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REINDEER-LAND

(ARCTIC SKETCHES)

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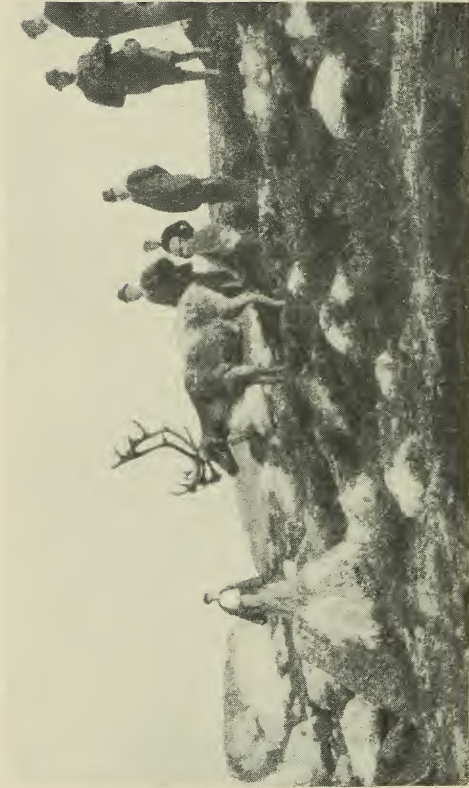
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Inspecting a Reindeer, Lapland, 1904.

Library of the Great World

Reindeer-Land

(ARCTIC SKETCHES)

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BY

A. VAN DOREN HONEYMAN

Author of "Bright Days" Books



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“Not such the sons of Lapland; wisely they
Despise th’ insensate, barbarous trade of war;
They ask no more than simple Nature gives.”
—THOMSON’S “SEASONS.”

REINDEER-LAND

CHAPTER I.

The Country and How to Reach It.

Preliminary Word.—In the long winter evenings, by the light of blazing logs, many of our good old grandparents in England and America used to sit and tell the story of how a curious race of men, of low stature and sturdy physique, covered from head to foot with warm skins, in the land of perpetual night, but under the strange light of the aurora borealis and of the brilliant stars, went hither and yon with the speed of the wind, in low and peculiar sledges, pulled by swift-going, antlered little animals known as “reindeer.” One could picture the whole scene, and wish he were in it and part of it. The smaller boys and girls would huddle closer to grandfather’s knee as he told how the pick of these curious coursers would somehow

fall into the hands of good Saint Nicholas just before Christmas, and on Christmas Eve, with bells on the reindeer and gifts on the sleigh, and on the Saint's back beside, he would drive furiously from housetop to housetop, not in Lapland, but where English-speaking children lived. Jumping out of his overloaded vehicle, and shaking the snow from his garments, he would drop down through the chimney, deposit some of his stores in the stockings or around the fireplace, return to his reindeer, and be off with a "clatter." The little folks knew all the story, and it was as vivid as an actual scene upon the stage, or in real life. They knew the "eight tiny reindeer" came from the far, frozen North, and went hither and yon "in a twinkling;" yet no eyes had been awake at the right hour of the year before to see those reindeer, or to catch Saint Nick in the act of calling out:

"Now, Dasher! now, Dancer! now, Prancer! now, Vixen!
On, Comet! on, Cupid! on Dunder and Blixon!"

The basis for all such fireside stories was not unreal, and especially was it a true tale of Reindeer-land that the old folks endeavored to relate. Yet how little they knew of what we know, to-day, from actual travelers and from books, of the great North Country, where there is in summer unending day, and in winter perpetual night, and where the people we now call Laplanders spend their whole lives watching over and caring for the gentle animals that are so famous in the Christmas story; animals that are to their masters food and clothing, meat and drink, thread

and bed, horse and cow; everything, in fact, except wife and child. Then no American had been to that country, unless by some strange accident, much less had written books about it. It seemed to be a land so far away that the line between the real and the ideal was as shadowy as a dream. To-day all this is changed. As Africa is no longer a Dark Continent, but has been traversed from end to end; as strange, old, heathen China is an "open door" to all the world; as the islands of the South Seas are visited every year by curious travelers from many civilized parts, so Reindeer-land is, to-day, a practical country to look at and describe. It is on the map, with rivers, lakes, mountains, marshes, encampments; and we know almost to a certainty how many people "of low stature" live there, and how they live, how many reindeer they have, and all about their domestic health and wealth.

Many years ago, and yet not so many as modern history would count—just a trifle more than thirty years to be exact—the writer was on his way to England for the first time. On the vessel was a judge from a western city, with his wife and two daughters. An acquaintance sprang up which led to the statement from the judge that he was bound for the Arctic land, to observe at close range the habits of the reindeer. "Wrapped in seclusion," was the way in which he referred to the north of Norway and Sweden. "We have been told," he afterward wrote in a book, "that they" (the people of that land) "have a mountainous, rugged country, reaching far into

the Arctic Circle . . . extending much nearer to the Pole than civilization has elsewhere reached ; but of all this we have but shadows and glimpses, which interest but do not satisfy." He had been informed that the caribou of North America and the reindeer of Lapland were of the same general family of deer, and he desired to investigate the facts. He had already familiarized himself with the former in Canada, and now desired to see these near-cousins to the caribou in Europe, and to ascertain, if possible, why the European animal was domesticated and of such permanent utility to thousands of people, while American stock was allowed to run wild, and was only valued by the huntsmen for its antlers and meat.

As he talked about the subject day after day, it whet one's curiosity to the core. It seemed like a journey to a land of mysteries ; for it was true then that Norway and Sweden were not only off the beaten routes of travel, but few knew how to get there. The judge was a man of wide reading and of considerable scientific attainments, and yet he could not tell, with any certainty, how he might reach the country of his desires from London. He was actually biding the time when he should land on English soil to ascertain "whether steamers sailed from England around the North Sea, and into the White Sea to Archangel," or whether he must needs get approximately to the North Cape by crossing from Scotland to Denmark or to Middle Norway, and then coasting northward from place to place until he passed be-

yond the Arctic Circle. Guide-books gave him no reliable assistance. As a matter of fact, when he reached London, as he afterward wrote, he "spent two days of diligent inquiry there without success. I visited," said he, "the offices of Cook, Bradshaw and Murray, but they could add nothing to my stock of information."

All of which is referred to, to show what changes the third-of-a-century that has elapsed since the event narrated above has brought about. Now the routes by which one may reach the Arctic Circle and go far beyond are not over-numerous, it is true, but they are known to thousands of tourists, who annually traverse them in comparative comfort.

It was not the writer's good fortune to see the reindeer with the sagacious traveler who had so much trouble to get even to Norway, and this has been ever since a matter for regret. It was then supposed to be such a risky and tedious undertaking, that only a man who felt that scientific obligations, or insatiable curiosity, required the sacrifice of all comfort and pleasure in traveling, could justify himself in leaving well-known routes for the pursuit of knowledge under such difficulties. In the end the judge had a charming trip, and he returned to write a book about it, that was as naive and delightful as the land itself of which it treated.¹

Since that time, however, three visits to Norway and Sweden by the writer have opened the door to the satisfaction of a proper curiosity concerning the country and the denizens of that

Northland, who are still herding the reindeer in summer, and riding in their *pulkas* over miles of waste of snow in the dead of winter, and yet who are dying away, as a race, and, in the near centuries, may be wholly of the misty past.

Where is Reindeer-land?—Not exactly coterminous with Lapland, though approximately the two are one. Lapland is in the extreme north of Europe; everything in the shape of land on the continent of Europe above the Arctic Circle (which is at $66^{\circ} 32' 30''$ of north latitude); but including also some territory to the south of it, although few, indeed, are the tame reindeer to be found south of that Circle. Northern Russia, however, while considered to comprise some Lapland country—and, indeed, on the map constitutes more than one-third of it—may be almost wholly eliminated from our ideas of Reindeer-land, because the Russian Lapps do not own many herds of reindeer, and are not strictly nomads; they do not roam about with these animals as do the Lapps of Sweden and Norway. Finland is, of course, a portion of Russia, but it is really a country by itself, as we usually think of it, and it has an enormous number of reindeer. A census made some years ago would indicate that the acreage,² population of Lapps and number of reindeer were distributed throughout Lapland in about this wise:

Country.	Extent.	Lapp Pop.	No. of Reindeer.
Russian-Lapland	61,654.....	3,000.....	4,200
Finnish-Lapland	26,575.....	1,000.....	40,200
Norwegian-Lapland	16,073.....	17,078.....	101,768
Swedish-Lapland	48,898.....	6,702.....	220,800

In other words, the Russian Lapps had less than two reindeer per inhabitant; the Norwegian Lapps not quite six per inhabitant; the Swedish Lapps about thirty-five per inhabitant; and the Finnish Lapps forty per inhabitant. The census is not recent, but it is probably substantially accurate now; enough so, at least, to enable us to determine what territory should be embraced under the term of Reindeer-land.

It is to be noted, in considering the above census of reindeer, that Norway must be looked at in the light of the bulk of its reindeer herd rather than in their proportion to the total Lapp population in Norway. This is because Norway is a peculiar country geographically. A large number of its Lapp inhabitants are forced, by the extent of the coldness and barrenness of the mountains, to seek a living by the sea, and the Coast Lapps are not those who trouble themselves much about the reindeer. They do not need to do so. They possess some, but are chiefly interested in fishing and barter. Considering only the Mountain Lapps of Norway, and that, spite of all the difficulties of a rocky and desolate country, they maintain one hundred thousand reindeer, which not only live but thrive among the glacier-covered hills and bleak summits of the land, we must confess the animals of that country are brave little heroes, deserving of better monuments than the granite rocks and glaciers which cover the land with the garments of the Eternal.

Norway, Sweden and Finland, or, rather, all of those countries above the Arctic Circle, make up,

then, the true Reindeer-land. In the whole it embraces a strip of territory from the Atlantic Ocean to the White Sea, extending to about five hundred miles east and west, with an average width of less than two hundred miles.

Norwegian-Lapland is divided into two districts, for governmental purposes, Norrland and Finmark, the former name corresponding with the same name, "Norrland," in the northerly part of Sweden. Swedish Lapland is divided into five governmental districts.

A Very Old Land.—Lapland is a very old land, and yet is one of the newest of all European lands. Old, because two thousand years ago, and probably long before, it was inhabited much as now by the same vigorous and unintellectual race, which carried on their lives by the side of reindeer herds, so far as we know, although the actual domestication of the deer may have been of much later date. The Lapps were certainly there when the oldest Scandinavian records appear, and centuries earlier. They are probably the same whom Tacitus, the Roman historian (55-117 A. D.) describes as "wild hunters, with skins for clothing and rude huts as their only means of cover." Newest of lands, because the great ice covering that receded from central Europe, after man was upon the earth—the traces of which are still extant as far south as Dresden—left the Scandinavian peninsula last, and, when it finally vanished, it left behind huge boulders and an unfertile, because cold, soil. It must have been comparatively late in the history of early Europe before

even so hardy a stock as the Lapp could venture to make it a permanent abode. When all the rest of the continent was inhabitable, Lapland was a most desolate and frigid country. It took the suns of centuries to sweeten it and fit it for the abode of even a low race of human beings. The reindeer was there first, contemporary with the mammoth and the bear; the reindeer, indeed, had followed up the retreating ice from southern Europe; but the Lapp was not contemporary with all this trio. He was a later comer upon the scene, and the mammoth had then passed into history and oblivion.

The Early Lapps.—Whence did the Lapps originate? No one knows to a certainty, but there is scarcely a doubt that they are distant cousins to the Finns, who resemble them in divers ways, and that both the Lapps and the Finns came originally from the southeastern portion of Europe. The Finns are quite surely a part of those populations of the early ages which constituted the mixed stock in the neighborhood of the Ural Mountains in Russia, and it is believed to be certain that when the Lapps began their journey northward they went from Hungary, having previously gone there from the east. Gradually both Lapps and Finns were pushed northward by the Slavs and Huns. This may have been just before the Christian era, though possibly some centuries earlier. The history of mid-Europe, before the day of Christ, has never been written, and the mystery of the distribution of

ances into the far North Country may never be solved with historical precision.

The Norwegians call all Lapps *Finner*, and the two peoples, Lapps and Finns, have many habits in common, though there are important differences due to the centuries that have intervened since the separation of the two lines of descendants from the original stock. The Lapps call themselves *Sami*, or *Sahmelats*; the general Finnish name for themselves is *Snomelainen*, meaning "few people," and it will be seen that the two designations may originally have been the same. No one has been able to say just what the term "Lapp" signifies, unless it be the same as "Finn," (an imported name, not originally their own, as, in fact, the name "Lapp" seems to be of foreign origin), the meaning of which, according to some, is "wizard;" or derived from "Fenland" (a wet, boggy country), according to others. The term "Lapp" seems to have come into use in Europe about the Thirteenth Century. The Finns have a word "lappaan," meaning to float about, doubtless derived from the term Lapp.

After Tacitus, who speaks of all Northmen as *Fenni*, the people are mentioned by Ohthere, the Norse Viking. Ohthere sailed around the North Cape and made a report of it to King Alfred the Great in the Ninth Century, and the king published an account of it. A Papal Bull of 1220 mentions them under their modern name. The Norsemen gained ascendancy over them in 1326, when, in concluding a treaty with Russia, they were given authority over all the people north of

the Gulf of Bothnia, from the Atlantic Ocean to the White Sea. In 1595 Sweden gained the right to impose dues on such of them as lived north of Sweden.

From almost time immemorial, therefore, they have been defenseless subjects of foreign nations. To possess national independence, or set up rights of their own, seems never to have entered their heads; at least, they never made a fight to secure these supposed blessings, whether because too weak, too indolent, or too peaceful, does not clearly appear. Probably it was in large part because of their weakness in numbers and want of leadership, but more probably because they had no genius for organization. The Finns early formed a nation; the Lapps, so far as known, never pretended to be a nation. They preferred to be nomad gypsies, each for himself, and not even gypsies in the usual way of having a "chief."

