is favourable—the manufacture of tar: this is obtained abundantly in all the woods, and constitutes the staple commerce of the whole country. In every little creek or bay, barrels of tar are seen lying upon the shore, which the coasting vessels remove to some principal port, whence it is sent all over Europe; being much superior either to the Russian or the American tar. The iron of this country, also, bears a high reputation.

We arrived at Säfvar: here we saw a floor strewed with long rushes; as, in old times, it was the fashion in our own country. The floors are strewed all over Sweden, but generally with fir or with juniper. Along the whole coast of Westro-Bothnia, the women bind coloured handkerchiefs across their temples, beneath which they wear the close scull-cap; excepting on the Sabbath, when they all appear in white handkerchiefs, tied like hoods about their heads. More towards the south, we had observed the antient sandal in use, made of wood, and fastened to the feet by leather thongs: but here the antient buskin was worn by the men, and a curious kind of shoe, made from two pieces of leather, yielding, like a glove, to every motion of the foot. The buskin is formed of a shoe of this kind, fastened with a bandage of coloured woollen, generally red or black, round the ankle, and ending in a tassel of the same colour. The skins of animals, with the fur upon them, began now to appear in common use, for bed coverings. We saw the skins of bears, sheep, and other animals, used for this purpose.
Passed Djekneboda. Wolves, numerous in Angermanland, are not common here; but, in lieu of them, they have bears. Having been so particular in describing almost every object between Upsal and Umeå, we shall not now notice every lake that we passed; because the reader will have seen enough, in the preceding pages, to be aware of the nature of the country. None of the smaller lakes are laid down in Hermelin's Maps.

The sun set about half-past ten; and immediately such a dew fell, that, coming out of the post-house at Rikleå, and seeing the carriage, the seat, &c. covered with water, we thought there had been a heavy shower; but the sky was perfectly clear. The day had been very sultry. Fahrenheit's thermometer, at noon, 73°. In our next stage, to Gumboda, the atmosphere exhibited a very remarkable appearance; clouds, tinged by the setting sun with hues of a glowing red, appearing, at the same moment, with other clouds coloured by his rising. The horizon was literally in a blaze, throughout the whole intervening space between the point where the sun went down, and that whence he was to re-appear; which took place at half after one, as nearly as we could determine by our watches. There was not anywhere to be discerned one sombre tint, or embrowning shadow; all was light as noon. And as the dew had fallen so copiously when the sun disappeared, so, previously to his rising, it was again exhaled in dense vapours, ascending like smoke, white as milk, filling all the valleys, and skirting the sides of the forests. In the midst of this marshalling of the elements, we passed a beautiful lake to the left, backed
VIEW of a LAKE between RIKLEA and GUMBODA.

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with distant forests: in the midst of it was an island, covered with huts. This was one of those pleasing scenes to which we have so often alluded in the course of our journey, that the too frequent repetition of the same subject may perhaps appear tiresome; and yet the view of this lake between Rikleå and Gumboda would attract very general admiration, if less remote from the common observation of travellers. We halted, to make a sketch of its appearance from the road. Every possible variety of water scenery occurs in this route; especially between Grimsmark and Selé, and between Daglösten and Burea, through which we afterwards passed. In going from Burea to Sunnanå, the inhabitants seemed poor, and their dwellings miserable; the forests were full of rocks, and large loose stones, menacing an eternal sterility. Lakes, however, occurred as before, but their shores were low and swampy. In examining the nature of the rocks around, we found them to consist of granite, quartz, and trap; the last lying in loose detached masses, and not in regular strata. During this night, we paid a careful and accurate attention to the temperature of the atmosphere, that we might observe what its alteration would be, during the short absence of the sun. The mercury in Fahrenheit’s thermometer remained at noon, in a northern aspect, and in the shade, at 75°. At midnight, it had fallen to 49°; but, as we had often before observed, the coldest hour of the twenty-four is always after the sun has risen, owing to the evaporation that is then taking place. Two hours and a half after sun-rise, in going to Grimsmark, the mercury fell to 46°; and we felt
felt the change very severely in our open waggon. The atmosphere at this time was serene and clear; the sky, cloudless; and there was no wind.

Leaving Sunnanå, we crossed the Skellefteå river, near its mouth; and came to the suburbs of a town of the same name, which we left towards our right, not passing through it. The river rises in Piteå Lapmark, having its source above a series of lakes, in the long range of Scandinavian Alps whence so many of the Norwegian rivers also deduce their origin. It flows over large stony masses, and is very rapid. A sawing-mill, upon a very large scale, stands in the midst of the torrent. We crossed it, by a wooden bridge; and afterwards beheld, close to the road, that beautiful structure, the Church of Skellefteå, which was just completed as we arrived, having been eight years in building. We left our waggon, to examine it in all its parts. Externally, it may be considered as being somewhat like St. Paul's, London. Its form is that of a Greek cross. The interior is spacious, neat, and elegant. The pulpit and altar are placed at the north-east and south-east angle; the extremity of the eastern aisle being occupied by a handsome organ. Some person played the organ as we entered: it had a very fine tone. The most remarkable circumstance in its history is, that its architect was a native of Finland, a peasant, whom we afterwards met in Ostro-Bothnia; and the whole building was erected by the peasants of this province; assisted, as to the style of architecture, which is Grecian, by the artists of Stockholm. Its four porticoes are supported on the four sides, each by eight
eight white pillars of the purest Doric order, without bases. The dome and cupola are of wood, covered with shingles; but so ingeniously contrived and adapted, as to produce all the effect of more durable materials: they are upheld by Ionic pillars. A Grecian temple upon the borders of Lapland may be compared to Gustavus the Third in Scandinavia; to whose magnificence and taste it must, after all, be ascribed; for, like that monarch, it has nothing in common with the country in which it has arisen. Von Buch's description of this building, and the effect produced upon him by its sudden appearance, is so impressive, that we shall make no apology for its insertion. "Here the woods opened: we issued out of them, and saw the extensive plain of Skellefteå, and the river which winds through it; and the Church of Skellefteå rose in the middle of the plain, like a temple of Palmyra in the desert. This is the largest and most beautiful building in the North. What a prospect! What an impression here, in a latitude of sixty-four degrees, on the borders of Lapland! A large quadrangle; and on each side eight Doric pillars, which support an Attica. In the middle there is a cupola upheld by Ionic pillars. "Why; by what means; by what accident, came a Grecian temple into this remote region? I asked the peasants, by whom, and when, it was built? and they answered, with no small degree of complacency, 'We built it, the congregation of Almuen.' " The pulpit is large, and covered with carved work. The pews have

(1) Travels through Norway, &c. p. 385. Lond. 1813.
have been so judiciously arranged, that they will accommodate with seats a congregation of near two thousand persons; and being all uniform, they produce an effect of decent and harmonious order which is often violated in English churches, where every wealthy member of the congregation is allowed to modify and decorate his pew according to the most fanciful caprice, and sometimes with the most foolish pride and extravagance; blazoning distinctions of rank and riches in the house of God, and at the worship of Him "who giveth his grace to the humble," and "scattereth the proud in the imagination of their hearts."

Afterwards, we arrived at Fråstkågeå. In our way to this place from Skellefteå, we met the peasants in great number, in their carts, going to prepare for the duties of the Sabbath on the following day. The respect they shew to a stranger is surprising. As soon as they saw our little waggon, in which two weary travellers, dressed like common sailors and covered with dust, were not calculated to inspire much reverence, they withdrew from the road, and there waited by the side of it until we passed; bowing all the while, bareheaded, as they do in some countries at the approach of a regal equipage. They sometimes journey upwards of a hundred English miles to church, arriving three or four days beforehand; bringing with them provisions, and lodging in little dwellings which they have either built themselves, or have hired, near to the spot where divine worship is celebrated. The same persons do not constantly attend in this manner: it would be impossible that they should do so, consistently with their other duties to their families. There
are some who are unable to attend more than four or five times in the year; owing to the great distance they have to go. But a Swede is rarely found who is unmindful of his religion: and as it is a purer worship than that of the Greek and Catholic Churches; as he does not "bow down to stocks and stones," and painted images and pictures, and wooden dolls, and wafers; so his principles are purer, and his heart is more upright.

Frasthâgeå is laid down, in Hermelin's Maps, as being close to the sea: it is, at the least, an English mile and a half from the coast. We passed through Byskeå; where the weather being sultry, we bathed in the mouth of the Byske river: afterwards, we pursued our route, through Abyn, to Jafre, where we bathed again in the Gulph. It was to this practice of frequent bathing that Acerbi attributed the preservation of his health, during his excessive fatigue in Lapland. The waters of the Gulph here are not salt; but an effect of the tide was visible, and we perceived that it had recently retired. Throughout this part of Sweden, the drivers are so little accustomed to have any present made to them above the price of their horses, that it is difficult to make them comprehend for what purpose it is offered. From Jafre, our horses might be said almost to fly; such was the speed with which we were conducted to the ferry over the mouth of the Piteå river. We had for our driver a boy, who, disdaining any seat, placed himself upon the pole of the waggon, guiding his fiery steeds by two small cords, without any whip. Passing the ferry, we were landed upon an island called Pit Holm; lying in the river's
river's mouth, but separated from the main land, on the northern side, by so narrow a strait, that a bridge has been thrown over it. This island has a sandy soil, covered with woods. We changed horses in the middle of it; and again flew swiftly to the bridge, distant about three-fourths of a Swedish mile from the post-house. The whole island is not more than a Swedish mile (seven miles English) across. Having passed the bridge, we entered the New Town of Piteà, as it is called; there being another, the Old Town, higher up the river. This is the case with most of the towns upon this part of the Gulph, there being generally an upper and a lower town. The commerce of Piteà consists in the exportation of tar; to which, in fact, it owes its existence. Its situation is beautiful; standing amidst lands intersected by water; surrounded by islands, groves, and ships: but it is not so large as Umeà. We visited the apothecary of the place; from whose door the view of woods and water was so pleasing, that it might be compared with the most enchanting scenes in Italy. His little stock of books shewed him to be a man of letters, although they were principally confined to writings relating to his profession. His house, moreover, convinced us that an attention to elegance and comfort was not neglected here. Diseases are not frequent at Piteà: the most terrible is the small-pox, which, for want of inoculation, had caused dreadful ravages. The Laplanders, who resort hither for their traffic during winter, if they hear the slightest report of this disorder being in or near the place, betake themselves instantly to flight, leaving their business unsettled.
PITEÅ TO TORNEÅ, AT THE NORTHERN EXTREMITY OF THE GULPH OF BOTHNIA.


The celebrated Solander, who accompanied Captain Cooke in his voyage of circumnavigation, was a native of Piteå; his mother, a Lapland woman, sold to Dr. Næzén, of Umeå, a copy of the Flora Svecica of Linnaeus, which contained Solander’s manuscript notes, in his own hand-writing. This volume Dr. Næzén presented to the Author, and it is still in his possession. The notes are principally references to botanic authors; or marginal annotations for exhibiting the names of the species opposite to the different genera. Among the crowd of female gazers drawn out in the court-yard of the post-house, to witness our departure, we could not help fancying that we beheld the mothers of many a future Solander. It was Sunday, and they had on their best attire. Every one of these women held a small bible before her, wrapped in a clean handkerchief, carefully folded over the sacred volume. After we left Piteå, the scenery continued to be exceedingly fine, for a considerable distance. We passed through Old Piteå, called Gamla Stad, signifying the old town. Here, for the first time since we left Stockholm, we heard of Signor
Signor Acerbi, and his companions, Signor Bellotti and Colonel Skioldebrand; all of whom we afterwards met. The two Italian gentlemen were described to us as upon a journey towards the North of Lapland, attended by a Colonel in the Swedish service; and it was added, that they were travelling for purposes of science. At Ojebyn, we found the Swedish language beginning to alter. The people spoke a dialect so impure, that our interpreter with difficulty could make himself understood. The inlets of the Gulph everywhere appeared of the grandest character; surrounded by noble forests, whose tall trees, flourishing luxuriantly, covered the soil, quite down to the water’s edge. From the most southern parts of Westro-Bothnia, to the northern extremity of the Gulph, the inhabitants are occupied in the manufacture of tar; proofs of which are visible in the whole extent of the coast. The process by which the tar is obtained is very simple: and as we often witnessed it, we shall now describe it, from a tar-work which we halted to inspect upon the spot. The situation most favourable for this process is in a forest near to a marsh or bog; because the roots of the fir, from which tar is principally extracted, are always the most productive in such places. A conical cavity is then made in the ground (generally in the side of a bank or sloping hill); and the roots of the fir, together with logs or billets of the same, being neatly trussed into a stack of the same conical shape, are let into this cavity. The whole is then covered with turf, to prevent the volatile parts from being dissipated, which, by means of a heavy wooden mallet, and a wooden stamper, worked separately.
separately by two men, is beaten down, and rendered as firm as possible above the wood. The stack of billets is then kindled; and a slow combustion of the fir takes place, without flame, as in making charcoal. During this combustion, the tar exudes; and a cast-iron pan being at the bottom of the funnel, with a spout, which projects through the side of the bank, barrels are placed beneath this spout, to collect the fluid as it comes away. As fast as the barrels are filled, they are bunged, and ready for immediate exportation. From this description, it will be evident that the mode of obtaining tar is by a kind of distillation per descensum; the turpentine, melted by fire, mixing with the sap and juices of the fir, while the wood itself, becoming charred, is converted into charcoal. The most curious part of the story is, that this simple method of extracting tar is precisely that which is described by Theophrastus and Dioscorides; and there is not the smallest difference between a tar-work in the forests of Westro-Bothnia and those of Antient Greece. The Greeks made stacks of pine; and having covered them with turf, they were suffered to burn

(1) REFERENCES TO THE ANNEXED PLATE.

No. 1. Conical aperture in the earth, to receive the timber.

2. Rampart of timber placed against the orifice from which the tar flows, and behind which is a channel leading to the bottom of the conical aperture or furnace.

3. Vessel of cast iron, placed at the bottom of the conical aperture or furnace which receives and carries off the tar as it falls.

4. Form in which the timber is placed in the cone or furnace.

5, & 6. Instruments for beating and pressing the surface of the furnace, when filled.
Representation of the Process for making Tar in the Forests of Sweden.
burn in the same smothered manner; while the tar, melting, fell to the bottom of the stack, and ran out by a small channel cut for the purpose.

After leaving the tar-work, we passed through Pärnsnäs and Rosvic; inlets of the Gulph being frequently in view. Between the two last places, we crossed the mouth of a river which rises in Westro-Bothnia, in a small lake called Deger Trask. As we drew near to Rosvick, we found, in the forests, that beautiful plant which bears the name of Linnaeus, and which the Swedish Government granted to him as a crest for his coat of arms. We had seen it so represented upon the seals of his letters to Dr. Næzén of Umea. This plant, the Linnaea Borealis, is very common in Westro-Bothnia, and in almost all the great northern forests; but it may be easily overlooked, because it grows only where the woods are thickest; and its delicate twin blossoms are almost hid amongst the moss, through which it extends its filiform stems, to the length of eight or ten feet. The flowers are gathered by the natives, for making an infusion which is used in rheumatic disorders; and in Norway they pretend to cure the itch with a decoction of it. The smell of its flowers resembles that of Ulmaria, or Meadow Sweet; and is so strong during the night, as to discover this little plant at a considerable distance. There may be other varieties

(2) "Linnaea floribus geminis. Habitat in sylvis antiquissimis muscosis densissimis passim; Stockholmiæ ad Braheâland; in Smalandia, Scania sylvestri, Gotlandia, Nericia, Dalekarlia, Uplandia, et tota Norlandia vulgatissima." Linn. Flora Suecia, pp. 189, 190. Stockh. 1745.
varieties of it than those which we noticed; but the representations given of it by Linnaeus, in his Flora Svecica, facing the last page of the volume, and by the authors of the Flora Danica, are not accurate. No person, from those representations, would be able to comprehend why it received the appellation of Nummularia, before Gronovius, in honour of Linnaeus, changed its generic name; its leaves being all figured as ovate, and serrated; whereas some of them, and sometimes all, are perfectly orbicular, like little pieces of money. We collected specimens of the Linnea Borealis, principally between Umeå and Luleå. In the same forests, especially in marshy situations, we found a species of Salix, that would make a splendid ornament in our English shrubberies, owing to its quick growth and beautiful appearance. It had much more the appearance of an orange, than of a willow tree; its large luxuriant leaves being of the most vivid green colour, splendidly shining. We believed it to be a variety of Salix amygdalina; but it may be a distinct species: it principally flourishes in Westro-Bothnia, and we never saw it elsewhere.

In our next stage, to Erstnäs, the dresses of the natives exhibited more gaudy colours than any we had seen in this country. The prevailing hue was scarlet; the women appearing in scarlet vests; and the men in scarlet bonnets and buskins, with scarlet bandages edged with black and scarlet,

(1) See the edition printed at Stockholm in 1745. Also Flora Lapponica, tab. xii. Amstelaed. 1737.
(2) Flora Danica, tab. iii. Kopenhagen, 1761.
(3) See the Vignette to this Chapter, as taken from the original specimen.
scarlet, and black tassels. These dresses made a very splendid appearance, in a crowd of the inhabitants, collected from all parts of the country, and assembled for the duty of the Sabbath. As we proceeded to Gaddwick, we crossed the mouth of a river flowing from the Wend Trask and Lang Sion, or Wend Water and Long Sea; two lakes, lying about thirty British miles to the north-west. The land here was very swampy, but used for pasture; and the appearance of the houses built to contain hay, and scattered over the meadows, resembled a large straggling village. The pastures were covered with these buildings, standing not more than a hundred yards from each other. As we advanced, the appearance of the country improved in picturesque beauty; the forests again became magnificent, containing, in great variety, firs, willows, mountain-ash trees, aspens, &c. Whenever they opened, the views to the north were uncommonly grand; and from every eminence, the eye surveyed a vast extent of woodland, so thickly set with pines, that their tops, in many a waving line of uninterrupted verdure, were dimly seen through mists, like those of Italy, softening without obscuring the distant objects. In our road, we met with a group of wood-nymphs, the real Dryades and Oreades of these forests and mountains, wild as the daughters of Phoroneus and Hecate. They wore scarlet vests with short petticoats; their legs and feet being naked, and their hair floating in the wind. In their hands, they carried a sort of trumpet, six feet in length, which in this country is named a lure: it is used, in the forests, to call the cattle, and to drive away bears and wolves. The sound of
of one of the lures, being full and clear, is heard for miles. We offered these girls a trifle, to give us a specimen of their performance upon one of them; the workmanship of which might have passed for a specimen, brought from the South Seas, of the ingenuity of savages: it consisted of splinters of wood, bound together by a close and firm texture of withy. They would not comply with our request; fearing, from our offer of payment, that we wished to purchase their lures, which they were unwilling to part with: and upon our urging the request, with an offer of more money, they all bounded away, quickly disappearing amongst the trees. Presently, when we thought we had lost them, a very beautiful girl of the party made her appearance, from a thick forest, upon the projecting point of a rock; where, being safe from all chance of approach on our part, she gave to the lure its full power,

"And blew a blast so loud and dread,
"Were ne'er prophetic sounds so full of woe."

They have also a shorter kind of trumpet, which is more musical, about two feet in length, made in the same manner; and from which they sometimes produce very pleasing tones: but in the immense forests of Angermanland, and in many parts of the provinces bordering upon the northern shores of the Gulph of Bothnia, the lure is six feet in length. We afterwards bought some of these instruments, and sent them to England.

As we drew nigh to the end of this stage, a view of the river

(1) See the Frontispiece to this Volume.
river Luleå opened before us; which had the appearance of a grand lake, with three-masted ships riding upon it: and the effect produced by such large vessels upon a piece of water entirely surrounded with trees, was very singular. We crossed this river by a ferry; and as if two of the Nymphæ before mentioned had outstripped us in speed, we were rowed across the Luleå by two beautiful young women, very like those we had so lately met in the forests. It may afford an idea of the grandeur of this river, when we add, that on the south side of it, looking westward, the view is so extensive, that land is barely visible across the water. As we passed over, the view became more limited, owing to intervening points of land; but the effect had not less of beauty or of grandeur. The author made a sketch of its appearance from the boat, close to the northern shore, looking towards the west. All the surrounding shores are covered with woods, in which pine-trees are the most conspicuous. Among the loose alluvial deposit left upon the sides of the river, we observed trap of the granular kind, and many varieties of very beautiful granite. A river may, in this respect, be considered as tributary to purposes of science; because it brings minerals from places lying remote from observation, and submits them, collected together, and with a freshness as if they were polished, to the eye of the passing traveller. Sometimes, the nature of mountains which are inaccessible may, in this manner, be ascertained; so that it is always adviseable to examine the beds of torrents, and the channels worn by cataracts falling from high mountains, and as near as possible to the bases of those mountains. The second
second view of the Luleå was finer even than the first: this appeared after crossing a promontory which was towards our right, in the first part of the passage. There was here an island, in the centre of this noble prospect; a group of buildings towards our right; and all the distant hills were clad with pines.

Soon after crossing this river, which descends from the highest mountains of Luleå Lapmark, we arrived at Gamla Luleå; the new town being situate nearer to the sea. But our surprise was great indeed, to find the place deserted; all the houses being empty, and the doors fast: and our wonder was increased when we heard the cause; namely, that all these houses were buildings erected only for temporary use, by people living far up in the country, who resort hither for the Sabbath, and, as soon as the church service is over, respectively retire to their distant farms; many of them not visiting the place again for a quarter of a year. Dr. Næxén had recommended our seeing the church here, on account of a celebrated picture mentioned in many Swedish topographical publications. It had been formerly a Roman-Catholic cathedral, and bore the name of St. Peter’s: owing to which circumstance, if the tradition of the country may be credited, the Pope presented this picture for an altar-piece. There was no difficulty in gaining admission; the church being the only building not locked up. We could observe nothing in the picture which might entitle it to any celebrity. It was painted on a long oak plank, placed above the table of the altar; and seemed to have been cut from a painting of a more proportionate form: it represented our Saviour
River Lulea from the North side the Ferry; looking towards its source.

River Lulea after crossing the Promontory; which is on the right side of the Plate above.
and the Twelve Apostles; but the heads only were visible, and those were as large as life. The head of our Saviour was the best part of the picture: it had something of the air and character of the works of old Palma, or of Leonardo da Vinci; the hair being parted over the forehead, and falling in long tresses on either side. Upon the floor, before the altar table, the skin of a bear was spread, to serve as a carpet. In this church, as at Roschild in Denmark, and many of the churches in the North of Europe, is preserved a quantity of gilded sculpture, executed in wood, representing, by a series of figures, the history of our Saviour’s life. The altar and pulpit were laden with this kind of work. We could not avoid being struck with the fate of the former idols of the Cathedral, which were heaped, *pell mell*, into a corner, under a staircase; the Virgin, and all her family, covered with dust and cobwebs, lying one above another, just in the state of obloquy to which they were consigned at the reformation of the Swedish Church; their mutilated features, and disjointed members, exhibiting an awful lesson of the inevitable fate of Superstition, wheresoever she may seek for refuge. How fallen were these trophies of her pride, once the ostentation of the bigot, and the adoration of the pious! Incense rose before them; multitudes fell prostrate at their shrines; priests, decorated in all the pomp and splendour of the Romish Church, elevating the host beneath their feet; while devout orgies, accompanied by the full inspiring notes of the organ, echoed in harmonious thunder along the aisles! A single image had escaped the promiscuous havoc that levelled all the rest: it was a representation
tation of our Saviour bleeding upon the cross, of the size of nature: this was still preserved, in its original position on the right hand of the altar. Upon the desk of the pulpit stood four hour-glasses; so contrived as to turn all together, when the pastor begins or ends his sermon, that all the congregation may know how long he has been preaching. Upon the two sides of the pulpit-door are the following inscriptions:

**Outside:**

\[
\begin{align*}
\text{DEO ET ECCLESIAE SACRVM} \\
\text{HOC OPVS CVRA M IOH VMAEI PERFECIT N FLVE} \\
\text{A MDCCXII.}
\end{align*}
\]

**Inside:**

\[
\begin{align*}
\text{HAEC CATHEDRA ECCLESIASTICA} \\
\text{ADORNATA ET SPLENDIDIOR FACTA} \\
\text{CVRA M JAC RENMARCK} \\
\text{ET OPERA ER FELLSTROM} \\
\text{AN MDCCXLV.}
\end{align*}
\]

Upon the walls of this Cathedral we observed some curious monuments in commemoration, as we were informed, of deceased officers who had served under Charles XI. and Charles XII. They were covered with inscriptions, some of which were in Swedish, and a few in the Latin language. The Swedish inscriptions were either engraved or painted in minute characters, resembling manuscript, upon tablets, in the centers of these monuments; but placed so high, and in such
such small letters, that it was impossible, from the aisles, to read them. Upon the first, however, we observed an initial of Charles XI. with a coronet over the tablet:

And at the bottom, below all, were these words:

EPITAPHIVM · REFERT
MEMORABILE · NOMEN
REGIS · CAROLI · XI
QVO · EJVS · FAMAE · GLORIAE
MAJOR · ERIT

Opposite to this, was another of the same kind; and all of them exhibited engraved medallions, representing the heads of the Sovereigns respectively alluded to. The second was as follows:

HVNGARE · CAEDE · TVA
VARNAM · PERJvre · NOTASTI
CLADE · TVA · NARVAM
PERFIDE · MOSCHE · NOTAS

The third had the initials of both the Sovereigns, with some pious sentences in Latin:
Some Gentlemen of the neighbourhood entering the Cathedral as we were examining the last monument, prevented our further notice of it. The first questions they put to us related to the picture over the altar. They asked if we knew the name of any artist to whom it might be ascribed? Upon our answering in the negative, one of them said, "He could assure us it was a most valuable piece of painting; and for this reason, that their Pastor was convinced it came from Italy." There was no disputing such a proof of its superior merit; neither were we disposed to put them out of conceit with that which they had so long regarded with admiration.

Upon quitting the church, we went to the inn. The news of our arrival had already collected a few of the inhabitants about this dwelling: and here, to our great satisfaction, we saw, for the first time, some of the Laplanders in their native dresses. A Lapland woman, attracted by curiosity, came, with her husband and child, into the room where we were getting some refreshment: and such was our delight upon seeing her, that, ugly as she was, we even ventured to kiss her; a liberty she did not at all seem to approve. The singular machine in which she carried her infant next attracted our notice. It was like a musical instrument, shaped like a fiddle-case, with strings; but made of splinters, cloth, and reindeer skin: the child being put into the case, and the strings protecting its face from the pressure of the coverlid. All the inside of it was lined with the hair of the rein-deer. Exactly such portable cradles are used by the Tahtars, for conveying their
PORTRIT of a WILD LAPLAND WOMAN and CHILD.
their infants; and it is borne among them, as among Laplanders, when upon a journey, behind, upon their shoulders. For her own dress, this woman had a sheepskin; the wool being worn on the inside next to her body; and the leather outwards, bound round her waist with a blue sash. The man had a blue bonnet, with a loose grey surtout, bound also with a sash; and both of them wore the sort of buskins with which the Turks cover their feet, and over which they wear slippers; but made of coarser leather, and fastened round the small of the leg with a band and tassel. In their features they differed much from the Swedes; being round visaged, with wide mouths and swarthy complexions; and remarkable for a timidity of manner, which we afterwards found to be strongly characteristic of the Laplanders in general.

There is no part of the world where geographical names admit of such a lucid arrangement as in those provinces of Sweden which surround the northern part of the Gulph of Bothnia. Once in possession of half-a-dozen names, you have a clue to the appellations of all the lakes, rivers, provinces, and towns. Thus, for example, Torneå is the name of a lake in the north of Lapland; therefore Torneå is the name of the river flowing from it. Torneå is also the name of the province through which the same river flows; and Torneå is the name of the upper and lower town situate at its embouchure. Exactly the same rule holds respecting Umeå, Piteå, Luleå, Uleå, &c. The boundaries of the southern provinces of Sweden are not so accurately determined.

Charles the XIIth, whose policy directed him to preserve the
the Laplanders from mixing with the Swedes, sent engineers, in 1690, to mark, with all possible precision, the southern frontier of Lapland. Still, however, they are indeterminate. The Laplanders, or Laps, as they are always called by the Swedes, enjoy many peculiar privileges, and may be considered almost as in a state of freedom: they are not compelled to provide quarters for soldiers marching; they pay little or no tax; and live and act according to the usages of their forefathers. They constitute the only remaining branch of the antient inhabitants of Finland, and perhaps of Sweden; and their origin, hitherto not developed, would afford one of the most curious subjects of inquiry hitherto offered for consideration, as affecting the history of the human race. The names which they bestow upon their rivers and lakes, according to the Swedish antiquaries, are found upon the borders of Persia; and they pretend, that of the Ten Tribes of Israel led captive into Assyria, a portion migrated to the North, and bestowed their own appellations upon the mountains, lakes, and rivers; adding, that the Lapland language approaches near enough to the Hebrew for the two people to understand each other's speech. The truth of this must be left entirely to future investigation. It has been also said, as it is well known, that an Hungarian may converse with a Laplander without the aid of an interpreter: all of which only tends to prove how very little is yet known respecting the origin of this singular people. The first thing that strikes an Englishman, in hearing a Laplander speak, is the very great softness of his language, and its
its richness in vowels; but this is still more characteristic of the Finnish tongue, which, in this respect, resembles the Italian. The absolute certainty of an Asiatic origin in the Laplander is conspicuous in all that belongs to his person; in his complexion, pliant postures, diminutive stature, air and manner, as we shall hereafter have occasion to shew: and that some of their customs exist among the Tahtars, has been already proved.

After leaving Lule, we passed through a flat country, to Persön, and Råne; and crossed the river Råne by means of a ferry. The sun rose this day (July 8) at one o'clock a.m. The fogs appeared so thick, that they are perhaps dangerous in the marshes; but they quickly disperse. At Råne, there were quantities of undressed rein-deer skins, which the inhabitants use as covering for their beds. The road from Råne to Hvita passes, as before, over a level country, covered with forests. We observed several tar works. If the wood be of a good quality for the purpose, they sometimes obtain one hundred tons of tar at a single burning. It sells upon the spot for three rix-dollars (about 1l. 5s. English) per ton. The Swedish tar and hemp are held in high estimation; and the demand for these articles always brisk and uninterrupted. We were told, that, in the British dock-yards, both the tar and the hemp are deemed superior to the Russian or the American. At this time they were favourite objects of speculation among Danish and Swedish merchants; who bought their vessels in the Gulph of Bothnia, and here traded for tar, hemp, and deal. It was said that they obtained sixty per cent. by a voyage; but that if
carried to England, the profit would amount to cent. per cent. But there are great expenses to be first encountered, as well as difficulties and obstacles, which diminish their profits. By the laws of Sweden, no person was allowed to buy tar of the peasants who made it: application must first be made to the merchants of the country, who fix the price, and have their profit upon it, before it is exported. The peasants, being uninformed, know little of the value of their labours. In the north of the Gulph of Bothnia, a few years before our coming, tar had been sold at a rix-dollar the ton.

Hvita, according to the best maps of Sweden, is situate upon the most northern point of the Gulph of Bothnia. It is placed in 66° of north latitude. Having, therefore, now traversed all the western side of the Gulph, we may confirm our former observations upon the manners of the natives, by adding, that we found them everywhere characterized by a mild and peaceable disposition, without the smallest propensity towards theft or imposition. A stranger may trust his life and property, with perfect confidence and security, in their hands. This character of all the Northern Swedes, as it was confirmed by our own experience of their benevolence and honesty, so was it also attested by the best-informed Gentlemen residing among them. The natives of Westro-Bothnia, beyond all their countrymen, rank the foremost in pious and loyal disposition, and in simplicity and honesty of character. A foreigner who leaves his open trunks in their inn-yards and stables, amidst all the haste and confusion which must sometimes take place in travelling day
day and night, and amidst the inability to attend to them, occasioned by pain or sickness or weariness and want of rest, will have nothing with which to reproach the inhabitants of this country.

