to be done to raise funds? The only course left to me was to telegraph to Christiania; but I had not visited the place, knew none of the bankers, and had no way of establishing my identity; so I sent this message to Messrs. Heftye: "I am without money, but I have a letter of credit upon you. Can you telegraph to some one here to give me some?" I was relieved when a prompt reply came from the firm in these words: "Mr. ——, a gentleman in Molde, will let you have the amount you require." Soon after the arrival of this message the gentleman in question made his appearance, and said he had received a telegram from Messrs. Heftye, and had come to ask for a day or two in order to collect the money I wanted, and then courteously inquired how much I needed. He had received an order to give me all I required, but explained that Molde was a small place, and that it had no bank, and, therefore, that he might be obliged to go to several persons to collect the amount, if it was a large one. "I want only a small sum," said I, "to take me to Christiania." "In that case," he replied, appearing greatly relieved, "you may have several hundred dollars at once." Only one who has been in the same predicament can appreciate the relief I felt on the receipt of the cash.

From Molde the tourist or the pedestrian who is a lover of nature will see such a vast and fine field of exploration opening before him, that he will hardly know at what point to begin his wanderings. Towards the north there is a wild coast, with magnificent outlines, where the midnight sun is visible, and where the sail among thousands of islands offers a constantly changing panorama. Towards the south there are fjords of unequalled beauty, as the crowning glory of Norwegian landscape. There is also a high-road to Bergen, passing through grand scenery, rivalling in some respects that of Romsdalen. Fjords must be crossed on this route, and the alternate views of sea and mountains are very striking. There is likewise a high-road through the Romsdalen, which I have already described, leading either to Christiania, Trondhjem, or Röraas, and thence into Sweden. Another road, which, after

leaving Molde, skirts the Fanne fjord, crosses two branches of the Christiansund fjord. There are also numerous foot or bridle-paths, diverging from the highways or from the fjords, and winding up the mountains towards the glaciers, affording to the botanist, the sportsman, the angler, and the admirer of the wildest scenery, a succession of ever-changing views.

THE MOLDE FJORD.

CHAPTER XVI.

BERGEN.

The Port of Bergen.—Foundation of the City.—A Rainy Place.—The Fish-market.—A Vision of Feminine Beauty.—An Interesting Industrial School.—The Cathedral.—Confirmation.—Change Days for Servants.—Lively Appearance of Strandgaden.—Bergen Hospitality.

EARLY one morning, as September was drawing to its close, I approached the old city of Bergen. It was a beautiful autumn day, with not a breath of air stirring, and a thick smoky atmosphere hung over the shores. Passing the jetty and its bright-painted light-house, the port seemed like a large canal crowded with vessels. We steamed slowly through the shipping and the forest of masts: the quaint-looking warehouses, with their sharp-pointed and red-tiled roofs, were dimly seen in the distance, looking still more fantastic through the hazy atmosphere. Moving through the maze of small craft loaded with firewood, logs, fish, hay, etc., and amidst the din of a busy port, we cast anchor, and were soon surrounded by small boats, whose occupants were eager to carry the passengers on shore for a few skillings.

Bergen, as seen from the sea, is very picturesquely situated. On the left there is a high range of bleak, gray hills, upon the declivity of which a part of the city is built in the form of an amphitheatre; the port is narrow, forming a sort of canal, and on each side are the warehouses: many of those on the left, built by the Hanseatic League, are striking types of the architecture of that period. A high ridge, crowned by the castle of Bergenhuus, separates a part of the town from another narrow bay. The port in the spring of the year is very animated, when several hundreds of small craft return from the fisheries. Great quantities of dry cod, cod-liver oil, and sev-

eral hundred thousand barrels of pickled herring, are exported yearly. The town seems to be nestled in a hollow. A small lake, a few hundred feet above the sea, and some miles distant, furnishes the city with water.

Bergen, lat. 60° 24′, is in size the second town in Norway —Christiania being the first—and has a population of nearly 38,000 souls; it was founded, in the year 1069 or 1070, by King Olaf Kyrre.

SELLING FISH.

The town, with its neighborhood, is said to be the most rainy spot on the coast of Norway—which is saying a great deal, but it is well deserved. The amount of rain falling is great—the average number of rainy days in the year being 134, and of snowy days twenty-six, and the fall of rain and snow melted amounts to about seventy-two inches annually. The climate is very mild; the mean temperature during January is a little above the freezing-point; in February, a fraction of a degree below; in March, 34° above; in April, about 45°; in May, 48°; in June, 55°; in July, 58°; in August, 57½°; in September, 53°; in October, 45°; in November, 37½°; in December, 36°. In July the mercury rises to 85°. The number of foggy days is about forty. The mean temperature of the year is 43°, one of the highest on the peninsula of Scandinavia.