There is scarcely any description of Lapland in English writings prior to the middle of the Sixteenth Century. Then (1566) a voyager, named Serchthift, landed on the north coast of Norway, and published that he had found there a land called "Lappia," inhabited by a "wild people, which neither know God nor yet good order; and these people," he continued, "live in tents made of deer-skin; and they have no certain habitation, but continue in herds and companies by one hundred or two hundred. And they are a people of small stature, and are clothed in deer-skin, and drink nothing but water, and eat no bread but flesh all raw." A pretty accurate description

of the Lapp of to-day, except as to his drinking "nothing but water," for he is a chronic imbiber of ardent spirits whenever he can get it. Contact with the English, after 1566, has not improved him in this regard.

After all there has been no more attractive ancient or modern description of Lapland than Tacitus put into four short sentences. "Beyond the land of the Suiones" (the Swedes) said he, "is another sea" (the Arctic,) "sluggish or almost stagnant, which we may believe girdles and encloses the whole earth. For here the light of the setting sun lingers on till sunrise, bright enough to dim the light of the stars. More than that, it is asserted that the sound of his rising is to be heard and the forms of the gods and the glory round his head may be seen. Only thus far—and here rumor seems truth—does the world extend."

How to Get to Lapland.—The usual way to reach Lapland from America is to go to England, and thence direct to Bergen—weekly steamers sail from Newcastle and from Hull—and so up the Norwegian coast by vessel to Hammerfest, the most northerly large town in the world, where one will come in contact with many of the native Lapps as traders. From Hammerfest northerly are to be found the Coast Lapps, an inferior order of the people, who do not compare in physique, manners, manliness or wealth with the Mountain Lapps. The latter are by far the more robust, the more intellectual, and in divers ways the superior of the Coast Lapps.

Another way is to proceed to Stockholm and

thence to Helsingfors, Finland; and by steamers over the lakes and by two-wheeled carts over post-roads, the country of the Finnish Lapps may be reached, but with some difficulty. This is the most unusual point of access, which may pay for the novelty of it, if there be plenty of time to spare, and if one does not mind the gnats, dragonflies and mosquitoes of the swampy region.

Or, one may go from Stockholm by steamer, which runs several times weekly, to Torneä, at the head of the Gulf of Bothnia; or by rail from Stockholm to Luleä, sixty miles west of Torneä, and then reach Torneä by boat; and from that point enter Lapland, at about the division line between Sweden and Finland. Torneä is a small but important town of twelve hundred inhabitants, and is the rendezvous for Lapps in large numbers, who come there to sell reindeer horns, tongues and skins, or to barter them for silver, flour, clothing and whiskey. At this point, also, many travelers, principally Germans and Swedes, crowd the inns, especially on June 23 and 24, when the Midnight Sun is partially visible, the town being situated approximately near the Arctic Circle.

But the most up-to-date and easiest route, one so comfortable that it will surprise a traveler who has been anticipating deprivations in every part of Lapland, is to take the extremely modern "Lapland Express" at Stockholm, and by it pass directly through a portion of the Lapp country. This the writer did in 1904, and it was a route full of surprises and charms. Being an entirely

new route—at least for the last several hundred miles—it having been opened through to Narvik, on the Norwegian coast, only a year before—it has all the advantage of novelty, as well as of extreme comfort. A brief description of this railway journey may interest the reader.

From Stockholm to Lapland.—The “Lapland Express” is made up wholly of sleeping carriages of the most improved European pattern. A Pullman train is supposed to be comfortable in its sleeping arrangements, but everyone who has used the Pullman understands that it is everything except satisfactory at night, when exclusiveness and quiet are desirable, and when all the “luxury” possible, not to speak of the decency of real isolation, is to be coveted. In this respect the first-class sleeping-coaches of Sweden, as of Germany, and for that matter of Russia, are incomparably superior to the American Pullman. They have air, roominess, isolation; they form the ideal sleeping-carriage. Each saloon-carriage is made up of an aisle at the side, six large staterooms, whose sliding-doors open into the aisle, and a handsome observation room at each end. Each stateroom is for two persons only; or they can be separated by closing the folding-doors, so that each half will make an individual stateroom. These staterooms have all the requisites of a sleeping-room and of a day-room. They have a washstand, with running water, which, when closed, forms a writing desk, and plenty of places for the disposition of wraps and packages. Large, double windows, of plate glass;

elegant woods and upholstering; good lights to read by at night; electric bells, and easy chairs in the end rooms; these complete the paraphernalia. One carriage is a dining-car, where uniformed attendants serve meals that will satisfy the most fastidious. The guards are courteous to a fault.

The train runs at a speed of about thirty-five miles per hour for the first six hundred miles, and is watched for at the few way stations by hundreds of people, who go to these stations as late as midnight to see the train, which is yet looked at with curiosity. This special train-service is only scheduled to run two times per week each way in the summer. The total distance from Stockholm to Narvik is something over two thousand miles. The latter part of the journey is over a portion of Sweden where are long grades, and also over the back-bone of Norway, where are steep ascents and curves; consequently the train makes in the latter part of its journey not over twenty miles an hour.

After Stockholm, the most important point to be seen is Upsala, the university city of Sweden, situated in a magnificent agricultural region, and in what is known as the heart of Old Sweden. Prior to reaching that town, the Mora Stones, where the Swedish kings were elected in olden times and received the honors of their vassals, are to be seen, if one chooses to visit them; but they are several miles to the west of the railway. Near by is the hamlet of Hammarby, where Linnæus (1707-'78), the famous botanist, lectured

to pupils who came there to hear him from all parts of Europe. Upsala has a population of twenty-four thousand, and contains not only the University of Sweden, founded in 1477, having nearly two thousand students, but a large and graceful Cathedral, begun in the middle of the Thirteenth Century. The spires of this Cathedral are visible for miles around. It also has an imposing castle, located upon high ground overlooking the town. One of the most interesting sights in the vicinity of Upsala is the spot, three miles distant to the north, where was formerly situated the Temple consecrated to Odin, chief of the Scandinavian gods. It is called Gamma Upsala (Old Upsala), and was the seat of the early pagan kings, whose three burial-mounds, or *tumuli*, named after the gods Thor, Odin and Freyr, are each about fifty-eight feet high and two hundred and twenty-five feet in diameter. They have been opened, and were found to contain calcined bones, funeral urns and other objects placed there at burial.

The next important town is Sala, with a population of seven thousand, and possessing the chief silver mines of Sweden. Here, in the Fourteenth Century, most of the silver coined and used in Sweden was obtained. Beyond this point is a majestic river known as Dalälven. We are now in the midst of the most famous of the Swedish provinces, known as Dalecarlia, or Dalarne, noted for the bright and variegated costumes of its peasants.

“He who that country once hath seen,
He yearneth to return.”

So runs an old Swedish ballad. Its population were the first to awaken after a sleep of ages, and to declare that Sweden must and should be free. It gave to Sweden Gustaf Vasa, the peasant son, who filled the throne of his country in 1523 and held it, with gallantry and honor, until 1560. He was grandfather of the better-known Gustavus Adolphus, who was king from 1611-'32. Dalarne now contains over 200,000 souls, and is a duchy.

We are now approaching the iron region, where there are blasting furnaces, sulphite and other manufactories, and yet not out of the midst of cultivated regions. At Ockelbo, known as the gateway to the Norrland (Northland), there begins a country of virgin woods. What is called the Norrland is itself larger than the whole of the rest of Sweden. Originally covered from end to end with immense pine forests, there are still standing majestic trees fully five hundred years old. It has many rivers, having wild rapids and dashing waterfalls, all of them flowing eastward to the Gulf of Bothnia. These rivers contain rich stores of salmon, and the whole region is one of exquisitely pure and healthful air. Alas! the forests are yielding to the woodman's axe for fuel and to meet the demand of great pulp mills, necessitated by the paper industry. Many of the English newspapers are now printed from paper made from the pulp of the forests of Sweden. Sparsely inhabited, it is still in the main a mighty wilderness. There are a few but not many roads through these forests, extremely beautiful in midsummer, but far more so in midwinter, when the

trees are glittering with frost or white with snow, and when people travel on their sledges, under the unusual light of the brilliant stars and the aurora.

We now follow rivers and pass various unimportant stations, until we come to Bräcke, where a branch line runs off to Trondhjem in Norway. From this point on the scenery is wild and desolate and in places thoroughly grand. For the most part we traverse virgin forests, pass a large number of lakes, cross many rivers, and at last enter Lapland, near the station of Näsberg, where a large wooden board states that "Lappmarken," the name of the Lapp territory in North Sweden, begins. Within all the region north of this point the Lapps have a free country, where they may carry on their nomadic life at will. This portion of Lapland is full of grand waterfalls and magnificent lakes. We soon come to the Arctic Circle, and the next station of any note is Gellivara, where a halt is usually made in order to see the Midnight Sun, which can be observed on any clear night between the fifth of June and the eleventh of July.

The writer spent a Sunday at Gellivara, but was not fortunate enough to see the Midnight Sun there, owing to a disagreeable rainstorm, followed by an abundance of clouds. Gellivara is a small settlement, quite modern, located upon a plain, which, being surrounded by mountains, does not give the sun-view desired; the latter is only obtained by climbing up to the top of a hill known as the Dundret, several miles distant, not

an easy climb. No provisions are made for going to the top of the hill on horseback, and, therefore, Gellivara is not such a desirable place for tourists if the end in view be to view the sun. In the vicinity of Gellivara lies Malmberget, a town of over six thousand inhabitants, where is one of the richest deposits of iron ore in all Scandinavia. It has substantial houses of stone and regular streets, and gives to the mines about two thousand miners during the winter season. Electric works supply the motive power. The ore mined contains an average of sixty per cent. of pure iron. The place is reached by a branch railway line from Gellivara, between four and five miles long.

One wonders how it is possible for an intelligent and beautiful woman of another land to live all the long winter in this portion of the world and be content. The writer asked that question of such a lady—she was a German of fine mind and charming manners, who made her home in Lapland-Sweden—at Gellivara. “How is it possible,” we inquired, “for you to be happy here, with no husband or brother, during the long night, when the snow is so deep and communication with the outside world is cut off indefinitely.” Her prompt reply was: “The winter season is the most charming time for us all. I want to leave, if at all, in summer, but not in winter. We then have our social parties without end. It is true that there is no sunshine, but we consider our ‘evenings’ the same as you do, from six to twelve, and enjoy ourselves royally. We have the reindeer *pulkas*, and travel over the frozen snow under

the bright starlight to and fro, and it is the most merry season of the year. Now the valleys are bare; there is much rain and there is mud; the reindeer are in the mountains, and we cannot get about. By all means give me the Lapland winter and not the Lapland summer." Much as this answer was a surprise, we believed it. It was dreary at Gellivara in mid-July. The days were long enough to be tiresome and the nights too short for proper sleep; we wished for one good dark night for rest.

Leaving Gellivara, it is a wild and forlorn ride to Kiruna, nearly seventy miles to the west. The country is not only desolate but practically uninhabited, the trees stunted, and no cultivated lands are within sight. Here is the wild, original wilderness, and when one suddenly comes out from it upon a flourishing town like Kiruna, having three thousand active people (not Lapps), he feels that some magic art must have called it into being. Amid dwarfed birches, mosses and mountain shrubs, there has sprung up a sprightly, prosperous settlement, all owing to its being another centre of iron deposits.

It was at Kiruna where the Midnight Sun was seen in all its glory, a description of which will be given later.

From Kiruna onward there are visible various small settlements of Lapps. Soon the snow-capped peaks of Norway line up along the western horizon. We are now on a comparatively high elevation (1443 feet), and the way to Narvik on the Norwegian coast is through defiles in

mountains, where there are various lakes and mountain streams, deep valleys, and endless pictures of rocks and peaks. This portion of the ride will never be forgotten by the traveler. The acme of all, however, is reached when one of the fjords of Narvik, that penetrates many miles back to the mountain, the Rombakenfjord, appears in view, and from the higher level one descends to it by a succession of curves and tunnels.

Narvik was formerly called "Victoriahavn," and is now a point from which small steamers may be taken to connect with the regular steamship lines between Trondhjem and the North Cape, which, however, do not touch at Narvik but at the Lofoten Islands. Narvik itself has a population of five thousand and is a wide-awake, up-to-date settlement, with rather deficient hotel accommodations, but a growing centre for freight vessels. Iron ore from Kiruna comes to Narvik, and is then sent off to the south, while the railway carries back into the country all kinds of stores, alike for Norwegians, Swedes and Lapps.

The small boat that carries passengers out from Narvik to the Lofoten Islands, a journey occupying several hours, is unpleasant enough on a stormy day and on a rough sea, but delightful in fair weather. There was spread for us on the upper deck under the awning a table groaning with good things, but the rain was beating furiously and the deck ran with torrents of water. Ladies were driven by the rain and cold to the cabin, the stuffiness of which produced seasickness in not a few instances. At the Lofoten

Islands, reached about midnight, there was an inn, a quarter of a mile away from the water. On our arrival there the landlady was aroused so as to furnish tea for her guests, and, although the connecting boat failed to arrive until three o'clock in the morning, the courtesy of the lady and her attendant was not soon forgotten. It is needless to say that the summer trip between the Lofoten Islands and Trondhjem, or, for that matter, between the North Cape and Trondhjem, in either direction, is fraught with a number of discomforts. Three times as many people crowd the boats as they are intended to carry, and in our case a terrific storm of rain and wind added to the usual discomforts and made it a terrible passage to reach Trondhjem.

CHAPTER II.

Inhabitants of Reindeer-land.

Appearance of the Lapps.—At Gellivara, and similar towns in the portion of Lapland following the railway route, the Lapps come less frequently in summer than in winter, and sometimes are not to be seen at all. This is owing to the snow melting away, so that sledges cannot be employed for their transportation. They do not like to walk long distances, and at this season of the year are far away in the mountains with their herds. Occasionally they must visit the market-towns, where they may buy of Swedes, or Norwegians, or Finns, articles of food and clothing, but for

the most part these purchases are made in the winter, when they have game to sell. During the long Arctic night, however, the Lapp goes everywhere, no special note being made of the hours of day and night, and it being a matter of indifference to the reindeer whether they travel under the faint light of the midnight skies, or under the rays of the sun, only so that there is snow on the ground. To them, as to the Lapps, it is the snow which makes their habitation a paradise.