In travelling from Hvita to Tore, the weather was so hot we could hardly bear the rays of the sun; yet Fahrenheit's thermometer, left for an hour in the shade, at noon, did not indicate a higher temperature than 75°. Towards midnight, when the sun set, dew fell, at one moment, as from a water-spout; and then as suddenly ceased to descend. In the same instant, exhalations are seen rising from all the rivers, marshes, and low-lands. During the first two hours after sun-rise, the cold, as before stated, was very penetrating; but even then, hot gusts of wind, as from an oven or stove, would sometimes meet the face. These hot gusts were always most frequent at sun-set. It was our intention to visit Baron Hermelin, who has a seat in this neighbourhood, in order to obtain some instruction from him respecting our future progress: but as we were told that he would come to Tore, to meet his tenants, we preferred waiting for him here. He did not arrive until half-past three, which occasioned the loss of a day to us, when we could ill spare it. He waited upon us in our little apartment, with great politeness; and we began immediately to profit by his instructions, spreading his own maps before him. He told us, that we were too late for a journey to the North Cape; but believed that within fifteen days we might still see the sun above the horizon, during the entire night, at Enontekis, the most northern point of Lapland,
Lapland, or anywhere else in the same latitude. He was attended by a party of youthful Academicians, selected by himself from the Swedish Universities, to assist him in his labours; and he frequently consulted them during our conversation. Among these were, his secretary, an astronomer and botanist, a mineralogist, an entomologist, and a Lapland interpreter. All these gentlemen accompanied us to Gortnäs, a watering-place resorted to by families resident in this part of Sweden. The Baron’s secretary, Mr. Hällström, an amiable and accomplished young man, being indisposed, remained at Grotnäs, to drink the waters there. Some of Baron Hermelin’s best maps, and the views of Finland which accompany them, were engraved from his beautiful drawings, and bear his name. The Baron’s iron mine at Malmberg, or, as it is called in maps, Gellivara, is the largest in Sweden, and perhaps in the world. It is actually a quarry of ore, wrought in a bed of magnetic iron oxide, extending for several leagues; and so rich, that it yields sixty per cent. of metal. Examples of the same ore have been found, yielding ninety per cent. of metal. They said it was sometimes too rich for casting. This prodigious source of wealth is open to the day, like the great copper mine of the Isle of Anglesea.

As we journeyed from Tore to Malmbyn, the forests were full of rocks, and large loose masses of quartz and granite. We passed two lakes with islands, one on each side of the road. The heat of the sun was very great, and the dust troublesome. A lady and gentleman, in a carriage behind our waggon, feeling the effects of the latter, ordered their
their driver to call to us, and allow them to pass. Seeing
the lady, we immediately complied; but she was offended
because we did not grant the same indulgence to a whole
caravan of carts in the rear, containing gentlemen belonging
to her suite; and gave us a hearty scolding afterwards.
A dispute about rank and precedence upon the borders of
_Lapland_ was as unexpected a thing, as our finding a
party of philosophers in the forests of _Westro-Bothnia_, and
a fashionable watering-place in the neighbourhood of
_Torneå_. Before we arrived at _Malmsbyn_, we had a noble
prospect of the river _Calix_, flowing in great breadth and
majesty towards _Grotnäs_; and of the _Gulph_ itself, visible
amidst rocks and islands. The coast of _Westro-Bothnia_
is not much cultivated, the peasants being chiefly
occupied in the _tar_ and _timber_ trade, and in _fishing_; but
we observed small inclosures, containing _rye_ and _barley_, in
going from _Malmsbyn_ to _Grotnäs_. The _barley_ seemed in a
forward state; and, as nearly as we could ascertain, would
be harvested about the first week in _August_. The sun
has more power here than in the southern provinces,
from being so long above the horizon: we saw no
longer the machines for drying corn, which were in
such general use elsewhere. The women of this province
excel the southern _Swedish_ females in the beauty of their
persons. We met a _Lapland_ girl, with a wolf’s-skin apron,
and a blue night-cap on her head: behind her was sus-
pended a large wallet, made of the bark of trees. Her
petticoat reached only to her knees. She was pacing along,
at the rate of five miles an hour, without any apparent symptom of fatigue or quickened respiration.

We were now drawing near to the dwellings of a race of men very different in character and morals from the Swedes, namely, the Finlanders; and as this race prevails among the inhabitants, a greater vivacity of spirit, a more irascible disposition, and a propensity to criminal actions, begins to be manifested. This change becomes remarkably conspicuous to those who pass round the northern extremity of the Gulph; but the river Tornå has been generally considered as the boundary separating the two people. We had, here, a proof that we were leaving the land of righteousness and peace in which we had long been travelling, as soon as we quitted the forests near Calix and once more approached the river. The town or village of this name appeared upon its opposite shore: upon our right, exactly opposite the town, we observed twelve upright posts, on each of which was placed a wheel with either the skull or carcase of a malefactor. These were the gibbeted remains of criminals who had robbed the mail; for which, in Sweden, the punishment is amputation of the right hand, and afterwards decapitation; the mutilated members and body being exposed, in the manner now described. As spectacles of this kind are very rare in the country, we were the more particular in inquiring into the nature of delinquency for which those men had suffered.

A little farther, on the same side of the river, is Grotnäs, the
the watering-place before alluded to. Its medicinal springs are chalybeate, like those of Tunbridge Wells; and they agree with the expectation that might have been formed of them in this region of iron. We found here a few of the Swedish nobility; to whom were now added Baron Hermelin and his youthful band of philosophers; also a party of clergymen, one of whom politely ceded to us his apartment; and some other strangers. Immediately after our arrival, we bathed in the Calix. Upon the shores of this river we found the following plants: Comarum palustre, Epilobium angustifolium, Rubus Arcticus, and Rubus Chamæmorus. Thence, returning to our inn, it was proposed, by Baron Hermelin’s party, that we should all sup together, in a room belonging to a gentleman of Umeå, which was offered for this purpose. Our supper consisted of a kind of fish, the name of which we have lost, about the size and shape of carp; to which were added pancakes, and some toasted bread soaked in a tureen full of lemonade, mixed with Rhenish wine. The Academicians then adjourned to our apartment, and passed the remainder of the evening with us in conversation which we regretted to conclude. They said they were going with the Baron to make astronomical observations in Luleå Läpmark, and invited us to join their party. Mr. Hällström had an excellent sextant, made by Ramsden, and one of Arnold’s chronometers. The appearance of the setting-sun, this night, was more than usually fine. Its disk, like red-hot iron, appeared as large as the fore-wheel of a carriage; and, owing to the vaporous atmosphere
atmosphere through which we saw it, the full orb might be viewed without any uneasy sensation. The entire night was spent at Grotnäs; and it gave us a fore-taste of the suffering we were soon to experience in Lapland, in the attacks made upon us by mosquitos; which were such as to banish all hope of rest, our bodies being covered with the wounds they inflicted. Nearly the whole of our short attempt to obtain repose was passed in a continued combat with these little tormentors. So powerful was the glare of the atmosphere between the setting and the rising of the sun, that we drew down a thin linen blind which we found in the window, by way of softening the effect of it. We resumed our journey (July 9), more fatigued than when we halted to rest. The party with whom we had supped accompanied us as far as the ferry over the Calix, which conducts to the village of the same name.

Nothing remarkable occurred in our route through Landtjerf and Sanjis, to Seivis. In the forest between the two last-mentioned places, we found a remarkable variety of trap: it did not occur in any regular stratum, but in separated masses of two tons in weight, and upwards. When fractured by the hammer, the marks of ferns, and the fibres of other vegetable remains, were visible in its interior texture;—proofs of its aqueous origin. We also found in it the impression of something resembling a fish, separable as a nucleus from the matrix of trap in which it was imbedded. Near the same spot were varieties of granite and of quartz, and an aggregate of quartz and hornblende. We came in view of an inlet
inlet of the Gulph, between Seivis and Nikkala. The coasting-vessels of the country, trading to Stockholm with tar, were here and there visible among the well-wooded islands which lie scattered over its surface. Arriving at Nikkala, a single post-house, we found the Finnish language exclusively in use, for the first time. It reminded us strongly of the Italian, in its sound, and in the plenitude of its vowels. Leaving Nikkala, we passed over a wooden bridge, nearly a quarter of a mile in length; consisting, as it were, of two bridges connected into one. In the centre of the second stands a stone monument, erected during the reign of Gustavus the Third; bearing his name, and an inscription in the Swedish language, purporting that the inhabitants of the parish of Torneå had erected the eastern part of the double bridge. After proceeding hence for a short time, through a forest in which the pines, birch, and aspens (populus tremula), called also asp by the Swedes, and supp by the Laplanders, were dwindled into shrubs, the object of our long hopes and curiosity suddenly appeared, above the tops of all the intervening trees; namely, the town of Torneå itself, exhibited by the spires of its old and new churches. An almost irresistible impulse tempted us to rise up, and wave our hats in the air; and our horses, which for the first time we had complained of, as being the dullest of our whole journey, at this sudden movement mended their lagging pace. We lost sight of it again: the prospect changed to views of inlets of the Gulph, with low shores and shallow water. The roads were still excellent. Patches of rye and barley, in small quantity, but
of excellent quality, were dispersed over a soil otherwise characterized by low and swampy marshes. Close to the road grew birch-trees, different kinds of willow, dwarf-firs, and juniper. The river Torneå was now in sight: and as we approached its banks, the town appeared upon the opposite side. To our great surprise, we saw houses of two stories, with sashed windows, and painted palisades in front. The principal objects, however, were the two churches, and a number of crazy windmills. Boats, like large canoes, with paddles, were passing to and fro, in great number: more distant, toward the mouth of the river, we saw some large vessels lying at anchor, with two and with three masts. The harbour is yet farther distant towards the Gulph, seven British miles from the town; and here vessels principally have their station, as the river is too shallow to admit ships of burden close to Torneå, which is situate upon a peninsula, frequently made an island by the inundation of the isthmus. This was the case when we arrived; the water being, on either side of it, a quarter of a mile broad.

We crossed over to the pier-head, and found it covered with barrels of tar, lying ready for exportation. Passing into the streets of the town, we were surprised to find them covered with long grass, as if the place were uninhabited: nor was our wonder diminished, when we were given to understand

(1) "It is commonly from one of those windmills that travellers view the sun at midnight, in the month of June."—Acerbi’s Travels, vol. I. p. 344. Lond. 1802.
Carte des Paroisses de Carl Gustaf et de Neder Torneå, en Gouvernement de Norvège.

Published by F. J. Will in London.
understand that this grass was reserved for mowing. The best houses in Torneå are those which we had seen from the opposite shore, which face the western division of the river. They belong to petty merchants, or shop-keepers, whose shops face the water, having, generally, each a small wooden building as a warehouse. When you enter one of them, it is by a flight of steps; for the lowest floor is one story high. Here goods of various sorts are offered for sale—pipes, tobacco, caps, gloves, jackets, trowsers, cloth, linen, beds, trinkets, children's books, toys—as in the petty shops of England. The paper, too, which is used for packing is torn out of old books, purchased at the sale of the libraries of deceased clergymen. We examined these books: they consisted either of old works in divinity or physic. Among them, we found a Latin Dissertation, published at Upsal during the preceding century, whose author professed to prove that the Pope was Antichrist: some of the passages, even in Latin, could not with any propriety be cited. Each dwelling-house forms a square, surrounded principally by warehouses, containing stock-fish and rein-deer skins, the two chief articles of trade in Torneå. The other articles of exportation are, iron, deal planks, tar, butter, pickled and smoked salmon, and dried meat. The rein-deer skins are sent to Stockholm, and into Russia. The stock-fish, butter, salmon, and tar, also go to Stockholm: the deal planks, to Stockholm and to Copenhagen. The price of tar in Torneå was now three rix-dollars the ton: in Finland, it sold for four rix-dollars; and if taken to England, the ton sold for twenty-five shillings. The inhabitants are not well versed in commercial
commercial speculations; if they were, they might soon become rich: it is the merchant, who conveys away these commodities, that reaps the greatest share of profit. Their imports are, *corn, flour, flax, hemp, salt, woollen cloth* which they carry to *Norway, coarse linen, tobacco, and spices*. The resident traders go regularly, in the winter, into *Lapland*, to buy *furs, butter, stock-fish, &c.*; extending their journeys, in parties of pleasure as well as business, with the greatest ease and amusement, even to the coast of the *Icy Sea*, and to the most distant shores of *Finmark* and *Norway*. Several of them had been repeatedly to the great Lake *Enara*, called *Enara Trask*. They gave us a description of it. From the mountains around, the most magnificent views are exhibited of the lake and its numerous islands: those islands are covered with trees, and inhabited by *Laplanders*; the lakes of *Enara* and *Torneå* being almost the only parts of *Lapland* which they do not desert in summer for the shores of *Norway*, going there to fish. Of the *Laplanders*, those who migrate are always poor. The wealthier *Laplanders* are less vagrant in their habits; they possess from a thousand to fifteen hundred rein-deer, the only riches this people know; and the whole distinction between wealth and poverty consists in the possession or want of these animals. The poorest of all the *Laplanders* are those who betake themselves to the cultivation of land; for they never turn farmers until they are completely ruined: when such an event happens, they settle by the side of some river, and, for the first time, endeavour to gain a subsistence by clearing the soil, and cultivating little patches of land.
Such efforts may be considered as the germs of all the farms which are found upon the banks of the Arctic rivers. On the first of November, a fair begins at Enara, which lasts until the sixth; and thither the traders repair, to purchase rein-deer skins, stock-fish, and all kinds of fur. The Torneå merchants do not start upon their grand expedition towards the North, before February. It is said, that this march constitutes one of the most remarkable sights that can be imagined. Each merchant has in his service from five to six hundred rein-deer, besides thirty Laplanders, and other servants. One person is able to guide and manage about fifteen rein-deer, with their sledges. They take with them merchandise to the amount of three thousand rix-dollars. This consists of silver plate, in the form of drinking-vessels, spoons, &c. They also carry cloth, linen, butter, brandy, and tobacco, all of which they take to Norway. Upon this occasion, they display as much magnificence as possible. The reindeer are set off with bells and costly trappings. We saw some of their collars made of buff kerseymere, embroidered with flowers. The procession formed by a single merchant’s train will extend two or three English miles. Provisions of every kind are carried with them; and, among these, their own candles. Their dealing with the Lapps is not transacted by means of money, but in the way of barter. As a preparation for the coming of these merchants, the Lapps begin to hunt the bear in the autumn, as soon as the first snow falls, by which they track him to his den. This being ascertained, a single man sets out, attended by his dog, and armed with a pole pointed with a quadrangular piece.
Piece of iron. The dog assaults the bear, as soon as he is discovered; and the bear rising upon his hind legs to seize the dog, is made the victim of the Laplander, who plunges the pointed pole into his heart. The route observed by the Torneå merchants differs; but the same family adheres, for years, to the same route. Some ascend the Kiemi and Aunis rivers; others go up the Torneå and Muonio. Some go as far as the North Cape; others only to the sources of the rivers; or to Enara, and to Alten. The principal article of commerce with which they return, consists in rein-deer skins. Of these, they bring back thousands; to which are added bear skins, some white fox skins, and the skins of wild cats. The price of the best rein-deer skin in Torneå was a rix-dollar (three shillings English) for each skin. For a bear skin, if large, they asked twenty dollars. All articles of domestic use are dear in Torneå. Loaf-sugar sold for 3s. 4d. the pound. Tea, notwithstanding their commerce with India, was universally bad. Hyson sold for nine shillings the pound; the black teas from six to nine. Wheat flour, all round the Gulph, sold at the rate of 3s. 4d. for 20lbs. Rye was eight rix-dollars the ton; barley, four rix-dollars and sixteen sous; salt, four rix-dollars twenty-four sous. Medicines, if good for anything, were from England; but they are often adulterated. In the list, we saw bark, opium, saline purgatives, emetic powders, &c. We paid twenty-four shillings, English, for a pound of bark: but when we came to use it, there was not a grain of genuine bark in the whole pound. The imposition, however, was not of Swedish origin: it bore this inscription, "Fine English Bark."
Bark." Bookbinders are found in all the small towns of Sweden; but their charges are high. For binding a single volume, in Torneå, they demanded a rix-dollar. The price would not have been greater in England.

Of a town so little known as Torneå, one would wish to convey an accurate idea by description. It consists of two principal streets, nearly half an English mile in length. The houses are all of wood. After what has been said of its civilized external aspect, it ought only to be considered as less barbarous, in its appearance, than the generality of towns in the north of Sweden. It must not be inferred, that there is the slightest similitude between this place and one of the towns in England. If it were possible to transport the reader, now engaged in perusing this description, into the midst of Torneå, the first impression upon his mind would be, that he was surrounded by a number of fagot-stacks, and piles of timber, heaped by the water side for exportation, rather than inhabited houses. The inn, however, a very good one for this part of the world, was clean and comfortable; and, in proof of it, we had no necessity to make use of our own sheets for the beds, which is not often the case, even in the best towns upon the continent. The dinner, which, without any previous notice, was placed before us, will shew something of the manner and condition of the inhabitants. It consisted of pickled salmon, chocolate milk, by way of soup, pancakes, a kind of cakes called diet-bread, rye biscuit, and reindeer cheese. For our beverage, we had bottled Swedish beer, not unlike Cambridge ale, and Moselle and Pontac wines.

Afterwards,
Afterwards, we had tea, served as in England, which the Swedes call tea-water; and coffee was allowed, upon the condition that, if called upon, we would not confess of whom we had bought it; being a prohibited article. While we were enjoying all these luxuries, after our long and fatiguing journey, the principal merchants of the place entered, and bade us welcome to Torneå; at the same time, offering any service in their power. Their dress, during summer, is a short cloth jacket, with cloth epaulets; or else a long nankeen coat, waistcoat, and trowsers: generally, they have a cane in their hands; and upon their heads they wear a leather cap or hat. There is nothing, therefore, in the costume of a Torneå merchant that differs much from the dress worn by the same class of people in our country; but in their domestic habits they are somewhat different. They all drink tea of an afternoon, as an established custom; but the cups are placed upon a sideboard in a corner of the room, and they take it walking about, smoking tobacco at the same time. The Swedish tobacco is so disagreeably caustic, that the smoke of it almost excoriates the lips of persons unaccustomed to it, and produces very deleterious effects. We had letters to some of the inhabitants; but were especially indebted to a Mr. Lunneberg, Superintendant of the School for educating Children, and to a Director of some of the neighbouring mines, for the information we obtained respecting this place. The peninsula upon which the town is situate is an English mile in length, and it is half a mile wide; the breadth of the river, on its eastern and western side, being, as before
before stated, a quarter of a mile. The number of inhabitants amounts to six or seven hundred; the aggregate of persons in about 120 families. Yet it is an unusual thing to see any body in the streets: and this deserted appearance, added to the grass growing in them, makes Torneå look as if the place were abandoned, and had not been inhabited for half a century. In the little garden belonging to our inn were potatoes, lettuces, carrots, parsnips, cucumbers, and tobacco-plants. On another little island, called Biörkø, about a mile south of Torneå, stands the new church: this is appropriated to a service in the Finnish language, having been built expressly for this purpose by the peasants; the service in Torneå church being in the Swedish language. These churches have congregations in such multitude, that they astonish a stranger. The duty of the Sabbath seems never to be neglected: and the Church of Sweden knowing neither heresy nor schism, there are no such places as Meeting-houses, either to excite fanaticism, or to foment and cherish religious dissentions among the people. The merchants, who constitute the principal inhabitants of Torneå, appear to live together in great harmony and friendship: their amusements seem principally to consist in playing at backgammon and cards, and in smoking; but gambling, in our sense of the term, is never practised here. Their parlours are not inelegantly furnished. In many of them were portraits, either of the Kings or Queens of Sweden,

(1) See Mr. Hålström’s Map of the Parishes of Carl Gustaf’s and Lower Torneå, as annexed.
or engravings bought in *Stockholm*. We were greatly surprised to observe, in one of these apartments, a set of coloured drawings, by one of the old masters, representing the *Cries of Bologna*. They were in old gilt frames, covered with the best plate-glass; which proved that some former possessor had been aware of their merit. It happened, however, that their present owners were not pleased with these designs. The lady of the house said, they were dull and stupid performances; preferring the coloured prints hawked about by vagrant *Italians*: and, as she wished to sell them, we bought the whole set of her, for about half-a-guinea of our money; valuing them ourselves more from the place where they were discovered, than on account of any excellence which they possessed as works of art.

The town of Torneå was founded in consequence of an order of *Charles IX*. who passed through this province in the year 1602. In the year 1694, it was visited by *Charles XI*. The well-known visit of the *French Academicians*, under *Maupertuis*, took place in 1736. But the stranger whose visit to this place is more worthy of notice than any other, not excepting even *Linnaeus*, was that of *Aubry de la Motraye*, in 1718; because the account of his travels, published by himself in *English*, and dedicated to the King, in 1732, contains as accurate and well-written an account of this country, and of *Lapland*, as any which has since appeared. He arrived upon the site of Torneå upon the nineteenth of March:

(1) *Acerbi's Trav.* vol. I. p. 345.
(2) *Voy. La Figure de la Terre, par M. Maupertuis.* Paris, 1738.
March: scarcely a vestige of the town then remained; the Russians having burned it, together with Umeå, and many other towns upon the coast. The inhabitants then made their Missne bread like some that we were afterwards compelled to eat, and as he most correctly describes the process, "of the rind of pines and fir-trees, in the following manner. They scrape the rough crusty outside of the rind clean off the peel, that part of it which is soft and white: this they dry; and with water or hand-mills they grind it, and with the meal they make their bread, in the same manner as we do with wheaten flour. There are some, who, at the same time, dry and mix it with the powder of a certain herb, also dried up, which they call Myessein, and which is very plenty on the river side and in shallow waters; and others mix meal, made of wild oats, which they gather in the woods." The inhabitants of Torneå are become too fastidious, now, to feed on this primæval bread, for which the Swedish name is Missne; but the lapse of nearly a century has not banished it from the more northern parts of the country; and it is still found, in seasons of scarcity, even in Angermanland. We brought some of this bread to England; where it does not otherwise alter by keeping, than that it is apt to become worm-eaten, like an old board. In its original state, when we were pressed by hunger to eat it, we never considered it as being worthy of the commendation which Linnaeus bestowed upon it.

(3) See the Travels of A. de la Motraye, vol. II. p. 288. Lond. 1732.
(4) "Panis hic albus est, dulcis et gratissimus, præsertim recens." Flora Lapponica, p. 250. Amst. 1737.
inhabitants of Ostro-Bothnia call it Mäss; and thus have preserved, in the name of a kind of bread which served as food among the ancestors of all the Northern nations, an undoubted etymology of our word mess. The name, both among the Swedes and Finlanders, is derived from that of the plant used in making it; namely, the Calla palustris.
CHAP. IX.

FROM TORNEÅ, TO THE MOUTH OF THE MUONIO RIVER.

Preparations for an Expedition beyond the Arctic Circle—Lapland Beds—The Party leave Torneå—Salmon Fishery—Falls of the Lapland Rivers—Manner of passing them—Incipient Trap—Frankilä—Antient mode of covering the Head—Dr. Deutsch—Carl Gustaf—Steam Baths—Korpiäylä—Cataract of Matka Koski—Primaevæl Mill—Beverage of the Laplanders—Rubus Chamæmorus—Hjetäniemi—Isle of Tulkila—Fishing by torch-light—Appearance of the Country towards the Arctic—Ofver Torneå—Adventure that befel the Author—Plants—Conflagration of the Forests—Havoc made by Wild Beasts—Kattila Cataracts—Passage of the Polar Circle—Scenery of the Frigid Zone—Breed of Cows—Tavonico—Beautiful Isles—Svansten—Mosquitoes—their providential
We had now completed a journey in Sweden of above twelve hundred miles. Our further progress beyond the Arctic Circle, and to those distant regions of the Frigid Zone described by Linnaeus as terra ultima, might not be attended with the facility and expedition which we had hitherto experienced. In the countries we were to traverse, there was no road of any kind: the only method of pursuing our route must be by ascending to the sources of the rivers in boats; and for this purpose, an additional interpreter became requisite, who not only could converse with the natives, but who also possessed a thorough knowledge of their manners and customs. And with regard to houses of accommodation, such dwellings alone might be expected as the casual settlements of these Laplanders upon the banks of the rivers would offer: in these, neither beds nor provisions would be found. It was therefore necessary to take every thing with us that we might want: but there was one thing more necessary than all the rest; and, unfortunately, one that cannot be commanded; namely, health. This began to fail the author, when it was most wanted. Although naturally of a robust constitution, yet a total neglect of that rest which is necessary for recruiting exhausted nature, during many nights and days of incessant fatigue without sleep, while it deprived him of
of strength, also brought on a total loss of appetite, attended with symptoms rather of an alarming nature. Being determined, however, to persevere to the last, no time was lost in getting every thing ready. Mr. Pipping, son of one of the merchants, who had been accustomed to attend the annual expeditions to North Cape, volunteered his services, as a Lapland interpreter; for which we agreed to give him, for each day that he might continue to be so employed, half-a-crown, English. In lieu of beds, we devised, for each person, a portable kind of frame-work, on which might be laid a couple of rein-deer skins. These Lapland beds have every recommendation, both as to utility, and the ease by which they may be transported. They are so light, that one of them will not weigh more than the two rein-deer skins which are to be placed upon it. Being at the same time provided with an empty linen pillow-case, a person may stuff this with his cloak, or with any part of his clothes; and thus lie down in luxury, even in the midst of a forest; being neither exposed to dews, nor to venomous insects. We found them so comfortable, that we regretted the loss of them, when we had left them behind us, after quitting Lapland: and for officers of the army engaged upon military expeditions, they would be not less convenient than they are quickly and easily made.

Portable beds being thus provided, nothing remained but to lay in a stock of such provisions as might be kept

(1) See the Vignette at the beginning of the next Chapter.
kept for occasional use; but Mr. Pipping told us he had a companion who would cater for us, and often find plenty of food, where we might most stand in need of it. This companion was nothing more than his Lapland dog; to which he added two fowling-pieces: and he assured us, that we might generally rely upon finding fresh salmon, at this season of the year, in all the lower parts of the country. A little tea therefore, some rolls of pig-tail tobacco and a small cask of brandy for the natives; together with a cheese and a few rusks; constituted the whole of our stock. Thick gloves for the hands, and veils to cover the head, ears, and face, being passed over the hat, and tied close round the neck, were absolutely necessary; and every person was accordingly provided with them: yet even these were not found a sufficient protection from the mosquitos, as will appear in the sequel.

Our boats being in readiness, and every thing on board, several of the merchants, together with Baron Hermelin's Academicians, who had arrived the day before, accompanied us to the water-side; bearing with them a large goblet of the sort of beverage which we call cool tankard, to make a copious libation at parting, and drink success to our future voyage. As soon as we had taken leave of these gentlemen, we found our company to consist of five persons, besides boatmen; including the Lapland and Swedish interpreters, an English servant, and ourselves. The first named of these was acquainted with the inhabitants of all the countries through which we were to
to pass, and from his earliest years had been accustomed to associate with Laplanders. Being received everywhere, and his coming hailed, as a person of much consequence, we gave him the appellation of "King Pipping;" neither did his figure ill accord with this distinction. To great personal strength and activity, was added no small degree of corpulence; and under a look as grotesque and wild as any Laplander, were couched the utmost good-humour, cheerfulness, and benevolence. He was the very reverse of our Swedish interpreter; a little meagre man, generally out of temper with himself and every one around him. Soon after leaving Torneå, we passed a salmon-fishery, consisting only of an inclosure made by driving a palisade of stakes into a shallow part of the river near the shore. Within this palisade, draught-nets were used; by means of which, the owners sometimes took from 1000 to 1200 salmon in a single night, and commonly from 300 to 400. For this fishery they paid an annual tax to Government, of a hundred rix-dollars. It belonged to the peasants of the adjoining village of Kiviranda. Many rafts, freighted with barrels of tar, passed us in their way down the river, coming from Upper Torneå and the more northern forests. This river, like all the others falling into the north of the Gulph of Bothnia, is full of rapids; which have been too generally described, by some writers, as cataracts. They are very rarely entitled to so sounding an appellation; being, for the most part, like mill-forces. The Swedes call them "forces." We shall always notice them as they occur; because their list will afford some idea of the elevation of the country,
country, at the sources of the rivers, above the level of the sea. There are no less than 107 of these Falls between Torneå and Enontekis at the source of the Muonio; some of which are really cataracts. The most surprising part of their history is, that the persons appointed to work the boats, or rather large canoes, which are employed in conducting persons up the rivers, actually force their vessels up these Falls, by means of long poles, which are always used instead of oars: and their dexterity in doing this is so marvellous, that it is one of the first things that ought to be noticed; the success of a voyage into the interior of Lapland depending entirely upon it. In descending the same rivers, they also suffer their boats to be precipitated with the torrent, guiding and preserving them from being upset with wonderful skill and address. All these forces have their separate names; with this distinction, that if the Fall be insignificant, the word Niva is generally added to its name: if a water-fall of greater magnitude, the word Koski is substituted, instead of Niva. We passed three of these rapids, before we halted, for the night, at a place called Frankilä. The first occurred soon after passing a village called Wojakkala: it is named Iso nárd: the second Karsicko; and the third Gylka. The ordinary depth of the Torneå is not more than three fathoms, or three fathoms and a half;

(1) "In Sweden, the country rises so gently from the Bothnian Gulph, that we frequently can only discover the ascent from the course of the rivers."—Von Buch's Travels, p. 347. Lond. 1813.

(2) See the Vignette to this Chapter. Sometimes, but very rarely, the boats are hauled up these Falls by means of ropes.
a half; and sometimes it is so shallow, that dry places are left in the midst of the river. A gradual formation of trap may be observed in its crumbling banks, which exhibit this substance in an incipient and a semi-indurated state; separating, like starch, with a prismatic fracture, or falling into the form of rhombs, and rhomboïdal parallelopieds. At the second rapid we found trap deposited in a regular stratum, full of vertical fissures; and in this stratum there was a vein of some substance, one shade darker than the trap itself, resembling rotten wood, but in thin laminae, full of minute particles of mica. At Frankilä we set up our Lapland beds, for the first time, in a place without a roof or doors, filled with tar-tubs and chips. From Frankilä, the mountain Nivavara is visible; on which still remains the signal-post erected by the French Academicians, to assist in their trigonometrical operations. The author’s illness had increased to such a degree at this place, that it became necessary to send back to Torneå for a physician, if one could be found, before we proceeded any farther. The simple inhabitants, however, when they heard for what purpose a messenger was despatched to Torneå, expressed their surprise, and said,

(3) “The family at Frankilä had just been baking, which they do here twice a year. The bread was made of rye and barley, in biscuits, to be hung upon poles for the next six months. (See Vignette to Chap. VII.) This was the only eatable they had to set before us. Upon making inquiry as to the quantity of exports sent down the river annually, I found that 1900 tons of pickled-salmon, and 400,000lbs. of butter, came down every year to Torneå; besides 12,000 tolff of deals, each tolff consisting of 12 planks; and from 10 to 12,000 tons of tar. After leaving Frankilä, we passed four islands, prettily situate in the midst of the river, which is here a mile and a half wide, with neat little cottages upon them. The barley about Frankilä, and elsewhere, was in a very healthy and forward state. I was informed that it is sometimes sown and mown in the space of seven weeks.” —Cripps’s MS. Journal.
we ought to learn of them to cure all ills ourselves, without depending upon others for remedies. A peasant here had brought with him, from a neighbouring forest, a musical instrument, which exhibited the simple origin of the German flute. It consisted of the bark of young trees, in cylinders of different sizes, fitted one into the other, with holes in the sides for the fingers, and one for the mouth; being played exactly as a German flute. They also make trumpets, by twisting the bark spirally, so as to give it the form of an elongated cone, and sewing it together with twigs. The beds of the people of this place were merely wooden cradles, like mangers, not more than one-third of the length of their bodies; in which they slept, between skins with the fur inwards. Instead of hats, they all wore scull-caps, shaped like scalps, and fitting close to the crown of the head: they are made, almost universally, of black plush (of which there is a manufactory at Torneà), with cross ribbands of the same colour. This kind of cap is exactly the same as the Fez worn by the Turks, and by all the Greeks antient and modern; precisely as it appears upon the medals of Ænos in Thrace, where Hermes is represented wearing such a cap¹. The Finlanders and Swedes wear the same kind of covering for the head. Industrious as are the inhabitants of this district in cases where their labour is wanted for others, they seem to have little inclination to bestow it upon themselves, further than is absolutely necessary to procure the means of subsistence: having obtained these, they betake themselves to sleep.

(1) See Plate facing page 458, Part II. Sect. 3. of these Travels. Lond. 1816.
We saw a peasant spend a whole day in cutting three wooden pegs; but when the same man was afterwards in the boat with us, he worked hard enough, and shewed no disposition to evade any part of the severe labour in which he was engaged.