The city is a very lively and thrifty place, and, although some of its streets are narrow and crowded, it is full of interest to the visitor.

Fish market-day is one of the sights not to be missed. In the morning about one hundred and fifty fishing-boats were packed closely together along the quay. Many were selling their cargoes from their boats, others had kept the fish alive either in tanks or in buckets. There were boats filled with sprats (small herring), called here *brisling*, but the largest trade was in codfish; there were halibuts weighing 150 pounds, and often more, and this fish was cut in slices for sale; flounders and haddock were plentiful, and very cheap—the poor people living chiefly on fish.

LOOKING AT THE FISH.

The fishermen in their boats, with either wife or daughter, were offering their fish for sale, looking with eager eyes for customers, who come to buy the cheapest they can, especially if the fish are plentiful. It was most amusing to see the women bending over the railing, looking into the boats at the fish; such as wore short dresses—and there were many—showed their limbs in a way that delighted those who passed by, and

who were lovers of fine muscular development, and of well-shaped, pretty ankles. Servant-maids and country people jostled each other. Many returned home loaded with fish—mother and son carrying a big load between them, or a strong man bending under one larger than himself. The crowd was a very jolly one, and the peasant men and women, in queer costumes, were walking merrily among the Bergen folk.

One of the pleasantest sights which strikes the stranger in Scandinavia is to see the number of children going to school, and Bergen is no exception. The whole juvenile population turns out every morning. On rainy days the girls wear water-proof cloaks. The younger scholars have a little knapsack on the shoulder for their books, thus throwing the chest forward, and making them walk more erect. The oldest school-building, founded in 1738, is of stone. Instruction there is free, and the boys, although belonging to the poorer class, are tidy and well-behaved. In another part of the town is a large and more modern school, for the free instruction of boys, having a gymnasium, in which they are required to practise athletic and military exercises as a part of the course of study. The upper part of the building is used for boys' and girls' classes. The school hours are from nine to twelve, and from three to five. In several classes both sexes are taught together, and each scholar has a separate desk. I remarked with pleasure that there were several lady teachers. In one of the rooms, where boys only were taught, one, with a beautiful voice, led the singing at the request of the superintendent. They sung, for about twenty minutes, Norwegian, Swedish, and Danish ballads.

One of the most valuable institutions is the free industrial school, where poor girls are taught the arts of female industry. It is an establishment of which Bergen may well be proud, and which every city ought to possess. The building is old-fashioned, and in the crowded part of the town. I entered a large room where the principal, an elderly lady of benignant countenance, received me with great courtesy. Upon a large table lay bouquets of flowers, which gave a cheerful appearance to the place, and were intended to impart to the scholars a taste

for the beautiful. Scattered among the flowers were pieces of fine work, which the girls had made for different persons, and for which they were to receive pay. The ages of the

FISHERMAN CARRYING A FISH.