In the winter, therefore, the Lapp is quite a different creature from what he is in the summer. His indolence, always apparent in summer, then wears off; the sight of the first snow gives him an immense deal of happiness. Sitting in his *pulka*, robed in furs, his hand guiding a steed so swift that it traverses the snow-wastes at the rate of at least a hundred miles a day, he is the very reverse of the indolent fellow of the summer-time, when the warmth of midday superinduces laziness, and when his motion is confined to an ungainly waddle. For the Lapps are waddlers from make-up and from habit. They are stunted in size, bow-legged, and anything but handsome when seen at arms length. "They wriggle through life on the keen edge of starvation," says one writer, and they certainly show in their general physique the effects of a starvation of sunlight. Some are cadaverous, some exhibit signs of smallpox, and all form a semi-dwarfed stock. The heights of the men vary from four feet seven to five feet four, and of the women from four feet six to five feet. Notwithstanding their hard life, however, it is

customary to find real old people among them. A hundred years and more have passed over the heads of not a few Lapps, and can be accounted for only on the ground that constant life in the open air, and in pure air, has superinduced longevity.

However, equipped in his curious toggery, with its display of many bright colors, the Lapp looks like the genial fellow that he usually is, and not at all like a barbarian. He has a mild and not ferocious eye; is yellowish in complexion, which some think comes wholly from the smoke of his hut, or tent, where there is frequently smoke so dense that, on entering the door, one cannot see across the tiniest room; in very fact, his skin beneath his clothing is quite white; has a large head, with a low and broad forehead; has black and oblique eyes, much like a Japanese; has a flat and stubby nose, broad mouth, high cheek-bones, long hair, sometimes black but often tawny, a scanty beard, and an unmusical voice. On the whole he is agile, however, in proportion as he is short and "stocky." Some Lapps have agreeable expressions; some look solemn as an owl, as if engaged in deep thought, which conjecture is, as a rule, a mistake, because he thinks neither deeply nor with an overstock of wisdom.

So much, generally, for the appearance of the men. The women scarcely differ from their husbands, except in being homelier as age creeps on. It is a rare thing to find a good-looking young Lapp woman, though there are a few shining exceptions. A handsome old woman is probably

unknown. The reason for this is that the women marry early, bear many children, whom they carry about much on their backs, do not know how to dress gracefully, and become inveterate pipe smokers as well as men. All women wear practically the same clothes as a man; that is, buckskin trousers, and as many garments more beneath or above them as the weather demands. When a Lapp man or woman is dressed up for zero weather, or rather for Arctic weather, which is often from thirty-five to fifty degrees below zero, he or she is a great deal stouter and uglier in appearance than would be the case in a sunnier clime, or with a few thicknesses less of woolens and skins.

Unfortunately—and this spoils a large bit of romance about these people—nearly all Lapps look and are dirty. There may be some exceptions with the rich, but, if so, they serve to emphasize the rule. Water may not be scarce, (they can always secure it by melting snow), but it is cold, and there are few conveniences for bathing. Du Chaillu does tell us of families of the better classes with whom he associated, who systematically observed the rule of bathing every week, in a somewhat promiscuous family fashion, but they were Lapp-Finns and do not constitute the majority of the people whom we are describing. No one-room life and no Arctic life conduces to cleanliness, or to æstheticism; neither does it promote intellectual acumen. The Eskimos, Aleutian Islanders and Lapps are alike low in the scale of intellectual and spiritual attainments,

Here is a brief account of how the Lapps looked when "at home" by an American who visited them a few years ago, and his observation agrees with the experiences of all other travelers: "We struck at about three o'clock in the afternoon a Lapp encampment, consisting of three or four gammes or wigwams. Though the air was so clear that the remotest mountain peaks seemed delusively near, I could not discern the huts until I was within four or five hundred feet of them. And even then I could discover nothing but the smoke indicative of human habitations. The gammes were but a shade darker than the mountain side, and looked at a distance like grassy hillocks. Nature seemed in the process of reclaiming them, clothing them in its all-pervading sombre harmony of desolation. They scarcely asserted themselves at all against the cliff, or only in such feeble and ineffectual relief that they could not be found unless their locality were previously known. As I approached a pack of small savage dogs started up with one accord and made a unanimous plunge for my legs, and though I was for five minutes extremely uncomfortable nobody made any motion to call the brutes off. They were shaggy little curs of the variety known as the reindeer dog; and after having exhausted some of their energy in dancing about me, barking in chorus, they began to snarl and growl with the hair on their necks standing on end, until I was obliged in self-defense to strike at one of them with my alpenstock. I hit perhaps harder than

I intended, for the dog ran off whimpering on three legs.

"I greeted the group before the door of the gamme, which consisted of half a dozen persons, who had evidently just come out as the dogs proclaimed the approach to strangers. They made me no reply except an inarticulate grunt, but stared in undisguised amazement. I was not aware of anything extraordinary in my appearance, but I began to feel decidedly queer as the consciousness dawned upon me of how queer I looked to them. The relativity of beauty, ugliness, queerness, nay, all human conceptions, became extremely vivid to me in this moment, for I had the liveliest sensation of being, perhaps, fully as hideous to them as they were to me. Their countenances exhibited the usual Mongolian characteristics, and I cannot imagine any human type farther removed from the Caucasian standard of beauty. They looked, both as to color and a certain shrunken and shrivelled aspect, as if they had been hung up in a chimney and smoked, like so many herrings. They moreover exhaled an insidiously compound odor, of which the principal ingredient appeared to be smoke; and their eyes, which were red-rimmed and watery, had also suffered from the effect of smoke.

"Though the pervasive race type predominated in all, there was a great deal of individuality in the faces. Their features differed fully as much as those of the same number of Caucasians. In fact, the more I looked at them the more transparently expressive they appeared to me. All, ex-

cept a very old man (who wore a skin coat), were dressed in long tunics of what I took to be brown fustian. There was (except in the head-dress) very little difference between the costume of the women and that of the men. I could detect no trace of linen on any of them, and there was an air of frowsiness about them which was altogether at variance with what I had heard and read of their vanity and savage love of ornament. There was a half-grown boy among them who seemed full of suppressed jollity, and in whose dirty face there was a good deal of intelligence; but the rest were stolid, morose and malevolent. And yet I knew that the Lapps, in their own traditions, figure as nimble, cunning, quick-witted and vivacious, and regard the Norwegians by contrast as slow, dull and simple-minded. It did not take me long to discover that I was here confronted with a virulent expression of race hostility. The ancient injustice and wrong, continually renewed, had made this poor and feeble remnant of an oppressed people suspicious and stubbornly irresponsible. Probably they had suffered from some recent act of aggression from their ruthless neighbors; for it is well-known that the nomadic Lapps who come in contact with the Norwegians are usually quarrelling with them about right of way right of pasture and other things, and are usually driven to the wall."

Notwithstanding their want of ablutions, the Lapps are exceedingly hardy. They have few climatic diseases. Fevers, cancers and consumption are unknown among the Lapps, and rheumatism

is exceedingly rare. They do not have colds, owing to the purity and coldness of the air, of which they get a plentiful supply. They do, however, have measles and smallpox, and similar contagious diseases. Owing to the prevalence of high winds and the glare of the snow in summer, the Mountain Lapps are frequently afflicted with ophthalmia.

In general, it may be said to their credit that the Lapps have a great capacity for endurance; they have quick understanding, much sagacity, are generally honest, and if they love anything in the world it is their own wild country, with its rocks and fells.

Dwellings of the Lapps.—The Lapps do not live in houses, with here and there an exception, such exception being confined to towns on the sea-coast. They prefer, instead, earth-huts, or tents; usually living in the former in winter, and in the latter in summer. This kind of life is a necessity with them. They must journey from point to point as their herds journey, and as these always migrate when the reindeer-moss is scanty in one place and more abundant in another, neither they nor their masters can have permanent abiding-places. It is not more the will of the Lapps to roam, although migration has become a second nature with them, than it is a necessity for them to do so; and so this enforced roaming habit fixes their character and destiny. The reindeer is the Lapp's whole wealth, except his family, and as the latter affords him society and comfort but brings in no definite income, he must follow up his

wealth. These animals are never housed; they are always roamers. They go not only to where the moss is, but at certain seasons of the year go toward the coast where Nature seems to call them. We shall learn more of this presently. As follow them he must, it is plain that the Lapp can have no real home.

In rare instances a Lapp hut seems to have at least a look of permanency, being built partly of logs or stone. But even then the inmates must leave that hut, especially in summer, when the deer take off toward the seashore, and it may be months before they can return to it. Happily, thieves are unknown, and the owners may leave many things behind, and on their return will find them unmolested. When built of logs they are hewn, four or six inches square, and laid flat upon one another, the corners being dovetailed and the seams calked with moss. In Lapland-Sweden these huts, if unusually well built, are sometimes covered with red paint, but this is rare; in Norway, whether in Lapland or elsewhere, houses are never, or very seldom, painted.

As a rule the Lapp house is built only of coarsely cut large birch poles, the bark being left on, set upright, or slanting inward; these timbers being then weather-boarded, so to speak, with bark, and this exterior being covered by turf, fully eight inches thick, on which, should it remain standing during the summer, vegetation grows abundantly. This makes a warm shelter, all the warmer when piled up on top and around the sides with many feet of snow. The roof, of the

same material, is seven or eight feet high, and the single room may be fifteen feet in diameter. When, in summer, tents are erected instead of huts, they are not much over five feet high—just so one can stand under them—and from five to six feet wide. Proportions and sizes differ, of course, but these are the average. A small, square door at the side, often so swung as to shut inwards by its own inclination, furnishes all the air the huts ever receive, except such as may get into the slight opening in the roof, which is made to let out at least a modicum of the smoke.

From the roof-centre of hut or tent swings a large kettle, of iron or copper, and in this are cooked the various meals for the family. The advantage of a swinging kettle is that fire can be placed under it, and it is raised high enough so that the dogs cannot eat their provisions out of it, at the same moment the members of the family are dipping in their ladles.

Because these dwelling are so transient, and because of the necessary migration which must often separate Lapp families widely, there are no strictly Lapp towns inhabited by the Mountain Lapps. Some of the Coast Lapps have more permanent settlements, and the Mountain Lapps also often herd together in small encampments, but real Lapp towns are quite unknown.

A Lapp tent is called a *kata*, or *gamme*. It is portable, being readily taken down and transported from place to place by the reindeer. It is made of poles and canvas, the former being light yet strong, and the tops being placed at such an

angle toward each other that frequently the completed tent looks like an Indian wigwam. The coarse canvas-cloth of wool is made by the Lapps themselves; they do not use skins for tent coverings. The door, also of loose canvas, is fastened up or allowed to drop, and may be buttoned at night. As these tents may be frequently changed from place to place, often miles apart, when there is no snow on the ground, such a summer-moving becomes a difficult task. In winter sledges can be employed, but in summer the tents must be packed on the backs of the reindeer, as must many of the household utensils. These latter are usually kept in boxes.

To place on these little animals all the household load they should carry—from eighty to one hundred pounds—a pack-saddle is made, and it is quite a curiosity. It consists of two pieces of wood, rounded to fit the back of the reindeer, much like a saddle, and under them is placed a blanket to protect the back from wearing sore. The bundles are then balanced on each side. This arrangement is not dissimilar to the method of loading donkeys in Oriental countries.

Domestic Arrangements.—Whether in dwellings of birch, or peat, or in tents of canvas, the Lapp family live in one room. No matter how many of the relatives or children constitute the one family, all eat and sleep side by side, and the dogs sleep there at the same time. The general kettle cooks all the food and the father hands out the portions to each person. A great deal of the meat and fish eaten have been previously dried.

Fresh meat is not prized so much as old meat, and decayed meat seems to be at a premium. Coffee is considered a necessity and not a luxury, and Lapps usually know how to make good coffee, which they "settle" in the old-fashioned, but effective, way, of dashing into the kettle cold water, or by using a dry fish-skin. The coffee is generally boiled in a small, separate copper kettle, with a spout, and lid on the spout, and, when used, is sweetened with the coarse beet sugar obtained in the market-towns; and sometimes milk is added. When they have visitors at a meal, silver spoons are furnished, otherwise horn spoons are used. It is polite, when lump sugar is handed to the guest, for the Lapp woman to put a large lump between her teeth, crack it, and give the larger of the two portions to the visitor.

The kettle, that is almost always boiling, usually contains reindeer meat. The Lapps will not eat this raw, though they like raw fish. After meat and fish, they are probably most fond of cakes baked of rye. These are so hard and dry that a dog would scarcely touch them, but the Lapps seem to like them, and the more aged the cakes the better. The rye is taken, when it is ripe, or as near ripe as it will get, and is chopped up with the husks—never ground—into meal. Its quality is about that of hay and bran, which in other countries horses will eat, but not men, unless starving. The dough from it is made into rings a foot in diameter, and three-quarters of an inch thick; and this is baked and hung up on the projection of the birch poles to dry.

The fireplace in the centre of the hut, or tent, above which swings the kettle, is called the *aran*. The space next to it, called the *boassa*, is the place of honor. The places farther away are usually termed according to their uses, but none of these places are divided by any partition. Generally speaking, one side is set apart for the work of the family and the other for the sleeping quarter. Everybody sleeps on skins on the ground and with the day-clothing on. Usually, under the skins are placed birch twigs. Sometimes, when it is very cold, an extra garment is put on, but generally the special night-covering is that of skins. There is some ventilation from the central hole in the roof, and if it rains or snows through that opening, the inmates simply move out of the way, or, if they cannot, endure it. Sometimes the father or brother comes in late at night, after a long journey with his herd, wet from the pouring rain, but he lies down as he comes in, and steams himself dry by the heat of his body. He never catches cold from this process. Many travelers who have done the same thing in Palestine know that no ill results have followed.