Towards evening, on the following day, the physician arrived. He proved to be no less a personage than Dr. Deutsch, the Entomologist, the same who accompanied Acerbi, from Torneå, as far as the Iron Works of Kängis, when upon his journey to North Cape; and whom he has so justly described as "a person skilful in his profession, of gentle and engaging manners." Dr. Deutsch told us, that upon the festival of St. John, at Kängis, the sun, at midnight, was two diameters above the horizon. He had returned to Torneå upon the very day of our leaving it; and from him we learned, that although we might meet with Acerbi in his way back, it would be impossible to overtake him; as he was by this time, in all probability, at North Cape.

The complaint under which the author laboured, he ascertained to proceed principally from an obstruction of the biliary duct; caused by long travelling, exposed to nightly dews, excessive watchfulness, and a Swedish diet of salted provisions. It would not, he said, be speedily removed; but the feverish symptoms might be abated; and, upon the whole, continual change of air, accompanied with exercise, would rather tend to cure than to increase the disorder. As soon as he had prescribed the rules to be observed for its removal, he returned by land to Torneå; and we continued our

our voyage up the river. The circumstances of this illness would not have been mentioned, but in the hope that other travellers may benefit by the caution it will suggest to them.

*Carl Gustaf.* July 13.—The first picturesque view which occurred was afforded by the church of *Carl Gustaf*, or *Charles Gustavus*, surrounded by farm-houses, towards the north, and islands to the left of it. The river, after passing this village, is, in some places, a mile wide. Its shores are low, but prettily dressed. The numerous farms and villages give it a pleasing appearance. The levers belonging to the wells of the respective dwellings rise above the tops of the little wooden buildings, like so many huge fishing-rods with their lines. About a mile beyond the church of *Charles Gustavus*, looking back at the village, the view was perhaps still more beautiful.

*Steam Baths.* The language spoken throughout the parish of *Torneå* is that of *Finland*. There is not a village, nor indeed a dwelling, without a *steam-bath*; in which the inhabitants of both sexes assemble together, in a state of perfect nudity, for the purpose of bathing, at least once in every week; and oftener, if any illness occur among them. These *steam-baths* are all alike: they consist of a small hut, containing a furnace for heating: stones red hot, upon which boiling water is thrown; and a kind of shelf, with a ladder conducting to it, upon which the bathers extend themselves, in a degree of temperature such as the natives of southern countries could not endure for an instant: here they have their bodies rubbed with birch boughs dipped in hot water; an office which is always performed by the females of each family, and generally by the younger females. It is to these *baths*, and to the natural cleanliness
View of the CHURCH of CARL GUSTAF,

and Western Division of the TORNE River.

cleanliness and temperate habits of the people, that the uninterrupted health they enjoy may be ascribed. The only disorder to which they seem liable is the small-pox: the dreadful havoc this makes among them is visibly manifested by the countenances of the survivors, who very generally bear the marks of its ravages. This remark applies to the Finns; for the Laplanders, owing to their caution with respect to this malady, more frequently escape the effects of it. The Finns are also characterized by the light colour of their hair, which is frequently of a bright yellow colour, and sometimes almost white. At a salmon-fishery above Frankilä, we saw the fishermen cast and draw their nets. They caught a salmon which weighed twenty-one pounds: we bought it of them for two Swedish bank notes of a Plate each. The Plate is worth sixteen-pence English; that is to say, (sexton schillingar) sixteen shillings Swedish; so that we bought our salmon at the rate of about three half-pence, English, the pound. We no sooner had it on board, than our Lapland and Finnish interpreter, Mr. Pipping, cutting a slice, began to eat it raw; and this not owing to hunger, or to any want of what are considered refined manners in this country, but as the greatest possible delicacy. He endeavoured often, afterwards, to prevail upon us to do the same; laughing at our prejudices, and saying, if we knew what a luxury raw salmon affords, when quite fresh, we should not hesitate. But to have it in a state of perfection which is esteemed equally delicate and delicious, the fish should remain in salt a single night, and then be eaten raw; in which state, salmon is eaten by many of the principal inhabitants
inhabitants of Torneå, who consider it as being thus preferable to salmon that has been boiled or fried. This night we reached Korpikylä: not being able to find a human being, we began to suspect that the place was deserted; when our boatmen, knowing better where to look for the people, opened the door of one of the little steam-baths, for all the world like a cow-house, and out rushed men, women, and children, stark-naked, with dripping locks and scorched skins, and began rolling about upon the grass. Here we passed the night, in a room with windows like small port-holes of a ship. Having occasion for some cordage, they brought us ropes of their own making, of willow bark. In the morning (July 14th), a large party had assembled, who gathered round our table, to see us eat our breakfast; to them a very curious sight. We made them all very happy, by distributing small pieces of pig-tail tobacco among the men, and a few needles among the women.

One of the Falls of the Torneå occurs near Korpikylä; it is called Matka Koski, and is really a clamorous and turbulent cascade. Having inquired whether any of them ever ventured down this cataract in their canoes, they answered in the affirmative: upon which the author expressed an inclination to accompany any of them who would descend with him; and two men gladly volunteered their services, desiring him only to sit perfectly still in the boat, without moving hand or foot, and not attempt to interfere with its management. The rest all crowded to the side of the river, as the boat was pushed off towards the middle of the stream. Presently it was caught by the force of the descending torrent, and
and carried with indescribable velocity, amidst foam and rocks, to the bottom of the Fall; the two men guiding it with their poles only, but with surprising dexterity, until it reached in safety the calmer surface, when all those on shore set up a shout of triumph.

After leaving this place, about two English miles farther, we came to another Fall, which has the name of Vuojena. Here we sounded the river, and found no bottom at a depth of thirty fathoms. After passing this Fall, we walked about three miles by the side of the river, and saw, in use among the natives, the sort of hand-mill which in Scotland is called quern: and quarn, in the Swedish language, is the name for a mill. This kind of mill is used in the East Indies: in fact, it exhibits one of the most antient methods of grinding corn known in the world: it is the same to which allusion is made in the New Testament.

Afterwards, the river was considerably widened, and its channel was in some places dry. Little islands, consisting of loose stones, drew our attention to the minerals there deposited. We found them to consist of red, grey, and green granite, argillaceous schistus, trap, sandstone, and quartz. The cottages and farms of the peasants were numerous the whole way along the banks of the river. The only food of the inhabitants consisted of rye biscuit, salted fish, and a mixture of fermented sour milk and water, which is perhaps the same as the yowrt of the Tahtars and Turks. The Laplanders call it Pïna; and they are so fond of it, that they talk

(1) Matthew xxiv. 41.
talk of this beverage as our common people do of beer; saying that it is, at the same time, both "meat and drink." In woods, and moist situations near the river, we found the Rubus Chamæmorus still in flower. Of the beautiful and delicious fruit of this plant, and the extraordinary cure which the author afterwards experienced from eating it, an account will hereafter follow. The Swedes call it Hiortron; the Laplanders give it the name of Latoch; the inhabitants of Westro-Bothnia call it Snotter; and in Norway, its appellation is Multebær. The same plant is found upon the highest mountains and in some of the peat-bogs of the north of England; on which account, perhaps, it is called Cloud-berry in our island: but it is not likely that its fruit ever attains the same degree of maturity and perfection in Great Britain as in Lapland, where the sun acts with such power during the summer. Its medicinal properties have certainly been overlooked, owing, perhaps, either to this circumstance, or to its rarity in Great Britain. The fruit is sent in immense quantities, in autumn, from all the north of the Gulph of Bothnia, to Stockholm, where it is used for sauces, and in making vinegar.

We stopped for a short time at the village of Hjetaniemi, where a part of our salmon was dressed, at a neat little cottage belonging to a serjeant in the Westro-Bothnia regiment.

The

The church of this village was painted red; and its belfry, as usual, stood upon the ground, by the side of the church. After leaving Hjetaniemi, the river was an English mile and a half broad, and its appearance like that of a spacious lake, surrounded by pine-clad mountainets, at whose bases, close to the water's edge, were little villages and farm-houses, separated by small distances from each other; giving to the whole scene an air of great liveliness, the very opposite of solitude. Cheerful dwellings, countless as to number, and glittering in the sun's rays, decked all the eastern shore; amidst which, rolling clouds of white smoke were seen rising from the numerous fires kindled to disperse the swarms of insects from the cattle. The western side, less inhabited, but more verdant, exhibited woods, mantling over grassy hills and banks, in many a waving line. An island called Tulkila Sari, covered with houses and trees, added greatly to the decorations of this fine scenery, and bounded the view to the north: it is not mentioned by Hermelin, although a mile and a half in length, and about six hundred feet wide in the broadest part. After passing this island, the view is more extensive; and the dwellings, everywhere dispersed, were much increased in number.

Although the breadth of the river here be so considerable, its depth was far otherwise. We could generally see the bottom through the crystal current, which was full of large stones; and against these our boat frequently struck with violence. The water was so clear and cool, that it afforded us

(2) Sari, in the Finnish language, signifies an island.
us many a refreshing draught, during the sultry hours of the
day. In all these northern rivers, not only in Sweden, but in
Norway, &c. they practise the dexterous and beautiful
method of taking fish, in which the King of Naples was so
great a proficient; namely, harpooning them, when attracted
by the light of a fire kindled in the prow of the fisherman's
boat; where there is an iron basket containing large chips
or pieces of burning fir. The salmon, attracted by the blaze
of this fire, raises himself slowly to the surface of the water.
If he be too large for the first trident, the pilot, who silently
steers and conducts the boat, assists with others kept in
readiness. In this manner a great many of the largest
salmon are taken every night, while the season for fishing
lasts: but when the harpooner is desirous of displaying his
skill, instead of striking the largest, he will select the
smallest, to shew his dexterity.

The

(1) The universality of this custom, "from Zembla to the Line," may be strikingly
manifested by citing two passages from two recent books of travels; the one relating to
the Torrid, the other to the Frigid Zone. In the account of Java by Raffles, (Vol. I.
p. 187. Lond. 1817.) it is said, "Fish are sometimes struck, at night, by torch-light,
both at sea and in the rivers:" and Von Buck gives the following animated description
of the same custom in Lapland. "How beautiful was the salmon-striking on
Muonioniska! Scarcely had the evening commenced, when these large and brilliant
fires were everywhere seen floating on the clear surface of the water. They crossed
one another in all directions; and nothing was to be seen but the immovable figure of
the striker, completely lighted by the fire, with the murderous trident in readiness for
the blow. It seemed as if these fires were driven about by some unknown power.
Suddenly, an electrical spark of life darts like lightning through the figure. In a
moment, the trident is driven with force into the water; and the struck salmon, by its
windings, only fixes the barbs deeper into his head."—Von Buch's Travels, p. 351.
Lond. 1813.
The pines covering the hills near the river were of a dwarf kind, and, in their dwindled size, afforded an indication of the general diminution of bulk characterizing nearly the whole of animated nature in the approach towards the Pole. We were now fast advancing to the Arctic Circle; being distant about six Swedish miles (42 English) from the River Kiemi upon the east, and about five from the Calix upon the west. These three rivers flow in courses nearly parallel to each other, from their sources to their embouchures. On the top of some of the hills we observed beacons, placed to serve as signals during the wars with Russia. Fortunately for the inhabitants of this country, these beacons are the only ensigns of war they have ever known; and even these they have never had occasion to use. The affecting apostrophe of Linneus to the Laplander, however pathetically and elegantly expressed, contains only reflections which naturally force themselves upon the minds of every one who beholds the tranquillity

(1) Alas! before this is published, the desolating scourge of Russia, with all its detestable accompaniments, has fallen upon this once happy land. By the last treaty with Sweden, the River Tornê is become the boundary between the two Empires; if Sweden may be said to possess an Empire, which ought rather to be considered as a defenceless province, lying at the mercy of its plundering neighbour, who only waits a convenient season for annexing the whole of Scandinavia to Russia. In witnessing the constant encroachment made by the Russians upon the neighbouring territories; the consequences of those encroachments; and the passive indifference with which they are regarded in the Cabinets of Europe; one is almost inclined to consider their visitation as that of "the great Northern army," the "day of darkness and of gloominess," spoken of by Joel; before whom "the land is as the Garden of Eden; and behind them a desolate wilderness; yea, and nothing shall escape them. The appearance of them is as the appearance of horses; and as horsemen, so shall they run."
tranquillity prevalent over all this land of innocence and peace:

\[
Tu\ dormis\ hic\ sub\ tua\ pelle\ ab\ omnibus\ curis,\ contendionibus,\ rixis\ liber,\ ignotans\ quid\ sit\ invidia.\ Tu\ nulla\ nosti,\ nisi\ tonantis\ Jovis\ fulmina.\ Tu\ ducis\ inno-
\]

\[
\begin{align*}
&centissimos\ tuos\ annos\ ultra\ centenarium\ numerum\ cum
\end{align*}
\]

\[
facili\ senectute\ et\ summa\ sanitate.\ Tu\ vivis\ in\ sylvis,\ avis\ instar,\ tamen\ alit\ te\ Deus\ optimus\ optime.\ O\ sancta\ innocentia,\ est\ hic\ tuus\ thronus\ inter\ faunos!
\]

We passed a sandy island covered with long grass, and houses for containing hay; and as the river again opened, and the prospect grew finer, we arrived at Ofver Tornæa, a village, consisting of little more than the church, the minister's house, a cottage belonging to an officer, and the dwelling of the land-surveyor, who is a person in great request among the peasants, owing to their disputes about the boundaries of their land.

Having entered an apartment in the house of the minister, we were somewhat surprised to find a small piano-forte standing open, with music books lying about, as if some person had recently quitted the spot; but no one appeared. Upon a music-desk before the keys of the instrument, there was a song in manuscript, with this remarkable title:

\[
"L'Adieu\ d'Ofver\ Tornæa,\ dediè\ à\ Mademoiselle\ *\ *\ *:\ par\ Joseph\ Acerbi\ de\ Castelgoffredo\ en\ Lombardie,\ pendant\ son\ Voyage\ en\ Lapponie."
\]

Presently, some young ladies entered, who were the minister's daughters; himself being absent upon a journey. They were conducted by a Mr. Swamberg,

Mr. Swamberg, Secretary to the Academy of Sciences at Stockholm; the same gentleman who is mentioned by Acerbi, as an Astronomer and Mathematician, commissioned by the Academy of Sciences at Stockholm to ascertain the truth of the operations of Maupertuis and his colleagues. With these companions, we sat down to rather an elegant supper; and in the midst of so many unexpected agrémens, were disposed to imagine the parsonage, Parnassus, the minister's daughters the Muses, and Secretary Swamberg a representative of Apollo. Little did we imagine to what a night all this was a prelude. The author, after a conversation with Mr. Swamberg respecting the proper route to be observed in penetrating farther towards the North, ascended to a chamber prepared for his reception; and being overcome by weariness and illness, was surprised and glad to find a cleanly-looking English bed, with cotton curtains, white as snow. This being the case, he incautiously resolved not to use his own; sending the servants away, to sleep in the village. He had not been long in the bed, where the mosquitos proved sufficiently troublesome, when he saw a dark moving spot upon the white curtain, which proved to be a most enormous species of bug. Having removed it, and hoping it might be a solitary vagrant, he ventured to lie down again. Soon after, he saw three more, of a size hardly to be credited; when, starting up, what words can express his astonishment and disgust,

disgust, in beholding myriads, moving in all directions over his bed and body. Heaps of them adhered together, like bees about to swarm: and mingled with these nauseous insects, there were other vermin, of a description so filthy and abominable as to be nameless in every civilized society. In this deplorable situation, there was nothing for it, but to strip naked, and rush into the river: after which, returning once more, and finding in an ante-chamber a huge bear-skin pelisse belonging to the minister, he wrapped himself in the fur, and remained upon the floor until the family was roused. All this penance might have been easily avoided, by making use of one of the portable beds contrived for the expedition; or by passing the night in the boat, or in one of the peasants' dwellings; for it is with this country, as with many others, that a stranger is always best provided for, when he avoids a style of accommodation unsuited to the common usages of the inhabitants. About seven o'clock, a summons to breakfast banished all thoughts of the hive in the bed-chamber. The breakfast consisted of pickled salmon, dried rein-deer venison, beef, pork, sausages, fritters, chocolate, tea, cheese, butter, and bread. After thanking our friends for our fare, and taking leave of the minister's daughters and Mr. Swamberg, we pushed off in our boat; rejoicing to find ourselves again in the midst of the river, and bade adieu, for ever, to Ofver Torneâ.

As we ascended the river (July 15), the prospects were very grand. The water appeared like successive lakes, land-locked by high woody hills, and bordered by magnificent beds
beds of flowers; among which, the purple blossoms of the Epilobium angustifolium appeared in all their glory. This plant never appears elsewhere in equal splendour. "Sylvas Lapponae," says LINNÆUS¹, "speciosissima florum suorum purpura pingit planta hæc regia." When almost every other plant seemed to dwindle in stature, this species of Epilobium, towering by the sides of the river, displayed everywhere the most gaudy garlands. There was one other plant which seemed to emulate its height, and to surpass it in dignity; namely, the "Pedicularis Sceptrum Carolinum." Its large golden flowers, with their ruby lips, rose in tiers one above another, to the height of four and five feet from the pebbled beds where it principally grows, spreading its serrated leaves over the stones by the water's edge. This species of Pedicularis is, however, never common anywhere; its

(2) According to LINNÆUS, (Flor. Lapp. p. 198. Amst. 1737,) this plant was so named by Rudbeck the Younger, in honour of Charles the Twelfth, king of Sweden. It is true that he affixes a representation of it, and the best which has yet appeared, to the dedication of his work to that monarch. (Vid. Olavi Rudbeckii filii Nora Samolad, ad dedic.) But this name had been previously given to it, by him, in honour of Charles XI. who, in 1694, visited Torneå, to witness the appearance of the solstitial sun above the horizon at midnight; and who was so much struck with the beauty of this plant, that he used to walk with it in his hand: hence its name of Charles's Sceptre.
(3) It was once found in such abundance in the highway between Kiemi and Io, as to stop a horse going full speed: but we never observed it as a common plant, or anywhere in great abundance: the specimens were generally solitary; making, however, a showy appearance, where they occurred. "Non raro," says LINNÆUS, "in locis ab Alpibus nostris remotissimis legitur, ut inter Kíemi et Io, ubi totam viam regiam adeo implevit, ut ferè equo, qui relaxatis habenis cursum suum accelerat, obniti potest." Flora Lapp. p. 198. Amst. 1737.
its native soil is evidently Lapland: when found in other countries, as, for example, in Norway, it appears as an insignificant plant, of stunted growth, exceedingly diminished in beauty, size, and height. Among the alluvial deposit in the bed of the river, we found some varieties of granite, of a red and of a green colour. We passed a salmon-fishery near Marjosari, and laid in a fresh stock for our own consumption. Some forests were on fire near the river, and had been burning for a considerable time. Mr. Pipping informed us, that these fires were owing to the carelessness of the Laplanders and boatmen on the rivers; who, using the Boletus igniarius for kindling their tobacco-pipes, suffer it to fall; in an ignited state, among the dry leaves and moss. They also leave large fires burning in the midst of woods, which they have kindled to drive away the mosquitos from their cattle and from themselves: therefore the conflagration of a forest, however extensively the flames may rage, is easily explained. Yet Linnaeus, with all his knowledge of the country, and customs of the inhabitants, attributed the burning of the forests in the north of Sweden to the effects of lightning. During these tremendous fires, the bears, wolves, and foxes, are driven from their retreats, and make terrible depredations among the cattle. A bear, having

(1) We endeavoured, but in vain, to introduce it into the Botanic Garden at Cambridge: the seed which we sent was gathered in a state of perfect maturity, but did not produce a single plant in England; although the seeds of Dianthus superbus, and of other plants collected at the same time, which had not before been brought to England, have thrived, and become common in many gardens.
having crossed the river about a fortnight before we arrived, had killed, in one night, six cows and twelve sheep, the property of a farmer. We saw their former owner, and the place where all this slaughter had been committed; having landed, to walk by the side of the river, while our boatmen were engaged in forcing the rapids. The farmer attributed his loss to the burning of the opposite forest, which had compelled the bear to pass the river for food. These rapids are very remarkable in their situation. They are called the Cataracts of Kattila in some maps, especially in that of Maupertuis; and they occur exactly in the latitude assigned by him for the position of the Arctic Circle. We passed the boundary of the Temperate and the Frigid Zones at three o'clock in the afternoon of this day; collecting a few rare plants, to present to our friends in England, as coming from the spot. The observations of Maupertuis had been confirmed by those of the Secretary Swamberg, as he had informed us upon the preceding evening. He found the latitude of Ofver Torneå to be 66°. 23'. 18". Therefore, allowing 6'. 42", which is the exact distance to the Cataracts of Kattila, for the interval between Ofver Torneå and the Polar Circle, we have an aggregate of 66°. 30' for the latitude of that circle: and as the Cataracts of Kattila extend a considerable distance along the river, this will be found to agree very nearly with the precise situation which Maupertuis has assigned for them in his map, namely, 36°. 31'. 36".

(2) See "Carte de l'Arc du Meridien mesuré au Cercle Polaire," facing p. 175. Tome Troisième d'Œuvres de M. de Maupertuis. à Lyon, 1756.
We now entered the Frigia Zone, but with feelings that might rather have suited a tropical climate. The deep shade of the forests protected us from the heat; but the sun's rays were very powerful, the weather sultry, and the mercury in Fahrenheit's thermometer stood, in the most shaded situation, so high as 68°. The number of mosquitos, swarming in these forests, spread a mist before the eyes; and this, added to the effect produced by wearing veils, gave a dimness to the sight which was not pleasant. Masses of granite appeared on either side of the cascades here falling through the rocky bed of the river. Such was the force of the cataract, that the persons employed in effecting a passage are obliged, in some parts of it, to take their boats out of the river, and drag them upon the land. The difficulty was increased by the slippery surface of the rocks; worn so perfectly smooth by its force, that the workmen could find no hold for the ends of their poles, in forcing the boats against the descending flood: yet, in some places, we stood in amazement to witness the strength and dexterity they displayed. We continued our walk by the side of the cataract; and passed through groves more beautiful than those of Matlock, by the side of the Derwent, in Derbyshire. The whole air was scented with the fragrance of the Linnaea Borealis. This delicate plant appeared rearing its twin blossoms beneath the trees; sometimes extending its horizontal fibres, from which its flowers rise, to the length of eight or ten feet through the moss. Myriads of mosquitos protect these blossoms; hovering over them, as if rejoicing in the odour they exhale; and inflicting the most envenomed stings upon the hand of any one who shall
Tornea River, the first view within the Arctic Circle,
showing the scenery which there bounds the frigid and temperate Zone.

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shall dare to pluck them. Recent ravages among the ant-hills were pointed out to us, as proofs that bears had been feeding upon the ants' eggs which those hills contain; and horns were sounding in every forest, to prevent them from attacking the cattle. The cows here are all of the same white colour, and very little bigger than sucking calves in England; but so beautiful, and yielding milk of a quality so superior to any we had ever tasted, that we longed to introduce the breed into our own country. It is almost all of it cream: and this cream, with the most delicious sweetness, is at the same time, even when fresh, so coagulated, that a spoon will nearly remain upright after it has been plunged into it. Of course, its richness must be principally attributed to the nature of the food which, during summer, these cows select for themselves in the forests; and this consists entirely of the tender twigs and young shoots of trees. We halted to dress our salmon, at a farm at Tavonico: and having given an unfavourable picture of the state of the house where we passed the preceding night, it may be well to mention the extraordinary cleanliness of this farm-house. The walls, the floor, the tables, the beds, were all of white deal, pure and spotless as the interior of an English milk-pail. After leaving Tavonico, the scenery became as fine as any we had yet seen: the grace and dignity of the pine-trees, upon the islands in the river, cannot be described: the first we passed was Lambisensari; the second, Paumasari. Towards evening, the sky assumed a purple aspect, and the clouds were tinged with purple; the weather being always fine, and without rain. The people here have no national poetry, not even so much as a song. When we asked them if they never sang among

TO THE MUONIO RIVER.
each other; they replied, that they were accustomed to
sing psalms in their boats on a Sunday. Neither have
they any national dances. During this day, we saw a kind of
bird called Lomm (pronounced Loom) passing with great rapidity
over our heads. We endeavoured, but in vain, to shoot one
of them. The Lomm is of the size of a goose. It lays its
eggs close to the water's edge, and has the most splendid
plumage upon its breast. The natives cut off this beautiful
gorget from the Lomm, and use it to decorate the front of
their caps, wearing it above the forehead. They relate of
the Lomm, that its feet are turned towards the tail, so that
it cannot walk. It seems to be a species of Colymbus; but
little, if at all, known. Some account of it is given by
Brünnichius; but his description of its colour1 does not
correspond with that of the gorget, which we often saw,
although we did not see the entire bird itself, except during
its flight.

The boats used to conduct travellers up the Lapland rivers
may be considered as under a similar regulation to that of
the post-horses; relays being appointed at certain stations.
They are worked entirely with poles, after the manner
which we call punting. When the boatmen, who had with
such excessive labour conveyed us from Ofver Torneå, reached

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"Corpore supra nigricante, subitus albo, colli antice ferrugineo. Caput et latera
colli grisea, antice pars colli macula oblonga rufa notatur; dorsum colli et latera pectoris
lineis longitudinalibus albis nigrisque alternantibus pingitur; pectus et abdomen alba,
Borealis, Brünnichii, pp. 39, 40. Hafniae, 1746."
the end of their station at *Jouxange*, the people were all
absent, and there was no one to go with us any farther:
hearing which, the same men cheerfully volunteered their
further services; and offered to proceed another station, as
far as *Svansten*, if we would give them each two glasses of
brandy, to which we gladly assented. It was now seven
o'clock, but the sun still shone in his might, high above
the horizon. On the opposite shore, women were calling
their cattle from the forest, by blowing the *lures*; a long
line of white cows appeared moving through the trees,
answering to every call of the *lure*, and, by their lowing,
seeming to imitate the sound of the distant summons.
There is a forge, for making *bar-iron*, at *Svansten*; exactly
corresponding, in all its parts, with the account we have
already given of Mr. *Pauli's* works at *Oloffors*; large masses
of the semi-fused ore being beat out into bars. The ore is
brought to them from a place about twelve *Swedish* miles up
the river. We visited this forge. A single hammer only was
employed; figures, like what one imagines of the *Cyclops*, of
gigantic stature and fierce aspect, with sinewy arms and
bare bodies, were engaged in supplying the anvil with the
tough and almost liquid ore from the furnace. The Director
invited us to his house; and conducted us into a neat apart-
ment, the walls of which were covered with hangings of
gilt leather. This room, like every other place, was filled with
*mosquitos*; but owing to some cause we could not explain, no
person here was bitten by them; which enabled us all to enjoy
a little refreshing rest. It is evident that blood cannot be
the natural food of these insects; because they are often found
most
most abundant in situations where there is hardly a trace of animal existence: and in some experiments which we made, by allowing them to take their fill of what they seek with such avidity, we found that it cost them their lives. If they be watched after they have imbibed a sufficient quantity of blood, they fly with difficulty, endeavouring to escape, and become afterwards dull and benumbed, until they turn upon their backs and die. Yet, in their thirst for blood, they will penetrate between the hairs of a dog's back, or those of a cow, and fix themselves in such number as to form a living mantle upon the animal's skin. So powerful is the little flexible proboscis with which they make their punctures, that it will penetrate very thick leather; the gloves upon our hands not being a sufficient protection from their attacks. Finding that all the covering we could use was of no avail, and that the incessant torment inflicted by these insects became intolerable, we were almost tempted to follow the advice of the natives, and to cover our faces, necks, hands, and arms, with a mixture of cream and tar: a practice adopted by the celebrated Ledyard, when he visited this country, and whose example we were ultimately constrained to imitate. However revolting this may appear to persons who judge of a mosquito scourge by the gnats and summer-flies of England, it

(1) Dr. Shaw believed that the Musquito of Lapland only differs from the common Gnat, in deriving additional vigour from a warmer and moister atmosphere. This may, perhaps, be true; or they may be varieties of the same species of Culex: but we have adhered to the distinction of names now generally adopted, in calling the former Musquito. The smaller species, called Midge, or Culex pulicaris, sometimes causes, by its bite, more swelling and inflammation, even in England, than any insect of this genus.
TO THE MUONIO RIVER.

it is a penance that all will gladly undergo who visit Lapland during this season of the year; especially as the stranger has always the precedence at a mosquito court; the natives being neglected and deserted by them, that they may cover the new-comer with their swarms. The method by which an apartment is cleared of them in Lapland is, in itself, scarcely more tolerable than their presence: for this purpose, every person is made to lie down upon the floor, with his face to the earth; then dried birch-boughs being kindled, the whole room is kept full of a dense smoke, until the mosquitos have escaped; when every aperture being closed, the inmates may remain, if they can exist in such an atmosphere; being, as it were, hermetically sealed in a deal box, and almost in a state of suffocation: but if, during this time, the door, or window, should be opened for an instant, a cloud of noisy mosquitos rush in, and fall by thousands upon their prey. A sturdy English groom, who attended us as a servant, was driven to such desperation by them, that, being at last compelled, not only to make his appearance beneath a veil, but with his skin tarred, and festering wounds upon his hands and legs, he was with difficulty restrained from throwing himself into the river. We cannot wonder, therefore, that the poor Esquimaux Indians of North America, who are nearly allied to the Laplanders, should consider these insects as personifications of

(2) According to the account given by the Moravian Missionaries, a Laplander may be employed as an interpreter with the Esquimaux.
of the evil principle, and always speak of them as the winged ministers of hell; being ignorant that they rank among the bountiful gifts of Heaven, and are, in fact, one of those wise provisions of Nature which have been admirably calculated for the wants of the countries where they are found. Linnaeus, to whose discerning eye this truth was first disclosed, terms them, in his expressive language, "Lapponum calamitas felicissima;" since the legions of larvae, which fill the lakes of Lapland, form a delicious and tempting repast to innumerable multitudes of aquatic birds; and thereby providentially contribute to the support of the very nations which they so strangely infest.

July 16.—Opposite to the forge at Svansten, we saw a small island, consisting of granite rocks, covered with fir, birch, and alder. As we proceeded up the river, we perceived a change in the manners of the people; the noisy, turbulent, and mirthful disposition of the Finns being substituted for the mild gravity of the Swedes. The banks of the Torneå became higher, more rocky, and wooded; the bed and sides of the river consisting of a broad-grained red granite. We left the boats, to walk, while the men were engaged in forcing the ascent of a cataract called Hirvas Koski. There were here no marks of inhabited country, excepting boughs of birch, which we found collected into bundles, and hanging to dry, as winter fodder for the cattle. These boughs are afterwards stacked in houses built for the purpose. The same sort of fodder

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fodder is used all over Sweden; and sometimes boughs of alder (Betula Alnus) are collected for the same use. We passed another force, called Puras Koski; and also two islands, one of which is laid down, without a name, in Hermelin's Map*;—the first is called Lamp Island; the second, Kylan;—the river becoming at least an English mile wide, before we arrived at Pello. Here we dined, at a little farm called Kortenjemi; one of the neatest and cleanliest houses that can be conceived. The tables, walls, doors, ceilings, and floors, were quite polished with the daily scrubbing they underwent; and being all of white deal, nothing could look more purely neat. Here we saw the winter-sledges, lying in readiness for the Torneå trade; fifty of them belonging to our Laplana interpreter's father, Mr. Pipping. These sledges are all drawn by rein-deer; but so tractable is this animal, that a single person in the foremost sledge guides fifteen following at the same time. With these sledges were also the sort of skates used very generally throughout Lapland and Finmark, which are called skider. The skiders are made of wood: those which we measured here were seven feet and a half in length, and four inches broad. It is said, that, using these skiders, they will overtake bears, and even wolves, in full flight. There is no difficulty of conceiving a practicability of descending hills, or of moving over plains, with such instruments: the only thing that puzzled us was, to account for the facility with which they also ascend any steep acclivity: and as we never

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(2) Charta öfver Wästerbotten och Svenske Lappmarcken, 1796.
never saw the *skiders* in use, we are unable to explain it. There is an engraved representation of the manner of using them in the very rare work of *Canute Leems*; but in that plate the *Laplanders* are figured as *descending* from the summit of a mountain. The same author has given an account of their surprising address in using them, and of the velocity with which they make their way over the tops of mountains. They are mentioned also by *Scheffer*, and by *Olaus Rudbeck* the younger; the last of whom says, "that, with these skates, the *Laplanders* will overtake the swiftest wild-beasts, as *elks, rein-deer, stags,* and *bears.*" A much more copious account is given of them by *Scheffer*; together with a curious *wood-cut*, representing a *Laplander* with these skates upon his feet, bearing in his left hand a *cross-bow*, and in his right hand a *pole*.