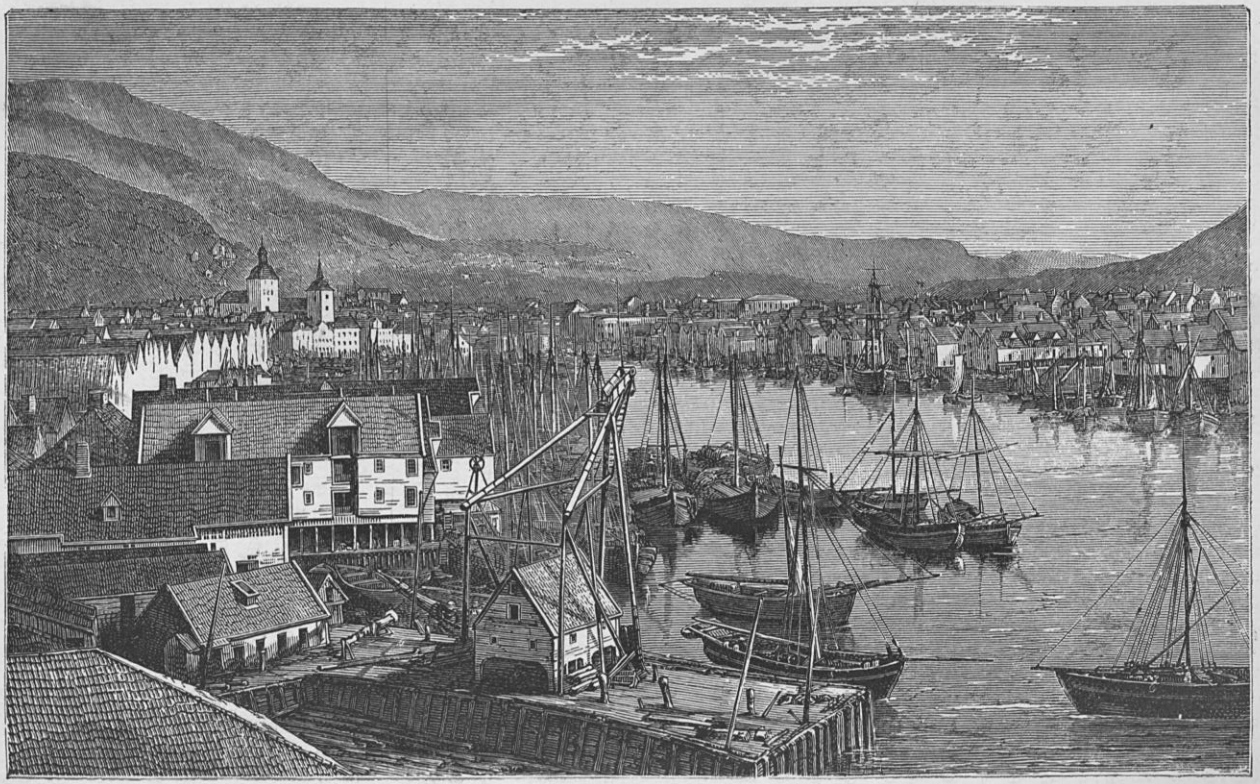
scholars ranged from seven to sixteen years. All were working together in groups or classes, according to their proficiency—making dresses and shirts, hemming, stitching, knitting, mending, and darning—under the care of faithful and competent teachers. It was a most interesting sight, for these poor girls were learning how to be useful. There was some wonderful skill in the darning of table-cloths, the work being so neatly done that one could hardly distinguish the place which had been mended. The young children had simpler work in a room of their own, where were sewing-classes under instruction daily. This school had over five hundred pupils, the hours

being from nine to twelve, and from two to five. Three hours were given to study, and three to lessons in the use of the needle, etc. The girls would here receive a fair rudimentary education, and at the same time were learning how to take care of themselves and of their families. Great and deserved credit is given by the good people of Bergen to the superintendent and the teachers for the fine management of this practical school.

Before leaving the building the principal presented me with two pair of thick knitted woollen stockings, made by some of the girls, as a souvenir. I wanted to pay for them, but payment was refused, and I could only offer my thanks for the courtesy. Perhaps the good lady may learn that in the following year these stockings helped to keep my feet warm in my Lapland shoes, when I was crossing the country in the depth of winter, over the mountainous tracts between the Gulf of Bothnia and North Cape.

In the cathedral school, where boys are prepared for the University of Christiania, the institution is partly under the supervision of the rector, who at that time was a member of the Storthing, and had a library containing valuable books.

The Domkirke (cathedral) is a queer old building, the arrangements of the interior being unlike those of any church I had seen. On the right, looking towards the altar, it is divided into boxes containing seats, reminding one of a theatre. After service the principal aisle was filled with girls and boys, who were to undergo examination for the rite of confirmation. The ceremony began by an address from the pastor, after which, in the presence of the parents and relatives, question after question was asked of each one by the Domprovst (dean) from the Bible and the catechism. Hours were passed in this manner, until the children became weary, and their looks became vacant. The unnecessarily long ceremony concluded by the dean pronouncing a blessing on each one separately, and saying, "The Lord bless thee and keep thee. The Lord make his face to shine upon thee, and be gracious unto thee. The Lord lift up his countenance upon thee, and give thee peace." On the following Sunday, after confirmation, the children were to partake of the communion.



BERGEN.

On Sunday afternoon, immediately after service, the military band plays in the square for about half an hour, during which time the *élite* of Bergen promenade, and listen to the strains of music. Among the throng are ladies dressed in the latest Parisian fashion, fishermen in their Sunday costumes, and *bönder* from the province of Bergen in their peasant garb. One often notices in the crowd persons with dark hair, whose appearance contrasts strongly with that of the majority of the people.