Every dwelling has a number of wooden boxes in which the spare clothing is kept, though such a wardrobe is exceedingly light, and in these are also put the extra utensils for cooking. These and the skins and the kettle constitute about the whole interior of a Lapp dwelling, not forgetting, however, the cradle, which is swung from the poles like the kettle. The cradle is called the *komse*, and is made of a piece of wood, shaped like a large

shoe. It is about two feet and a half long by fifteen inches wide, and is lined with lichens and a cotton sheet. The baby is often put in this cradle naked, but is covered with warm skins and is then fastened in by a cord, laced through holes in the exterior. Alas! amid the constant cold and hard marches of the family, baby rarely reaches his second summer, which is one reason why the race of Lapps is decreasing in number with each decade. The baby is swung back and forth in this cradle, while the mother sings a crooning song, or sews.

Another traveler in describing a Lapp encampment wrote: "The first thing done at the new camp was to get a roof over their heads. Four poles, a little bowed at one end, were fastened together at the bowed ends, and put into the ground so as to form two arcs, which at the top were connected with a cross-bar, two other cross-bars being fastened, one at each side, a little below. To this simple but strong frame were attached about a dozen poles, to give a suitable shape and necessary stability to the whole. Two poles were fastened together at the front, in the form of scissors, leaving an opening between for a door, two similar poles being placed at the back, but without opening between. Our host then cast over the frame, with a single throw for each piece, two large triangular pieces of woollen cloth, fastening them together at the back with pins of reindeer bone. The 'door', a nearly triangular piece of cloth fastened to a wooden frame, usually ornamented with carvings, is always carried along from one camp to another. The area covered by

the tent was about twelve square yards, its height at the top being a little over six feet.

"The first thing done was to build a fire-place, an oval spot in the middle of the tent being inclosed with a number of stones as large as a man's head. A large iron pot filled with water and reindeer meat was suspended from the uppermost cross-bar, a fire made, and the coffee-pot put on. From each side of the door-opening to the fire-place were laid two small birch logs, inclosing the place for fuel, while the space opposite, behind the fireplace—in olden times consecrated to Lapponian divinities and magic exercises—was used as the kitchen department. By this time we were all hungry. We lay down about the fire, eating, drinking coffee, and smoking our pipes, but were soon disturbed by grandpa Torkel, who came with his arms full of birch-branches, which he spread on the ground for a flooring, artistically arranging them to serve as carpeting and mattresses at the same time. Having finished the floor and tightened the tent all round at the ground, he proceeded to make a small opening at the back to regulate the draft, so that the smoke might escape through the roof."

The dog is a most important article of domestic use in Lapland. His tenancy of the "dwelling" is not of such insignificant importance as it may appear, because not one dog, but many, are taken in as members of the Lapp family. Not only does the man of the house have several dogs, but every member of the family is supposed to have at least one, which is peculiarly his own, and to his par-

particular owner and not to anyone else the dog grows attached. It is not uncommon to find in one tent six or eight dogs, all huddled around the human sleepers at night. In the daytime each dog follows his own master or mistress, wherever he or she goes. The dog is not petted much; indeed, is rather roughly treated, the reason given being that "it hardens him." He is never overfed; in fact must steal much of the food he gets, and this he does even when the family are at their meals. The dogs are small, of various colors, usually brown or yellow, and are covered with long and thick hair. Some have no tails, being born without them. While not over-sagacious, they are trained to go after stray members of a deer-herd and do it with "quickness and dispatch." The writer has seen two such dogs go down the road for a mile in a twinkling, and bring back a wandering reindeer with as much dexterity as the best breed of sheep-dog drives back a straying from the flock. The deer in that case seemed to be used to it, as he would stop and wait till the two dogs were on his very heels, and then would hurry back toward the herd as if his little escapades were only for play.

Cats are rare in Lapland, while goats, sheep and cattle are sometimes owned by Lapps who live near the coast, or in the forests of the plains of Lapland-Sweden, but are not to be found in the mountains, where it is extremely cold, and where there can be no provisions for their housing.

Sometimes the hut, or tent, is completely snowed under. Day after day the terrible Arctic

snowstorm will pile up snow into drifts, and, in the meantime, while the dwelling is being surrounded, or covered, with it, the inmates will not stir. Finally, when the storm is over, the family must dig their way out, and hunt up their reindeer, which have probably sought shelter on the side of a precipice, or edge of a forest, where the drifts are not so deep.

Food of the Lapps.—While we have already named the chief articles of food consumed by the Lapps—reindeer meat, fish, when they can get it, and cakes—this by no means exhausts the whole store. They drink reindeer milk, sometimes reducing it with water, since it is very rich; they make soups, usually of the reindeer meat; and they also like the dried blood of the reindeer, which, when powdered, is cooked with flour, so as to make a porridge, and is also sometimes made into pancakes. They have wild game when they can secure it. None of the luxuries of the table, as known to more civilized nations, ever find their way into the Laplander's dwelling.

Lapland has a few berries at certain seasons. Wild raspberries, when found, are luscious and have slightly the flavor of a pineapple. Strawberries grow small, but are exceedingly sweet. Both these berries may be found up to and slightly beyond seventy degrees north latitude. There is another berry, also common throughout Norway, and to be found in some portions of Lapland, the *multebär*, often called "cloud-berry," which is yellow, of the size of a mulberry, and is rather pleasant to the taste, especially when

cooked. It grows near peat-bogs and on marshy ground, and, while some do not like its flavor, even when cooked, the writer thinks that, with cream, it is a good fruit.

Reindeer meat is surprisingly tender when properly cooked, and makes the best "hamburg steak" in the world. Sometimes it seems to be tough and dry, but the writer has eaten it when he preferred it to the best beefsteak obtainable in America, although it may have been that appetite and other conditions had something to do with his judgment. We remember well an interesting episode in northern Norway a few years since, when a fairly large party, of which the writer was one, desired to have a taste of reindeer meat for the first time. Having heard that the government had a herd of reindeer at a certain station in the mountains, and that occasionally the station master could select a deer from the herd, and kill it for food, although he must have more than ordinary reasons for doing so, the government telephone was employed to enquire whether there might not be such a deer killed and reindeer steak put on the table at the evening meal. The reply was that it was doubtful. It was about nine p. m. before a score of hungry people reached the bleak inn, situated in an extremely forlorn valley, full of rocks and destitute of vegetation; but then, sure enough, on the table came a reindeer steak, and the meal proved to be one of the most delightful to which any of us had ever sat down. What excuse the station-master made for killing that reindeer we never enquired.

Arctic explorers generally take with them what is called pemmican, and this is made from reindeer flesh. It consists of strips of venison, dried by the sun or wind, pounded into a paste and pressed tightly into cakes, and will keep for a long period.

Dress and other Customs.—All Lapps, rich or poor, men or women, are of necessity given to fashions that do not change. Warmth is the prime object, and that is best obtained by deer-skin trousers and coat. The coat comes nearly to the knee, and is girt round by a belt that draws it up pretty close to the body. In this belt the man has his sheath-knife (called a *tol-kniv*). Every boy when six years old is presented with such a knife, and must wear it, and probably feels proud to wear it; a man never goes without it. This is a Norwegian, as well as Lapp, custom. A stranger might think it indicated ferocity of temperament, a desire to slay somebody, but, instead, it means that a knife of this character is always a handy thing to have around. With it he can kill a deer, or a bear (but the Lapp rarely allows himself to come near enough to the latter to use a knife), cut a sapling, carve his food, or do any of those many things for which a combined carving-knife and jack-knife may be used.

There is no dress in the world warmer than the reindeer-skin. The tunic (the coat) as made, and before being belted, is loose, but close-fitting at the neck, and is put on over the head. Neither cold air, winter snow, nor summer rain can get within that coat. It is called a *kapta*. Under it are woolen garments, sometimes two or more. The

breeches are closer fitting, and are made from the skin of the reindeer's legs, which is considered the warmest of all. The boots also, called *yerra*, are of the same skin, are soft and pliable, and will turn water readily. It is this kind of boot, in fact, which enables the Lapp to use his *skis* so well; for it is roomy, fits to the curved shape of the centre of the *ski*, and so allows the foot to adjust itself to the exigency either of ordinary walking, or of sliding on the *ski* over the snow at great speed, especially down hill. Ordinary leather shoes fastened to *skis* would give the wearer a tumble at unexpected times, but the Lapp is always an expert with deer-skin boots. The foot part is sometimes packed with moss, or hay, to give it added warmth, and the foot itself is also covered in winter with one or two warm, homespun stockings. Sometimes the boots are lined with eider-down. On the whole, the Lapp rarely complains of cold feet even in the coldest weather.

In winter the Lapp also wears mittens, which are likewise of skin, and are so large that one, or, if necessary, two woolen mittens can be worn inside of the outer pair. A fur head-dress completes the cold day costume. In summer-time the head-dress is generally of cloth, consisting of a band around the forehead, and then of a tall, pear-shaped crown.

Because both men and women dress so much alike the women are rarely attractive, unless they are fixed up for a special occasion with bright colored ribbons; and even then few of them possess any marks of feminine beauty. In the aggregate

female attractiveness is not helped in Lapland by "the tailor's cut." The women are fond of other ornaments, beside red and yellow ribbons; they like jewelry, or, if not obtainable, tinsels, which are put anywhere on their coats or hands.

Du Chaillu, in describing the garments of these people and their warm welcome to him, wrote as follows: "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 woolen cloth, called *vuolpo*, were trimmed with red and yellow bands at the lower end of the skirt, and revealed a woolen 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. Woolen 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 had no shoes, and I noticed that their feet were small, well-shaped, and very clean. The men's frocks (*kapte*) were short-

er, 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 colors of their undershirts 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 the 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 by 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 cherries; and, although I have seen Laplanders since, I think she was the prettiest one I ever met."

We have said that both sexes use tobacco. They secure this at the trading stations, and carry it in pouches made of reindeer-skin. Every man and woman, in most households, smokes a pipe, but, of course, there are exceptions. To clean the pipe, many of them use a pipe-cleaner made of a bird's bill.

The practice of polygamy is not uncommon, and yet less so than would be the case were the cost of an extra wife or two not so exorbitant. When a Lapp marries he must pay the father of the bride a good sum, often as high as a hundred reindeer—never less than twenty—and the majority of Lapps are too poor to indulge in the luxury of a second wife, unless it seems to him to be absolutely necessary. The price alluded to is based upon the expenses incurred by the father in bringing up his daughter, and also upon the estimated value of her lost services. The daughter of a rich Lapp is, consequently, valued at a far higher rate than the daughter of a poor Lapp.

The women do not perform much drudgery, in the sense in which many German women are drudges, as there are usually no cattle or swine

to feed and house, no grounds to till, no heavy burdens to carry beyond that of their baby when migrating. They care for the dwelling, tend the children, prepare the skin-clothing, and make various articles, like spoons of horn, threads of reindeer sinew, etc., for their own use and for sale. They can talk by the hour, and talk as sensibly as their husbands and brothers, but neither sex can be said to talk entertainingly, except in a few instances. The common want of that education which gives breadth and point to conversation is sadly noticeable among this people. The usual conversation is about the reindeer, the weather, and sometimes about superstitions or myths; more rarely about religion, although they frequently question strangers as to the Trinity and similar features of the Christian religion. They never converse of history, for the Lapps have no history, and so waste no time over it.

They have timepieces, usually cheap watches from Germany and Sweden, and occasionally wooden clocks. It is essential both during the the long day when the sun does not set, and during "the long night," when the sun does not rise, for these people to know the time, and they cannot, especially in winter, find out the exact hours from the sun. All, therefore, feel it imperative to have watches, even if no two are alike.

Squatting is probably a more common position than sitting, for chairs are a luxury and a rarity.

One of the saddest things in the domestic life of the Lapps is the custom practiced—by some, at least, of the Mountain Lapps—of leaving their

aged and helpless parents, when they are on the move, and father or mother becomes too feeble to pursue the journey, to die by the roadside. Food is put by them, good-byes are said, and the younger and more vigorous proceed, while the worn-out ones are left to perish by neglect and cold. It is an old custom, which a more modern religion than they formerly possessed has done much to change, but it has been a national custom, which, we fear, has not wholly passed away. Custom makes heartless wretches of more people in the world than the Lapps.

Affection cannot be said to be a strong trait of the Lapps. Byron sang:

"The cold in clime are cold in blood,
Their love can scarce deserve the name."

They do have in their youth their trysting-days, they woo and marry, but it is usually a passing sentiment, often a mere matter of accommodation or barter, which brings about the actual marriage, and it does not last. They have their love-songs, but, alas! life is so hard and experiences so bitter that there seems to be neither time nor inclination to make life's bitter sweet with the hallowing influences of pure and undefiled affection. The mother's heart warms to the little one, for Nature is true, and the little one cuddles up by its mother's side in affectionate and helpless dependence; but it wears off when the teens are past, and then life becomes earnest, real, hard and cold.

There is much intermarriage between Lapps and Finns, and less, but still some, between Lapps and Norwegians, and between Lapps and Swedes.

Occasionally a total foreigner comes in to marry a Lapp woman and lives with her the rest of his life. In an account of the visit of an American girl a few years ago to a Lapp town, called Otschön, there is this interesting incident noted: "The only inmate of the hut was an old man, who lay by a smoking fire, rocking a cradle on his knee. We saw at a glance that he was no Lapp, his bright, coal-black eyes, pointed beard, and dark complexion proclaiming a southern origin. He was, in fact, an old French 'militaire,' and we were glad to come across him, as we had heard something of him before from his wife, an old Lapp woman. We seated ourselves on the floor of the smoky cabin and listened to the pathetic story of Frank Löster's wandering life. Speaking in his gentle voice, now in French and now in German, the old man told us of his birth-place, Marseilles, his French mother and German father, his soldier-life in the Crimea, the scars which he still bore on his hand and wrist, and his subsequent imprisonment for a year by the Russians. After his liberation he seems to have joined the French navy, for he wandered in ships all over the world and learned many languages. Finally he met his fate on the shores of the Baltic—a Lapp woman, whom he married, and with whom he had been living for thirty years in this remote, far-out-of-world spot. Too old and infirm to hunt for reindeer, the Lapps treated him as a servant, though with this difference—they never paid him, but in return for food he did all the cooking and menial work, and looked after the

babies. 'It's a dreary life,' he said, 'and I do so long to see my dear Fatherland again, before I die. But that, alas! is impossible.' "

A Lapp will sleep whenever and wherever he is tired, regardless of being in his dwelling, or out upon the snow. Others would die, or think they would, if they slept upon the snow over night, but he wakes up again, after many hours of napping, refreshed.