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(1) The King of *Denmark* had, in *Norway*, a regiment of *Skiders*; so called, because all the soldiers belonging to it are skilled in the use of these skates.


(3) "Maxima montium juga celerrimo cursu et opinione ocyus emetintur. Machina quidem lignea, oblongæ figuræ, plantis subligata, soleas ligneas vulgo vocant, per altissimos montes perque declives colles, nulla baculi ope, quem in medio cursu ex humero secure ac negligenter suspendunt, tanta feruntur pernicitate, ut venti circa aures strideant, crinesque surrigit. Si pileum interim vel aliud quodpiam ante pedes currentis projeceris, in medio illud cursu, inclinate corpore, actutum assequitur et humo extollit. Infantes, quam primum ingredi incipiunt, ad colles continuo repunt, ibique pedibus, soleis ligneis insertis, per declivia feruntur, cujusmodi exercitio a teneris ita assuescunt." *Ibid.* p. 57.

(4) "Heic enim permultos ea pedum celeritate præcellentes accepimus, ut levi facilique lapsu hinc inde transcurantes, feras quasque velocissimas, alcas, rangiferas, cervos, uros, prope a vestigio consequantur." *Olavi Rudbeckii Filii Nora Samolad*, p. 13. *Upsala*, 1701.—This is a *learned work*, full of uncommon observations, and extremely rare.
pole, by which he pushes himself along. Scheffer’s account is too long for insertion here, even in a note; but as it relates to the most important hunting-instruments of a people who may be said to live by hunting, it may be well to refer to the work. He says, he has seen them ascend the summits of the mountains. The same thing is observed by Saxo-Grammaticus; who describes them as leaving the valleys, and, by a tortuous ascent, scaling the very tops of the Norwegian Alps. All Laplanders are not equally skilful in using skiders: those of Umeå Lapmark, for example, are considered as more dexterous than the Laplanders of Luleå. A curious circumstance is related by Olaus Magnus: he says, that they cover the skiders with the skins of young rein-deer, which obstruct a retrograde movement, by acting like bristles against the snow; the roots pointing towards the fore part of the skate, and thus preventing their slipping back. The same thing was mentioned to us here; although, being summer time, the skiders were destitute of their hairy coating.

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(6) “Quin et in ipsa montium enituntur cacumina, ut testatur etiam nostrorum temporum experientia.” Ibid. p. 250.
(7) “Primò siquidem vallium profunda relinquens, scopulorum radices tortuosa giratione perlabitur, sicque meatum crebrae declinationis obliquitate perflectit, donec per sinusos callium anfractus destinatum loci cacumen exuperat.”—Saxo, in Praefatione sui operis, p. 4. Soræ, 1644.
(8) “Ligna illa (soleas intelligit) subducta sunt tenerrima pelle vituli rangiferorum. Cur autem pellibus tenerrimis haec ligna subducantur, variæ redduntur causæ, ut videlicet celeriori lubricitate sese transferant per alias nives, ut expeditius rupium voragines et præcipitia transverso motu evivent, ut sursum dirigentes cursum, retrosum non excidant: quia pili instar sudium aut echinorum se erigunt, miraque naturæ potentia, ne relabantur, obstinent.”—Olaus Magnus, lib. i. cap. 4.
coating. Mr. Pipping said that he could skate with them; but that a Laplander would laugh at his awkwardness, if he were to exhibit such a proof of his skill. The use of the skidders gave rise to the appellation of Skridfinni, by which the Antients designated the people using these skates; called Skriida by the Swedes: the same people are named Scricfinni by Saxo-Grammaticus. In pursuit of the bear, by means of these instruments the sole object of the huntsman is to get before the animal, and then, with a short pole, which he carries, to strike him a violent blow upon the nose; when he is easily secured. So violent is this exercise, and such the rapidity of the motion, that, during the most rigorous season of the year, the Laplander, when earnestly engaged in the chase, will divest himself of his furs, and appear almost naked.

During twelve English miles of this day's voyage, we did not observe a single habitation, nor any human being except our own boatmen. Wild-ducks began to appear in great number, swimming about in the midst of the river, followed by their young; of which they are so careful, that when alarmed by the approach of any person, the old ones will play all sorts of tricks to attract notice, while the young are effecting their escape. We soon began to abandon the use of our fowling-pieces; first, because we proved bad marksmen; secondly,

(2) "Harum ortivas partes Scricfinni incolunt."—Saxo, in Praefat. sui operis, p. 4. Soræ, 1644.
secondly, because the mode of taking wild-ducks, as practised by the people, was attended with such success, that all attempts at shooting them became a very idle and unprofitable occupation. This method consists in watching the ducks when they dive; they are then seen in the clear water, about twelve or eighteen inches below the surface, steering for the land: at this moment a boatman plunges the end of his pole into the river, upon the back of the duck, who instantly turns up, and, lying upon the surface, is taken. In this manner, in some of the small creeks near the river, which swarmed with wild-fowl, we sometimes caught a sufficient number of fine young ducks to freight one of our boats, and afterwards distributed them among the inhabitants, who also take them in prodigious quantities. The only use we made of our guns was in killing a species of snipe, called Beccasine by Mr. Pipping; a name evidently borrowed from the French, although now naturalized here.* It seemed to us to differ from any snipe known in our country, by the shortness of its bill: it made a piping noise, which was almost the only sound heard in the forests. Other wild-fowl also appeared; and among them the smallest of the duck kind, which we call Teal. Soon after leaving Pello, we passed a salmon-fishery: the river

* The same name is noticed by Brünnichius, in a Note to the Genus Scolopax.

"Scolopaces et Tringae communi nomine Danis Snupe, Norvegis quibusdam et Islandis Snupe dicuntur ... Venatoribus nonnullae Bekkasina appelluntur, quarum tres numerantur differentiae; sc. maxima, tredobolte Bekkasine; media, doppelte Bekkasine; minima, enkelte Bekkasine."—Ornithologia Borealis, p. 47. Hafniâ, 1764.
here was about half-a-mile wide; and the forests on each side were beautiful, owing to the great variety of the trees. We noticed *aspen*, *alder*, *willow*, *mountain-ash*, *birch*, and *fir* trees; and among them were millions of droning *mosquitoes*, of a different description from any we had before seen; their bodies being striated, and coloured like wasps. They made the blood flow freely, wherever they fastened: and owing to this circumstance, their bites are not so inflammatory and painful as those of the common *mosquito* and *midge*, which inflict a wound less liable to bleed, but more venomous. When our boatmen halted to refresh themselves, we penetrated the forests in search of plants: we found different species of *Epilobium, Linnaea Borealis, Parnassia palustris, Achillea millefolium* or common *millefoil*, which the Laplanders and Finns mix with their tobacco for smoking; also *Viola biflora, Gentiana nivalis* with blue and with white flowers, *Dianthus Superbus*, &c. To give any further account of plants already described by *Linnaeus*, would be useless. Upon our return, we found our boatmen at their scanty meal; which always consisted of the same diet; nor did they seem desirous either to add to their food or to alter it. This consisted only of biscuit made of the inner bark of the birch-tree, chopped straw, and a little rye; which they washed down with a beverage, swallowed greedily by quarts at a time, of the coagulated sour milk before described; smacking their lips afterwards, and smiling, as if it afforded a most delicious draught. When any of this fluid fell into the river, it appeared ropy, and thick, and did not mingle with the water. Yet this
is Lapland nectar; a revolting slime, "corrupted," as Tacitus said of beer, "into a semblance of wine:" they speak of it as of wine; saying, that it gladdens and strengthens the heart, refreshes the spirits, and fortifies them for labour; and, doubtless, although we were unable to subdue our prejudices by drinking of it, use would have made us as fond of it as are the Laplanders. They were as much surprised at seeing us refuse this beverage, as a coal-heaver of London would be, who, after prevailing upon one of the Neapolitan Lazzaroni to taste his pot of porter, should see him eject it from his mouth, with a curse; which would infallibly be the case. The little villages are now separated from each other by a distance equal to twenty or thirty British miles, and single farms rarely occur. Barley, in the few places where we saw it, was good of its kind, and in a flourishing condition. A restriction of the Swedish Government respecting matrimony prevents the young men from entering into wedlock before the age of twenty-one; except in cases where property is bequeathed to an heir, who is then at liberty to marry, as soon as he has attained his eighteenth year. Girls are allowed

(1) "Potui humor ex hordeo aut frumento, in quamdam similitudinem vini corruptus."—Germania, cap. xxiii. v. 4. p. 43. Lond. 1812.

(2) "The author once gave some bottled-porter to a peasant of Vesuvius, who was almost fainting with thirst, upon the summit of that mountain. He had no sooner tasted it, than he threw it from his mouth, uttering, in the strange Patois of the Lazzaroni, the heartiest malediction he could bestow upon it: "Mannaggia lu vin' Angrese!" or, in other words, "Mannaggia il vino Inglese;" "D—mn the English wine!"
allowed to marry at fifteen. The Laplanders, almost a free people, are liable to no such restrictions: they may marry at sixteen; and the consequence is, that it is rare to see an unmarried Laplander at twenty. A principal cause operating against the increase of population in this district is, that the young men migrate for the fisheries upon the Norway coast, and, finding great plenty of food there, never return. We passed the mouth of a river upon our right, called Nami-jock: this termination, pronounced yock or yocki, signifies a river in the Finnish language. We then arrived at Jarhonnen, a very clean farm-house, where we halted for the night.

July 17.—Here we saw the instrument used by the natives in killing bears. Our host had destroyed twelve with his own hand. This weapon is nothing more than a pole, with a stout quadrangular iron pike at one end, and a small wheel at the other to prevent its sinking in the snow. The hunter, upon the first fall of snow, tracks the bear to his den; which is generally nothing more than a hollow bank, with a few overhanging boughs covered with snow, beneath which canopy the bear sleeps. A dog is then employed to attack the bear; barking and teasing the animal, until he rises upon his hinder feet to seize his adversary; at which critical juncture, the huntsman, who all this while has stood concealing the iron point of his pole beneath his left thigh, suddenly advances, and plunges the pike in his heart.1

(1) There is a faithful engraving of this subject, in Acerbi’s Travels, vol. I. p. 288. Lond. 1802.
It is a most desperate and dangerous enterprise: the slightest failure, either as to the direction of the blow, or the force with which it is administered, would be followed by a cruel death. Our worthy host, now advanced in years, took off his clothes, to shew us the horrid scars upon his back and left shoulder, where the flesh had once been torn from his bones during an attack of this kind: in his struggle with the enormous bear, he would have been infallibly torn to pieces, if his brother had not fortunately hastened to his assistance. Generally, in bear-hunting, there is only a single person with his dog; as it is necessary that the dog should altogether engross the animal's attention, until the blow is given. The object of hunting the bear is to supply the Torneträ merchants with skins, when they arrive during their annual expedition to North Cape.

We left Jarhonnen on foot, walking by the side of the river, while the men were engaged in working against the cataract called Jarhonnen-force. The groves by the waterside are delightful: a rude and devious path, always doubtful and often altogether indistinct, overshadowed by foliage impenetrable to the rays of the sun, now winding among rocks, now along the brink of a cataract, conducted us

O'er many a wilder sweeter sod
Than Fancy's feet have ever trod.

In these woods, when removed from the noise of the cataracts, there is sometimes a stillness which is quite awful; it is the unbroken silence of Nature left entirely to herself: if it be interrupted, it is only so by the humming of the mosquitos, or the piping of the beccasine, or the murmur of the
the wind. Man seems to be an intruder, for the first time, into the midst of solitudes that have never been trodden by any human foot: the very path which he pursues has not been traced by the footsteps of men, but of animals. As we quitted this track, and penetrated the forest, we were cautioned by the natives not to wander, unattended, too far from the river; lest the hungry bears, who lie couched and waiting for their prey, should spring from a thicket upon us. The river continued undiminished in breadth; and its prospects, as of a continued series of successive lakes, surrounded everywhere by thick woods, were still the same: but, although its banks were sometimes fifty or sixty feet high, the country was now more level, and the seeming lakes of a more formal shape. We continued our pedestrian excursion until we arrived at another cataract, called Kaardisen nivas. As it was necessary to cross the river, the boat had nearly filled, owing to its turbulence, as we passed over to the other side. Here we found wild roses1, and black-currant trees, and geraniums, growing among the rocks. As soon as the boatmen had forced a passage above this cataract, and we returned to take our station on board, the extraordinary scene exhibited baffled all

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(1) "And, as he nearly dips his flaming orb,
    Wheels up again, and re-asceends the sky;
In that glad sea-on, from the lakes and floods,
Where pure Lapponia's fairy mountains rise,
And, fring'd with roses, Torneâ rolls his stream,
They draw the copious fry."

Thomson.
all power of verbal description; and even painting would give but an imperfect idea of it. Its formality was not less striking than its great magnificence. Let the Reader imagine himself at the extremity of an area whose form is that of a Greek stadium, two English miles in length, and a quarter of a mile wide; the ground of this area occupied by the most rapid and pellucid river, flowing placidly towards him; all the lower parts of the immense coilon, for the seats, covered with wild roses, weeping birch, downy willows, aspens, alders, &c.; all the upper parts, with high-towering pines, standing in tiers one above another, and, at a distance, seeming like crowded rows of spectators in this vast natural amphitheatre. To add to the splendour of the scene, the sun, reflected in dazzling brightness by the water, was shining in all its glory. Before we entered the boat, we found by the water side the first genuine tugurium of the Laplanders we had yet seen. It was something like the sort of dwelling constructed by our Gipsies; only, the materials being of greater magnitude, gave rather a bolder feature to its appearance. It consisted of the stems of trees, placed together in a conical form, like a stack of poles for hops, standing close to a sheltering bank; beneath which the trunks of two large trees, lying crosswise, had served

(1) "As the Asiatic origin of the Gipsies is now ascertained, there may possibly be some connexion between their history and that of the Laplanders; since the two languages have, in common, some traces of the antient Persian. In their manner of life there is little difference; they exercise many of the same employments for the people in whose countries they are found; and both have the same vagrant habits."
served at once as a fire-place and as a part of the fuel. Over the sloping poles they spread a cloth of their own manufacture; and for a carpet, cover the earth with the boughs of evergreen firs. Afterwards, during our progress, we saw several of these sheds, and they were all alike. Two boats passed us, descending the river, with iron ore. Presently we landed again to walk, while the boats were dragged up the cataract, called Lappea by the Finns, and Utmoiks-koski by the Swedes. This cataract was probably the old boundary of Torneå Lapmark. Here the Muonio River falls into the Torneå; and they begin their united course with that clamour and agitation which very generally characterizes their progress towards the Gulph of Bothnia.

(1) The wigwams of the Cree or Knisteneaux Indians, in Hudson’s Bay, are exactly of the same form, and constructed precisely in the same manner.
FROM THE MOUTH OF THE MUONIO RIVER TO ITS SOURCE,
TWO DEGREES AND A HALF BEYOND THE ARCTIC CIRCLE.


We crossed a neck of land lying between the Cataract of Lappea and that part of Torneå which here bears off westward towards
towards its source in the Norwegian Alps, that we might ascend a hill for the purpose of viewing to more advantage the confluence of the two rivers. This hill, not more than 300 paces from its base to its summit, had been mentioned to us as a mountain proper for this purpose. The gradual rise of the country, the whole way from the mouth of the Torneå, soon causes it to be considerably elevated above the level of the sea; but such appearances as may properly be termed mountains are very rare in Lapland: hence it might be proper to speak rather of the heights than of the mountains of Lapland; those heights being for the most part all that Linnaeus means, when, in describing the localities of plants, he so often says they are found "in Lapponice Alpibus." From this eminence we observed that the confluence of the two rivers takes place nearly at the right angles; and, as the Muonio preserves its original course, unaltered, from north to south, it is remarkable that it should lose its name after the Torneå meets it; because, of the two rivers, it is the Torneå, rather than the Muonio, which seems to be the tributary stream. Our object being to penetrate as far towards the north as possible, and to see those parts of the interior of Lapland which are the least known, we avoided the common route of boats westward by the Torneå to the Kungis iron-works, steering our course due north along the Muonio. We had a letter to the Directors of the Works at Kungis:

(1) The height of the country at the confluence of the two rivers, according to the barometer, is 420 English feet. See Von Buch's Travels, p. 361 (Note). Lond. 1813.
Kängis: they are situate only a quarter of a Swedish mile from the junction of the two rivers; but we did not think that the sight of those works would answer for the delay which would be caused by paying them a visit; especially as we had already seen others of the same nature. The iron mines which supply them lie about forty English miles higher up the Tornèa River, at a place called Junos Suando, on the boundaries between Westro-Bothma and Lapland; where, in lat. 67°. 30', is the most northern furnace of the whole earth. It was constructed in the seventeenth century, soon after the rich iron ores of this country were discovered, forming hills, and even mountains, in several places; and occurring, always, as thick beds, in schistose granite, or gneiss. These beds of iron-stone are extremely interesting to the mineralogist; inasmuch as nearly the whole of the remarkable minerals recently brought to England from Sweden, and sold at such high prices in London, are the productions of iron mines. The iron ore of Junos Suando consists of magnetic iron, in small adhering crystals, which cause the whole mass to appear as if composed of small round granular concretions. The iron ores of Lapland exceed in richness those of Sweden; but, owing to some cause which has not been fully explained, they do not afford good iron, if they be not smelted with the ores of Utö and Dannemora; owing to the difficulty of

(2) Von Buch's Travels, p. 361.
(3) See the Note of Professor Jameson to Von Buch's Travels, p. 362. Lond. 1813.
(4) Ibid.
of fusing them, and to their yielding a brittle iron when fusion has been accomplished.

The first force, or cataract, in proceeding up the Muonio, is called Ofver-fors, or the Upper-force, to distinguish it from the lower one of Lappea, or Utmoiks-fors. It is an English mile distant from the confluence of the two rivers. About four English miles above this cataract, we quitted the river, being conducted to a little cottage called Kicksis, distant about a mile from the water-side. In our way to it, through a forest, we passed over some bogs, by means of trees laid lengthways, so as to form a causeway. Around the out-houses of this little cottage were a few acres of barley; and close to the dwelling-house, a large pit-fall, to catch wolves. The peasants here relate, that their barley is sown, ripened, cut, and harvested, within the space of seven weeks. Accustomed as they were to the coming of the Torneå merchants, they yet regarded us with a degree of surprise and curiosity quite equal to that with which we regarded them: they appeared to us as wild a set of people as any we ever saw. Nevertheless, we had here a decent and comfortable room; far exceeding in cleanliness any of the places of accommodation to which strangers are conducted in those parts of Italy which are south of Naples. It is true, one finds only bare walls; but they are constructed of deal timber, so well washed and scrubbed, that they shine with a dazzling whiteness. Notwithstanding the heat and closeness of the atmosphere, and our reluctance to soil such a cleanly apartment, it was absolutely necessary to kindle birch boughs, and to fill the chamber with smoke, in order to expel
expel the *mosquitos*, which, in a thick cloud, and clamorous for their prey, had accompanied us the whole way from the river. In spite of double veils tied over our heads and necks, we could not preserve our faces free from wounds. Although we had *English* gloves of thick *doe-skin* leather upon our hands, they were no proof against the piercing weapons of these insects: they penetrated even between our boots and cloth trowsers, until they reached our thighs; inflicting such torment, that it required all our resolution to enable us to pursue our voyage. Our *English* servant was loud in his complaints and reproaches, in having been brought into such a state of suffering. The *Svede*, who was sulky enough when there was no cause for murmuring, became now useful and contented: a sense of his own importance restored him to the little good-humour he possessed. Mr. *Pipping*, our *Lapland* interpreter, seemed perfectly at home, and in his native element; having already armed himself against the *mosquitos*, by covering his skin with grease and tar. Unfortunately, his favourite food of raw *salmon* could not be obtained for him; our stock of provisions being exhausted. Excepting a few rusks, our bread cask was empty; for being apprehensive of its not keeping, we had neglected to provide a sufficient stock. Hitherto we had been always able to buy milk; but in this poor cottage nothing could be had but slimy and sour *pima*, dried *reindeer*, and salted *fish*, the two last being as tough and dry as old junk. With five mouths to feed, the prospect might have been serious; but the author, who since he left *Torneå* had tasted
tasted only bread and water, and was scarcely able even to swallow this, wanted nothing: Mr. Pipping and the Swede managed very well upon pëma; and Mr. Cripps and the groom partook of the rest. A good deal of butter is made in all these little farms, which is excellent when fresh; but it is all salted for sale, and the stock here had been all sold. The cows were dispersed in the forest, and our time would not allow of the delay necessary for calling them home; yet the rivers were teeming with food, which we had neglected to obtain. We were, therefore, very early in motion, and determined to act more providentially for the future.

In our return to the river, we observed that the same plants which we had seen in full flower in Holstein were here just beginning to bloom; the flowers of the different species of Vaccinium were only now opening; and even the Epilobium, which adorned with its gaudy blossoms the mouths of all the Bothnian rivers, had not yet expanded its petals. Above the Fall of Ofver-fors, the Muonio is broad and tranquil, and exhibits an appearance very different from that of the Torneå below the confluence; but the water is equally pellucid, so that even the smaller pebbles at the bottom might be discerned. Among these, and by the sides of the river, we observed angular masses of granite. The sky was almost cloudless, and the heat very great. Thermometer, at 3 p. m. 71°. Mosquitos, as usual, troublesome. Before we arrived at an island called Kolare, we observed, upon the shore, oblong pentagonal fragments of trap, both of the compact and of the granular kind; the first exhibiting ochreous surfaces by fracture.
fracture. All the varieties of this mineral are reducible before the blow-pipe, with more or less difficulty, into a black glass: they consist of feldspar, with hornblende and minute particles of quartz. When the hornblende prevails in a state of extreme division throughout the mass, they are easily fusible; and, of course, less so when the pure siliceous particles are abundant: for it is with trap as with basalt; both these substances belong to rocks or mineral aggregates, their constituents not being chemically united; although often in such a state of extreme division as to be imperceptible to the naked eye. As to the origin of either, no doubt would remain in the minds of those who come hither to observe the formation resulting from the deposition of the Arctic rivers. Where the constituents of granite have been worn into powder by the action of water, and deposited in the state of mud, its subsequent exposure to the action of the atmosphere causes it to become indurated, and to separate prismatically during desiccation, like starch; it is then called either basalt or trap, according to the greater or less

(1) The varieties of trap found between Tornê and the Island of Kolare in the Muonio may be here enumerated:

1. Granular, and rhomboidal, in the bank of the Peninsula of Tornê, in a state of incipient formation, as deposited by the river; not yet indurated; soft, with ochreous veins or separations. This gradual formation of trap has been noticed in p. 243.
2. Rhomboidal, and compact, as described in p. 243; found at the Cataract of Karsicko.
3. Trap exhibiting veins in parabolical curvatures, found a little south of the Iso nárä Rapids.
4. Schistose trap, found near the village of Hjetaniemi.
5. Common granular trap, found frequently among the stones in the beds of the two rivers Tornê and Muonio, and upon their shores.
less regularity of prismatic structure which it happens to exhibit. This opinion, maintained by the celebrated Bergmann, receives additional support from observing the whole process tending to the formation of the two substances, which do not differ from each other, either in external or chemical characters.

We reached the island of Kolare; and stopped to dine at a farm-house, which we found in a state of greater cleanliness than the generality of farm-houses in our own country. The blankets upon the beds were of the whitest wool, a manufacture of the Laplanders, who weave these blankets with wool which they purchase in Norway: they are very thick and heavy. The white deal bedsteads, benches, floor, walls, and cieling of this farm-house, shone with frequent scouring. The fire-places in all the houses are the only parts of them not made of wood; being constructed of bricks, covered over with plaister, and whitewashed. They are always stationed in a corner of the apartment, generally filling this corner, and projecting almost into the middle of the room. The inhabitants do not use stoves, except when a kind of stove is added to the fire-place. The windows here were well glazed, with large panes, shaped according to what glaziers would describe as the most elegant sash proportions, of nine inches by six; a degree of refinement we had not expected to meet with in Lapland. The name of this place was Kolarseby; and here we changed boats. Our meal

meal consisted of the few rusks we had left, with a little fresh butter and water. We bought a sheep here: during the time we dined, the farmer went into the adjoining forest to shoot it. We paid half-a-crown English for it; and the owner said that in autumn we might have purchased it, with or without the skin, for twenty-two pence of our money. This part of the river is inaccurately laid down by Baron Hermelin, who has made that branch of it which flows to the eastward of Kolare as a tributary stream falling into the Muonio. The island is three quarters of a Swedish mile long, and a quarter of a mile wide. In its northern shore, we found a stratum of schistose trap, extending east and west, and meeting the river at right angles. It separated pentagonally by fracture, and with great regularity of form. The same position of a stratum of trap, lying east and west, we had early remarked in ascending the Torneå; especially to the south of the Iso närä Rapids.

We were occupied collecting minerals from the shore, in consequence of having observed a deceptive appearance, resembling native silver, in some of the specimens, owing to the presence of the sulphuret of iron; when one of our boatmen informed us, that "some very rich iron ore had been found in a hill within the forest, upon our right at the distance of about a quarter of a Swedish mile." The place where we received this information was about five British miles to the south of Huukis, where we intended to halt for the night. It was

(2) Many specimens of trap, collected by the author in Sweden and Lapland, were presented by him, after his return to England, to the Woodwardian Geological Collection at Cambridge, where they now are.
was also added, that large quantities of native sulphur had been obtained from the same spot; but that this valuable bed of metal had never been worked; as it is generally a policy among all the inhabitants of this country to prevent the discovery of metals, that they may not be required to labour, in working mines'. We took with us one of the boatmen as a guide, and set out in search of this bed of ore. After persevering for a full hour, through a pathless forest full of deep morasses, being overcome with heat and fatigue, and finding the undertaking more difficult than we expected, we again asked how far it was to the spot; and received the same answer as when we started, "A quarter of a Swedish mile." Upon this, we resolved to return to the boats; sending our guide forward, alone, for some specimens of the iron ore and sulphur. The bogs in the forest were full of that superb plant, the Rubus Chamaemorus: bushels of unripe fruit might here have been gathered. The Linnea Borealis also covered the ground, exhaling its most delicious odour over all the wilderness. We were well armed against the mosquitos; but they filled the air like a thick mist. In this forest we observed large traps, set for kites and foxes, made of young timber bound together, so as to form a large platform,

(1) "The minerals are unknown: the Laplanders avoid making any communication respecting them, because they dread being compelled to work as miners. Some of them are so actuated by this fear, as to threaten with death any one who shall betray the locality of metallic ores." Enontekis Sokns Beskrifning, af Pastor Eric Grape, MS. Chap. I. Sec. 25.

(2) "In Lapponae sylvis in immensa copia prostat, &c. Loca amat paludosa, caesposa et nemorosa simul, et que nec lata fovent gramina, sed per aestatem sicissima persistunt." Flora Lapponica, p. 165. Amst. 1737.

(3) See Vignette to Chap. VIII.
platform, raised on one side, which falls upon them and crushes them. When we returned to the boats, we found a blazing bonfire, which the men had kindled upon the shore, that they might sit in the smoke, as a protection from the *mosquitos*. For this purpose, they had heaped together an immense pile of forest-trees, some of which, being in a decayed state and dry as tinder, easily communicated flames to the whole pile. It ought to excite no surprise that whole forests are set on fire where this practice exists; because the sparks are carried into the midst of the woods, where dry leaves and moss lie heaped like so much tinder; nor do the inhabitants take any pains to extinguish the fire they make, but leave them always burning. We sate with our boatmen upon the smoking side of this immense pile, sufficient to have consumed a hecatomb; but the *mosquitos*, the moment we laid aside our veils, attacked us in the midst of the smoke. By this time, our bodies, face, and hands, were covered with marks of their stings, as by a cutaneous eruption; but we were yet too fastidious to imitate Mr. *Pipping*'s example, by having recourse to the *tar*-ointment. The *dragon-fly* is here very large and numerous; also, a species of insect resembling a *wasp*, but of smaller size, the sting of which is very painful; it suspends its nest, about the size of an orange, covered with a white substance, upon the lower branches of young *fir*-trees.

In about an hour, our messenger arrived from the *iron* mountain; telling us that all the *sulphur* had been concealed, and the place covered with large stones, by the proprietors of the works at *Kängissbrük*, to whom the land belongs. He brought
brought specimens of the iron: it is the magnetic oxide, and very rich as an ore. When struck by a hammer, it has a tendency to separate like trap, exhibiting a prismatic fracture and an ochreous surface. From the appearance of the specimens, we believed that the iron had been imbedded in trap. It is evident that iron abounds over all this country; not only from the nature of the minerals brought by the rivers, but from the number of ferruginous springs which may almost everywhere be observed falling into the sides of the rivers, and investing the surfaces of the pebbles with iron oxide. We now continued our voyage, and glided over the broad and tranquil surface of the Muonio, uninterrupted by any rapids, the whole way to Huukis, where we put in for another noon-day night; the sun shining bright above our heads, and disappearing at midnight for so short an interval, that as the horizon was everywhere concealed by the trees, we could not with certainty tell whether there were any real sunset.

July 19.—The wind this day being due south, afforded us an opportunity to expedite our voyage up the Muonio. Hitherto, our progress had been very slow; five or six Swedish miles, at the utmost, (equal to thirty-five or forty-two British) being all the way we could make against the current of the river. This prosperous wind was the more necessary, as we had several rapids to ascend. The first rapid was called Muckas-koski; the second, Aarea-koski. That these rapids were trivial, is evident in the circumstance that the author, unable from illness to keep up with his companions who had landed, remained in the boat the whole time the men were engaged
engaged in forcing a passage against the torrent. The shores, especially the eastern, were covered with masses of trap and quartz; and among these the Epilobium angustifolium, or narrow-leaved Willow-herb, glorious in height and luxuriance, covered the sides of the river with its gaudy abundant blossoms. After passing Aarea-koski, our course was due west. Half-way between Huukis and Kihlangi, that is to say, about ten and a half British miles from Huukis, we came to the third rapid of this day, called Jalo-koski, pronounced Yalo-koski. Here we were landed; the boats being drawn up by ropes between the low rocks which are near the shore, where the force was less violent than towards the center of the fall: but, after all, a strong mill-force, rushing among rocks and large stones, as it often happens in Wales and in the North of England, would give a very good idea of one of these Lapland cascades. Afterwards, we arrived at a fourth and a fifth rapid, of the same description. The whole of this day the sky was cloudless; and the wind dying away about noon, left us exposed to a most sultry oppressive heat; the sun darting his powerful rays upon the water, and the forests on each side obstructing a free circulation of air. During seven days, the symptoms of the author’s illness were rather increased than abated: he remained lying, like a corpse, upon the bottom of one of the boats, so excessively weak as to be almost unable to move; experiencing the utmost kindness, in the patience and attention shewn to his sufferings by his companions. In no other manner than in the gentle easy conveyance of a boat could he have proceeded any farther; so that the want of roads in this country, instead
of being considered as an inconvenience, was, in fact, the sole cause of his being able to make his way at all; and he was thankful for this instance of good fortune.

At Kihlangi, the Muonio, which, as before noticed, had flowed from west to east, now flowed, for a short space, from east to west. Keeping our course, therefore, due east, we passed a small island placed in the midst of the river, entirely covered with tall firs. We found the house at Kihlangi, as usual, remarkable for its cleanliness. Its inmates made use of no metallic vessels, either in cooking their food or in eating; no domestic utensil of iron, tin, pewter, or copper, was to be seen; every thing was of wood, and every thing white and clean; and all of their own manufacture. The same knife and axe which are used in carving and fashioning a boat, afford also the only implements employed in building a house, or in giving shape and even elegance to bowls, and platters, and spoons. For our mode of cooking, therefore, these wooden vessels would ill accord; although well suited to serve up sour milk, raw salmon, or dried flesh. Mr. Pipping and the party had killed some wild-ducks; which they tied together by the heels, and roasted, with a piece of string;—“something nutritive,” as an Englishman would say, in opposition to the food of the natives. Yet how feeble did the stoutest among us appear, when opposed to them! We never saw stronger or healthier men anywhere; the principal article of whose diet is sour fermented milk, like the Koumyss of the Calmucks. The quantity of flesh, which, together with strong drink, constitutes the food of an Englishman, and without which he fancies he cannot work,
would enervate and destroy an Arctic farmer; who labours
more, when it is necessary, and with less fatigue, than any
of the London coal-heavers; taking no other sustenance, for
days together, than a little biscuit, half of which consists of
the bark of trees, washed down with píma. After leaving
Kihlangi, we came to another rapid: the fall here was trifling,
but our boat had nearly filled with water in ascending it. The
Muonio then exhibited a broad and brilliant surface, shining
and reflecting every object near it, like the most polished
mirror. Our crew intended to stop at Kihlangi; but
a little persuasion, aided by a dram for each person,
engaged them to conduct us as far as Parkajoansuu, twenty-
one English miles higher up the river; which they accom-
plished; having actually worked the boats, in one day,
against the whole force of the current and all the rapids,
a distance equal to forty-two of our miles.