One of the customs of the country is to engage servants for six months at a time, and then renew their engagements, if agreeable to both parties. This takes place on the 14th of April and October. These two days are called Flyttedager, moving (change days). I was surprised to see great animation in the town. In the evening the Strandgaden presented a most lively appearance—for it is the custom on Flyttedag for all the girls engaged in domestic service to leave their old places at two o'clock in the afternoon, and go to their new homes at nine or ten in the evening. They all put on their best attire and walk in the Strandgaden, where their beaux and friends come to meet them. The Strandgaden corresponds to Broadway, the Boulevards, or Regent Street, and is densely crowded from seven to ten or eleven o'clock, after which it is deserted. In Sweden the dates for renewal are the 24th of April and October, and the servants have the three following days for themselves, which often causes great embarrassment to the ladies, who have then to do the best they can.

The geographical position of Bergen, between the Sogne, the Hardanger, and other fjords and fishing districts, gives to it great commercial importance. From it, twice a week, steamers sail for the most distant parts of these great arms of the sea.

The city is well provided with charitable and benevolent institutions, hospitals, and a home for the aged and infirm. The people are sociable, kind, and hospitable. I have a very agreeable recollection of my repeated visits to this town. Its scientific men were always ready to give me information. I received from the museum a present, which I value highly—a

drinking-horn of very ancient date. A visit to that institution is interesting. Antiquities found in tumuli, and the old arms, coins, drinking-horns, carved furniture, etc., etc., are well worth seeing.

There is no town in Norway which tourists can enjoy more than that of Bergen for a couple of days; the drives and walks are beautiful; the novelty of the scene, the different costumes of the peasants, the surrounding country, all contribute to make the time pass pleasantly; but for a longer stay Christiania is preferable.

CHAPTER XVII.

SKETCH OF THE GEOLOGY OF SCANDINAVIA.

Scandinavian Geology.—Former Finland Gulf and Arctic Climate.—Primary Rocks.—Azoic Ores.—Silurian formation, and Characteristic fossils.—Former greater extent.—Rarity of Devonian and absence of Carboniferous strata.—Eruptive Rocks.—No Mesozoic in Sweden except the Lias and Chalk.—Absence of the Tertiary formations.—Extent and Changes of the Past.—Post-tertiary, small.—Glacial Epoch and its phenomena.—Sand, Marl, and Clay deposits.

Geology, the science which has disclosed to us, page by page, the history of past creations, and which is constantly revealing new facts, has demonstrated beyond controversy the immense lapse of time that has been required to work out the physical changes on the earth, and to permit the development and extinction of the great number of vegetable and animal forms which are found in large quantities over wide areas of its surface.

The peninsula of Scandinavia presents very interesting geological and physical features. A great part of the country was uplifted above the ocean at a very remote period, and there is no other region which exhibits at the surface, comparatively, more extensive areas of the primary rocks constituting a large portion of the oldest crust of the globe.

According to Professor Erdmann, a most distinguished Swedish geologist, a gulf formerly passed from the Arctic Ocean, at Archangel, across Finland—which was then at the bottom of the sea—down to Gotland, or even farther. This he determines from the presence of fossil shells (such as *Yoldia pygmæa*) in the boulder clay of the coast of the Baltic, and central parts of Sweden, now found only in the latitude of Spitzbergen. The shell banks on the coast also indicate a former more severe climate—the highest ones bearing remains of arc-

tic species; the middle ones, of more temperate life; and the lowest, of species now existing on the coast. Professor Lovén also found arctic marine crustaceans living at the bottom of the deep lakes Wener and Wetter, proving that these were once connected with the gulf above alluded to.

The fundamental rocks are gneiss, mica-schist, hornblende, chloritic slates, and quartz; gneiss is the most prevalent, occurring as gray or red gneiss, hornblende gneiss, etc. Among the eruptives granite is the most common in Sweden, occurring with syenite everywhere. Pegmatite, or graphic granite, generally occurs in veins. Mica slate and clay slate occupy much less extent than the granite and gneiss; the former is found in the central parts, especially in Jemtland, near the Storsjö Lake, and farther south; the clay slates are, however, more rare. In some districts of Norway, between the coast and the mountains, the azoic mica-schists include veins of eruptive masses, especially granite and serpentine, and sometimes greenstone; even the more recent rocks are thus penetrated; occasionally the old granite mountains are diversified by slates.

The Kjölen range comprises a chain following the boundary-line from the Skjæker mountains in the north to Faxefjeld in the south; in the north its rocks are imperfectly known, but the central part has sparamite in the middle, Trondhjem slates on both sides, and granite and gabbro masses both in the central axis and in side lines; in the south the range disappears in table-land, which, with Faxefjeld, runs into Sweden.