The besetting sin of the Lapp is drunkenness. The originator of *vodka* in Russia and of *finkle* in Lapland has much to answer for, as it makes the home of many a man miserable, and, while when sober the Lapp is generally a decent citizen, when drunk he is the most foolish and irresponsible of mankind. *Finkle* is a whiskey distilled from grain, and is most vile and also cheap.

But with all his faults—want of cleanliness, want of education, love of whiskey, avariciousness—he is not a revengeful being, and he is not a bandit. It is comparatively safe to travel with him in any part of his country; just as safe as in any civilized land, and more so than in some so-called civilized countries. He seeks and loves peace, and carries on no warfare with other peoples. Other nations of the world, and other races, who are supposed to be more civilized than he, wage war and kill, but the Lapp follows on, year after year, century after century, his outdoor avocation of raising and feeding, of tending, milking and following after, of selling and killing for food, his herds of reindeer and is content. He has no ambition beyond his territorial district, or

beyond his habitual customs; no desire to be an office-holder; no anxiety to get rich at the expense of other poor mortals from whom he might take away property or reputation; no ideas of lording it over others, or of trespassing on others rights. He is happy to live and to die as he was born,—a Lapp. As one writer well says: "Neither the coldness of winter, nor the lengths of the nights; neither the wildness of the forests, nor the vagrant disposition of the herd, interrupts the even tenor of the Lapp's life. By night and day is he seen attending his favorite herds, remaining unaffected in a season which would be speedy death to those bred in milder climates. He gives himself no uneasiness to house his herds, or to provide a winter subsistence for them; he is at the trouble neither of manuring his grounds, nor of bringing in his harvest; he is not the hireling of another's luxury; all his labors are to obviate the difficulties of his own situation; and these he undergoes with cheerfulness, as he is sure to enjoy the fruit of his own industry."

Marriage Ceremonies.—Girls are allowed to marry at sixteen, but the match is usually determined by the parents. An engagement ring is generally presented to the bride, and sometimes a silver spoon. It is the uniform custom, when a child is born, for such child to be presented with a reindeer by the father or grandfather. The Lapps are never divorced; they may have more than one wife, but each remains his wife until death.

It may be a good place here to describe the

usual wedding ceremonies of the Lapps, and to do it we shall borrow from an account written by one who saw a wedding at Hammerfest: "One day I attended a Laponian wedding, in the church. As I entered, the bride and groom were standing before the altar; and about a score of relatives and friends, the men on one side, the women on the other, occupied the front seats. The pastor in a black robe and white frilled collar, read the service, and the sexton stood at the side, hymn-book in hand, ready to lead the singing. The bride was attired in a dark blue woolen tunic, with orange and red trimmings; her boots, fastened with a vari-colored ribbon, which was wound around them, extended half-way to the knees; over her shoulders she had thrown a small green-colored shawl. Upon her head she wore a brilliant cap, with a huge bunch of narrow ribbon streaming behind. The bridegroom was dressed in a similar style, except that his tunic was shorter, and that he had upon his head a simple woolen turban. The wedding-service, in Norwegian, was read, rehearsed and sung by the pastor, with refrains by the sexton. None of the Lapps seemed to join in either the responses or the singing. At the close of the ceremony, the pastor and sexton congratulated the married pair, and, a procession being formed, the company marched, two by two, out of the church and down the street."

Classes of Lapps.—We have referred to the Lapps as being divided into two general classes, Mountain Lapps and Coast Lapps. While this

division will do for usual purposes, it must not be understood that there are no subdivisions of these two classes. Those who have studied the subject carefully make, in the whole, five divisions of the people: Mountain, or nomad Lapps; Sea Lapps; Forest Lapps; River Lapps; Fisher Lapps. But the differences between some of these classes lie chiefly in their places of residence, or occupation. Mountain Lapps are not fishermen, nor are Forest Lapps, as a rule; but all Lapps, whatever their occupation, are derived from the Mountain Lapps, so that the latter represent the original stock more distinctly than any other. The Sea and Fisher Lapps are primarily a people who live by fishing, and, while some of the poor among them are obliged to live in turf dwellings, many have houses of wood. The River Lapps also do some farming, and they are especially expert at salmon fishing. They often keep cattle, horses, sheep and goats, and are considered more stable, and, in some senses, appear to be more civilized than most other kinds. They own reindeer, but have them cared for in the summer by the Mountain Lapps in the mountains, while they themselves farm. The Forest Lapps are a class who prefer to live in the woods, and are only semi-nomadic. They sometimes build large enclosures for their reindeer, so that they will not be obliged to wander around after them.

While most of these classes of Lapps prefer to live isolated lives, some like to herd together in hamlets; but this can hardly be set down as a special characteristic of any one of the classes

named above, though it is distinctly not the characteristic of the Mountain Lapps.

Language of the Lapps.—The Lapps speak neither Swedish nor Norwegian, although certain of those words have crept into their language; nor yet Finnish, although their language is very similar to that of the Finns, and philologists declare that the latter and the Lapp language had a common origin. It is not many years ago (in 1852) since the Lapp language was put by a Norsk missionary into a permanent alphabet. It is, as now written, strictly phonetic, though strangely enough its nouns have no gender. This can hardly be, as a wag has suggested, because one can scarcely tell the difference between the Lapp men and women, but because there has not seemed to arise a necessity for making a distinction. It simplifies the language much, in any event. Because of the various countries—Russia, Finland, Sweden and Norway—in which the Lapps find themselves, each having in general a distinct language, the centuries have created many dialects, of which there are four leading and any number of smaller ones. It is a misfortune to the purity of a language to have it brought into close contact with other languages, especially when the former is in its infancy; and this is precisely what has happened in the case of the Lapp tongue. As a result, Scandinavian, and especially Norsk, words in large numbers have been imported into and become a part of the native speech. It is an interesting fact, as proving the importance of the reindeer in their domestic economy and daily life, that

the Lapps use fully three hundred words relating to that animal alone.

The Lapps have a small literature, consisting chiefly of songs and legends akin to those of Finland. The first publication of these probably dates from 1656. Their songs scarcely compare in beauty and certainly not in number with those embraced in the great epic of Finland, the "Kalevala."³ A grammar of the Lapp tongue was first published in 1733. Neither of the above publications, however, were in the present final phonetic form of the Lapp language.

Lapp words seem to run much into two syllables, indicating a paucity in language quite the contrary to that of many other uneducated races, for example among the American Indians, where long and complex words—compounded of smaller words, of course—are so common. The word "father" is a three-syllable word, *arahic*; but "mother," "daughter," "boy," "reindeer," "dog," and similar words in common use, have two syllables. The word for "daughter" is the most beautiful of all, *nita*, and reminds one strongly of the poem so often sung in our own language:

"'Nita, Juanita," etc.

The word for "mother" is *adnic*; for "boy," *swinno*; for "dog," *birna*; for "reindeer," *botene*.

In the matter of education, the Swedish and Norwegian governments undertake to send schoolmasters into Lapland during the summer season, to teach, but it is most difficult work, meeting with indifferent success because of the migratory

habits of the people, and the fact that they have no towns or permanent places where the children can be congregated. The government pays these itinerant schoolmasters only \$25 for the season; sometimes the Lapps themselves add to this small stipend a few dollars more.

Religion of the Lapps.—The state religion in Norway and Sweden being Lutheran and practically compulsory, the result is that such of the Lapps as the missionaries or the state can get hold of are brought into the Lutheran Church by "Confirmation." The efforts to Christianize the Lapps have been on the whole successful, so far as inducing them to attend church once or twice a year, but there has been, naturally, better success in this respect with the Coast than with the Mountain Lapps. Until 1600 all Lapps were idolaters—pagans; then Christian IV. of Denmark and Norway broke up their existing forms of worship with much severity, and probably actual idolaters do not now exist among them.

Their former mode of worship seems to have resembled that of the ancient Norsemen, and was based upon a mythology thoroughly Scandinavian and Teutonic, but modified. In fact all the Scandinavian and Teutonic nations had practically one mythology, which may be a proof of the oneness of these races; but it may also be that the more extensive and more powerful peoples surrounding the Lapps gave to them, at a distant period, their forms of religion. In any event, the general mythology of the north-of-Europe nations have a remarkable similarity to the mythology of the

peoples who originally dwelt on the high plateaus of Central Asia, whence all these races are believed to have had their origin. The Grecian mythology was also allied to this Oriental mythology in its general features, although their gods bore Grecian names.

The Lapps, in worshiping their idols, which were principally of wood, did it with simple rites within enclosures of boughs. They had the usual Scandinavian five orders of divinities, namely, super-celestial, celestial, atmospheric, manes and demons. One god, Athzie, created all things; he was the super-celestial divinity. His son, Neid, kept the world in order and was the celestial deity. While simpler, perhaps, in their attributes, these divinities embodied the general attributes of Odin and Thor, the two great Scandinavian deities.⁴ One of the atmospheric gods was Storyunkare, god of beasts, of the chase and of fishing.

The Lapps also believed in wizards, although the practice of the art, singularly enough, was by the men only. The Lapp wizard, during his state of divination, was supposed to fall into a state of trance, and then it was thought his soul "ran about at large to pursue its inquiries." Much use was made of a divining-drum, made of reindeer-skin, stretched over a wooden frame. This was called a *sampo*, or *runeboom*, and the Lapps have a song:

"If thou wilt make the sampo
Of proper chequered pattern,
I will give my daughter
And reward with a maid thy trouble."

The Scandinavian nations all had a devil-god, and the Lapps had their god-demons. The Lapps of the present day have continued their faith in charms and amulets to ward off these evil spirits. Some of them wear strings of the teeth of certain animals, supposing them to give strength and courage.

The Norwegian and Swedish missionaries have endeavored to secure the building of churches at various convenient points in Lapland, so that at least once a year every Lapp may get to church and the younger members of his family be "confirmed." The graveyard always adjoins it, and, where practicable, there is a schoolhouse. Burials in winter are usually made in this graveyard in a common grave, because the frost is deep. When the spring sunshine melts the snow and kisses away the frost, the bodies are removed and regular separate interments will be made. At church services the men sit on one side of the church and the women on the other, and all are dressed in their best clothes, the men usually wearing a square cap, and the women having on one or more bright silk handkerchiefs about the neck, these being procured at the shops in the nearest market-town.

The churches are small wooden affairs, ugly enough inside and without, the outside being frequently whitewashed. When services are held but once or twice a year, the services of the christenings and the funerals are combined; or, rather, after the christening of all babies born during the past several months, the congregation ad-

journs to the little cemetery at the church, and a service is chanted over the graves of those who have died since the previous one.

The religion of the Lapps cannot be very deep, but in many cases it is sincere. They are usually considered to be a narrow-minded, stolid, and avaricious people; avaricious in a sense that when they come into contact with other nationalities they seem to want to "get all they can, and keep all they get," and yet without stealing. But they are naturally docile, easily influenced as well as pleased, and extremely hospitable. It is true they have no higher ideals, spiritual or intellectual, because Nature meets them with such a stern face that their lives are wholly given up to "earning bread," and having a place for eating, drinking and sleeping. Their ambitions, as has heretofore been said, are chiefly to own more reindeer. Nevertheless religion has mellowed many of them, and some are of the sweetest temper and truest manliness, although these are probably the exceptions rather than the rule.

CHAPTER III.

More About the Country.

Country and Climate.—Reindeer-land is a country that is rugged in parts, in parts marshy and flat. It has singularly rounded eminences, especially along the seacoast. One sees this feature of the land with great distinctness all the way from Trondhjem, northward, and far beyond the

Lofoten Islands, and even in the islands of the Baltic ocean and in the north Gulf of Bothnia. It is due to early glacial action. At a distance it is difficult to tell when there are not clouds along the horizon. The resemblance between hundreds of rounded, dark-colored islands, and similarly rounded hilltops, and the heavy clouds is so close as to be sometimes indistinguishable.

Lapland is not treeless, but as one goes north the trees become fewer and more stunted. Birch, pine, fir and alder are the main trees to be found, and these grow amid the rocks, although sparsely rather than profusely. Where the pine forests stop, the birch forests begin. The birch tree has a light-colored foliage and a light trunk, which give an idyllic charm to the whole region. A tree a foot in diameter is rare, and, when found, is probably one hundred and fifty years old, so slow is its natural growth.

There are some pretty high mountains in Norwegian Lapland, the highest being Sulitelma, 6326 feet above the sea. This is in a glacial district, which abounds in ice and snow of bewildering beauty, and where the country generally is full of boulders, and where the wildness is of the roughest character. Sulitelma is accessible to the climber, and has in its vicinity copper mines, employing nearly a thousand men.

There are a few wild-fruit trees in the country, but without fruit. The rivers have in them salmon, trout, perch and pike; and no better salmon or trout are to be found in the world. In the ocean along the coast are cod, mackerel, hali-

but and herring, not to speak of sharks occasionally.

Nature looks, indeed, in Lapland as she does nowhere else; much as in the colder and most barren places of Scotland; more perhaps like Palestine, as one goes northward from Jerusalem, but with the difference that Lapland is not treeless, and in spots there are fertile valleys, as well as some lakes. There are a number of important water courses in Lapland, especially in Lapland-Sweden. Toward the Arctic Ocean the land descends abruptly toward the north; toward the Gulf of Bothnia and the Finnish lakes there is a gradual decline from the general lofty plateau to the sea-level.

There is a vast deal of peat in the country, which may be due to the long and wet spring seasons and the decaying timber of centuries.

Wild flowers—white, blue, red and pink—and including, of course, the yellow buttercup, are plentiful everywhere in the summer-time. There is no place in Europe where they are more abundant than in the southern part of the Arctic region. As many as fifty rare Alpine plants, most of them flowering, have been found in one Lapland province alone; and in another forty-five have been counted.

The winter season extends over nine months in the year, and the spring, summer and fall are, therefore, pushed into three months, although, for practical purposes, the seasons are divided into two parts, winter and summer. During the brief summer season the heat of midday is quite intense,

the thermometer frequently registering 85 degrees in the shade and 120 degrees in the sun.