We now perceived one inconvenience to which we were
liable, owing to the general flatness of the country and
its uninterrupted forests. If we could have ascended a
mountain, or climbed to any height above that of the trees,
we had every reason to believe that we should have beheld
the sun above the horizon at midnight: we found afterwards
that this was true, and that, wanting such an elevation, we
missed the sight of the midnight orb, although its beams
were visible, shining at every hour of the night upon the
tops of the trees. A sudden diminution of temperature
was sensibly felt in the middle of the night, as contrasted
with the heat of the day: but in other respects, there was
little difference. It was a curious circumstance, to see all the
flowers
flowers blooming around us, and to hear the continual piping of the *Beccasine* in the midst of the night, as if it were noon. The moon, now nearly at the full, rose with an appearance resembling that which she exhibits when viewed through a telescope. About ten English miles to the east of us, upon the frontier of *Kiemi Lapmark*, and in the midst of forests, one of the wealthy nomade Laplanders had fixed his summer residence, with six or seven hundred rein-deer: they sometimes possess from fifteen hundred to two thousand of these animals. At *Parkajoansuu*, we found an agricultural Laplander building his house, which had been consumed by fire; an accident very common in the country. They seem to use little precaution against such a calamity: the mode of constructing their fire-places, which are surrounded on all sides by wood, renders accidents by fire extremely probable. At *Parkajoansuu*, as usual, the natives assembled: many of them came in to see us prepare our beds and supper, with a degree of curiosity which was constantly shewn wherever we halted; staring at us, as would an English peasant at so many Turks. If by accident the children, strolling from the cottages, caught the first sight of us upon our arrival, it was always announced to the rest of their families by cries and screams; running like rabbits to their several burrows, the moment any of us appeared.1

_Fahrenheit's_

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1 The author remembers a similar alarm being excited, in forcing a passage over the Alps, with wheel carriages, where nothing of the kind had before been seen. It was in the year 1791, when the French had possession of the passage by Mount Cenis; that, being in company with an English nobleman, he attempted the passage of St. Gothard
Fahrenheit's thermometer, this day, in the shade at 2 P. M. indicated a temperature of 73°; when immersed in the middle of river, the whole scale being under water, 65°; and when exposed to the sun's rays, the mercury instantly rose to 100°.

The continuation of our voyage from Parkajoansuu was not attended by any remarkable circumstance: we had a repetition of scenes often described, with favourable weather, and a sultry sun. This part of the river, being now distant, according to its course, 240 English miles from the sea, was often as broad as the Thames at Westminster Bridge, and never narrow in any part. The only habitable spot between Parkajoansuu and Muonioniska occurs in a small village, or farm, called Muonion-alusta, situate upon an island. The names of places frequently refer to the falls and rapids of the river near which they are situate. Thus, Muonioniska signifies the neck or beginning of the force; and Muonion-alusta,

Gothard with two English carriages, and arrived in the Vale of Urseren, where for the first time the peasants beheld this kind of vehicle. In their eagerness to examine one of them, they broke the blinds, which had been drawn up; when two little pug-dogs with black faces peeping out, dispersed the whole mob, who spread a report that they had seen two devils in one of the carriages.

(2) When Von Buch descended this river in 1807, it was but "a solitary and miserable cottage—the last house of this region. For many miles," says he, "I saw no more dwellings. A thick forest, without any elevations, runs along both banks, without any interruption. But, notwithstanding the seeming uniformity of such a forest, the fancy is agreeably occupied with the fresh and lively green of the banks, where birches, willows, alders, and the bird-cherry tree (prunus padus), bend softly over the water, with a perpetual diversity and change of form; and then dark spruce-firs rise above the close thickets, like so many cypresses." See Von Buch's Travels, p. 357. Lond. 1813.
alusta, upon the southern point of the island before mentioned, fourteen English miles distant from the former, means the end of the force. Near Muonion-alusta we had the first view of any thing that might be considered as a mountain, since we embarked upon this expedition. In its shape and appearance, it reminded us of the Wrekin in Shropshire. Neither the village of Muonion-alusta, nor the island, are noticed in any map of the country; which is the more remarkable, because the island is perhaps the largest in the Muonio, excepting that of Kolare. Our course along the western side of this island, after passing the village, was first north and north-west; and afterwards, along

(1) This mountain is Ollos Tunduri, to the east of Muonioniska. According to Von Buch, it is 850 English feet above the level.
along the northern side, it became south-east; until, bearing
northward again, we entered once more the broad channel
of the river, where it is separated by the island into two
branches; one flowing to the south-west, the other bearing
up quite to the north-west. The annexed sketch will much
better illustrate the position and form of this island than any
verbal description; and it will also shew the extent of the
rapids. These rapids, called by the general name of Muonio-
koski, constitute the most considerable Falls of the whole river
Muonio. The lower part or end of the rapids is marked
by three asterisks, placed across the river, near the north-
western point of the triangular island; their beginning, by
four, placed across the Muonio, beyond its north-eastern angle.
The whole perpendicular height of this cataract is 100
English feet; but it is continued along the river for
the length of an English mile. The extent, therefore, of
such a cataract, over rocks the whole way, will give the
Reader an idea of the difficulty and labour the boatmen
must experience, who are engaged in working the boats
up against the force of the tide, when pent in a narrow
channel. The settlement at Muonion-alusta probably
originated in a halting-place for rest and refreshment,
resorted

(2) All the rocks here are of schistose granite, or gneiss. Among the persons who
of late years have been conducted down this Fall, may be mentioned Acerbi, who has
given a description of his dangerous descent. He says, "You cannot perform this
passage by simply following the stream; but the boat must go with an accelerated
quickness." Yet he adds, "The rapidity of the descent is such, that you accomplish an
English mile in the space of three or four minutes." See Acerbi's Travels, vol. II. p. 10.
Lond. 1802.
resorted to by the natives, either before or after the passage of the Muonio-koski. In this passage, the boats pass the two sides of the triangle, rather than one; because the cataract upon the north-eastern side is yet more difficult. After passing the island, the sides of the river assumed a bolder aspect than any we had yet seen: the current being still turbulent and rushing with a very powerful force, the strong poles of the boatmen sometimes snapped like matches, in the midst of their efforts. Afterwards, it appeared

(1) As Leopold Von Buch descended the Muonio-koski, the author cannot refrain from making the following extract from his Travels, in which he gives a very animated description of the manner in which it was effected. Indeed, the Reader will do well to consult the work itself, as translated by Mr. John Black, and published with Professor Jameson's Notes: it is full of valuable observations.

"'Fortunately,' said M. Kohlström, the Clergyman in Muonioniska, to me, 'fortunately Johann Von Colare is still here; for he is the most experienced waterman: he will take you over the waterfall.' I heard the noise of the Fall long before we approached it, while the river still glided on smoothly, and surrounded two islands which were then thickly covered with haycocks. Then followed several Falls; they were not high nor long; but the stream became rough and agitated. Rocks began now to rise along both sides, and points to appear above the surface. The agitated water presses through between the closely-approaching rocks. The waves began to rear themselves up, to foam and dash over one another; they drove the boat with incredible rapidity down the abyss; they dash over, in the most wild and alarming commotion; the sky, rocks, and woods, all disappear; and nothing is seen or heard but the foam and roaring of the water. The wave dashes the boat with one sweep against the rock; but the bold pilot guides it with a strong and steady hand, with still greater rapidity than the wave, as if in sport, from one side to the other; and the next moment it is again floating on the no longer agitated current. The first waterman who attempted this alarming Fall must have been a man of matchless boldness; and even yet this Tartarus passage is never entrusted to any but the most experienced individuals. The two men in the fore part of the boat have a most frightful appearance: their fixed looks, their eyes, which seem to start from their sockets, endeavour to read every thought of the pilot. Every muscle is stretched in the highest degree, and the arms only are in motion.'

Von Buch's Travels through Norway and Lapland, p. 356, 357. Lond. 1813.
appeared again tranquil; being divided into broad and weedy pools, which were filled with fishermen's nets. Here we came in view of Muonioniska, consisting of a few straggling wooden huts, one of which serves the inhabitants for a church. In one of them we attempted to rest for a short time during the night; being all huddled together in one close apartment, which we twice filled with smoke, hoping in vain to expel the mosquitos. Such was their thirst for human blood, that they would die by thousands in a struggle to obtain it; no precaution could save us from their attacks; the night was passed in a state of torment; and as it was impossible to endure such suffering, being totally deprived of sleep by their noise and their stings, we came to the resolution before alluded to, of tarring our bodies; a practice adopted also among all the natives. Mr. Pipping soon procured for us the darksome unction; when, having our faces, necks, hands, and legs, well besmeared with it, we were literally prepared to keep the Laplanders in countenance. The good effects of this measure was soon felt; and we became sensible of our folly, in not having conformed earlier to the usage of the inhabitants.

July 21.—This morning the river was covered with boats; the natives all coming to church. The clergyman, who by his dress was not distinguished from any of his flock, at our arrival, now made a most grotesque figure, in a long black coat hanging to his heels, his long hair, or rather mane, uncombed, a broad-brimmed old flapped hat upon his head, a black stock about his neck, and Lapland buskins.
buskins on his feet. His house had lately been consumed by fire: he said he had then lost all his books; but we could not discover that he remembered any of their names. When we asked what we should send him from Stockholm, to assist him in his labours, he answered, "powder and shot." The same person had formerly a child by his wife's sister; and had given out that the Duke of Orléans, who passed this way about the time, was father of the infant. This circumstance, of course, gave rise to a good deal of scandal; but it seemed to be mentioned rather as a jocular topic of conversation among the people, than with any serious reflections upon the conduct of their pastor. We were entertained with his rough manners and wild appearance. Asking him respecting the distance to Enontehis at the source of the Muonio, he said he once went thither, during winter, in a sledge drawn by rein-deer, in six hours, leaving Muonioniska at two p.m. and arriving at eight; the distance being eleven Swedish miles, equal to seventy-seven English. Like all the Swedish Clergy, he spoke Latin with fluency. By him we were advised to ascend a small river to the east towards Kiemi Lapmark, where, at the distance of about seven English miles, he said, we should find a party of the nomade Laplanders, in a forest, living in their wild uncultivated state. This people do not herd together: never more than three or four families pitch their tents upon the same spot.

(1) Le Duc de Chartres, afterwards Duke of Orléans, with Mr. Montjoye, under the names of Müller and Froberg, visited Lapland in 1796.
spot. We embarked in search of them. One of the sons of the principal Laplander chanced to be in Muonioniska: we therefore took this lad to be our guide to his father's tents. After working our way up several rapids, sometimes being on foot and as often in the boat, we at last reached a lake about three English miles in circumference. We crossed this piece of water, killing, in our way, some wild-ducks, with which it swarmed. Mr. Pipping shot one of those beautiful and rare birds, the solitary snipe: it was of the size of a woodcock. Afterwards, we quitted the boat, and entered a forest; forcing our way, for two or three English miles, through bogs and bushes, preceded by our young Lapp. During this walk, we had frequent opportunities of observing the immense ants' nests, which had been laid open by the bears. At length, there appeared, in the midst of the forest, a hill, the only approach to which was through a swamp up to our knees in water. Upon the top of this hill stood a single tent of the Laplanders, constructed as before described. By the side of it, hanging to dry, were cakes of cheese, newly made; and hard by, penned within several folds, two or three hundred rein-deer; whose grunting, as we drew near to them, exactly resembled that of so many hogs. The Lapland boy had before requested that we would allow him to run forward, and advertise his father of our coming, that he might, as he literally expressed it, be dressed to receive us: but we forbade it, desiring to see his family in their usual state of living. We now advanced, and threw open the door of the tent: it was full of inmates, about seven persons in all, two men and two women, besides children.
children. We presented them with the two offerings most likely to ensure a welcome; namely, brandy and tobacco; the women swallowing the former as greedily as the men, who, as it is well known, will almost part with life itself for the gratification of dram-drinking. We now seated ourselves with them in their tent. They had dark hair and tawny skins, but there was no appearance of filthiness. Their shirts were made of leather; their scull-caps, either of woollen cloth, or of black plush; their shoes, seldom worn in summer, were of the same nature as the labkas of the Russians, made of matted birch-bark. The outer garments of men and women resembled a Capuchin’s cowl, fastened round the waist with a sash. This outer covering is only worn when they are abroad; and then they carry provisions in the large pouch which the bosom affords: this is, moreover, their summer dress. After we had sate for some time, a girl came in, who had been tending the rein-deer; her father being on the outside, in close conversation with Mr. Pipping, our Lapland interpreter. We had previously given to this man the remainder of our brandy, about a pint, thinking he would husband it with great care; and we had seen him place it behind him, upon his bed, near the skirting of the tent. As soon as the girl entered, we called to Mr. Pipping, desiring him to prevail upon the father to allow his daughter a taste of the brandy, as she had lost her share by being absent. The old man made no answer; but, upon our repeating the request, he slily crept round the outside of the tent, until he came to the spot where the brandy was; when,

(1) See the Vignette to Chap. X. of Vol. I.
when, thrusting his arm silently beneath the skirting, he drew it out, and swallowed the whole contents of the bottle at a draught. We now offered to buy some rein-deer cheese, which is white, and not unlike the Cottenham cheese made near Cambridge; he said he would supply us with any quantity for brandy, but refused money. Another Lapp brought us some of the cheese, as a present, hoping to get a dram; but our stock of spirituous liquor was already consumed. The brandy seemed, moreover, to have taken effect; for the chief, looking very wise, began to sing. We begged for a Lapland song, and it was granted. With both his fists clenched, and thrusting his face close to that of Mr. Pipping, as if threatening to bite him, he uttered a most fearful yell: it was the usual howl of the Laplanders, consisting of five or six words repeated over and over, which, when translated, occur in this order:

Let us drive the Wolves!
Let us drive the Wolves!
See they run!
The Wolves run!

The boy also, our former guide, sang the same ditty. During their singing, they strained their lungs so as to cause a kind of spasmodic convulsion of the chest, which produced a noise like the braying of an ass. In all this noise there was not a single note that could be called musical; and it is very remarkable, that the Laplanders have not the smallest notion of music. Acerbi, than whom, perhaps, there does not exist in Europe a better judge of music, was forced to stop his ears with his fingers when he heard a Laplánder attempting
attempting to sing. "If the wolf," said he, "be within hearing when they sing, it is no wonder that he should be frightened away." Neither have they any national dance; being entirely strangers to an exercise which, with the exception of this singular people, seems to be common to the whole human race, and from the practice of which even brute animals are not exempted. The tent, excepting as to its form, which was conical, hardly differed from the common tent of our English Gipsies. We have described the manner of its construction, upon a former occasion. In the centre was the fire-place; over which two chains, fastened above, to two transverse bars of wood, served to suspend their kettles. These nomade Laplanders devour more animal food than those who dwell in settled habitations, and cultivate the soil: with them, also, the means of subsistence are always abundant; but they are a pigmy swarthy race, of stunted growth and most diminutive stature, and by no means to be compared in strength or size with those of their countrymen who work harder and fare worse. When they lie down to sleep, they contract their limbs together, and huddle round their hearth, covered by a rug; each individual hardly occupying more space than a dog. We had been for some time in this little tent, when, observing something move among the rein-deer skins upon which we sate, we discovered a woman sleeping close to us, of whose presence we were before ignorant: yet the diameter of this conical tent, at its base, did not measure

(2) Ibid. p. 311.
measure more than six feet; and its whole circumference, of course, did not exceed eighteen feet, which is the usual size of the Lapland tugurium, both in summer and winter; although in winter they be better fenced against the inclemency of the climate. Over our heads were suspended a number of pots and wooden bowls. To form the entrance of one of those tents, a part of the hanging (about eighteen inches wide at the bottom, terminating upwards in a point) is made to turn back, as upon hinges. Such are the dwellings of those among the Laplanders who are called wealthy, and who sometimes possess very considerable property. In addition to the hundreds of rein-deer by which they are attended, and to whose preservation their lives are devoted, they have sometimes rich hoards of silver-plate, which they buy of the merchants: but fond as they are of this distinction, their plate is always buried; and the secret of its deposit is known only to the Patriarch or chief of every family. When he dies, the members of his family are often unable to discover where he has concealed it. Silver-plate, when offered to them for sale, must be in a polished state, or they will not buy it: for such is their ignorance, that when the metal, by being kept buried, becomes tarnished; they conceive that its value is impaired; and bring it to the merchants (who derive great benefit from this traffic) to be exchanged for other silver, which being repolished, they believe to be new. A person, therefore, who should only instruct a Laplander in the art of scouring silver-plate, if he taught him nothing else, would

(3) This description of a Lapland Tent agrees, in all its parts, with a North-American Wigwam.
would be entitled to his gratitude, and save for his family an annual expenditure equivalent to many head of rein-deer.

From the tent, we went to visit the dairy, one of the most curious sights belonging to the establishment. It consisted of nothing more than a shelf or platform raised between two trees, supported by their stems and overshadowed by their branches, neatly set out with curds and cheese as white as the milk from which they had been recently made. They were placed either in wooden frames or on splinters of wood, or in nets hanging from a pole placed longitudinally over the platform. About fifty yards from the tent were the rein-deer, in their inclosures, running about, and apparently tame: when we entered the inclosure, they came and stood by us. The males were separated from the females. These inclosures consisted of the trunks of fir-trees, laid horizontally one upon another, without being stripped of their branches. In the centre of each inclosure there was a fire burning, to keep the flies and mosquitos from the cattle. When we first entered, our little dog put about fifty of the rein-deer to flight: they scampered off into the forest, and as quickly returned; which enabled us to judge of the astonishing speed with which they travel, exceeding that of any animal we had ever seen: they darted between the trees like arrows, and over deep bogs with such velocity as not to sink through the yielding surface. The boy, who had conducted us, vaulted upon the back of one of them, having a rein-deer skin for his saddle, and two sieves by way of stirrups. When it is necessary to catch any of these animals it is done merely by throwing a cord over their horns.
Some of the females were milked; and the women presented us with the milk, warm: it was thick, and sweet as cream; we thought we had never tasted anything more delicious: but it is rather difficult of digestion, and apt to cause head-ache in persons unaccustomed to it, unless it be mixed with water. At this time the rein-deer were all casting their hair, which made their skins look as if they were mangy. Their horns, covered with soft hair, seem to yield to the touch, and partake of all the warmth of the animal's body: this soft cuticle was now falling off in ribbands, which hung loose about their ears, leaving the horny part red and sore in several places.

We distributed some trinkets among the women; and then returned, in company with the old Laplander, who was very drunk, leading one of his rein-deer, that he might shew us, upon a piece of open ground at Muonioniska, how their sledges are conducted during winter. We reached this place rather quicker than he did; but soon after our arrival he made his

(1) "When we returned to Muonioniska, about six o'clock, the Clergyman met us, and offered us a very curious bird, which he had shot, during our absence, in the forest; having been there expressly in search of it, that he might present it to us. It seems this bird is only found near Muonioniska, and it is very rare even here. The Finnish name for it is Saata Kjelinen, signifying Hundred-tuner; because, according to the natives, it sings an hundred different tunes. The more rational account of it given by the Minister, stated, that it is, in fact, a mock-bird, and imitates the notes of all other birds that it hears. Naturalists have called it Motacilla Suecica. It was of the size and colour of a robin, excepting that, instead of having red feathers upon the breast, the plumage was of the most lively turquoise blue, yellow, and white; a yellow spot in the centre of the breast being fringed with white, and surrounded with blue."

Cripps's MS. Journal.
his appearance, with the noble animal he had brought with him. Having harnessed his rein-deer, simply by putting upon him a rich collar of embroidered leather of many colours, he placed himself in a sledge, with a rope in his hand which was fastened to the animal’s horns; a single trace, attached to the leather collar, was then passed from the breast, beneath the belly and between the animal’s legs, to the sledge. He now began driving about in a furious manner, and, although intoxicated, managed to steer his course very dexterously, among rocks and stones, quite down to the water’s edge. We afterwards attempted to sit in the same sledge, and to guide the rein-deer in the same way; but, with all our sobriety, were speedily overturned, to the great diversion of the Laplander, who laughed immoderately at our awkwardness.

Our host had been with Signor Acerbi, and his companion, Colonel Skiöldlebrand, as far as Alten, in their expedition to the North Cape; and he agreed to go with us to Enontekis. We therefore left Muonioniska, to cross the boundary which separates Ofver Torneå from Torneå Lapmark, which with Kiemi Lapmark constitutes the most northern district of Swedish Lapland. The sun’s heat was so powerful, that we were constrained to cover ourselves with our cloaks, and lie down in the boats. At half after 12 p. m. Fahrenheit’s thermometer, in the shade, indicated a temperature of 68°. Exposed for a few minutes to the sun, the mercury, at 2 p.m., rose to 102°; and at the same hour, in the shade, it stood at 70°, which is nearly the average town heat of Naples in the hottest summers. During the first part of our voyage to Ofver Muonioniska, we had to force a passage against the descending
descending torrent; which, however, was much less vehement than that with which we had before struggled. We were always able to remain in the boat. For several days past the sky had been cloudless, and there was not a breath of wind. Our boatmen told us, and their declaration agreed with the calculation made by Mr. Secretary Swanberg at Ofver Torneå, that if we would ascend the mountain Ollos Tunduri, near Muonioniska, we might now see the sun during the entire night above the horizon; but the distance to the base of that mountain, through a pathless wilderness, was fourteen English miles; and the strength of the stoutest, after the fatigue we had already undergone, and in such sultry weather, added to the encounter of mosquitos, &c. would not have been equal to the undertaking. Rafts freighted with barrels of tar, descending the river, passed us from time to time: there is a considerable tar-work at Muonioniska. The scenery beyond this place is very grand, especially when viewed from a little lonely cottage which we found twenty-one English miles to the north of it. The river, before we reached the spot, was three quarters of a mile wide; and it was covered with the most beautiful islands and promontories, Fancy ever decorated, in its descriptions of fairy land. These islands and projecting shores were covered with trees of diminished size, and principally with birch; beneath

(1) "About seven English miles from Muonioniska was the village of Ofver Muonioniska, consisting of a few straggling houses. There was a little corn about the place, and some good pasture land. We saw about forty cows of the small Lapland breed, two horses, and several sheep."—Cripps’s MS. Journal.
beneath whose weeping branches a velvet sod, of the deepest verdure, looked like the turf of some fine lawn, that has been often levelled by the scythe and by the roller. Upon this turf appeared the dwarf Arctic Raspberry, and the Red-Currant tree: wild roses also, and other flowers, shed the sweetest fragrance. Looking towards the south, from a place called Kätkessuando, where the Muonio became more contracted in its breadth, we had such a retrospective view of this river, that, as Gray once said, under a similar impression, “If we could fix it in all the softness of its living colours, the picture would fairly sell for a thousand pounds.” Here we may be said to contemplate the boundary of Pigmy Land. Pigmæan cattle browse the dwindled forest; a pigmy race, in their tiny barks, pass from island to island, like little adventurous rovers upon some fairy sea; while, in the still region, hardly any

(1) Among the plants we collected in this neighbourhood, we shall mention the following, as the specimens are still preserved with their localities.

At Kätkessuando, in a meadow before the house at which the Torneå merchants halt in their annual expedition, we found a native of Asia, rarely found wild in England; namely, the Common Polemonium, or Polemonium caeruleum, in great beauty. This plant is rare in Lapland; and throughout Sweden, as in England, it is cultivated in gardens. Near the same place we once found the Rubus Arcticus with a double blossom (flore pleno), which is very rare. At Parkajoansuu, we found Lathraea squamaria, Veronica maritima, Veronica alpina, Epilobium palustre, and Vaccinium Oxycoccos and myrtillus, in flower. Farther to the south, Lythrum salicaria, especially at the Cataracts of Kattila; also Dianthus superbus, Parnassia palustris, Galium Boreale, and Rhodiola rosea. Near Muonioiska, and often along the banks of the river, Rosa spinosissima; and upon the isles, Rosa canina; but this last rarely occurs within the Arctic. At Huukis and Kaaresuando on the Muonio, we found beautiful specimens of Gentiana nivalis, both with blue and with white flowers: at Kuttunen, the same plant, with magnificent specimens of Epilobium angustifolium, and Pedicularis Sceptrum Carolinum.

any other sound is heard, excepting those of murmuring waters, humming insects, or piping birds. The frontier of Tornéa Lapmark occurs here; a small avenue through the forest, on the eastern side of the Muonio, about three English miles north of Kättessuando, still marks the limit of this province towards the south, as it was cut about thirty years before our coming. Nature has, however, left a more lasting land-mark; for exactly at this place, the course of the Muonio is altered, the river being separated into two branches, and thereby forming an island; one branch reaching west along the northern side of it, and the other south-west and west. The more northern branch, afterwards veering towards the south, meets the other; when the river, extending due west and south-west for a short time, does not again bear upwards towards the north for the space of above five English miles.

Just at the division of the river by means of this island, is a single dwelling, called Sangamutha: its owner, a Laplander, is
is exempted, as a native of Lapland, from various taxes and regulations to which his neighbours in Westro-Bothnia, and Sweden in general, are liable.

After entering this remote province of Lapland, the country continued nearly as we have already described its appearance. The passage along the river is much obstructed by rapids: we had several to encounter in our way to Poloiens, one of the little solitary settlements of those bankrupt Laplanders who betake themselves to agricultural labour when they are ruined by the loss of their rein-deer. We arrived here at two in the morning of July 23; and, having landed our portable beds, halted for rest until seven o’clock. The whole party, five in number, slept in a small room about three yards and a half square; and so great was the change of temperature after midnight, that we were glad to have a large fire kindled in this little apartment. Our host sent in a petition to us for some tobacco; saying that his stock had been exhausted for the last fortnight, in consequence of which his health had materially suffered. In the morning, he would take no money for our accommodations. When we urged the necessity of paying for our night’s lodging, he said,—“Of what use is money to me? I cannot even buy tobacco with it, when I have it. Give me a little more of your tobacco, and I shall remember your coming as long as I live; since it is of more value to me than silver or gold.” Before eight o’clock a.m. the heat was again oppressive; the

(1) “The night before our arrival at Poloiens, a wolf had been there, and killed two sheep.”—Cripps’s MS. Journal.
mercury in Fahrenheit’s thermometer, in the shade, rising to 70°.

After leaving Poloiens, (or Polojoens, as it is written by Hermelin,) the Muonio preserved its broad Lakish character, and was studded with isles, especially about seven British miles from that place. The rapids were numerous: the boats were hauled up, in some places, by means of ropes. Our greatest heat this day took place at half past twelve; Fahrenheit’s thermometer, in the shade, 76°. Exposed to the sun, the mercury rose in five minutes to 100°, and in fourteen minutes to 110°. The temperature of the water, in the midst of a rapid where the current was most vehement, equalled 67°. It is usual to see here, as elsewhere, all the way from Torneå, in situations near the river, wooden cylinders, constructed of the hollow stem of a young fir-tree, about two feet in length, closed at one end and open at the other end, suspended to the boughs of trees, as decoy-places for the wild-fowl to deposit their eggs, which the inhabitants use for their food. The river was now divided into a variety of currents, flowing over large stones, and little round grassy islands, with so much declivity, and so many obstacles in its course, that the passage even of our boats seemed impracticable. After this, it was separated by an island, above three English miles long, and two wide. We passed along

(2) "At the first Force beyond Polojoens, I found some yellow marble, which separated into rhomboidal fragments. The whole country contains iron ore. I also found some porphyry; and masses in which the constituents of granite were variously associated, as, quartz and feldspar—mica and feldspar—and feldspar alone."—Cripps’s MS. Journal.
along its western side, to Kuttanen: before reaching which place, this branch of the river, not more than a hundred yards wide, was smooth, unruffled, and exhibited a surface as bright as an highly-polished mirror. From Kuttanen we had a view of some mountains to the north and west, which reminded us of the South Downs upon the coast of Sussex. At Kuttanen we halted to prepare our dinner, and were much struck with the cleanliness and good manners of the people. What false ideas are entertained of Lapland! The natives, even in this remote part of it, are only distinguished from their more southern neighbours by their diminutive stature: they live, for the most part, like the inhabitants bordering upon the Gulph of Bothnia: in proof of this, we may adduce their practice of frequent ablution in steam-baths; their well-washed houses; the great pains they take in washing and mangling their linen, bringing their boilers for the purpose to the river side. A notion prevails in England, that all the natives of the regions beyond the Arctic are so many wild Laplanders; whereas the wild Laplander is almost as rare an animal as the reindeer his companion. Being an inhabitant of no particular district, he may be found one day here, and another a hundred miles distant. Requiring a very extensive range, even for the maintenance of his single family, he seldom associates even with other Laplanders, who, like himself, lead a vagrant herdsman's life. The fact is, that he has not space enough allotted to him to tolerate a neighbour: his condition is precisely that of Abram, when he said unto Lot, "Let there be
no strife, I pray thee, between me and thee, and between my herdmen and thy herdmen: for we be brethren. Is not the whole land before thee? Separate thyself, I pray thee, from me: if thou wilt take the left hand, then I will go to the right; or, if thou depart to the right hand, then I will go to the left." At the Northern fairs, they occasionally assemble from all parts of Norwegian, Swedish, and Russian Lapland; but at other times, one may traverse whole provinces of the country named exclusively from the Laplanders, without seeing one of the peculiar race supposed to constitute its only inhabitants.

We continued steering south-west, along this island, until we again reached the main body of the river, extending, as before, towards the north. The abundance of iron buried in the soil was manifest in the ochreous deposit made upon the banks by ferruginous waters falling into the the Muonio. Immense numbers of wild-ducks, teal, geese, and beccasines, appeared in and about the river: every little channel of water falling into it was full of them. We saw also a large black fowl, much esteemed among the Swedes as a delicate article of food, called (and of course from its colour) Swartz. This is, perhaps, the Black Cock of our Northern moors. It is of very great size. During winter, it is sent, with abundance of ptarmigan, grouse, wild-fowl, and game of all sorts, in a frozen state, upon sledges to Torneå, and from thence to Stockholm; whence it

(1) Genesis xiii. 8, 9.
it might be sent, as perhaps it will be hereafter, to the London markets, in bales of ice. Increasing myriads of mosquitos attacked us in such powerful bodies, that we were forced to sit the whole day covered with our cloaks, and with lighted fires placed in the prow of each boat, so that the smoke from the burning brands might continually pass over us. Our distance from the Gulph of Bothnia was now near 300 miles; yet few rivers at an equal distance from the sea exhibit greater magnitude. Within about two English miles of Kaaresuando, the Muonio was three furlongs wide. Upon the south side of it, our course now being westerly, we saw a small insular mountain, and others of more magnitude appeared in our front towards the west.

Arriving at Kaaresuando, we found the house entirely deserted; yet every part of it was open, as if its inmates had very recently quitted it. We called loudly for its owners, in Swedish, in Finnish, and in the Lapland language; but no one appeared. This being the case, we entered into complete possession of the tenement. Choosing for our bed-room the dairy, as being the coolest place, we removed all the milk-tubs, the butter-casks, cheese, &c.; and pitching our portable beds, covered each with a sheet, like a little tent. At this moment, one of the servants strolling about, discovered a bed in an out-house which was still warm. Being convinced that some person had very lately left it, he searched every corner of the place; and at last, behind a door, found two wretched figures, a man and a woman, naked and trembling, who, frightened almost to death by our coming, had
had thus concealed themselves. With great difficulty they were persuaded that no harm would happen to them; and at last coming to the room where we all slept, a little tobacco and a little brandy restored them to the utmost tranquillity.