In the extreme northern part of Norway the primary rocks are less prevalent, being mostly covered with more recent rocks, consisting of slates, sand, and limestones of different kinds. In Finmarken, of eruptives are found gabbro, greenstone, and granite, though not so extensively as in other parts of Norway. Central Norway is chiefly of sparamite formation, with overlying clay slates and quartz in broad belts.

The Dovre range forms one part of the coast, with several spurs extending from Romsdal fjord, as immense granite parallel walls running towards the sea; its middle portion is penetrated by sparamite, with Trondhjem slates and mica-schist on both sides, and gabbro and granite at the base.

Hornstone (flint) occurs in several provinces—sometimes, evidently, transformed schists, at other times amorphous; the same is true of porphyry; diorite and hyperite generally occur in stocks, or in veins in the gneiss; diabase is common, and forms the summits of some of the mountains.

In Norway there is much hornblende and quartz slate, gray gneiss and green slate—either one forming the principal rock or the gneiss, overlaid by the slates. In many of the great granite ranges are rich quarries of felspar.

All the ores of Sweden occur in the oldest azoic formations —copper, nickel, iron, silver, cobalt, phosphate of lime, and gold in small quantity; in some districts the iron is titaniferous, and occasionally entirely above the surface.

The Silurian strata are most developed in central Sweden. The order of succession of the strata is gneiss, or other fundamental rocks, sandstone, aluminous shale, with swinestone, red or gray limestone, and clay slate; the uppermost stratum is eruptive trap; in some districts the limestone and clay slates are wanting, and the trap rests upon the alum shale, the strata being then horizontal.

The lower Silurian strata generally do not vary much from horizontal; but in some places—for example, on the side of Lake Wetter—they have a very sharp inclination, on account of the upheaval of the underlying rock; they consist of conglomerates, sandstones, and grayish slates.

The characteristic fossils are, among the brachiopods, *Strophomena depressa;* among the cephalopods, *Orthoceras;* among the articulates, the trilobites, which are the most common of the fossils.

The older formations often form table-lands, with a gentle slope; they are in places 2000 feet thick, but towards the south grow thinner, and are finally completely covered by more recent strata. The Dyktyonema slate and limestone, with accompanying quartz, occur in the high mountain regions in two thick series—the lower with mica-schist, sometimes with alum slate, the upper with different colored and often quartzy slate; clay slates are found with a thickness of 1000 feet, and over these limestone, sometimes in distinct beds, covered in many

places by calcareous sandstone—in one place a lime breccia, in another a hard sandstone, containing several species of trilobites. The upper Silurian rocks may be named after their fossil contents, coral and sea-plants, etc. Silurian strata, with Diktyonema, are seen at Hulberget, 4000 feet above the sea; and at Tunsås, near Valders, with Olenus, 2500 feet high.

The Silurian formation was once far more extended than at present, as is shown by the prevalence of stratified marls, consisting chiefly of carbonate of lime, derived from previous Silurian limestones: fragments and blocks of the latter are scattered over some districts. Over the most recent Silurian limestone is more than 1000 feet of red and gray clay slates, containing, as far as known, no traces of life, probably corresponding to the Devonian period.

The Devonian formations are found only on three islands of Lake Mälar, as shown by characteristic fossils.

The Carboniferous formations are entirely wanting.

THICKNESS OF THE STRATA IN THE PALÆOZOIC FORMATIONS OF THE CHRISTIANIA FJORD.

			In the Christiania Valley.	In Skiens and Langesund neighborhood.
			Feet.	Feet.
Devonian.	Conglomerate		10—20	12
	Sandstone		1000—1200	1000
Upper Silurian.	Cochleat. lime		470—400	812
	Recent graptolite slate		400—160	
	Coral limestone	Period 7	280	704
	Pentamerus belt	" 6		300
Lower Silurian.	Lime, sandstone, and slate.	" 5	150—200	415
	Chasmop lime and slate, with cemented fragments.	" 4	700	310
	Vaginat. lime and older graptolite slate	" 3	250	610
Taconic.	Alum slate and stink-lime. Dyktyonema slate and olenus lime	" 2	160	16
	Quartzite	" 1	Wanting.	23

According to Kjerulf, there are eruptive masses more recent than the crystalline granites, syenite and porphyries; near Christiania fjord are large eruptions of serpentine granite, syenite, and greenstone in the high mountains, and near the boundary-line.