In winter there seems to be scarcely a limit to which the thermometer may not go, but both natives and travelers find the air, when the thermometer marks 40 degrees, healthy, and throat troubles are unknown. When it is cold, the air is generally still (if not, the wind is frightful to face), and, if one be only properly clothed, it is exhilarating as well as beneficial. In fact the Lapps who have the largest families and the most healthy children are those who reside in the most northerly and coldest portions of Lapland.

But it is also a fact, not generally known, that within the Arctic Circle in Lapland the general climate, while averaging cold, is much less so the year round than in a similar latitude in America or in Asia. This is due, no doubt, in large part to the influence of the Gulf Stream, which tempers and makes habitable the west coast of Norway, that would otherwise be desolate and inhospitable to any human being. The Baltic Ocean and the Gulf of Bothnia also appear to contribute to this milder climate. While Laplanders live and thrive in their own proper country, in the extreme north of Russia, Siberia and the British possessions, no race, Lapp or Eskimo, has ever really flourished.

Short as the summer season is, it is said that rye "planted in the beginning or middle of June attains the height of seven and eight feet early in August, having reached ninety-six inches in eight or nine weeks, and, when first planted, grows at

the rate of three inches a day." This is because of the heat and the long days. Possibly the same thing might occur in some equally north latitudes in America could the grain be planted; but it must be remembered that, in the vicinity of Hudson's Bay, even south of the Arctic Circle, as in northern Siberia, the snow remains on the ground nearly all the year round, and even where it goes off the frost continues too deep in the soil to allow of grain-planting.

The long twilight of evening in the far north is always interesting and for a time charming to the traveler who comes from an un-Arctic country. These twilights are quite as beautiful throughout Norway as higher up in Lapland, and have sometimes a surpassing loveliness, because of the long-drawn-out sunsets in regions where the sun sets in the neighborhood of ten or eleven o'clock and rises again at one or two in the morning. Every description of red, gold and violet hue is penciled on the front and sides of the varying clouds. Pictures are then to be seen, hung both high and low, in the western heavens such as no human painter can put on canvas. Some of these sunsets, especially on the western coast of northern Norway, are more gorgeous and entrancing than even the aurora borealis.

Wild Game and Birds in Lapland.—There is no longer an abundance of wild game in Lapland, owing to the severity of the winters, the growing sparseness of the woods and the gun of the hunters. Ptarmigan, willow grouse, ripe and the capercailzie (which is the largest of the grouse

tribe) are nearly all the birds that can be called game-birds, but they furnish real sport to the genuine sportsman. The capercailzie is especially hard to find without a good dog, as it knows how to hide and also how to run for protection, but it can be hunted from August to March (now, from the beginning of September). It is a large bird, weighing from ten to fifteen pounds and is excellent food. English sportsmen are particularly fond of hunting this bird. The song of the male bird consists of three notes. The first is "pellep, pellep" repeated four times; then "kleek-op" like a chuckle; and then a queer low noise, not easily put into words. Bird language is always interesting, but in this case is so chiefly to the hunters. There is also the hjerpe, or hazelhen, which is more easily hunted. The Lapps have a legend that the hjerpe was once the largest bird in the forest, and that his size offended the vanity of the other birds, who flew at him, and each tore a piece out of his flesh, and ate it; whereupon he became small as he now is, while the other birds grew larger from the white flesh of the hjerpe, which white flesh then appeared near the breast-bone of the other birds.

Among the birds in Lapland, other than game birds, there are many. The reader will probably be surprised to learn how in such a cold clime birds of plumage and song are content to live their little lives. There are there, for example, the Siberian jay, the gerfalcon, northern tit, brambling, great spotted woodpecker, pine-grossbeak, blue-throated warbler, sedge-warbler, blackcap,

windchat, redstart, hedge-sparrow, mealy redpole, red-throated pipit, dotterel, golden plover, bar-tailed gotwit, spotted redshank, red-necked phalarope, ruff, great gray shrike, as well as the goshawk, hawk-owl, rough-legged buzzard, snowy owl, and golden eagle.

As to animals, the wolves and minks of a former generation have almost passed away. Bears are scarce, but do exist. White, black and red foxes are to be found in considerable numbers. There are a few elk, which are the largest and ugliest of the deer family. They could be domesticated but are not. Wild reindeer are to be found in considerable numbers, but are now protected by law until the year 1907. Wild reindeer hunting is more common in Norway proper and also in Sweden than in Lapland. There are probably on an average five hundred shot every season among the mountains in northern Norway, and sometimes as many as a thousand elk. In Sweden, in 1895, 1409 elks were killed, but their number is now diminishing.

On the coast are myriads of eider-ducks, whose down furnishes wealth to those who gather it. These ducks are white-and-black when male, and brown when female, and are larger than American wild ducks. They build their nests of marine plants carefully in the rocks, and line them with their soft white down, which is worth ten dollars per pound when ready for the market. It takes, however, four pounds of crude down to make one pound of a marketable quality. When down is picked from the ducks by hand, it loses its elastic-

ty, so that it is gathered from the nests. Two pounds of down, as found in the nests, may be pressed between one's two hands, and yet is sufficient to make a bedquilt.

The Lapps are good hunters and fond of it, and the growing scarcity of game makes them all the more tenacious about securing what there is. The two main places where they go to sell their skins and game-food are Vitangi and Kengis; from there they are shipped by packs to Torneå, and thence reach Stockholm and the rest of the Scandinavian world.

The only real "fun" a Laplander has in hunting for game is when he goes after bear. A bear hunt furnishes enough excitement for encampment talk for a month. A Lapp believes that the polar bear is the most gifted of animal beings, whom they ought not to destroy when asleep. It is said that they formerly asked his pardon with tears for taking his life.

A writer gives this account of bear-hunting: "When a track is found, the bear is promptly ringed. That is, the track is not followed up, but a man on *skis* (snow-shoes) leaves it at right angles, and, working in slightly all the time towards the direction in which the bear was traveling, finally hits the spoor (trail) again where he had left it. If he has not seen the spoor in the meanwhile, the bear is somewhere within that ring. There is no immediate hurry for the next move. Bears only shift their quarters two or three times during the course of the winter, and, if undisturbed, they will doze for a considerable while when once they have

settled down. So, if there is no immediate danger of a heavy fall of snow to obliterate the spoor, the finder goes back and organizes the hunt at his leisure.

“The number of hunters depends upon the two items of pluck and skill, but not more than four go as a general thing, as there is a distinctly commercial side to the business, and the fewer the guns the more there is to every share. The government gives head-money; the merchant will pay anything between £4 and £10 English for the cleaned skins; and the beef, too, is an asset of value. A third share in a good bear is enough for a Lapp to marry on and set up a tidy farm, if he happens to be economical.

“The winter light may be gray and poor, but the snow looms white, and the spoor reads like a book. A bear breaks through any crust, and plunges elbow-deep at every stride. His belly trails along the snow and ploughs a great furrow. It takes the drifts of a gale to cover that track. But withal his highness is a scary person, and though he may sleep with shut eyes, he keeps open ears and active nose. So the callers have to tread with niceness and delicacy if they wish to make sure of an interview; and even supposing that they carry the spoor with them up to the pile of tumbled rocks where it ends, and the absence of back tracks shows his bearship at home, the hunt is by no means over then. The bear will know quite well that enemies are at hand, but he will not rush at them. He is no fool. On the contrary, he is an animal of infinite cunning and resource;

and he quite knows that in his stone redoubt there is at least one chance to three of brazening out the situation and wearing his own hide for another season.

“It takes a man of much more recklessness, or ignorance of the consequences, than the average Lapp hunter to go into a cave of rocks and deliberately invite a rough-and-tumble with a live brown-bear. But the hunters do their best to irritate him from a distance. They fire single shots into the darkness in the hope of riling him sufficiently to make a rush, so that the other guns which remain loaded may drop him when he comes into the open. They do this from every direction on which the cave mouth opens, so as to give him every chance of feeling a shot. And, finally, if this method fails, they light a bonfire on his front-door step and stand around on their *skis* to await results. It is by no means certain that the smoke will reach him, for there may be quite possibly an outward air-current, and the Lapps have produced their Rembrandtesque effect for no practical return. But if they have luck, and the stinging reek is too strong to be endured, then they have to stand by for quick shooting. The bear bolts like a rabbit, out of the firelight into the gloom, and in a matter of seconds he will be absorbed amongst the tree-stems of the forest. There is something uncanny, something almost devilish in the way a Northern bear can adopt invisibility.”

Use of Snow-Shoes.—In the winter the snow is very deep; usually four or five, sometimes

twelve, feet on the level. When much snow first falls it is almost impassable by men or deer. In a few days, however, it settles and becomes sufficiently hard to bear snow-shoes, and also the reindeer, the feet of the latter being so arranged by Nature that they do not sink deeply in the snow, if it be a little hardened. The snow-shoes (usually called *skis*, or *skees*) used by the Lapp are superior to any others of the northern tribes of people. For example, by the Eskimos, or by North American Indians. They are extremely long, being from six or seven to, in some cases, sixteen feet in length. They are made of the wood of the fir tree, and are extremely thin (about one-third of an inch thick at the centre), tapering to a quarter of an inch at the end, and not over four or five inches wide. A loop of leather at the centre passes over the foot. The under-surface is as smooth as glass, but is furrowed, and both ends are pointed. With these snow-shoes Lapps may go on the level over deep snow at an astounding rate of progress, say averaging fifteen miles an hour. They also use them in crossing frozen lakes and rivers, although shorter ones are frequently employed for the latter purpose. They coast down-hill on them at a still quicker pace, but this is more difficult to do, and novices must then look out for accidents. Unless the snow is solid, a man must push himself along, or assist himself in his onward movements, by one or two stout sticks, or staves, held in either hand. In going up-hill the course must be zigzag, and then these staves are a necessity. The feet, with

the snow-shoes on them, are never raised, as the movement is wholly a sliding and not a stepping one.

Without snow-shoes, it would be next to impossible for Lapps to travel in winter, unless behind reindeer in the *pulkas*. Children are early taught to practice on snow-shoes and soon become experts. It is not uncommon for a whole Lapp family to go to a church service on snow-shoes, sometimes starting the night before, should the distance be very long, and stopping somewhere, perhaps to sleep on the snow, on the way.

CHAPTER IV.

Their Treasure of Treasures.

“The Tiny Reindeer”.—Having said so much about these people who come daily into close contact with the pretty reindeer—the little, docile and lovable animals that go to make up their earthly wealth, and that have made the race of Lapps so famous the world over—let us now learn a little about these animals themselves.

“Their reindeer form their riches. These their tents, Their robes, their beds, and all their homely wealth, Supply; their wholesome fare and cheerful cups.”

How pretty a herd of reindeer is can only be told by one when he has actually seen them mingling together on the Arctic upland. At a distance, their gray color is so nearly that of the numerous rocks, which usually abound in any Lapland locality, that it is not easy to distinguish which are

deer and which are granitic uplifts. For this reason many photographs of a herd do not show the animals distinctly, as in the pictures they are readily mistaken for rocks. They are little creatures, truly enough, being only about three feet high or less, but with enormous antlers, that, when "in the velvet," (so-called when the antlers are young) look like boughs of trees, moss-grown. Male and female alike have antlers, which is the case only with the reindeer, and not with any other portion of the deer family. In other countries all female deer are without prongs. The antlers are smaller in the female reindeer than in the male; more slender and less branched.

The reindeer is a distinct name for that species of the "barren-ground caribou," whose home is in northern Europe and Asia. In America the term "caribou," not reindeer, is given to what many believe is, practically, the same species, although the likeness has not always been recognized by writers upon mammalia. The Scandinavian reindeer is the only domesticated deer, it is true, but many investigators believe that the general type is one, and that the caribou could be domesticated if time enough were allowed for the process. In America, the caribou species is to be found far in the north, in Greenland, or the Parry Islands, or in Ellesmere Land, or to the west of Baffin's Bay. A few have been found wild in Alaska. What are called "caribou" may also be found south of the limits named, but they are the "woodland" species, which are said not to be the same.

The color of the Lapland reindeer is usually a gray—a slate color in fact—closely akin to Lapland rock, though some are lighter in shade, and some have brown, black or russet spots on the rump, which are not distinct spots but rather merging, or confluent, colors. The sexes are about evenly divided, the males, however, being kept for draft-service, and the females being more often used for food. It is said that only the males are adapted for draft.

One peculiarity of the use of the reindeer, which from its occupation as a draft-animal has been called “the camel of the north,” is that it is the only member of the deer family which has ever been thoroughly domesticated. All others are wild, or, if tamed, are not put to domestic use. Some have supposed that other deer, and especially the American caribou, could be domesticated, but it might take centuries of effort in this direction to accomplish it.

It cannot be said that the reindeer carries its head well, for it puts it forward when moving and its ears lie far back on the withers. But, when at rest, the male deer, especially, is a lordly animal, though without traces of arrogance. His eyes are mild, but he is averse to strangers and is only thoroughly docile to his owner. The Lapp name for reindeer is *raingo*.

It takes time, not months, but often two years or more, to thoroughly train a male reindeer, so that he is to be depended upon to do good sledge-work. The process is begun when he is three

years old, and when he is five he is usually considered satisfactorily "broken in," but not before.

The ears of the reindeer are generally branded, each owner having his particular mark. If it were not so they could not be separated when the herds intermix. These marks of ownership—trade-marks, as it were—are registered with the government of Norway or Sweden.

The reindeer has large hoofs, wide apart, so that it sinks as little as possible in the snow; is stout of limb, has a short head but wide muzzle; is covered with a coarse thick hair in winter, often two inches long, although in summer it is thinner and softer. The animal's hardiness may be best appreciated by a statement of the fact that it is never housed. Be the weather 50 degrees below zero, the wind a gale and snows deep, still it "likes it," and takes so much apparent pleasure in finding its own food that it will not eat moss when previously gathered by hand, unless under most exceptional circumstances. It will dig deep into the snow—five or six feet sometimes—to get moss; and it is a singular sight to see a score or more of reindeer getting their meal in this manner, with only their short tails sticking out above the high drifts. Or they will rear up on their hind legs, put their forehoofs against a tree, and pull down and eat the tender foliage from its branches.