July 24.—We left Kaaresuando, for Enontekiš at the source of the Muonio. As we drew nigh to the lake whence this river issues, instead of becoming contracted and narrower, it seemed to expand, and exhibit a wider surface. We ascended several rapids; and about seven English miles from Kaaresuando, entered a spacious and noble piece of water, surrounded by mountains, with others yet more distant, of greater magnitude than any we had seen. This was, in fact, the Alpine barrier between Finmark and Lapmark. From its summit, rivers pour down towards the Icy Sea on one side, and towards the Gulph of Bothnia on the other. The most remarkable thing is, that a lake exists upon this barrier so exactly situate upon its upmost level, that a river flowing out of its southern extremity falls into the Gulph of Bothnia, and another river flowing out of its northern extremity falls into the Icy Sea; both these rivers issuing from the same lake;—thereby insulating the whole of Scandinavia; which, owing to this circumstance, is entirely surrounded by water. We shall offer further confirmation of this remarkable fact in the sequel. Presently, the log-houses and wooden church of Enontekiš appeared upon our right, covering an eminence upon the eastern side of the river; the church occupying the highest point, the Minister’s house being at the foot of the hill to the north, and a sweep of empty log-houses extending...
the whole way from the top of the hill to the water-side. These buildings belong either to the Torneå merchants, who come hither during the *fair*; or to the Laplanders, who occasionally resort to hear Divine Service and to receive the Sacrament, or who attend the annual *fair* held here in the month of *February*. At first sight, Enontekis appeared a place of more importance than any we had seen since we left Torneå: but we were told that all the buildings were destitute of inhabitants, with the exception of the Parsonage-house; and another, belonging to the Minister's brother, who is prefect or Magistrate, and also a sort of tax-gatherer for the Crown.
VIEW of ENONTEKIS, at the SOURCE of the MUONIO.

showing the Ministers House, the Church, and the Warehouses of the

Lapps, and Merchants of Tornea.
ENONTEKIS, AT THE SOURCE OF THE MUONIO.

Interview with the Minister—his literary attainments—Expedition to view the Midnight Sun—its Elevation above the Horizon during the Summer Solstice—Culinary Plants—Game—Etymology of the Names of Places—Notice respecting an Air-Balloon—Diet at the Minister’s Table—Singular instance of Etiquette—Cloud-berries—their medical virtues—Balloon—Soil of Enontekis—Agriculture—Inhabitants—Languages—Houses—Means of subsistence—Fisheries—Produce of the Forests—Manufactures—Latitude and Longitude—Cattle—Colonists

We had no sooner landed, and were proceeding towards the dwelling of the Minister, than we perceived this reverend missionary coming towards us, followed by half-a-dozen dogs and two tame pigs: he was dressed in a long frock of black bombazeen reaching to his feet, and advanced smoking his tobacco-pipe. The tobacco-pipe, throughout this country, is never laid aside, except during meals: it is even used by women. Mr. Pipping introduced him to us, by the name of Pastor Eric Grape: and having also made known to him our names, and the object of our visit, Mr. Grape addressed us in Latin, desiring that we would make use of his house as if it were our own. Having conducted us thither, we entered a clean and comfortable apartment; where, shaking hands with us, he bade us welcome, with that sincerity and cheerfulness which characterizes the hospitable inhabitants of all the Swedish
Swedish dominions. This Clergyman, now forty-four years of age, presided over the spiritual and temporal concerns of a parish as large as the whole county of Yorkshire. His wife, much younger than himself, and very handsome, presently entered the room, followed by her mother, and a bare-footed boy of fifteen, her brother. Mr. Grape had also several children, who made their appearance, with straight white hair, hanging, after the Swedish fashion, in long locks on each side of their faces over the temples, and with their legs and feet bare, like the children of the Highland Lairds in Scotland. We had the satisfaction of finding in our host a man of letters and general information: he had distinguished himself in the public Academical disputations of Upsal, and was

(1) "The length of the parish, from S.E. to N.W. i.e. from Songa Muotha to Kilpisjerf, is 17¾ (Swedish) miles. Its breadth, from N.E. to S.W. from five to six and nine miles; making the whole area equal to about 120 square miles" (equal to 840 miles English).—Enontekis Sokns Beskrifning, of Eric I. Grape: MS. C. 1. § 4.

(2) Mr. Grape also passed a public examination, for his pastoral office, in the Gymnasium of Hernesand, upon the 25th of May 1799; where he maintained the following Theses.—The subjects there proposed may gratify the curiosity of Academical Readers: they are therefore here subjoined, from a copy printed at Gefle.

"Th. 1. In toto hoc universo non solùm existentiam Dei, verùm etiam plerasque Eius perfectiones, venerari et possumus et debemus.
"Th. 2. Contritio mere Legalis nomen non meretur λυσθε κατα Θων, μετεσσιαν eis συνηριαι δεμπαμιλητου κατεργαζοντας. 2 Cor. vii. 10.
"Th. 3. Frivolæ et minoris momenti questiones circa res sacras felici Christianismi successui magno saepius fuerant impedimento.
"Th. 4. Pia inter desideria mutatio Textuum Dominicalium non ultimum meretur locum.
"Th. 5. Systema mundanum manum Dei emendatricem vix credimus fore desideraturum.

"Th. 6.
was once numbered among the particular acquaintance of Linnaeus. Like almost all the literary men of Sweden, he had attended more to Natural History than to any thing else; but for some time had been occupied in writing a Statistical Account of his own parish. Having collected many rare birds and insects, he presented several to us. Among the birds, there were some that are seldom seen at Enontekis; although, according to Mr. Grape, they are not known elsewhere to naturalists. The Fringilla Lapponica and Turdus roseus were of this number; but there were others for which he had no name. The Turdus roseus is a beautiful bird: it resembles a blackbird, with a red breast, like a robin.

Mr. Grape told us, that only four days before our arrival, upon the twentieth day of July, the sun was visible at midnight, above the mountains to the north; and that even now,

"Th. 6. Utrum mundus demum annihilandus, an mutandus sit, non certò constat.
Th. 7. Solo rationis scrutamine sapientia homini necessaria, haud potest obtineri.
Th. 8. Tam in propriis studiis, quam in aliis instituendis, rite profecturo, a cultura intellectus credimus esse incipiendum.
Th. 9. Quaenam regiminis forma in genere sit optima, vix quisquam statuere valet.
Th. 10. Lapponum vivendi ratio, quanquam non infelix, ea tamen, quam ipsi celeb. v. Linné tribuit, felicitatis laude nequaquam digna videtur."

(1) The author once thought of inserting this Statistical Account of the Parish of Enontekis, in the Appendix: but as it is of considerable length, and in the Swedish language, he prefers referring to the original MS. making occasional extracts from it in his own narrative, rather than introducing the whole of it. He has deposited the original in the University Library at Cambridge.
now, as it was only concealed at midnight by the high hills which cover the horizon in that direction, if we would ascend those mountains, we might gratify our curiosity by the sight. The bases of these mountains were distant only half a Swedish mile from Enonteki; but as their ascent promised some degree of fatigue, and the journey must be performed on foot, the author, owing to illness, was compelled to relinquish all thoughts of the undertaking. Mr. Cripps, however, accompanied by the Lapland and Swedish interpreters, by the English servant, and by a boy belonging to Mr. Grape’s house, who was to serve as a guide, set out upon the expedition. The account of it is therefore subjoined in a Note, as it has been literally extracted from Mr. Cripps’s own Manuscript Journal. Geologists may remark the testimony

(2) “July 25, a quarter before 8 p.m. I left Enonteki, accompanied by the two interpreters, our English servant, and a boy who was to point out the readiest way of ascending a mountain to the north. We proceeded about half a Swedish mile by water; when, leaving the boat, and fastening her to a bough, we prepared for our excursion. It was now nine o’clock p.m. We began our ascent, and walked through forests and bogs until a quarter past eleven, when we gained the summit of the mountain. Going farther towards the west, at half past eleven I saw the sun’s disk coming out of a cloud, and apparently about a diameter above the horizon. It continued thus visible until near half past twelve, seeming to move in a straight line, parallel to that of the horizon. At half past twelve, its orb was a diameter and a half above the horizon, being of a red colour, and somewhat dim. Its brightness was soon greatly augmented, as it now continued rising. During my walk along the summit, to the west, I saw other mountains towards the north, and a large lake to the south. Towards the north and north-west, a mountainous range stretched for many miles; and upon them I observed unmelted snow. I had here a very extensive view on all sides. To the south and east, the whole country seemed to consist of nothing but forests, bogs, and waters: to the north
testimony it bears to the general disposition of the earth’s strata, and their abutment towards the north-west, as exhibited in the appearance of the country, north and south of Enontekis; a fact, perhaps, of more importance than that of having seen the sun above the horizon at midnight; although this must be deemed the greatest natural curiosity of the country. Mr. Grape informed us, that, during the space of three weeks in every year, he is able to light his pipe at midnight with a common burning-glass; and when clouds do not intervene, he may continue this practice for a longer time: but the atmosphere becomes clouded as the season advances. From the church, hard by his house, it is visible above the horizon at midnight during seven weeks in each year; but, as it is observed by this worthy Minister, in the statistical account of his parish which he drew up in manuscript, "The pleasure of this long day is dearly purchased, by an almost uninterrupted night for the rest of the year; a continual winter, in which it is difficult to dispense with the

north and west were mountains. About two o’clock A.M. (July 26) we began to descend. The boy who accompanied us, being thinly clothed, suffered much from the piercing air; although he had taken as much brandy as he pleased before we left the boat. From this mountain, which is called Nonainen, there is not a house or village to be seen; except Enontekis, and a hut or two at Mounu, where we had left our boat. We met with bogs, even midway, in the descent from the summit. Upon this mountain I found a stone like red granite, with green specks in it. We arrived at Enontekis about four o’clock A.M." Cripps’s MS. Journal.

the use of candles during the space of three hours in each
day." From the windows of his parlour we had a view of
his little garden. The few plants found in it are worth notice,
however frivolous the catalogue may appear to an English
reader, who is not aware that it contains the greatest rarities
in all Lapland. These rarities were, Pease, in blossom,
which, it was feared, would never attain maturity; Carrots,
Spinach, Potatoes, Turnips, Parsley, and a few Lettuces.
The parsley and carrots were strangers lately introduced:
although they had grown to some size, Mr. Grape could not
tell us their names without referring to the labels, which he
had placed, in slips of deal, in the middle of the borders where
he sowed them. He could not preserve the potatoes through
the winter; and had the greatest difficulty to save enough
even for seed. The tops of these plants, when boiled, were
considered as a delicate vegetable by the family. It is some-
what remarkable, that throughout the whole country the
inhabitants keep no poultry. We often inquired the reason
of this; and were as often answered, that such delicacies are
fit only for fine folks and great people; that, for their part,
they did not deem them worth the trouble of preserving.
Pigeons, likewise, are never seen; nor, indeed, any domestic
animal, except the dog. Mr. Grape, it is true, had a couple
of tame pigs; but they were considered more as curiosities,
than as a part of his stock of provisions. Perhaps, the real
cause of the neglect shewn to poultry arises from the
astonishing quantity of Game, Ptarmigan, Wild-ducks, &c.
with which the bogs, forests, and rivers abound; affording
food far more delicious than pigeons, or any kind of domestic
fowls; and which, kept in a frozen state, might supply them, throughout their long winters, with an abundance of provisions: but they are all carried to Torneå, to be sent to Stockholm, and perhaps even to Petersburg. The names of places in Lapland and Finland being (as it usually happens in other countries) almost always descriptive of their situation, have also occasional reference to these teeming sources of food. Thus, Jock, in Lappish, and Jocky, in Finnish, is often used to express 'a small river;' but, in its literal sense, it means joy, or joyful; owing to the food it supplies:—"Ubi gaudeant homines," was Mr. Grapes' translation of this word. Jaur, or Jaure, in the Lapland language, signifies a lake; and this in Finnish, is Jerf, or Jerfvy. By reference to the map, it will be seen how often these words occur. Eno, both in Lappish and Finnish, signifies a river: this in Swedish, is Elf.

July 25.—Having made known to the Minister the intention we had long formed, of making and launching an Air-Balloon, with a view of bringing together the dispersed families of the wild Laplanders, who are so rarely seen collected in any number, we asked his opinion as to the probability of exciting their curiosity by the news of such an intended exhibition. He approved highly of the measure; advising us to send messengers into all parts of the country, and announce the proposed spectacle for the ensuing Sabbath; which being also a day appointed to convene them for the administration of the Sacrament, a double motive of devotion and curiosity would allure many of them to Enontekis. He added, "You have devised a scheme
scheme to surprise the Laplanders; but my own wonder will be as great as theirs, having never seen any thing of the kind." Notices were accordingly despatched over all the surrounding district, to the distance of thirty-five, forty, and forty-five English miles, in every direction. Our dinner was served at one o'clock: it consisted of fish; a soup made of rein-deer’s tongue, with nettles, potatoe-tops, and other herbs; also rein-deer tongues, served in slices, on spinach; pancakes, and rye-biscuit. The whole family had been working for us; some heating the oven; others cooking, or washing and mangling our linen. The poorest cottager of the country have their mangles; and as the construction is so simple, it may be wondered that they are not more generally used in our own country, where the use of the mangle is principally confined to large laundries and wealthy families. A very extraordinary custom enjoined that the ladies of Mr. Grape’s family should wait upon their guests while they were seated at their meals. It was not until the second day after our arrival that we could prevail upon the Minister’s wife and his mother-in-law to lay aside this ceremonious usage, and sit sociably with us at table: we succeeded at last, by persuading them, that if ever the news of such an occurrence should reach our Minister at Stockholm, he would have reason to accuse two humble individuals of their having passed themselves off for Princes; since no persons in England, excepting

(1) Possibly this ceremony, on the part of the worthy Minister and his family, might have been owing to the circumstance which had recently occurred in this country, of
excepting those of the Blood-royal, are ever thus honoured. In the evening, Mr. Grape's children came into the room, bringing with them two or three gallons of the fruit of the Cloudberry, or Rubus Chamæmorus. This plant grows so abundantly near the river, that it is easy to gather bushels of the fruit. As the large berry ripens, which is as big as the top of a man's thumb, its colour, at first scarlet, becomes yellow. When eaten with sugar and cream, it is cooling and delicious, and tastes like the large American hautboy strawberries. Little did the author dream of the blessed effects he was to experience by tasting of the offering brought by these little children; who, proud of having their gifts accepted, would gladly run and gather daily a fresh supply; which was as often blended with cream and sugar, by the hands of their mother; until at last he perceived that his fever rapidly abated, his spirits and his appetite were restored;—and, when sinking under a disorder so obstinate that it seemed to be incurable, the blessings of health were restored to him, where he had reason to believe he should have found his grave.

The journey of the Duke of Orleans, accompanied by Monsieur Mountjoye: because it is related by Acerbi, that after it was discovered who those persons really were, travelling at first under feigned names, no subsequent traveller could enter Lapland without its being believed that he was some Prince in disguise.

(1) Some of the medical properties of the fruit of this plant were before cited from the writings of Linneus; but in the author's case, labouring under a most obstinate obstruction of the biliary duct, accompanied by the worst symptoms of that disorder, every hope of amendment seemed to fail him when this rapid cure took place.

It is only in the moments of such a recovery, and at such a distance from one's native land, that the following lines of Britain's deathless Bard can be called to mind, with the sympathetic feeling which upon this occasion suggested their recollection:

"See
The symptoms of amendment were almost instantaneous, after eating of these berries.

In the evening of this day, when Mr. Cripps undertook his expedition to Nonainen mountain, as described in a former Note, the author, finding himself equal to the undertaking, began to prepare the balloon; having all the materials at hand. It will be unnecessary to detail the means of making a toy now so well known: suffice it to say, that before the end of three days, the balloon was finished, and suspended within the church, where it reached nearly from the roof to the floor. Here the hoop and ornaments were added; and the usual trials of inflation made, by burning beneath it a ball of cotton steeped in alcohol. It was seventeen feet in height, and nearly fifty in circumference; and being all of white satin-paper, set off with scarlet hangings, made rather a splendid appearance. The Minister and his family, who were always in attendance during the preparing of it, were so delighted with the sight of it when completed, and so astonished by its motion in the church, when distended, that they could not contain their joy. In the mean time, that nothing might be wanted

“See the wretch, that long has toss’d
On the thorny bed of pain,
At length repair his vigour lost,
And breathe, and walk again:

“The meanest floweret of the vale,
The simplest note that swells the gale,
The common sun, the air, the skies,
To him are opening Paradise.”

wished to amuse this worthy family which it was in our power to afford, a large kite was made for the children, out of the refuse materials; which, beyond any expectation that we had formed, at last eclipsed the balloon, as the sequel will shew.

The soil everywhere in the neighbourhood, and throughout the parish of Enontekis, is unfavourable to agriculture. It consists of sand and clay, but chiefly of sand. Nevertheless, the pastures around the church and buildings belonging to the village appeared rich, and were covered with good crops of hay. Mr. Grape, however, was of opinion that ages might elapse before the natives will be induced to pay any adequate attention to the cultivation of the earth. The principal obstacle arises from the fisheries upon the Norwegian coasts; a great part of the youth, at the age of fifteen or sixteen, emigrating to those shores, where the means of subsistence are abundant, and easily obtained; and the rest adopting the nomade state of the Laplanders, and living after their manner. A little barley is almost the only species of grain sown: they have not even attempted to sow rye, which is so commonly in use in Sweden; and wheat is altogether unknown. The sowing season commonly begins in May; and the harvest is got in, at the latest, before the end of August; but sometimes the growth is so rapid, that it takes place much earlier. The grain

ENONTEKIS.

Inhabitants.

grain is harrowed into the ground by means of a wooden rake, or at best with an iron hoe, and the crop reaped with a sickle. Sometimes the whole of the grain used for seed is lost, and the crop never ripens: in middling crops, the amount does not exceed the triple or quadruple of the seed sown; and in the best harvests, the average may be reckoned at about a sextuple; but such seasons are very rare. Hence it must be evident, that the food of the natives does not consist in bread: indeed, the only bread known among them is often nothing more than the bark of trees. The inhabitants are divided into what are called Colonists, or Peasants, and Laplanders. The former are Fins; and the Finnish language is universally spoken, although the Lapland tongue is everywhere understood: but in the whole parish of Enonteki there were only two women who understood Swedish. The Log-houses are small and low, affording different dwelling-places for winter and summer. The winter habitation is called Poerte: it contains a large stone oven, without flue or chimney, the smoke being dispersed throughout the room; there being no aperture for its escape, except through a small hole in the roof, or through the door-way. In summer, they inhabit a house with windows; and these frequently have chimneys, as they have been already described. Almost all the Colonists have a chamber.

(2) Ibid. § 9. The years 1779, 1785, 1786, 1788, 1791, 1792, 1795, 1798, and 1799, yielded only middling crops.
(3) Ibid.
(4) Ibid. § 4.
a chamber set apart for the reception of strangers. Instead of candles, they make use of splinters of deal, about four feet in length; and these are called Paertor. The principal means of subsistence among the Colonists are, fish, and the produce of the forests. The fishing-season commences when the ice is melted, about the middle of June. Then they quit their dwellings, and do not return before the end of July. During this time they are seen, upon the banks of the rivers and lakes, hard at work with their nets. A single net will sometimes enable its owner to procure from 350lbs. to 400lbs. weight of Salmon-trout, called Lavaret, and from eight to twelve barrels of a species of fish called Saback, or lesser Lavaret; but the greater part of those employed in fishing do not take above half this quantity. There are generally three men to each net. In this manner Pike are also caught. Dried Lavaret is used as a substitute for bread. Towards the end of the fishing-season begins the work of salting the fish. Very little salt is used, to the end that a slight degree of putrefaction may take place; when an acid being thereby generated, the fish becomes, in their opinion, more nourishing, and has a better flavour. That portion which they do not keep for home consumption is sold to the Lapps, or it is carried to Kängis fair, where they exchange it for grain; a measure of fish for an equal measure of grain. After harvest, the fishing employment is renewed, nets being chiefly used; but even by angling a good

(1) Enontekis Sokns Beskrifning, ibid. § 7.
good fisherman will, in the course of the year, catch half a barrel of fish; and in this way, salmon are sometimes taken. But the fishing for salmon after the tenth of September is prohibited; for which a curious reason is assigned, that "the salmon, now become poor, may return back to the sea, and conduct a fresh supply of fish up the rivers in the ensuing year." In winter, fishing is carried on beneath the ice of certain lakes.

The produce of the forests consists in the capture of wild reindeer, which is the most profitable. An adroit hunter will, in some years, take not less than ten or twelve of these animals. They are caught in spring and in autumn. In spring, when the yielding surface of the snow gives way to the feet of the reindeer, the hunter pursues them in skiders, killing them either with his dart or with a gun. After the festival of the Virgin Mary, this chase is prohibited; because the reindeer are then lean, and their hides are of no value. In autumn, they are commonly caught by the feet, with snares; or they are shot. Traps and snares are also laid for foxes, hares, white-partridges, and water-fowl.

The manufactures of a people in such an incipient state of society are, of course, little worth notice; yet a very considerable quantity of glue is made both among the Colonists and the Laplanders. This is obtained from reindeer's horns, boiled down to a jelly during two days and a half, and afterwards

(2) Enontekis Sokns Beskrifning; MS. C. 1. § 11.
afterwards dried in the shade. From three and a half to four portions of the horns yield one of glue'. A little tar is also made, merely sufficient for their own consumption; the scanty and dwindled growth of the forests in this latitude not being adequate to the production of any greater quantity. Another produce of the forests is the food they afford for the cattle. It was mentioned to us as a remarkable circumstance, that as much provender is required for the sheep as for the cows. The number of cows in each colony, of course, varies, from five to ten, and even to twenty. Of sheep there may be found as many as fifty. For the maintenance of their cattle, hay and dried boughs are used; and, above all, the *Lichen rangiferinus*, or white rein-deer moss, without which, however excellent the hay be, the cows do not yield either so much milk, or of such good quality. During the nights of summer, the cattle are penned in folds, called *Tarrha*; in which fires are kindled, to keep off the musquitos, by means of smoke. From the beginning of June until the middle of September, they are allowed, during the day-time, to roam the forests for food. Each colony has its own troop, also, of rein-deer, from ten to thirty, fifty, and even an hundred.

(1) An endeavour was made, in 1750, to establish a regular manufacture of Glue at Torneå, on the part of the Director, Kellant: but, like all new projects, concerning which ignorant people exercise their derision, it was scouted, and the person who set the scheme on foot was called Mr. Horns. Since, owing to the diminution of rein-deer, and to the low price of glue, no attempt has been made to revive it.
The whole of this statement applies only to that portion of the inhabitants who are called Colonists: of the Laplanders, properly so called, we shall speak more fully in the sequel. By a colonial establishment is meant nothing more than a farm, supporting sometimes a single family: in other instances, two or three. The Colonists are either Finlanders, Colonists, or bankrupt nomade Lapps who have been ruined by the loss of their rein-deer: but whoever is disposed to settle in Lapland, has only to choose his situation, provided it be six miles distant from the nearest village. The moment he has built his hut, all the land, including the produce of all the lakes, rivers, forests, &c. for six miles round, becomes his own, by right of possession*. The Colonists pay an annual tribute of twenty-nine rix-dollars to the crown: the Laplanders pay only twenty-seven. The first tax was fixed in 1747; the last, in 1694, to be collected by an equal levy among the tributaries, without augmentation or diminution, whether their number be increased or diminished. The administration of the territorial justice, the gathering of the tribute, and the annual fair, commence in the middle of February. The two first are completed in three or four days; but the fair lasts ten days. This fair is made by the Torneà merchants, who come hither to sell flour, salt, tobacco, coarse and fine cloth, hides, hemp, cordage, silver drinking-vessels and spoons,

spoons, guns, caldrons, axes, &c. The Colonists traffic with them by exchanging the skins of rein-deer, foxes, hares, squirrels, ermines, &c.; also dried pike and salmon-trout, and a little butter, which the Torneå merchants carry afterwards to Norway. The distance to Torneå from Enontekis Church is 287 British miles by land, and 296 by water; the journey being performed, at this season of the year, in sledges, drawn by rein-deer. The commodities brought for sale by the Laplanders to the fair at Enontekis consist of rein-deer and sheep skins, and rein-deer flesh; pelisses, called Lapmudes; boots, shoes, gloves; various articles of furriery, such as the skins of white and red foxes, gluttons, martens, sables, otters, and beavers: they bring, also, cod and stock fish, fresh and frozen, or dried, which they have caught themselves, or bought in Norway.

The number of inhabitants, at present, in the whole parish of Enontekis, amounts to 870 persons; of which number 434 are males, and 436 females; that is to say, 268 Colonists, and 602 tributary Laplanders. In this list are included 175 married couple, six widowers, nineteen widows, 170 unmarried persons under the age of fifteen years, and 325 children. The number of births annually may be averaged at thirty; and of deaths, from ten to fifteen and twenty'. In 1758, the number of deaths amounted to forty-five:

(1) Enontekis Sokns Beskrifning; MS. C. 1. § 11.
forty-five: but this is recollected in the country as a very remarkable circumstance. A single person, at the time of our visit, had attained the age of eighty years, which is also uncommon. The most common diseases are, pleurisy, fever, pectoral disorders, and ophthalmia. In the whole parish of Enontekis there were, however, but three blind persons, and one of this number became so in consequence of the small-pox. Hardly one in ten among the Laplanders have ever had this disease: when once infected with it, they generally die, owing to want of proper treatment. Their domestic medicines are few and simple; and it is remarkable, that the Laplanders are, in this respect, more skilful than the Colonists; industriously seeking for such things as experience has taught them to make use of in disorders to which they are liable, both external and internal. Camphor, castor oil, asafoetida and turpentine dissolved in brandy, are considered as the best remedies in all internal complaints; and for disorders of the head, or in cases of pleurisy, they have recourse to cupping; or they suck the part affected so as to draw blood. Bleeding is very generally practised; and, for this purpose, it is usual to open a vein in one of the feet, rather than in any other part of the body. The climate, although extremely frigid, is not unwholesome. The coldest summer ever remembered was that of 1790, when not a sheaf of barley, or of any kind of grain, was harvested: even in the August of that year the snow remained unmelted, and in the same month fresh snow began to fall. The annual depth of the snow varies from three to four feet English.
According to an average, founded upon eight years observation, either rain or snow falls every three or four days throughout the year. The winds, especially in autumn, are very impetuous: among these, the north-west is the prevailing, and the most violent. Whirlwinds have been sometimes experienced, but they are rare: for the last twelve years there had not been a single hurricane. The appearance exhibited by the Aurora Borealis is beyond description magnificent; it serves to illuminate their dark skies in the long nights of winter: but, what is most remarkable, it is distinctly stated, by Mr. Grape, that this phenomenon is not confined to the northern parts of the hemisphere, but that its appearance to the south of the Zenith is no uncommon occurrence. The latitude of Enontekis, accurately estimated at the point where the church stands, is 68°. 30'. 30": its longitude, 39°. 55'.

(1) Enontekis Sokns Beskrifning; MS. C. 1. § 18.—This fact is confirmed by the observations of Lieutenant Choppell, of his Majesty’s Navy, author of the “Narrative of a Voyage to Hudson’s Bay;” who, in his description of the appearance of the Aurora Borealis, as exhibited nearly in the same latitude in North America, mentions that the coruscations are often visible to the south of the Zenith. The most splendid sight that can be conceived was often displayed to the crew of the Rosamond, when in Hudson’s Bay: the Aurora Borealis, in the Zenith, resembled, as to its shape, an umbrella, pouring down streams of light from all parts of its periphery, which fell vertically over the hemisphere in every direction. Another singular phenomenon, somewhat different, was that of rising jets of light, darting upwards from the horizon towards the north, and then falling back in a zigzag form, as if their force had been expended; and in this manner dying away. These rising streams of light are apparently owing to the combustion of some substance, which is also attended by explosion; but at so remote a distance, that the detonations are only audible in very still
As we had found Baron Hermelin’s Map often incorrect with regard to the Torneä and Muonio rivers, and had taken some pains in correcting the errors, it was highly satisfactory to learn that Mr. Grape had been four years employed in making, from his own actual observations, an accurate map of all Torneä Lapmark, upon the scale of seven miles English to six-tenths of an English inch. It is too large to engrave the whole of it; but we have published that part of it which exhibits the courses of the Muonio and Torneä rivers, upon a reduced scale. By this map is confirmed the fact, before mentioned, of the insular nature of Scandinavia; owing to the curious circumstance of two rivers, the Omaises and the Kongama, issuing from the same lake, Kilpis; and falling, one towards the Icy Sea, and the other into the Gulph of Bothnia. The sources of rivers falling on different sides of the Alps, as of the Reuss and the Tesin upon the Mountain St. Gothard, are often near to each other: but perhaps this is the only example known, of a lake so remarkably situate, with respect to its altitude, as to discharge its waters, in the same instant, on the two opposite sides of a ridge of mountains. The same map will also shew the extent of the parish

still nights. They are often heard by the North-American Indians. Hearne, who mentions having heard them himself, compares the noises to the crackling, or waving, of a winnow or fan.

(2) Charta efter Wästerbotten, och Svenske Lappmarchen, 1796.
parish of *Enontekis*: its boundaries are, *Finmark*, or Norwegian Lapland, upon the north; the parish of *Ofver Torneå* to the south; *Kittilä*, or *Kiemi Lapmark*, upon the east; and *Juckas Jerfvi* upon the west. *Enontekis* is so called from its situation, signifying, both in the *Lapland* and *Finland* languages, "the source of a river:" the River *Muonio*, formed by the confluence, at this place, of several smaller streams, hence deducing its origin. That part of the *Muonio*, however, which intervenes between *Muonioniska* and its confluence with the *Torneå*, is very often called, by the natives, *Kolare* River; owing to the Island *Kolare*, which we have already described. Last year, for the first time, an attempt was made to institute a regular Post, for the conveyance of letters, twice in each month, from *Torneå* to *Enontekis*, and by *Kautokeine* to *Alten* upon the *Icy Sea*. Mr. *Grape* received letters from *Torneå*, brought in *rein-deer* sledges, within three days after they were sent. Such expedition, of course, can only happen during winter. During the same season,

(1) The following is Mr. *Grape*’s own definition of the meaning of this word:—


* See Mr. *Grape*’s Map, as annexed.
Map of the entire Course of the Muonio river:
showing its junction with the Tornea;
and all the Cataracts of the two rivers;
serving to illustrate the author's voyage
within the Arctic Region;
and pointing out the remarkable descent
of the Omaises
from the Kolza Ierf to the Icy Sea;
whereby the whole of Scandinavia is insulated.
From the actual survey made upon the spot
by the Pastor, Eric Greg.
season, persons go in five days from Enontekis to the great Lake Enara.

Upon the twenty-seventh of July, many of the nomade Lapps began to arrive with their rein-deer; and a considerable number of the agricultural Laplanders were seen upon the lake in front of the Minister's house, coming in boats towards the place. They took up their quarters, as fast as they arrived, in the storehouses, reaching all the way from the church to the water-side. The balloon being finished, it was suspended in the church, and the hoop and curtain added; afterwards, it was proved, in the presence of Mr. Grape, and some of the natives. Among the latter, the Laplanders, who are the most timid of the human race, could not be persuaded to regard it without fear, and never were very well pleased with the contrivance; perhaps attributing the whole to some magical art. As this was the eve of the Sabbath, we had it taken down and removed, that there might be no interruption of the church service on the following day. We then adjourned to the Minister's dwelling; the throng gradually increasing, until the house, and all the places near it, were full; a party of the wild Lapps having stationed themselves in the porch of the Parsonage. Towards evening, they began to find their way into Mr. Grape's parlour, and into the adjoining bed-rooms; in one of which, seeing the author writing his Journal, a Lapp remained peeping over his shoulder, with the utmost gravity and silence, for about half an hour; every now and then making motions with his fingers to one of the Lapland women (his wife), imitating the motion of the author's hand,
hand, while writing; and both regarding with wonder an employment wholly inexplicable to them, either as to its use or meaning. As soon as he had laid down his pen, the same Laplander, pointing to his wife and to the bed, made a free tender of her person and charms, in the most unequivocal manner. Upon mentioning this circumstance to Mr. Grape, he said, that the Lapps consider it as a great honour, and as a propitious event, when any stranger will accept of an offer of this kind. The whole race of Laplanders are pigmies. This man was about four feet and a half in height; his hair, straight and dark, hung scantily down the sides of his lean and swarthy face: his eyes were almost sunk in his head. His wife, with a shrivelled skin, and a complexion of one uniform copper colour, was even more dwarfish than her husband. Her features resembled those of the Chinese: high cheek-bones; little sore eyes, widely separated from each other; a wide mouth; and a flat nose. Her hair was tressed up, and entirely concealed beneath a scull-cap: her teeth black: and between her lips she held a tobacco-pipe, smoking; the tube of which was so short, that the kindled weed threatened to scorch the end of her nose. A more unsightly female, or with less of the human form in appearance, can hardly he conceived. Indeed, both man and woman, if exhibited in a menagerie of wild beasts, might be considered as the long-lost link between man and ape. In the evening of this day, many other of the natives, Colonists and Laplanders, arrived at the house, bringing all of them some gift for the Minister. Mr. Grape received them all in his principal room, giving his hand to each as he entered.
One brought him a bunch of wild-goose quills; another, a bundle of dried stock-fish; a third, a tub of butter; a fourth, cheese; a fifth, rein-deer tongues; and so on. After sitting with him some time in the room, without uttering a syllable, they took out pieces of copper coin; one presenting him with a penny; another with two-pence; and so for the rest. These offerings, to use his own expression to us, were the "merces for the Priest."