Reindeer-moss is the reindeer's chief diet, and Nature has placed that moss nearly everywhere in Lapland. The moss is a low-growing plant, dull white in color, with short roots, and is very nu-

trititious. When boiled with reindeer milk it is edible for the Lapp himself. It covers the mountains with a dense coat, just as gorse covers the north Devonshire hills. Without this moss the reindeer would soon become extinct. Whatever else it may eat—other lichens, or twigs, or grass—it must have moss. The botanical name of the moss is *Cladonia rangiferina*. A similar moss, with a different name, flourishes on the coast of Labrador, and in Alaska, and wherever the reindeer family is found. A singular fact it may be, but a fact which shows the wisdom and provision of an overruling Providence, that here in the frozen north, where there is such a wonderful little animal, adapted to man's every need, the exact food necessary for its subsistence appears in abundance. It is the only plant-life that does grow there in sufficient quantities to sustain this kind of animal life. Climate does not affect it, snow and ice do not kill it, but it grows on, ready for the only ruminant that craves it.

Where there is no moss, the reindeer dies, or rather, it goes and seeks it, no matter at what distance it must travel to secure the food. Left to itself, in a wild state, it always flourishes where there is plenty of moss. In fact in Lapland (and now in Alaska), the increase in the size of the herd, when too many are not killed for food, is something remarkable. In seasons of intense cold and very deep snow, when moss is inaccessible, the death-rate is just as high in proportion as the birth-rate in good season. In consequence the autumn is always an anxious time for the Lapps, be-

cause if the ground freezes hard, and the rain on the moss turns into ice before the snow falls, it will make it impossible for reindeer to secure their food throughout the long winter. They can burrow through the snow, but cannot gather moss beneath it, that being frozen through and through, and turned into ice crystals.

The reindeer are excellent swimmers, as their bodies are buoyant, and they can cross rapid currents. They have an acute sense of smell and hearing, this being intended by Nature to allow them to escape from enemies, animal or human. When attacked by wolves, they kick furiously and seldom fail to come out best in the contest. Their worst enemy is the gadfly, which gets under their coat of fur, and lays eggs there. Inflammation follows, and the larvæ, as soon as they come out from the eggs, feed on the flesh. The reindeer frequently migrates to avoid their attacks.

We have already stated that, in certain territorial portions of Lapland, the reindeer constitute a large animal family. They are in fact more plentiful in Lapland-Sweden, than cattle in similar limits in England. In one province alone there are probably seventy-five thousand reindeer and, as stated, in Swedish territory, there were, a few years since, as many as two hundred and twenty thousand.

Milking a female reindeer is a curious process. She does not like the act, though she may have had it performed a hundred times. If it be practicable, she is first driven into an enclosure, then lassoed and held fast. The milking is usually done

by the girls of the household, who milk into small milk-pails. Usually the quantity of milk obtained is about one pint, but it is exceedingly rich. It is placed, after the milking, in bladders, and has a syrupy appearance, and when drank is preferred by many Lapps when sour. At mealtime a bowl of it is passed around, and those who care for it dip in their spoon, and take it, a little at a time. The milk is sometimes made into butter, which is of a white color and not very appetizing, but it is rather the rule to drink it at meals, or make it into cheese. The cheeses are flat and round, about five inches in diameter, only an inch thick, strongly odorous, yet are probably healthy as food. However, even the Lapps do not care half so much for the cheese for its edible qualities as they do to use its oily substance for frost-bites, for which it is a specific.

Here is an interesting description of the milking of the reindeer by a recent traveler, and the account gives us considerable more than usual book-information: "While the women were putting the household things in order inside the huts, we helped the men build a kind of scaffolding of birch-stems in order to keep the provisions out of reach of the dogs, and mended the old fence about the inclosure in which the reindeer are milked. Having got the camp in order, my companion and I were sitting outside, looking at the magnificent scenery. The camp was beautifully situated on the slope of a fell ridge in the upper birch region. Below, the Goos River widened into a calm pond, while above there was a series of rapids and cas-

cares. On all sides the horizon was bounded by snow-clad fells, whose peaks were gilded by the evening sun. Suddenly sharp barking was heard in the distance, followed by the shout through the camp, 'The herd is coming!' All helped to drive the herd into the inclosure—young and old, men and women, even the little children, hurrying down, the men carrying the lasso on their arms, the women holding a wooden scoop, others a kind of large wooden pail, a keg-like vessel closed by a sliding cover, while our hostess had her baby thrown over her shoulders, my companion and I running along with the crowd. Placing ourselves on both sides of the entrance to the inclosure, at some distance, we stopped to wait for the herd.

"Looking in the direction from which the barking was heard, we observed on the summit of the nearest mountain-ridge, against the horizon, something like a moving thicket, carried, as it were, by a swift current down the mountainside. Soon we distinguished the graceful forms of hundreds of reindeer, as they, with elastic motions, leaping and bounding, came tearing toward the camp, the dogs stretching like ropes along the ground on each side of the herd to keep it together. We crouched behind stones and bushes so as not to frighten the half-wild animals. With a good deal of running, gesturing, and shouting, the herd was finally brought into the inclosure, only a few of the wildest animals escaping over the fell, past some of the little children. . . . Rushing into the inclosure in an unbroken stream,

of more than a thousand animals, the herd did not cease running—the reindeer is always on the move, except at its regular resting-times—but continued in a circle against the sun. The reindeer in these circular motions always runs against the sun; if it runs with it, it is a sign of disease of the brain. In the midst of the reindeer, leaping, bounding and butting in a friendly way, while giving out their peculiar grunting sound, the picturesque figures of our Lapponian friends were seen, surrounded by a thicket of horns.

“Our hostess, having hung her baby to a birch in the middle of the inclosure, stood, like a number of other women, mostly girls, with a wooden scoop in her hand, ready to milk the first of the female reindeer caught; while at the outskirts of the inclosure stood a number of children with large pails to receive the milk from the scoops, the smaller children either running about playing outside the camp, or giving salt and angelica to some of the tamest animals. The most important actors on the scene, however, were the men moving about slowly in the midst of the herd, holding the lasso behind their back in the right hand, and looking sharply at the running animals. As quick as lightning a lasso whizzed through the air, the frightened animals recoiling and then increasing their speed. When the lasso hit the mark, the cow was hauled in, and tied to a birch while the milking was done. So they kept on for nearly two hours.

“The quantity of milk yielded by each animal is very small, at the most about a teacupful, but

it is of a very high nutritive quality. The milking, which is by no means regular, is done, if possible, once a day. In winter-time there is of course no milking. To prevent the calves from sucking their mothers, pieces of bone are tied into their mouths, or the udders are besmeared with tar. Some of the Lapps think it sinful to milk the reindeer and thus deprive the calves of their food.

“The milking done, the herd was again let out on the fell, accompanied by fresh herders and dogs. As soon as the outlet was opened, the herd rushed out, and dashed away with the speed of the wind. Bewildered by the general confusion of the inclosure, a number of calves were left behind, running about, grunting for their mothers. After a few moments one of the cows came back, running, grunting and smelling for its young, and soon all the calves had been found by their mothers.”

The natural impulse of the reindeer of the mountains is to go toward the coast in the summer, and the reason for this instinct has never been explained. It certainly exists, however, and is ineradicable. In the winter there is no such instinct. The time for this migration is in June or July, when they start off suddenly of their own accord, and there is then nothing for the herdsmen to do but to follow and direct them to such part of the coast as it seems advisable to reach. They permit of such direction, but will not be moved from their general purpose. The American caribou has the same impulse for voluntary travel toward some distant point, but its instinct

seems to be equally great in the winter as in the summer, as it invariably points its head southward in the summer and northward in the winter, and regardless of any seacoast magnet.

When a reindeer is to be killed, he is lassoed and thrown to the ground. The sheath-knife quickly comes out from the belt of the slayer, or, if convenient, he may use a longer and narrower knife. An incision is made between the deer's forelegs, and it is stabbed to the heart. The lassoing of the deer is an expert performance that rarely misses its mission. Sometimes the rope, or leather thong, is thrown thirty or forty yards, but the noose at the end invariably catches the antlers.

To many it seems improbable that any fine and strong threads may be made out of reindeer tendons, yet every Lapp wife knows how to do it. She strips the tendon when it is moist into fine fibres, as fine as flax, and from these draws out a thread. This is twisted into two, three or four threads, according to the desired strength of the cord, and is rolled upon her cheek with her hand. The thread thus made, if coarse, is very strong, in fact almost unbreakable, and with it nearly all of the sewing of skins and of coarse garments is performed. It is also a lasting thread, and stands wear a long time without decay.

Reindeer bones and antlers are made into various kinds of implements. The writer saw in 1904 at Gellivara a complete and usable bicycle made entirely of reindeer bones, the handle bars being of the antlers, and the chain of small bones riveted together. The spokes and rims of the wheels were

of bones so tightly riveted that they were, apparently, as strong as steel frames. It is needless to say the manufacturer was not a Lapp, who is far from being an inventive genius or mechanic, but a Swede.

Driving the Reindeer.—The Lapps drive, but do not ride upon, the reindeer, perhaps because they are too heavy burdens. Eighty pounds are as much as the average deer will carry comfortably. In harnessing a deer to a sledge the process is simple enough, as there are no shafts. There is a broad collar-strap which, after passing around the neck, runs down between both forelegs, and then low to the ground between the hind legs, which it does not touch, to a stout leather ring on the front part of the sledge, such ring being only a few inches from the ground. The fastening and unfastening, therefore, occupies but a few seconds of time. This is all there is of "harness," except the leather thong by which the animal is guided, which is fastened to the antlers and held in the driver's hand. There are no brakes upon the sledge. When going down hill the driver uses his feet for that purpose, but sometimes employs a stick. There is a space of several feet between the deer and sledge, so that there is no danger of its ever getting upon the deer's heels.

The sledges (*pulkas*) used by the Lapps look not unlike those used by the Eskimos, drawn by dogs. They are shaped much like an Indian canoe, being about six feet long, and just wide enough for one man to sit in comfortably; and they are extremely light. The man usually sits

flat in the bottom, but sometimes he has a seat, and, if he be wealthy, it may be a cushioned seat. It is difficult for a beginner to keep balance in one of these *pulkas* when going fast and making turns.

All Lapp sledges are well-made, and can stand hard usage. Even when they collide against a hidden tree stump, and, perhaps, upset—although this is a rare occurrence—they seem to suffer little injury. They are ribbed inside, and the front of the keel is made high on purpose to ride over logs, stones or other objects that may happen to be concealed by the snow. There are higher sledges upon runners used by a few Finnish Laplanders and by natives of northern Siberia, which are more comfortable for the foreigner who may be obliged to employ them, but they are not so safe as the regular *pulkas* of the regular European Lapps.

One person occupies the sledge; it is too narrow for two. The rule is to drive before it a single reindeer. Several are sometimes attached, when the snow is very heavy, and there is hard hill-climbing, but this is a rare occurrence, as one deer can carry a man and a sledge, with whatever else he chooses to put in, at a high rate of speed, for a long distance. When Santa Claus goes on his travels he may use eight, but, while he might need them in a foreign land, he scarcely would in Lapland.

As to the usual distance covered in a day, it varies, but eight or ten miles an hour is an average gait, and a hundred and fifty miles a day is a

journey only made when there seems to be necessity for it, and then the journey consumes about eighteen hours. In 1769, Pictet, a Swiss philosopher, who went to Lapland to observe the transit of Venus, in a race made with three light sledges, drawn by two reindeer each, found that he could cover easily nineteen miles per hour. In 1699, it is recorded that an officer with important dispatches actually drove one reindeer eight hundred miles in forty-eight hours, but the deer fell dead at the end of the journey. A painting of this deer still hangs in the palace at Drotningholm. It has been officially noted that in 1896-'7, during an exceedingly cold winter, a number of the reindeer brought from Siberia were driven two thousand miles in Alaska, the thermometer part of the time being from 43 degrees to 73 degrees below zero, and they were none the worse for having made the longest journey of any reindeer so far as has been recorded. The country traveled over was the worst possible for the trial. The object of the journey was to see if all parts of Alaska, even such as white men have never traversed, might not be accessible to reindeer, and the conclusion was altogether favorable.⁵

The animals are so hardy that they can easily work eighteen out of twenty-four hours and be again in as fine condition after six hours of rest. If they need water upon a journey and do not come to it, they will eat snow as they travel along. Sometimes, when the snow is heavy, and they grow weary, they will stop and lie down in it a few minutes or more, and then get up and proceed

as if refreshed. No animal can recuperate after fatigue so quickly.

When pulling a heavy load, say of five hundred pounds, reindeer sledges will make about forty miles per day. Sometimes snows are so fierce, and so fine, that Lapps and reindeer must stop, or lose their way. The driver then tries to find shelter, if possible, upon the still side of a precipice, and may stay there for a day or two until the storm abates. Such an occasion is likely to come at any time during the winter.

In going down very steep hills, the reindeer is unfastened, and attached to the rear end of the sledge by a thong fastened to his antlers. As he does not enjoy being pulled by the horns, he holds back enough to break the force of the descent. A novice at driving a reindeer usually gets thrown out a few times, and has what he calls a "runaway." Even the best broken reindeer proves refractory and is difficult to manage.

When a number of Lapps are traveling together in sledges they go single file, and a dozen of them may stretch along for a quarter of a mile, affording an odd enough sight. Silently but rapidly these airy steeds, with swift pace, make a straight line across the snow toward some distant point, and appear to enjoy the sport of it quite as much as the drivers themselves; perhaps more so, for they keep warm, while the Lapps often find it a pretty serious matter to ward off the frost-bites, especially upon the nose or face, for when the thermometer drops below the forty-below-zero mark,

and there is a strong wind, it is extremely trying to the exposed skin.

CHAPTER V.

Strange Phenomena.

The Aurora Borealis.—The phenomenon of the aurora borealis, more properly “aurora polaris,” or northern lights, as they are generally termed with us, is to be witnessed in all its grandeur in Southern Lapland. The more northerly, however, one goes, the less is it likely to be frequent or impressive. As everyone who has given the subject attention knows, it does not emanate from the true north, or true south, pole, but from what are called the magnetic poles, one of which, in the northern hemisphere, is at a point just north of King William’s Land, in about 70 degrees, 50 minutes of north latitude, and 93 degrees, 43 minutes of west longitude, while another of less force seems to be located north of Siberia. A direct north line drawn from about the centre of Nebraska toward the true north pole will cut the chief north magnetic pole some twelve hundred miles short of the true pole. There are similar magnetic poles in the southern hemisphere, where the aurora is also visible. In the vicinity of these magnetic poles there ought to be the most striking example of the aurora, because they are certainly connected with the phenomenon, and such travelers have found to be the case. A study of the subject shows that the phenomenon does not

follow strict lines of latitudes, owing to dips and curves in the magnetic meridians, which the skill of scientists have not yet explained. Still, generally speaking, auroras are seen most frequently in lands approximately near the magnetic poles. Therefore, in Canada the displays are far more numerous than in England, and in Greenland they are more brilliant than in any European country. After Greenland they are most vivid and impressive in Lapland.

Given the right conditions, an aurora—which, as is now generally understood, is wholly an electrical display, akin to lightning but not originating in rainstorms and destitute of thunder—is a most imposing sight wherever it is seen. During the long winter nights in Lapland, travelers may study all the varieties of this display; though of auroras, there as well as elsewhere, it is to be said that no two are exactly alike. Probably during some of the long days of summer there are also electrical displays in the atmosphere, but, of course, such are invisible. During the Arctic night the Laplander in his *pulka* has many an opportunity to view the glories of those streamers that scintillate and flash from the magnetic poles to the zenith, and serve to illumine so beautifully the sky, the sea and the land. What his real thoughts are at such a time we may never know, but the pity is that lovers of the beautiful elsewhere are deprived of the spectacle.

What a wonderful sight the aurora is need not be told to one who has seen it in all its marvelous and singular loveliness. To those utterly unac-

quainted with science, and who have no means of conjecturing causes, it would bring apprehension of great disasters, were it not of such common occurrence. To the Laplander it is an old and familiar matter and we fear he does not appreciate it.

Sometimes only one or two auroras are to be seen in Lapland during an entire winter, but, in other winters, on almost every night for days at a time the heavens are resplendent with them, and they range in appearance from the merely fascinating to the unspeakably sublime. "When the auroral crown is fully formed," says Richard Proctor (1837-'88), "and the vault of heaven is covered with the auroral banners, waving hither and thither silently, now fading from view, anon glowing with more intense splendor, the mind is not less impressed with a sense of the wondrous powers which surround us than when, as the forked lightning leaps from the thunder clouds, the whole heavens glow with violet light, and then sink suddenly into darkness. The solemn stillness of the auroral display is as impressive in its kind as the crushing peal of the thunderbolt."

"At times," says Pierre Martin, who was upon an Arctic voyage in 1653, and who observed many of them in Spitzbergen, which is north of Lapland, "they are simply diffused gleams, or luminous patches; at others, quivering rays of pure white, which run across the sky, starting from the horizon as if an invisible pencil was being drawn over the celestial vault. At times it stops in its course; the incomplete rays do not reach the ze-

nith, but the aurora continues at some other point; a bouquet of rays, darts forth, spreads out like a fan, then becomes pale and dies out. At other times long golden draperies float above the head of the spectator and take a thousand folds and undulations, as if agitated by the wind."

Lieutenant Peary says that in his extreme north wanderings, on shipboard, he saw fewer auroras and much less brilliant ones than when farther south. He describes one of the finest of these displays as follows: "At first the aurora extended in a brilliant white, waving curtain, north and south across the strait, its bottom seeming to brush the masthead, then the curtain disappeared, and scurrying wreaths and streams of pale amorphous light came rushing northward over the ship, and, forming in serpentine folds, waved and fluttered, waxed and waned, separated and ran together again, with a rapid, fluttering motion, which I can compare only to the rapid opening and shutting of a Japanese fan. And, finally, agitated by some ghostly whirlwind, till every fold shot green and gold and violet and crimson flame, they broke in flying fragments, and dissolved into faint, luminous clouds."

Nansen, in his *Farthest North*, gives many beautiful descriptions of the aurora, perhaps none better than the following. It will be noted that he even saw it to the *south* of him. "The deck was brightly illuminated by it, and reflections of its light played all over the eyes while the sky was blazing with it, but it was brightest in the south; high up in that direction glowed waving

masses of fire. No words can depict the glory that met our eyes. The glowing-fire masses had divided into glistening, many-colored bands, which were writhing and twisting across the sky both in the south and north. The rays sparkled with the purest, most crystalline rainbow colors, chiefly violet-red, or carmine, and the clearest green. Most frequently the rays of the arch were red at the ends, and changed higher up into sparkling green which, quite at the top, turned darker and went over into blue or violet before disappearing in the blue of the sky; or the rays of the one and the same arch might change from clear red to clear green, coming and going as if driven by a storm. It was an endless phantasmagoria of sparkling color, surpassing anything that one can dream."

Without doubt auroras are due to electrical discharges in the upper air. All kinds of theories have been formed as to how these discharges are produced, but none may be said to be settled, although the finest displays are believed to be on occasions when the sun's surface is marked with an unusual number of sun-spots. It is certain that they occur within and not without the limits of the earth's atmosphere, and are, therefore, not so many miles above the surface of the earth. They have sometimes been seen between the observer and a point of land not two miles distant.

The first historical mention which we seem to have of an aurora is of the one seen in London on January 30, 1560, which was described as having the appearance of "burning spears," but it is to be assumed that the real phenomenon is as old as the

present stage of the earth and the sun, and that the Laplanders have seen it "from time immemorial."

The Midnight Sun.—To the Lapp the Midnight Sun is not a wonder. He views it every year of his life, and to him it is as natural a spectacle as the extremely brilliant stars of the long nights of the Arctic winter. To others who live far south of the Arctic Circle, it is a stupendous wonder, and, the first time it is viewed, it seems almost a miracle. The explanation of it, however, is exceedingly simple. The inclination of the axis of the earth turns so much toward the sun in the summer that one sees the sun the whole twenty-four hours—that is, all the time. It is as simple a proposition as that of watching any natural object at a distance, which appears to move, but which only transcribes a circle and does not get out of sight. Because the earth revolves, the sun must seem to move around it, but it may seem to move around the horizon just as well as from horizon to zenith. Accordingly the apparent swinging motion in mid-summer in the Arctic region is around the horizon, and not around the earth in the usual overhead direction. At midnight the sun is due north, always; it then curves gradually upward while it proceeds eastward and southward, and at twelve o'clock at noon is due south and a third way up the sky. Then it sinks towards the western horizon, with the same gentle curve, and reaches the beginning point in the north at midnight without actual disappearance.

Just before twelve o'clock at night, when the

sun is visible, it has a pale-yellowish appearance, if the atmosphere be normal, and its faint radiance is that of evening light. One can look directly at it, sometimes for only a minute, but sometimes steadily, depending upon the condition of the atmosphere. The latter at times gives it a ruddy appearance, not unfrequently as red as blood, just as we often see it in more southerly climes during a time of drought. In any event, however, it emits a weaker light than is usual before sundown in regions outside of the Arctic Circle.

When twelve o'clock midnight comes, the sun seems to stand still; absolutely still. Up to that moment you are sure it has been moving to the north, but now there are five minutes of strange suspense; peculiar sensations come over the beholder, as if the clock of Time had suddenly ceased to beat; the whole landscape is hushed. Then, five minutes past twelve, there is a rebound, as it were. The sun again moves! The whole sky grows lighter. The earth is re-illuminated with the light of day. Birds that were still begin to warble. A strange, supernal light, such as the preceding hour did not have, creeps over land and sea. The clouds have the violet glows of the morning sunshine. Nature begins to wear a smile. The sun is now the goddess of the day, riding upon the chariot of the morn. Every hilltop has a new garment. Life has resumed its accustomed buoyancy. The atmosphere is redolent with the breath of the sunrise.

The writer has seen the phenomenon just exactly as above described and will never forget it.

It is certainly worth going several thousand miles to see. But it is a great mistake to suppose that it is only to be seen, or that it can be better seen, from the North Cape than from anywhere else. The reason for the popular impression is that for many years the North Cape has been the most accessible point from which travelers might view it; made so by special steamer excursions from England, Germany and Norway. But large numbers go there annually and fail to see it, because of the fogginess of the Norwegian coast. We once met two Americans at Trondhjem who had been to the North Cape for five successive years and had not once viewed the Midnight Sun. If it be practicable, it is better for the traveler to view it from Lapland, fifty miles away from the coast at least, as there he will be more sure of viewing the spectacle, and will save the tedious sea-voyage to and from the North Cape.

Others who have seen the Midnight Sun have described it in more or less glowing terms, but all are agreed that what is so common a sight to a Laplander is, to a foreigner, the most impressive of spectacles. One brief description by an American lady is given to show that, while the language may vary, according to the temperament of the beholder, the impressions of grandeur and beauty are ever the same.

“Over the vast dome,” says the writer, in *Norway Nights and Russian Days*, “almost to the zenith, the gray cloud-masses floated away in long fleecy scrolls of crimson and orange, in feathery filaments of transparent radiance, in downy flecks

of deep purple edged with gold. Points and peaks both of mountains and clouds, in infinite irregularities, 'with sunfire garlanded,' sentinelled the sea, and stretched far northward till lost in translucent mist. Sea-birds disported themselves on the flashing waves, their sombre feathers transmuted to tropical iridescence. The sun slowly descended to the edge of the horizon;—and then, with one kiss on the radiant water, rose with elastic rebound! The dying and the new-born day clasp hands in mutual embrace as they pass through the duplicate golden portal; every ripple is a jewelled witness, every quiver of air an echo, of the celestial drama. The beauty and the marvel of the scene brought silence upon all our little company; each one seemed afraid to speak lest he should break the spell, until, by imperceptible gradations of form and hue, the clouds were again lost in full blaze of light."

The Midnight Sun is not a "miracle of Nature" but a plain fact. It may be seen anywhere on any continent or on the sea, within the Arctic Circle, either north or south. Still it is a charming phenomenon, and plainly teaches that, while the earth is round and revolves upon its axis, it also keeps its pole in one certain direction, while it swings on its orbit around the great light-centre of our local universe.

CHAPTER VI.

Conclusion.

The End of the Lapps.—It would seem as if the Lapps—not the reindeer—will, in a future not so far away, become an extinct race. Like the Eskimos, they are not increasing but diminishing in number year by year. Forty years ago the Lapps numbered thirty thousand, and now it is thought there are not more than seventeen thousand at the most. One cause of this race decay may be polygamy, which is practiced to a limited extent. A direct cause is the excessive use of liquors, which constitutes their besetting vice. Another is the fact that they do not take sufficiently intelligent care of the children to insure their passing the tender years, when they may become hardened to the climatic and other severe conditions of Arctic life. The fact is that all nations in the extreme cold regions are losing their grip on race life, owing to increasing habits of intoxication and indolence and kindred vices. They could retain vitality and grow in numbers despite the cold, if they intelligently planned for long life, rather than give up to a feeling of hopeless fate. The Eskimos, as we know, are not intelligent liverers, and as a result they are likely to pass away along with the aborigines of the whole of the north and northwest of the Continent of America. In a sense this is a sad fate, but this “great world” of ours is constantly exhibiting examples of the weaker and less intelligent disappearing, while the stronger and better races are gaining domination.

It is the order of Nature; it is the necessary result of the march of human events. One day all these various classes of people will have gone and left scarcely a mark behind.

Many believe, and we concur in that belief, that at most the Lapps of two or three centuries will be classed among the ancient Cave-men, who have disappeared from the earth. Whether other races will venture to live where they now do, and follow the life they now lead, no one may predict.

The wild reindeer has also been disappearing from the country and from Norway and Sweden proper, but this is owing to the huntsmen. The tame reindeer, however, holds its own, and there is no human reason, unless it be a lack of moss-food, of which there is at present no sign, why it may not hold on for a long period after the Lapps go, as it was in the Northland before the Lapps ever reached that region.

The fact that the Lapp may go furnishes at least one reason why our interest in this curious race should be more than a passing one. He is an anomaly in his habits and ambitions, a strange successor to the Bone and Cave-men, who preceded him in Scandinavia, and, if the years be not long before he is as unknown to us as are those of his predecessors in Reindeer-land, all the more should one study his customs, render him the aid that Christian religion dictates, and admit that, if he be uncivilized in some respects, he is at least our brother and a *man with a soul*.

NOTES ON THE TEXT.

¹Page 9. *A Summer in Norway*, by Judge John Dean Caton, LL. D., Chicago, 1875.

²Page 10. Du Chaillu, in his *Land of the Midnight Sun*, states the area of Lapland as 33,000 square miles, but he is clearly in error.

³Page 57. Kalevala was the ancient name of Finland. The ancient Finns loved music and song even more than the modern Finns, and their songs, or runes, as sung by the winter fireside, were often accompanied by a harp of five strings. In 1835 a native, Elias Lönnrot, made a collection of 23,000 verses, after traveling over the country and searching the libraries, and this forms the great *Kalevala* epic. It is a most interesting fact that Longfellow patterned his *Hiawatha* after this epic.

⁴Page 59. Odin, in Norse mythology, was originally the god of the air. He was chief god—the all-Father, as it were. Thor was the god of Nature; of the thunderbolt, of agriculture, etc. Odin was the same as Woden in early English mythology, where he was considered as god of the wind and of battle. Odin went with the early Vikings to fight; Thor rather “remained at home,” and worked out the processes of the wilder phenomena of Nature. All the Teutonic nations worshiped Odin; the Norsemen and Danes were more exclusive in their attachment to Thor.

⁵Page 85. See *Report of Introduction of Domestic Reindeer into Alaska*, 1903 made by Dr. Sheldon Jackson to the United States Govern-

ment, p. 26. Congress began to appropriate money for the introduction of reindeer into Alaska in 1894. At the end of 1903, it had appropriated \$158,000 for that purpose, and there were then in Alaska 6,505 reindeer, in eleven herds, which were cared for by eighty-one Eskimos and a number of Lapps.

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