From the porch of the Minister's house, we had a beautiful view of the Lake which constitutes the source of the Muonio: it is formed by the confluence of two streams, called Kongama and Latas. Beyond this piece of water are plains covered with low creeping shrubs, such as dwarf birch and juniper: beyond these, appear mountains covered with beds of Lichen rangiferinus, giving them a white appearance, as if snow were yet lying upon their sides. The horizon is bounded by distant mountains in every direction; between which and Enontekis are bogs covered with bushes, and the last dwindled representatives of the Scandinavian forests, seen only as bushes, which farther northward disappear altogether. Having been so long surrounded with woods, the novelty of an open country was pleasing to the eye. Fahrenheit's thermometer during the last two days had fallen nearly thirty degrees. It now stood at 48°. The wind became boisterous, with passing showers of hail and rain: in consequence of the change, the mosquitos instantly vanished. We were surprised to find that no attempt had been made anywhere in this country to domesticate the wild bees, which are found in all the woods; and the
the more so, as the inhabitants stand in great need of a substitute for sugar. Common brown sugar is unknown among them. Even the members of Mr. Grape's family had never seen any. Since the prohibition of coffee, it was usual, throughout all Sweden, to drink a weak infusion of tea, morning and evening; to which the inhabitants give the expressive appellation of Tea-water: in fact, it is little else than pure warm water. Their mode of drinking this beverage is the same everywhere; and very different from our mode of drinking tea in England. They first bite off a small piece from a lump of loaf-sugar, and then wash it down with the contents of their tea-cup; making a single lump of sugar serve for two or three cups of tea-water. A traveller, therefore, can hardly make a more acceptable gift to the mistress of a house, than by presenting her with a pound, or even half a pound, of loaf-sugar. It will be placed in the beaufet, like a rare piece of old china, and perhaps be preserved more for show than for use.

July 28.—By Mr. Grape's desire, the throng being very great, we did not enter the church until the Communion Service was ended. When we entered, the congregation was engaged in singing; the men being divided from the women, as we often see them in England; and the Minister standing alone at the altar. The whole church was crowded, and even the gallery full: many of the wild nomade Laplanders being present, in their strange dresses. The sermon appeared to us the most remarkable part of the ceremony. According to the custom of the country, it was an extemporaneous harangue; but delivered in a tone of voice so elevated, that the worthy pastor seemed to
to labour as if he would burst a blood-vessel. He continued exerting his lungs in this manner during one hour and twenty minutes, as if his audience had been stationed upon the top of a distant mountain. Afterwards, he was so hoarse he could hardly articulate another syllable. One would have thought it impossible to doze during a discourse that made our ears ring; yet some of the Lapps were fast asleep; and would have snored, but that a sexton, habited like themselves, walked about with a long and stout pole, with which he continued to strike the floor; and if this did not rouse them, he drove it forcibly against their ribs, or suffered it to fall with all its weight upon their sculls. After the sermon, singing again commenced: it consisted of a selection of some verses from the Psalms, which, notwithstanding what has been said of the vocal music of Lapland, were devoutly and harmoniously chanted. It was impossible to listen to the loud and full chorus of a savage people thus celebrating the triumph of Religion over the most wretched ignorance and superstition, without calling to mind the sublime language of antient prophecy: "The wilderness and the solitary place shall be glad: the desert shall rejoice and blossom as the rose. It shall blossom abundantly, and rejoice even with joy and singing." As we accompanied the Minister to his house, we ventured to ask the reason of the very loud tone of voice he had used in preaching. He said he was aware that it must appear extraordinary to a stranger; but that if he were to address the Laplanders in a lower key, they
they would consider him as a feeble and impotent missionary, wholly unfit for his office, and would never come to church: that the merit and abilities of the preacher are always estimated, both among the Colonists and Lapps, by the strength and power of his voice.

The Church service being now over, we were called upon to launch the balloon. Fresh parties of the natives continued to arrive; and many were seen crossing the Lake, towards the place. The wind blew tempestuously, and we foresaw that we should inevitably fail in the attempt: but having left notices all the way from Muonioniska, and the activity of our messengers having brought together such a number of people, we did not dare to disappoint them. The balloon was therefore brought out, and displayed. A spectacle so new might be supposed likely to excite in their minds no small degree of astonishment. They crowded round it with great eagerness; and it was in vain that we called to them to stand aloof. As it began to fill, some of the Lapps caught hold of the sides: the balloon at the same time becoming unmanageable, owing to the violence of the tempest, a general confusion took place, when it was torn from its hold, and a rent being made in the side, it fell to the ground. This accident caused no small chagrin to all our party: the Minister had seen it float in the church; but not so the majority of the assembled natives, who might believe we intended to make dupes of them. Such, however, was their patience, that they agreed to remain all night upon the spot with their rein-deer, if it should be necessary, while the
the balloon was mending. This was soon accomplished; but the tempest rather increased than subsided; and during the delay, they became riotous and clamorous for brandy; bringing money, and offering to pay for it. One man, thinking to gain it by addressing the Minister in the Finnish tongue, actually crawled into his presence, and kissed the ground several times, saying, Anna, Anna, minulé vina! while the greater number, without, in the porch, and near the house, were calling aloud, in the Lapland language, "Addi monji vëdni!" The women, not less importunate, although less noisy, joined their hands together, and, in supplicating attitudes, hiccupped their petitions for drams, being already half intoxicated with the quantity they had found the means of obtaining. It was not until the evening that the tempest had sufficiently subsided to admit of another attempt with the balloon. By this time, some of the Lapps had left Enontekis; and as it was perceived that more were moving towards the shore, to embark in their boats, we sent to them, saying, that we would now launch it, if they would remain aloof, and not interfere with the preparations necessary for that purpose. Upon this, they all returned. Our Swedish interpreter ascended the roof of one of their little store-houses with a pole, from the end of which the balloon was suspended: others held out the sides: a large ball of cotton, well steeped in alcohol, was then fastened below the centre

(1) Give me, give me, a little wine!
(2) Give me some brandy-wine!
of the hoop, with fine wire; and being kindled by means of a spunge held at the end of a deal splinter, the two ignited balls were kept burning together for some time, to expedite the rarefaction of the air within the balloon, which, becoming rapidly distended, soon began to float. The pole above being then removed, and the lighted spunge withdrawn, the volant orb rose majestically into the atmosphere, to the great astonishment, and evidently to the dismay, of all the Lapps; for their rein-deer taking fright, scampered off in all directions, followed by their owners, who were not a whit less alarmed themselves. The balloon, after soaring over the Source of the Muonio, descended into the Lake, where, rolling about upon the surface of the water, we expected to see it presently immersed; but, to our surprise, notwithstanding all the moisture it had imbibed, it rose again to a considerable height, and then fell. When this exhibition was over, which, for reasons we could not explain, gave rather uneasiness, than pleasure, to the Laplanders, we hoisted the large kite we had made for Mr. Grape’s children; at sight of which, the Lapps were beyond measure delighted. Both old and young, men, women, and children, all were alike transported, expressing their joy by capering and squeaking, each coming in his turn to lay hold upon the string: when, finding that it was pulled by the kite, they burst into loud fits of laughter, and would have remained the whole night amused by the sight it afforded. Even the worthy Pastor himself said it should be carefully preserved; as it would be useful to him to use as a signal for calling the Lapps together, when he might wish to bring them to his house.

Having
The NATIVES of TORNEÄ LAPMARK, assembled at Enontekis,

to witness the launching the first Balloon within the Arctic Circle.

Having succeeded much more to the satisfaction of the Lapps with our kite than with our balloon, they began to kiss our hands, and were willing to grant us any favour. The rest of the night, therefore, was past in mirth and rejoicing: we had races in sledges, drawn by rein-deer over the smooth grass; and amused ourselves by riding upon the backs of these animals; being always outstripped by the Lapps, who were as much delighted with our awkwardness as we were with the strange gestures and manners of this very singular people. If it were granted, that man, like other animals, admits of being distinguished into many separate species, we should not hesitate in considering the genuine Lapp one of these. As we industriously collected, from our own personal observations, and from the conversation and statistical writings of Mr. Grape, many facts respecting them, which have not before been made public, we shall conclude this chapter by confining our observations entirely to their history. Those who are desirous of further information, may be referred to the valuable work of the missionary Canute Leems; which, besides the most copious observations, enriched, at the same time, by the Notes of Gunner bishop of Trönjem, and his colleague Jessens, is also illustrated by one hundred curious plates, representing, with great fidelity, although rudely executed, their manners and customs.

An (1) The author found this Work in Sweden; and made it known to Acerbi, in Stockholm, who derived a principal part of his Second Volume from this source. Its title

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An erroneous notion is very prevalent throughout Europe, that Finmark and Lappmark are only different names applied to Norwegian and Swedish Lapland; both countries being inhabited by the same people, who are all of them what the Swedes call Lapps. The fact is, that the Finns are very generally confounded with the Lapps. In Finmark, there are very few Lapps, comparatively speaking: and in the whole parish of Enontekis there are not more than 114 families of the peculiar race who bear that name. Of this number, sixty-six families pay an annual tribute, living in five villages; and there are forty-eight families, known only as rovers, living upon the mountains and in the forests. The Lapp villages are, Lainiovuoma, to the south-east of Enontekis, containing fourteen families; Koengæmæ, or Råunala, to the west, containing twenty-five families; Suondavaara, to the north-west, containing five families; Rännavuoma, to the north, eighteen families; and Peldojerf, to the east, four families. The word mark is Swedish: it signifies land; as angsmark, which means meadow-land. It is also used to denote the ground; as, Ligga pa marken, signifying, “To lie on the ground.” This word has, therefore, no other reference to the Lapps, than when used as a compound, Lap-mark, to denote the land where they dwell. Finmark therefore means the and of the Finns, or Fenns; and

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The title is, "Canuti Leemii, Professoris Linguae Lapponicae, De Lapponibus Finmarchiæ, eorumque Linguâ, &c. Commentatio; multis Tabulis Æneis illustrata." Kioebnahun, 1767. 4to. pp. 544.
LAPLANDERS, having prepared their WINTER TENTS

upon the Alps between Sweden and Norway.

the Norwegians call the inhabitants of Finmark by a name which signifies Mountain Finns; namely, Fen Fjal. In the language of the Lapps, their peculiar country, if they may be said to have any, is Sabmi Ednam; literally, Lap land; Sabmi denoting “of or belonging to Lapps,” and Ednam signifying land. All the Laplanders, whatsoever country they chance to inhabit, call the land in which they dwell by this name. Their language is remarkable for its softness, and its plenitude of vowels: in this respect it resembles the Finnish language.

The greatest enemies of the Laplanders, and almost the only enemies they ever encounter, are the wolves. One of the first questions they put to each other, when they meet, is precisely that of Joram to Jehu: “Is it peace?” This question, in the original, or Lapland, language, is Lekor rauhe? It means nothing more than, “Have the wolves molested you?”

A very considerable change had taken place, in consequence of the incursions of the wolves, within the last eight years; and much to the loss of the Minister. Many of the richest families among the Lapps had been reduced to poverty by their ravages; their number having of late years, throughout the parish of Enontekis, incredibly augmented. Mr. Grape attributed their incursions to the last war between Sweden and Russia, which, he said, had driven those animals from the thicker forests of the South into this Arctic region. The most

(1) 2 Kings, ix. 17, 18, 19, 22.
most alarming incursions of the wolves have always been from the east. Above half the rein-deer in the parish of Enontekis have been destroyed by them since the last war with Russia. A Laplander, who was in the house with the author when he was engaged in writing these Notes, had in his possession only forty rein-deer; and a few years before, he had above a thousand. This calamity had driven many of the Lapps into Norway. Almost all those who were totally ruined by the wolves, became husbandmen; and, for the first time, quitted their roving for an agricultural life: consequently, the list of vagrant Lapps had been diminished, and the number of husbandmen increased.

One would think, that to a wild Lapp, living in tents, poverty or riches would be almost indifferent: but there is no people more prone to avarice. Their sole object seems to be the amassing of treasure, and for the strange purpose of burying it afterwards. The avarice of a Lapp is gratified in collecting a number of silver vessels, or of silver inlaid with gold, or even of brass vessels, and pieces of silver coin. Being unable to carry this treasure with him in his journeys, he buries the whole of it; not even, as it was before stated, making his wife acquainted with the place where it is concealed. If sudden death befal the owner, it is generally lost. Some of the Lapps possess 1 cwt. of silver; and those who enjoy a property of 1500 or 1000 rein-deer, have much more: in short, such an astonishing quantity of specie is dispersed among them, that Mr. Grape attributed its scarcity in Sweden to this practice among the Laplanders. As they keep
keep it almost always buried, it does not happen to the owner to be gratified even with a sight of his hidden treasure more than once or twice in a year.

The Lapps marry very early; the men seldom later than the age of eighteen, or the women later than fifteen: but the Finns and the Swedes are prohibited from such early marriages. Very little previous ceremony is used upon these occasions: an interchange of presents, and copious libations of brandy, are all that take place before the solemnization and consummation. The gifts consist of rings, spoons, cups of silver or of silver gilt, and rix-dollars in specie, according to the wealth of the parties. The richest make also other gifts; such as, silver girdles, and silk or cotton handkerchiefs for the neck. When bans have been published in the church, which is very commonly the case, the marriage immediately succeeds their publication; and the nuptials are consummated in one of the log-houses near the church, in which the Lapps deposit their stores for the annual fair. Upon these occasions, the bridegroom treats his friends with brandy, dried reindeer flesh cooked without broth', reindeer cheese, and bread and butter. If he be of a wealthy family, beer is also brewed: or, wanting this, plenty of pīma and curds and whey are provided. The luxury of smoking tobacco, so general among the Lapps, is, of course, largely indulged upon these occasions, and even takes place during the repast. Dancing, being

being unknown among them, forms no part of the merry-making. After the marriage-feast, a general collection is made in money for the married couple; when the distribution of brandy is renewed, and continued for two or three hours, according as the gifts are more or less liberal. Upon this occasion, gifts of rein-deer are promised to the bridegroom, which he is afterwards to go and demand: but if he make the visit without carrying brandy to the owner of the rein-deer, the promise is never kept. The dowry of wealthy parents, among the Laplanders, to their children when they marry, consists of from thirty to fifty and even eighty rein-deer, besides vessels of silver and other utensils.

The poorer class of Lapps are supported by becoming carriers for the Colonists and more wealthy Laplanders, to the different fairs, &c. In this manner they undertake the most distant journeys, accompanied by all the members of their family, so distributed, as to manage each a train of rein-deer with sledges. Each train belonging to the whole caravan is called a Raid; and to the management of a raid, women and children are adequate. A Laplander, his wife, and children, even those whose ages do not exceed eight or nine years, have each their raid to conduct, drawn by eight, twelve, or fifteen rein-deer, laden with merchandise. The richest Lapps let out their rein-deer, to work in these raids. The sledge is called Achia. In the first achia, drawn by one of the rein-deer, sits the driver of the raid; followed by a train of sledges, drawn by other rein-deer, one after another, all fastened in a line. As they travel with great rapidity, through forests and among rocks, it sometimes happens that one
one of the *rein-deer* falls; or a sledge, encountering some obstacle, is suddenly checked in its progress: and when this occurs, a *rein-deer* is often strangled by the cord fastened to its neck, before the driver can go to his aid. In all such cases, where accidents have occasioned losses not chargeable to any negligence in the driver, his employer is obliged to make good the deficiency. The journeys with *raids* are, of course, liable to danger, and to the utmost degree of fatigue: yet women far advanced in pregnancy are often the drivers; and such is their easy labour, in parturition, that child-birth hardly occasions any interruption to the progress of the *raid*. When the child is born, it is packed up in a wooden trough, called *Komsio*, like a fiddle-case: this was before described¹: a little arch over its face prevents the infant from suffocation. The *komsio*, lined with fur, and coated with a kind of leather called *Sissna*, is well fenced against the cold; and it is very rare that any accident happens to children born during these journeys. The greatest vice among the *Laplanders* is their love of spirituous liquor. To their habitual use of brandy may be ascribed almost the only evils to which they

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(1) See Chap. VIII. p.262.—The *Komsio* is very often suspended from the bough of a tree: and the universal mode of rocking an infant, is by means of a long elastic pole stuck into the ground, from the upper extremity of which hangs the *Komsio*, which is thus made to dance up and down, vertically.

(2) *Sissna* is made of the skins of *rein-deer*, in this manner. The skins are soaked four or five days in cold water, until the hair falls off: afterwards, they are tanned in a coction of *birch* and *osier*; and then steeped in *Norwegian oil*, prepared from fishes’ liver.
they are liable. This accursed practice is so general, that mothers pour the hellish dose down the throats of their infants at the breast. At all their christenings and funerals, intoxication prevails; the ceremonies of rejoicing or of mourning being made mere pretexts for dram-drinking. As soon as intoxication begins, both men and women commence the ferocious howl which they call Joicha; the only species of song, if it may bear the name of song, known among them. Swearing also, and gambling with cards, are pretty much in vogue: although quarrels seldom happen; and blood is rarely, if it be ever, shed in any brawls that may arise. Heathen superstitions still retain a considerable sway over their minds: these are principally had recourse to in healing disorders. The places where antient sacrifices were offered are still marked by heaps of decayed horns of rein-deer: such heaps yet exist in the parish of Enontekis, at places called Russa-kierro, Ajackajerf, Seita Vuopio, Sissangivaara, Seita Torhmol, &c. The divining-drums, by which fortunes are told by their sorcerers, are so well known, and the figures upon these drums have been so often engraved, that it were superfluous to insert a description of them. The use of them, owing to the zeal of the Missionaries, is now nearly abandoned; and they are become so rare, that it is difficult to obtain a sight of them. The only curious thing

(1) See Tab. xc. xct. of the account of Lapland, by Canute Leems; Kiobenhavn, 1767:—or, wanting this, the various representations made of those drums in the Lapponia of I. Scheffer, cap. xi. "De sacrîs Magicis et Magia Lapponum;" pp. 127, 128, 129. Francof. 1673.
thing concerning them is, the proof they afford of the very antient knowledge which existed in this country of the artificial magnet: this was always in the possession of the Lapland conjurers and fortune-tellers, who seem to have kept the secret to themselves. In using the divining-drum, a piece of magnetised iron is held beneath the skin of the tambour, giving motion to a needle placed upon its upper surface, which the conjurer causes to rest upon any figure thereon represented, and augurs accordingly. Many a more bungling trick has served to collect the wealth of nations, and to place it at the disposal of a pampered priesthood;—to humble in the dust the noblest powers of the soul, and to elevate ignorance upon an awe-commanding throne.

The manufactures of the Lapps are limited to their daily necessities: the men make sledges, skates, ladles, horn spoons, troughs, and porringers: the women, besides their more necessary apparel, manufacture pelisses, boots, shoes, and gloves, some of which they send to the fairs for sale.

The state of Science throughout Lapland does not exceed a knowledge, by rote, of the Church Catechism, or the being able to read the Book of Canticles. In one or two instances, Mr. Grape had found in the possession of the Lapps, a copy of the Bible, and of the Lapland Almanack, as printed at Stockholm.

Their daily food, during winter, consists of the fattest reindeer venison; which they boil, and eat with the broth in which

which it has been cooked. Their summer diet consists of cheese and rein-deer milk. The rich also eat bread, baked upon hot iron plates. Butter is sold to them by the Colonists, together with salted and dried fish.

The costume of the wild Lapps, like that of the Cree Indians of North America, and other savages, is distinguished by the most lively hues, strongly contrasted. Their dress, while it calls to mind the chequered plaid of the Highland Scotch, may perhaps exhibit no unfaithful counterpart of Joseph’s “coat of many colours.” Both sexes wear a woollen shirt, bound round the waist, either with a leathern girdle or with a yellow woollen sash. The bosom of this garment is used as a pouch for all necessaries, tobacco, food, &c. The cap of the men is made of black plush, having the form of the Asiatic fez: if worn by rich Laplanders, this cap is garnished with bands of coloured lace, gold, silver, &c. The cap of the females is of blue embroidered silk, covered with lace; beneath which the hair is entirely concealed. The female features are, in all, much alike: they resemble those of the Chinese and Calmucks; their skin being of one uniform bright copper colour. They are as greedy of brandy and tobacco as the men. In fact, it is a melancholy truth, but it will not be disputed, that there is hardly any nation, however barbarous or refined, in which a propensity to seek forgetfulness of the past, by means of some Lethean drug, or draught, may not be observed. We were much pleased with seeing two of them in their winter habits. A young man and his wife, having their winter clothes in one of the store-houses near the church, put them on, and came to visit us in this dress.
NOMADE or WILD LAPLander, in his WINTER CLOTHING.

NOMADE or WILD LAPLander, in his SUMMER CLOTHING.
The man appeared as much like a bear as any human being could be; and squatting, according to the fashion of his country, before the door of the Parsonage, exhibited a mound of fur, with his head resting upon the top of it. Being, as we sometimes say in England, "half seas over," his countenance was lighted up, and, appearing more jolly than usual, presented a remarkable contrast to the wretched features of another Lapp, who stood by him in the summer dress. In this posture he began the howl called Joicka, as before mentioned; which, as usual, consisted of few words, uttered in a most discordant yell, about driving away the wolves. His dress consisted of rein-deer skin for trowsers, with the hair on; the common Lapland buskin bound about the feet; over which was a covering made of young bulls' hides. For the inner garment, over the body, he wore a sheep's skin, with the wool turned inwards; and over the sheep's skin a rein-deer skin, with the hair on, and turned outwards. Over the rein-deer skin was a broad cape, or tippet, of bear's skin, covering his shoulders, and rising behind his ears and head. His cap was of woollen, edged with fur: his gloves of rein-deer skin, with the hair outwards. We endeavoured to sketch a portrait of his lady, but failed. Her dress was of softer rein-deer skin, fringed with white, and bound with a plated girdle, studded with knobs of silver. From this girdle, among the men, are always pendent the knife, purse, and horn spoon. Among the women, the pincushion, a few brass rings, and other trinkets, are occasionally added. This woman's habit would really be considered, in other countries, as elegant: her outer garment might be thought a very modish
modish pelisse. She was herself better-looking than the
generality of Lapland females: of exceedingly diminutive
stature, but with a great deal of vivacity in her countenance
and manner. Her complexion was of a fine shining copper
colour; and with a little effort of imagination, she might
have been fancied an animated bronze statue.

When the winter-season begins, and the wolves, being no
longer in the environs, leave the Lapps at leisure to pursue
their amusements, they betake themselves to hunting: this,
however, is not less a business of necessity than of amuse-
ment. They go out in parties of twelve or fifteen men,
armed with fowling-pieces and lances, in pursuit of wild rein-
deer. In the same season, using their skates, they overtake
the wolf, and dispatch him simply with a stick. Foxes,
gluttons, martens, and otters, are also caught. Bears are
hunted with more success in Norway. The poorer Lapps
set snares for white partridges.

In every description of the animals of Lapland, the
rein-deer should be considered as holding the highest
rank. The breed of rein-deer in the parish of Enontekis
is larger than those of Juckasjerf, but smaller than that
of Kittilä; and this difference is wholly to be ascribed
to the difference of the soil, as suited to the growth of the
rein-deer moss; on which account, the rein-deer of the
mountains are always smaller than those of the forests. This
animal has a different name bestowed upon him, during the
different periods of his valuable life. In the first year, the
male is called Vasicka, signifying a calf; in the second, Erack;
in the third, Vuorso; in the fourth, Kundeus; in the fifth,
Kossutus;
Kossutus; in the sixth, Maackama; in the seventh, Nimi Loppu; and so long as he lives afterwards, Haerkæ; which rarely extends beyond his fifteenth year; because, at this age, his teeth fall. The rutting-season begins about Michaelmas. In the third year the males are generally castrated; but the skin of an uncastrated buck, who is called Hirvas, is worth two of the skins of rein-deer that have undergone this operation. The female, in the first year, is also called Vasicka; in the second, Picknu Vuongel; in the third, Runo Vuongel; in the fourth, and ever after, she is named Vain, or Vaija, and lives to the age of fifteen years. The only food of the rein-deer, during winter, consists of moss and snow: and the most surprising circumstance, in the history of this animal, is the instinct, or the extraordinary olfactory powers, whereby it is enabled to discover the former, when buried beneath the latter. However deep the snow may be, if it cover the Lichen rangiferinus, the animal is aware of its presence the moment he comes to the spot; and this kind of food is never so agreeable to him as when he digs for it himself. In his manner of doing this he is remarkably adroit. Having first ascertained, by thrusting his muzzle into the snow, whether the moss lie below or not, he begins making a hole with his fore feet, and continues working until at length he uncovers the lichen. No instance has ever occurred of a rein-deer making such a cavity without discovering the moss he seeks. In summer, their food is of a different nature: they are then pastured upon green herbs, the leaves of trees, &c.
The other wild quadrupeds of this part of Lapland, besides rein-deer, are wolves, which are the most numerous; and, rarely, bears. The wolves make their ravages in large troops, and threaten the ruin of the country. There are, moreover, abundance of red, white, black, blue, and yellow, foxes; also, martens, otters, beavers, hares, squirrels, and ermines. In August, 1793, an incredible number of mountain-mice, called Lemmar, descended upon Enontekis; and in the following summer, some were still seen scattered here and there; whereas, during forty years, nothing of the kind had ever appeared before, nor have any of them been seen since. Serpents are unknown; but a few lizards are sometimes found.

In the list of birds known here, may be mentioned the white partridge, which is very common. To the south of Enontekis is found the Great Cock of the woods (Gallus sylvestris). We had more than once the satisfaction of springing this bird, and of seeing him upon the wing. Rarer birds, collected by naturalists upon this spot, are the following: Strix Scandiaca; Strix nyctea alba; Turdus roscus; Motacilla Svecica; Fringilla Lapponica; Tringa lobata; Platalea leucordia; Anas nigra; &c. Owls are sometimes very abundant.

We shall terminate this chapter with a few meteorological observations, during the course of one year, by Mr. Grape. It

It is only to be regretted that they were made without a thermometer.

January.
The most intense cold took place between the 3d and the 7th. The greatest depth of the snow, 1/2 of a Swedish ell.

February.
Snow falling, with violent wind, from the 9th to the 13th.

March.
Extreme cold from the 8th to the 13th.

April.
The first rook seen on the 15th. Several rooks made their appearance on the 23d. The ways became passable. Wild geese begin to appear.

May.
The partridge (Charadrius apricarius, Linn.) and the Motacilla oenanthe, Linn. appeared on the 5th. The season for travelling in sledges ended on the 8th. The rivulets began to flow on the 9th. First rain on the 11th; and at the same time, the Lumme (Colymbus Lumme) made its appearance. The ice began to break up on the 14th. Swallows appeared on the 15th. The ice disappeared on the 17th: the Spring floods in the rivers then at their height. Upon the 18th, sowing began: the plains beginning to look green. The last snow fell on the 19th. Upon the 23d, planted potatoes. Cuckoo heard on the 25th; and perch began
began to spawn. Birch-leaves began to appear on the 27th; and the plains to exhibit an uniform green colour. The last Spring frost happened on the night of the 30th.

June.

The earth white with snow on the 4th. Pasturage commenced in the forests on the 7th. Snow and heavy hail on the 13th. The first Summer heat on the 16th. First thunder on the 18th: at this time sowed the kitchen-garden. Mosquitos in vast number on the 22d. Inundations from the highest mountains on the 26th: at this time the leaves of my potatoe-plants perished with cold.

July.

First ear of barley on the 26th. Hay-making began on the 30th. The first star visible on the 31st, denoting the re-approach of night.

August.

First frosty night towards the 17th. Harvest began on the 20th. Birch-leaves begin to turn yellow, on the 23d.

September.

Hard frost towards the 6th. Swallows disappear on the 11th. Ground frozen, and ice upon the banks, on the 12th. First snow fell on the 21st, and remained upon the mountains. Cattle housed on the 24th. Lakes frozen on the 26th.

October.
October.

Leaves of *birch* and *osier* not altogether fallen on the 3d. *Lakes* frozen on the 5th; the *river*, on the 6th. Upon the 9th, not a *rook* to be seen. The *earth* again bare on the 22d; and the *ice* not firm on the 26th. Durable *frost* and *snow* on the 27th.

November.

Upon the 19th, travelling in *sledges* commenced.

December.

The greatest degree of *cold* from the 16th to 22d inclusive. The depth of the *snow* now equalled 1 *Swedish ell* and 18 inches.
CHAP. XII.

ENONTEKIS, AT THE SOURCE OF THE MUONIO, TO THE CONFLUENCE OF THE AUNIS AND KIEMI RIVERS.

Every individual, who has visited Lapland, must have remarked one characteristic common to all the Lapps: namely, their mild and pacific disposition. When inflamed by spirituous liquor, their intoxication betrays itself by acts of intemperance; but never by anger, malice, or cruelty. It is manifested only in an elevation of spirits, amounting indeed to madness; in shouting, jumping, and laughing; in craving for drams, with hysterical screams, until they fall senseless on the ground; in a total disregard of all that belongs to them, offering anything they possess for brandy; in raging lust, and total violation of all decency in their conduct; suffering, at the same time, kicks, cuffs, and blows, insults and provocations of any kind, without the smallest irascibility. When sober, they are as gentle as lambs; and the softness of their language, added to their effeminate disposition of the Lapps.
effeminate tone of voice, remarkably corresponds with their placable disposition. It might be supposed they had borrowed this meekness of character (as it has been sometimes remarked of shepherds) from the animals to whose care their whole lives are dedicated: for the rein-deer is, of all quadrupeds, the most gentle and harmless. Even the wild rein-deer, when taken, and led by a slight rope of leather, does not seem restless or alarmed, but suffers its conductor to put his hand into its mouth, and to play with it. The teeth of the rein-deer are very small, especially in the under jaw, and quite even. The custom, said to exist among the Laplanders, of whispering in the ear of the rein-deer before setting out upon a journey, by way of letting the animal know to what place he is going, is altogether fabulous. It is not only not practised, but the custom was never heard of in Lapland, either among the Natives, or by the Clergy sent as Missionaries into the country. Mr. Grape had bestowed great pains in collecting every information respecting the manners and customs of the Lapps, but this he considered as having no foundation in truth. We are accustomed to speak of the severity of their protracted and dark Winter; but they all prefer this season to that of Summer; because Winter, to all the inhabitants of the Frigid Zone, is the season of festivity and social enjoyment; or, as the Poet has so aptly named it,

—"The long night of revelry and ease."

To the Laplander it is particularly precious; because, in the Winter season, a less degree of vigilance is requisite in the management and guardianship of the rein-deer: they are not
so apt to wander in quest of food. In Summer, constant watching is necessary, to keep the herd together: and even when the most unremitted attention is paid for this purpose, many of them are frequently lost.

All the Agricultural Colonists of Lapland, and almost all the Swedish inhabitants and peasants of the provinces surrounding the north of the Gulph of Bothnia, believe that the Lapps are witches: that, as magicians, they possess the power of committing injuries upon the persons of those whom they do not see, and even upon those whom they never have seen. This persuasion exists among the Swedes in more civilized parts of their country. Mr. Grape told us, that a merchant, south of Stockholm, was fully persuaded, that, as he had lived so long in Lapland, he had learned some of these wizard arts, and vehemently besought him to exhibit some proof of Lapland magic. Finding that the most solemn protestations had no power to banish this credulity from his friend’s mind, and being tired with his repeated importunities, he at last resolved to make a dupe of him. Pretending, therefore, reluctantly to acquiesce, he said, that he had no longer any objection to accomplish the only thing it was in his power to perform, in order to satisfy such urgent curiosity: and knowing that his friend had lately lost a spouse to whom he was by no means attached, he added, “If you have any matters you wish to settle with your late wife, which were left unfinished at her decease, I will introduce her to you for a few minutes.” The terrified merchant regarded him in silence for an instant; when, perceiving that Mr. Grape was beginning to mutter some incantation,
incantation, he seized him by both his arms, exclaiming, with the greatest eagerness and agitation, "Raise the D—I, if you will; but, for God's sake, suffer my wife to rest in peace!"

The Laplanders, on their part, have also a number of idle superstitions and fears connected with a belief in Spirits of the woods and waters. The imaginary being held most in dread by all of them is the same which the Swedes call Troller, or Evil Spirit of the Woods—a sort of fairy, delighting in all manner of mischief. A Scotch gentleman, resident in Gothenburg, who resided for some time in Lapland, said that he once found a whole family in the deepest affliction: a child was missing; and so convinced were the family and every inhabitant of the place that the Troller had taken it, that the natives of the whole district, from far and near, had assembled, and were gone in troops into the forest, in search of the child; each being fearful of venturing alone upon such an occasion. The pretended gift of being able to predict future events is common among all the Laplanders, as among the Gipsies in other countries. Men and women affect the power of fortune-telling; not by means of the divining-drum, as mentioned in the last chapter, but in two ways: first, by the common trick of palmistry: secondly, by inspecting a cup of liquor; and this, to ensure the greatest possible certainty, must be a cup of brandy, which at once explains the whole business of the prophecy.

July 29.—Upon this day, the mercury in Fahrenheit's thermometer fell to 47°, the wind being very high. There was not a mosquito to be seen. Upon reviewing our statement
statement of the weather, we found, to our surprise, that we had experienced only two transitory showers of rain during our whole journey, from the time we left England; one in Holstein, and one in going from Stockholm to Upsal: yet this continuance of dry weather in Sweden is not remarkable; the traveller may rely upon its fine clear atmosphere during the entire Summer season. A kind of jelly, made with the fruit of the cloud-berry, was served with cream for our dinner. Our benevolent host, finding the salutary change produced in the author’s health by eating of this fruit, caused it to be sent to table in all the various ways of cooking it known in Sweden. The Lapps make a jelly of it, by boiling it with fish. At this time the bogs near the water-side were covered with the fruit in a ripe state. Our Swedish interpreter gathered half a bushel of the berries in an hour and a half. In its natural state, no fruit looks more beautiful. We endeavoured to preserve a small cask of it, to send to England; but wanting a sufficient quantity of sugar, the acetous fermentation took place, and the whole was spoiled. Whenever we walked near the river, we found whole acres covered with its blushing berries, hanging so thick, that we could not avoid treading upon them. As they ripen, they lose their crimson hue, and turn yellow: the flavour of the fruit is not then so refreshing to the palate. They are always most delicious when

(1) See Vignette to the last Chapter.
when they have been cooked. In their unripe state, they resemble in taste those diminutive stunted apples gathered from codlin-trees, which boys call crumplings. Although they flourish most in marshy places, their roots do not strike into the swamp, but are found covering the hard and dry mounds of earth which rise above it. The larger berries are as big as the top of a man's thumb. The representation of the Rubus Chamaemorus, in the Flora Danica, beautiful as it appears¹, is so far imperfect, that it was taken from an inferior specimen of the plant.

Up to this day, we had always entertained a hope that it would be possible for us to penetrate still farther towards the north; and by ascending the Kongänu to the Lake Kilpis, afterwards follow the Omaises, in its descent from the Alps, as far as the Icy Sea. But Mr. Grape told us, that we should not find a single dwelling the whole way; that the only method of resting, during the dews of the night, would be, by turning our boats bottom upwards; and thus, beneath a sort of tent, lie upon the bare earth. Food might also fail: and our worthy host, judging, from the weak state of the author's health, that he would be unequal to such an enterprise, persuaded him to abandon the undertaking. The following day (July 30) was therefore spent in preparations for our departure. And that we might not return by the same route, we resolved to cross over, by means of a chain of lakes,

¹ See Flora Danica, Tab. I. Kopenhagen, 1761.
from the Muonio to the Aunis river, and thence descend the Kiemi river to the Gulph of Bothnia. We have, therefore, nothing more to add of Enontekis, than what relates to the obligations conferred upon us by the hospitable Clergyman; who, from the hour of our arrival, until our departure, never suffered his assiduity and attention to his guests to admit of a moment's relaxation. In addition to his own statistical observations, and the manuscript copy of his Map, since engraved for this work, upon which his brother and himself worked incessantly while we staid, he presented us with an accurate List of all the Cataracts in the two rivers, between Enontekis and Torneå; with several other detached pieces of information. He then brought to us a book, in which all strangers, who, of late years, had visited Enontekis, had inscribed their names; desiring us to do the same. Having complied with his request; and suspecting that Acerbi, in his return from North Cape, might possibly pass through Enontekis, the author added, in Italian, a few lines from Ariosto, descriptive of his journey; subjoining, at the same time, the apostrophe to English travellers which

(2) This river is perhaps more correctly written Ounas: we have given the name exactly according to its pronunciation in Lapland.

(3) The Manuscript containing these observations is mentioned by Acerbi, who made a few extracts from it. The original was afterwards sent to the author of these Travels, at Stockholm: it is now deposited in the University Library at Cambridge.

(4) See the Appendix. This List will be found useful to any future traveller, who may wish to visit the north of Lapland by the same route.
The Party leave Enontekis.

Wednesday, July 31.—Towards the evening of this day, we left Enontekis. Mr. Grape, his wife, his brother-in-law, and all the other members of his family, attended us to the water-side. The farewell affected us deeply. The thoughts of leaving for ever, and in such a solitude, so good a man, were very painful. His little children hung about our knees; and, as we parted, tears were shed on all sides. In the last view we caught of them, we saw the venerable missionary, surrounded by his relatives, waving his hat in the air, in token of his adieu: and, at this distance of time, notwithstanding all the subsequent images that have filled the mind under other impressions of grief or gladness, the sight we had of this affecting groupe remains as fresh upon the memory as when it was actually beheld. The evening was beautifully clear and serene: all the distant mountains towards

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(1) See "Travels through Sweden," &c. Vol. II. p. 122. Lond. 1802. Acerbi arrived at Enontekis the day after we left it; having ventured on foot a journey of near one hundred English miles, over the mountains which separate Enontekis from Kautokeino in Finmark. The passages alluded to were as follow:

"Sei giorni me n’andai mattina e sera,
Per balze: e per pendii orridi e strani,
Dove non via, dove camin non era,
Dove nè segno, nè vestigia umana."

"Stranger, whoever thou art, that visitest these remote regions of the North! return to thy native country, and acknowledge that philanthropy is taught amongst civilized nations, but practised where moral theories never came!"
towards Finmark appeared with their summits unveiled and cloudless: the unruffled surface of the water, half a mile in width, shone like a flood of liquid silver. The sides of the river were bordered by a little overhanging birch, south of Enontekis; but to the north of the Cataract, called Ollisenkoski, the fir-trees, so characteristic of the Northern forests, are no longer seen. The last tree of the last forest, towards the Pole, is the birch; and this dwindling into a creeping shrub, mingled with Betula nana, is found all the way to the shores of the Icy Sea. Excepting the fine spreading plants of the Rubus Chamæmorus, all other vegetation diminishes in proportion to the distance northward from Enontekis; and in receding back towards the South, a very few miles cause a striking difference in the appearance of the plants.

We halted during the first night at Kaaresuando. Upon the evening of the next day (August 1), at Palajoensuu, distant only thirty-five English miles from Enontekis, we found flowers blooming upon the banks of the river, and flourishing in a degree of exuberance unknown at the source of the Muonio². At Kuttanen, which is twenty-one miles from Enontekis, the inhabitants were beginning to

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(2) The height of Enontekis above the level of the sea has never been estimated; but a tolerably correct statement of it may be formed from an observation of Von Buch, who assigns for the elevation of Palajoensuu one thousand and sixty-nine English feet. (See Von Buch’s Travels, p. 351. Lond. 1813.) The ascent from Palajoensuu to Enontekis, a distance of thirty-five English miles, must be calculated according to the fall of the river during that space; making, at the same time, allowance for about twenty cataracts or rapids.
to mow their hay; the first sight of the kind we had yet seen. The same employment was going on at Palajoensuu, and elsewhere, the whole way down the river. The hay appeared in excellent crops, and it was well made. As we now descended with the stream, small oars were substituted by the boatmen, instead of poles; one oar at each extremity of the boat. We were made to shoot all the cataracts with surprising velocity; the boats often striking against the rocks in their descent. The boat which conveyed our servants and a part of the baggage, in descending the Ollisen-koski, became wedged between two rocks, and with much difficulty was saved from being overwhelmed by the torrent. Our boat was sent to its rescue; the men belonging to her having landed us, and forced their way back to the assistance of their comrades. They reached the Fall just soon enough to take every one out of the boat that had struck, before she became completely filled with water. Being thus lightened, and afterwards baled, she was disengaged from her perilous situation.

At Kuttanen, a wolf had visited the cottage, and killed two of their sheep. A little girl, nine years of age, was brought to us, who seeing the wolf mangling the second sheep, took a small stick, and beat the assailant about the head, not being sensible of her danger. The wolf, in consequence, left his prey, and fled; the whole flock being thus saved from destruction by the interference of a child. Her parents considered it as next to a miracle that she was not devoured. The owner of the cottage where we passed
passed the second night, at Palajoensuu, had sixteen children; and in this village the bread of the poor peasants was worse than any we had yet seen: it consisted of the inner bark of the fir-tree, mixed with chaff and a very little barley. It seemed to us almost inconceivable that such bread should contain nourishment. We brought some of it to England; where it has remained ever since, unaltered, and in the same state in which it was offered to us for food. The nomade Laplanders never taste of this bread: if it were presented to them, they would cast it away. They endure none of the hardships which their agricultural brethren undergo. A rich nomade Laplander lives, for the most part, upon the fattest venison. For the consumption of his family, two rein-deer are killed weekly; or, annually, about one hundred. It is a usual thing with them to boil down forty pounds of venison to make soup for a single meal. During this operation, the fat is carefully skimmed as it rises, to be afterwards mixed with the boiled meat. But the condition even of the nomade Laplanders is much altered of late years; principally owing to the incursions of the wolves. A few years ago, for six drams of common Swedish brandy, a Laplander would press the acceptance of one of his best rein-deer, and would deem it as an affront if this remuneration were declined. Now,

(1) Many years afterwards, at an auction of minerals, a piece of this bread, which the author had given to a friend, was offered for public sale, as a specimen of Rock Leather, one of the sub-varieties of Asbestos. The fact is well known in the University of Cambridge, several of its Members being present at the time.
the number of the rein-deer is so much diminished, that it is
difficult to purchase any of them. It was about ten o'clock
p.m. when we reached Palajoensuu. We found the weather
much colder; the mercury in Fahrenheit's thermometer
having fallen this day to 54°. The name of this place,
Palajoensuu, signifies the mouth of the Palojocki. Here we
were to quit the Muonio altogether; and make the best of our
way, through forests and lakes, to the sources of the Aunis
river.

August 2.—We left Palajoensuu; and proceeded on foot,
carrying our baggage for about an English mile, to the river
Palojöcki, which we crossed in boats¹. Afterwards, continuing
to walk through the forest for about three miles, we came to
a small stream of water, called Sotkajocki, flowing from the
Sotka Lake. Two little boats here received us: and these
were forced against the current; the boatmen often getting
into the water, to assist in lifting and dragging the boats,
which seldom seemed to float, up hill, over large loose
stones. The banks of the Sotka almost met over our heads;
and the little cavity that appeared open above us was well
nigh choked with birch. Afterwards, the bed of the river
became more level; but it was filled with weeds, the
channel not being more than four feet wide. Mr. Cripps and
the interpreters preferred walking, and left the boats. While
the rest of us were forcing a passage through this gullet, we
took

(1) See Mr. Grape's Map.
ook numbers of wild fowl; the boatmen striking them with the ends of their poles, as they were seen diving in the stream. Presently we entered the Sotka Lake, called Sotkajerf; and here found our companions, waiting upon the shore, with baskets, made of birch bark, filled with the finest fruit we had yet seen of the Rubus Chamaemorus. Our Lapland interpreter shot the largest kind of solitary snipe that is known; and this we afterwards roasted, which proved a most delicious morsel; making, with our wild-ducks, ample provisions for our whole party. We were only badly off for bread, being forced to use the abominable substitute made of the bark of trees, which we have before described. We crossed the Sotka Lake, a shallow piece of water, full of reeds and other aquatic plants, and surrounded by low woods. Its fish are neither large nor numerous. In general, the natives prefer the fish caught in lakes to those which they find in the rivers; because they are fatter. The principal of these are the lavarets, which abound in every lake. Pike are not so common. Having landed upon the eastern side of the Lake Sotka, we carried our boats and baggage, through a forest, for about the space of an English mile, and observed fresh marks of ravages made by the bears among the ant-hills. In our way, we sprung a very fine Black-cock, which we supposed to be the large Coq de bruyère: it made an odd croaking noise.

Solitary Dwelling on the Muotka Lake.

noise. Soon afterwards, we were surprised by the appearance of a path, giving us the comfortable assurance of our being near the residence of human beings. It conducted us to a small farm-house, the appearance and construction of which was ruder than any we had seen inhabited by the poorest Colonists. A stack of the trunks of fir-trees, resting in a sloping direction against one end of this building, protected the place of entrance (which served both as a door and a window) against the inclemency of weather, and formed a little shed, in lieu of portico, before it. This dwelling stood upon the side of another lake, led Muothajerf. The hole for entrance was so small, that we were compelled to creep into it. All within was black and wretched; but the chamber itself was spacious, as they generally are, having a row of benches all round. The poor owner of this hut possessed three sheep, one of which he sold to us; asking only two shillings, English, for it; and being glad to part with it; saying the wolves would soon leave him entirely destitute. He brought us also a dozen of wild-ducks, which he had taken just before our arrival. We were happy to make the price paid for them far exceed his expectations: but so thoroughly insensible are the agricultural Laplanders to the passion of avarice, and so little disposed to take advantage of a stranger, that we could never, without difficulty, prevail upon the poorest among them to accept of our offers of payment. The fact is, that money has little estimation in their eyes: they have no opportunity of exchanging it for other commodities, unless they undertake an expedition of some hundred miles, or wait until the Winter season invites the Torneå merchants into
TO THE AUNIS AND KIEMI RIVERS.

There is very little doubt, that if they were offered, at the same time, a rouleau of bank-notes, and one of pigtail-tobacco, they would give to the tobacco a decided and an eager preference. If pieces of money in specie be given to them, they bore holes through them, and then hang them, as frivolous trinkets, about the heads and necks of their women and children.

Here, accompanied by the poor owner of this hut, and by his daughter, we embarked upon the Muotka Lake, whose waters properly constitute the source of the Aunis River; although the natives give the name of Aunis to a larger lake, into which they are discharged. The Lake Muotka is two hundred feet in depth, and very clear. The fishs caught in it are a kind of salmon-trout, called Rauto; common pike, of very large size; and another fish, shaped like a herring, of a dark glossy hue, ten inches in length, which is called Harr. The flesh, when boiled, is white, and very delicious. We believed the Harr to be the same as the Char of our Northern lakes; indeed, the name is nearly the same; but the flesh of the char, when potted, the only state in which we have seen it, is of a pale pink colour. The harr is found in all the lakes of Torneå and Kiemi Lapmark, and in the rivers Muonio, Torneå, Aunis, and Kiemi, even to the Gulph of Bothnia. At the eastern extremity of the Muotka Lake, we landed, to walk about a mile, by the side of the stream which runs out of it into the Aunis Jerfvi, or larger lake before mentioned. During this walk, we found the Rubus Chamaemorus in such prodigious abundance, and its fruit of a size so large, that the whole surface of the morasses was covered by its plump...
and fair berries, inviting us to a delicious feast by their blooming appearance. When fresh gathered, even the ripest of these berries are not insipid; and just before they become quite ripe, their flavour is exquisite. We all of us ate of them as long as we pleased; and afterwards, filling a tub to the brim, we placed it in the boat, to serve with our meals, as long as the fruit might be preserved from fermentation.

We now embarked upon the Aunis Lake, rejoicing in the consciousness of having no longer any cataracts to ascend; our voyage the whole way to the Gulph of Bothnia being with the current: and, of course, there remained for us an easy descending course along the rapids and falls of the Aunis and Kiemi, instead of the tedious and difficult labour of what is called forcing, which we had so often encountered in the Torneå and Muonio. According to the common custom of all Lapland, the principal lake whence a river is derived gives its name to the river itself. This river, therefore, flowing from the Aunis Jerfvi, towards the south, until it joins the Kiemi, bears the name of Aunis. The lake extends ten English miles and a half in length, from west to east; and it is three in breadth. It is, moreover, fifty fathoms deep. To say of its waters, that they are clear, would give a very inadequate idea of their beautiful appearance: they are so pellucid, that, as we floated along its glassy surface, we saw the depths below our boat as through the most diaphanous crystal. About mid-way down the eastern side of this lake is the village of Hättan. Here we passed the night in great comfort; having supped upon wild-fowl, a part of the sheep we
we had bought at Muotka, and the cloud-berries we had gathered. Patches of rye, barley, &c. surrounded the cottages of Hättan, reaching to a considerable extent from the village. The inhabitants, as it frequently happens upon the borders of lakes, were distinguished by their cleanly and wholesome appearance, and by the neatness of their dwellings. It is true, we had sent forward a messenger, to say we should pass the night in this place, which might be a cause of the neatness we observed. Every article of furniture was as cleanly and pure as industry could make it: the table, benches, bowls, platters, ladles, being all of wood, and principally of deal, were white and spotless. A large fire was kindled; and this, for the first time, was felt as a great comfort; some rain having fallen, and the air being chilly. Mr. Grape, too, was expected here, to make his annual visit, and to administer the Sacrament. Many of the natives, from distant villages, had assembled, to meet him upon his arrival; which, it was expected, would be on the following day. In the fodder-houses we observed a quantity of the Lichen rangiferinus, collected as food for the cattle.

August 3.—We embarked again upon the Aunis Lake. The scenery was grander, and somewhat mountainous: the shores, bold, rocky, precipitous, were covered with trees; among which the dark foliage of the pine, mingled with the lighter green of the birch, formed a pleasing variety of tint. We had here a valuable companion in a dog belonging to one of the boatmen: it was of the true Lapland breed; and similar in all respects to a wolf, excepting the tail, which was bushy, and curled, like those of the Pomeranian race. This dog, swimming
swimming after the boat, if his master merely waved his hand, would cross the lake as often as he pleased; carrying half his body, and the whole of his head and tail, out of the water. Wherever he landed, he scoured all the long grass by the side of the lake in search of wild-fowl, and came back to us, bringing wild-ducks in his mouth to the boat: then, having delivered his prey to his master, he would instantly set off again, in search of more. At the eastern extremity of this lake, we came to what is called a force: that is to say, one of those falls, or rapids, we have so often mentioned; and for which, in our language, we have not, as the Laplanders have, a specific name, suited to every characteristic circumstance of situation, height, or violence. By this fall the River Aunis makes its exit. Here the boatmen offered to fish for us; and soon caught plenty of the Rauto, Harr, and others, whose names we have not retained. As for wild-fowl, besides what the dog had brought, we killed them in such numbers, with our poles, that our guns were laid aside, as useless things. Mountain scenery seemed now to inclose us; but none of these mountains possess any grandeur of appearance, or remarkable elevation. When mention is made of the mountains of Lapland, or of Sweden, it should be understood that the expression generally relates to mere hills; such as those, called the South-downs, along the Sussex coast. The Alps, which constitute the frontier of Finmark, and those mountains which occur between the source of the Aunis and its junction with the Kiemi, were the highest that we saw until we afterwards crossed the Alpine barrier, between Sweden and Norway, in our journey towards Rörås and Trönyem.
Trönjem. The Lapps call the highest mountains Ejal, borrowed evidently from the Swedish Fjäll, and corresponding with the words Fel and Feld, given, by all the Teutonic nations, to a high ridge or chain of mountains; whence, in mineralogy, the word Feldspar, signifying Mountain-spar, has been derived, so erroneously explained by French writers to signify field-spar, or spath des champs. Upon these mountains the Lapps reside, with their rein-deer, during the hottest part of the summer; descending into the plains when the mosquitos begin to disappear; at which time they also begin to kill their rein-deer for food.

After its exit from the lake, the Aunis is one continued cataract, for many miles in extent; and it required almost as much labour to force the boats over the stones, although descending with the whole force of the fall, as it had been necessary to exert when stemming the rapids of the Muonio in opposition to the stream. This day we stopped to dine in a forest, through which the river fell; and hauled, meanwhile, our boats on shore. Here we found swarms of mosquitos: our boatmen, therefore, tearing down the dry trunks and boughs of old decayed trees, and piling upon them large pieces of solid timber, made such a prodigious bonfire, that the smoke of it, added to the protection afforded by our veils and by green boughs, kept aloof these troublesome insects; and we were enabled, although with difficulty, to roast

roast some of our fish. Afterwards, we continued our voyage. The scenery was much the same as we have often described, in our passage up the Muonio; but it is better to repeat former observations than leave the reader in ignorance as to the nature of these regions. The lower banks, or shores, of the river were covered with luxuriant birch, hanging over in a copious waving and playful foliage. Below the boughs of birch, a fresh green turf, now just mown, appeared as soft and verdant as the lawn of an English pleasure-ground. High towering over all, behind the birch, rose the dark forest of pine. The bark of the birch is serviceable to the natives, in various ways: mingled with barley meal, it constitutes a part of their food; many of their domestic utensils are made of it; and when collected in flakes, as tiling, it is used in covering the roofs of their houses.

It was late in the evening when we reached a place called Kuru, and entered a true Lapland house; that is to say, its owner was a genuine Lapp; and, although wealthy, when compared with the generality of agricultural Laplanders, looked as wild and as wretched as any of his nomade brethren. The chambers of his dwelling were dark, and full of symbolical testimonies of the life he led: sledges, skidders, rein-deer harness, poles, fishing-tackle, tubs of píma, milk, cheese, &c. occupied almost every place under cover. His features, like those of all the Lapps, marked him at once as belonging to a distinct and peculiar race of men;—eyes half closed; mouth pinched close, but wide; ears full and large, projecting far from the head; complexion tawny and copper-coloured; hair dark, straight, and lank, none growing near the
the nape of the neck: add to this a small and stunted stature, with singular flexibility of limbs, easily falling into any posture, like all the Oriental nations; looks regarding objects askance; hands constantly occupied in the beginning of conversation with filling a short tobacco-pipe; the head being turned over one shoulder to the person addressing, instead of fronting the speaker;—such is the characteristic portrait of one and every Laplander. The moment we saw any of them, we could immediately recognise those traits by which the whole tribe are distinguished from the other inhabitants of Europe, and in which they differ from the other natives of the land in which they live. Even the Finlander, who is supposed to be a sort of cousin-german, differs, in many respects, from the Laplander. The hair of the Finlander is of a fair colour; either pale yellow, flaxen, or almost white: and the honest Swede, of nobler race than either, is a giant, in whose person and manner there is nothing of the cat-like flexibility of the Asiatic, nor any resemblance to that Orient complexion and form of countenance which assimilates the Laplander to the natives of Japan.

Behind Kuru, a mountain, here called Pallas Tunduri, which we had seen near Muonioniska, seems to rise to a considerable height, and with some appearance of grandeur. It is entirely destitute of trees, and we observed small patches of snow now lying upon it. We had a fine prospect of it at midnight, the atmosphere being then clear; except towards the base of the mountain, where a thin fog was spread over the forests. It was from this mountain, during our ascent into Lapland, that we might have seen the midnight sun.
sun considerably elevated above the horizon. *Tunduri* is a Finnish word; it signifies 'a mountain destitute of trees.' The family of our *Lappish* host, at *Kuru*, was very large: they all came, as it was usual in places where we rested for the night, to see us undress. We could not repress their curiosity without giving them offence: therefore we suffered them to remain in the room; where they behaved with great gravity, whispering to each other, and making some remarks upon every article of our apparel. Our boots or shoes were always examined with great surprise: but if we took off our stockings, or put on a night-cap, the wonder was heightened; for having no idea of their utility, and perhaps not thinking them ornamental, we had always some questions to answer, as to the meaning of such a ceremony. *Pipping* undertook to explain matters to our visitants; entertaining them with his strange stories of the country where all these marvels were manufactured; and now and then, cracking his jokes with the women who would be prying into everything, a momentary mirth was excited.

*August 4.*—We left *Kuru*. Observations made with a pocket compass, proved that our course twice lay N.E.; and consequently, that not only *Hermelin's* but also *Mr. Grape*’s Maps afford only a general idea of the course of the *Aunis*. During this day, the author made sketches of some of the scenes upon the river: these were always picturesque; but particularly so when they enabled him to introduce views of the *Pallas Tunduri*. One of them exhibits this mountain in a very conspicuous manner; and its mamillary form is characteristic
View of the River Aunis in the North of Lapland between Kongis and Kittila.

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characteristic of all the mountains towards the sources of the Muonio and the Aunis. In the evening of this day we arrived at Tepasto; where we supped on wild fowl, and cloud-berries mixed with cream, so rich, that, without being sour, it was ropy, and, when taken up with a spoon, drew out in strings. This is often the case with Lapland cream: its slimy appearance is not tempting, but its flavour is sweet and delicious.

Here we saw another instance of a peasant who had been wounded in bear-hunting. Having missed his aim, he plunged the short pike, with which they attack the bears, into the thigh of one of these animals, instead of striking him in the right place. Immediately perceiving how ineffectual the blow had been, and consequently his own perilous situation, he leaped upon the bear’s back; but the enraged animal contrived to fasten his tusks into the arm of his assailant, and would soon have dismounted and dispatched him, had not his companion succeeded better; who, while the bear was upon his hind legs, with the man upon his back, thrust a spear into his heart. The scars remaining upon the man’s arm

(1) The mountains are all of Gneiss.

(2) Before we reached this place, we discovered a considerable error in the Map published by Hermelin. A river which he has introduced as falling from the north into the Aunis, below Tepasto, joins this river more than seven miles above Tepasto. It has no name in the Map, but it is called Tepasto jocki: it brings a considerable body of water into the Aunis.

(3) We were told here that the cows do not yield such rich cream, unless when fed with the Lichen rangiferinus.
arm shewed that the bear's tusks had entered deeply on both sides; but the bone had not been broken.

August 5.—After leaving Tepasto, the river was full of islands. In other parts of it, where there were no islands, it was now about 150 yards wide. We changed our boats, and dined at Kongis; below which place, the channel suddenly became contracted, and formed a cataract, called Kongis-koski: in this cataract it is only forty feet wide. The rocks, over which the torrent falls, consist of Trap. Afterwards, the river was smooth and tranquil, with the exception only of one long rapid, three English miles in extent; below which, is Ofver Kittila. We found the natives, with lighted fires, employed in mowing, throughout the entire night. The same sort of scythe was everywhere in use; not being larger than a sickle. This is fastened to the end of a pole; and they swing it to the right and left, turning it in their hands with great dexterity. Not only women, but girls perform this labour, as well as men. We often endeavoured to mow the grass with this kind of instrument; which always excited their laughter. Upon one of the shores, among a party who were thus occupied in mowing, we found the owner of a farm at Ofver Kittila; and as it was now midnight, we prevailed upon him to accompany us to his house. All the soil near the river is sandy; and this is the general appearance of the land near the Aunis: but the most ornamented pleasure-ground could not exhibit more decorated

(1) To keep off the mosquitos.
or pleasing scenery. The occasional views, towards the west, of Pallas Tunduri, were very fine; and the new-mown banks of this pellucid river, sloping to the water's edge, garnished with weeping birch and the most elegant fir-trees, had rather the appearance of grounds set off by studied and tastely art, than by the wildness of uncultivated nature. About half a Swedish mile lower down the river, we landed; and were led by our guide, through some meadows, to his farm. The house of our conductor was dirtier than any we had yet seen in Kiemi Lapmark. Vermin of the most unpleasant description found their way from the floor into our beds, and our servants complained of being worse infested. We had, however, for supper, a princely treat. A bowl containing two gallons of the rich coagulated cream we have before described was placed upon the table; such as, we have every reason to believe, is unequalled, as to its flavour and excellence, in any other part of the world. We had, besides, mutton, sweet as that of the Shetland Isles; to which there is not the slightest resemblance in meat bearing the same name in England. And to heighten the luxury afforded by these viands, our feast was accompanied by the sound of the only musical instrument we had yet heard in all Lapland. Poets might have believed that Orpheus, in his long wanderings through the region of the Hyperboreans, had left his Lyre among them; for it was,

(2) Solus Hyperboreas glacies — — —
Lustrabat. 

Virg. Georg. IV.
in fact, the Lyre of the antient Finns, with five strings, adapted to the five notes peculiar to all their music and poetry. The strings were all of wire, and of the same size. Its form was that of an oblong shell, wider at one extremity than the other; but made of wood; the strings being placed above the convex surface, through which three holes were perforated, in a straight line, beneath the strings, and ranged longitudinally. It was eighteen inches in length, and of this form:

The genuine Lapps are strangers to music; neither is there any musical instrument known among them. Our Lapland interpreter, in all his intercourse with Laplanders, had never seen any thing of the kind. He considered this instrument as a relic of the most antient customs of the country. The wife of our host said it had been in her family for many generations. When asked if she could play upon it, she answered in the affirmative; adding, that her mother had taught her; and that her daughter could play likewise. We then desired to have a proof of her skill. She placed the instrument before her, upon the table, with its
TO THE AUNIS AND KIEMI RIVERS.

its extremities towards her right and left, striking the chords with the fingers of both hands at the same time, near the head of the Lyre. All her tunes were but variations of the same humdrum; which consisted of so few notes, that we could hardly give it the name of an air. For the rest, our accommodations in this farm-house were anything but comfortable. The only apertures for air and light were little holes, like the mouths of chimneys. A prodigious stove, like a brick-kiln, in which whole trunks of trees were consumed, occupying a corner of the chamber in which we passed the night, filled nearly a fourth of the room; and the heat of it was intolerable: it served the family as an oven and a fire-place. At this season of the year, they bake bread, as they informed us, once in each week: and this baking had just ended, when we arrived. We were therefore forced to open the vent-holes, before we could breathe in such a place. The upper part of our chamber, as in all the other houses in this province, was covered with soot; but the lower part was clean washed. Presently, we found,

(1) In the dwellings, tents, soil, and people of Lapland, the traveller may often be reminded of the Ode composed by Johnson, in the Hebrides:

\[
\text{Permeo terras, ubi nuda rupe}
\text{Saxaea misteeb nebula ruinas,}
\text{Torva ubi rident steriles coloni}
\text{Rura laborese.}
\text{Pervagor gentes, hominum ferorum}
\text{Vita ubi nullo decorata cultu}
\text{Squallet informis, tugurique fumis}
\text{Foedate latiscit.}
\]
found, that in avoiding suffocation, we should encounter an evil almost as much to be dreaded: for the room became filled with mosquitos; and we were forced to kindle a new fire, and to fill the chamber with smoke, in order to expel them, when we closed up all the holes again by which they entered. The only lights used by the natives, in these dark dungeons, are made by burning splinters of deal (the most antient kind of torch known to the antient Greeks, and mentioned in Homer), about two yards long, which they stick in the crevices between the trunks of the trees of which their houses are constructed: and thus it is easy to explain the cause of those numerous accidents by fire to which the villages are liable. Marks in the walls, where large portions of the timber have been charred, betrayed the neglect shewn to these burning brands. The bread of this family was full of chaff, and of the bark of the birch-tree: it was only when stewed in butter that we were able to swallow it; and even then with difficulty. We bought, however, some cheese, which they had made of cow’s milk. From all that we saw here, we were inclined to believe that a slight mixture of Russian habits might, upon this eastern border of Lapland, account for any difference we had observed in the manners and customs of its inhabitants: and if this were really the case, both the dirt and the music might be easily explained.

August 4.—We left Ofver Kittila. Farms appeared near the river, the whole way to Nedre Kittila; a distance nearly equal to two English miles; where we saw a wooden church, of very rude construction, in which service is performed twice
twice only in each year. Here the river becomes deep and wide, and free from *rapids*. Some *reindeer* from the interior of the forests came to the water's edge, to drink; not being disquieted by the passage of the boats, but quietly keeping their station near the side of the river. The mountain *Pallas Tunduri* was still visible towards the *north-west*. The inhabitants were everywhere employed in mowing*. We had some passing showers during the last two days. The people on this river are much more wealthy than those who inhabit the banks of the *Muonio* or *Torneå*, and their farms are much larger: they keep horses, besides their other cattle. They are principally *Finns*.* Their language, softer than that of the *Swedes*, is less so than that of the *Lapps*. The mode of salutation among the latter distinguishes them from the *Finns*: the wildest *Lapp*, meeting one of his own tribe, or even an acquaintance, gently raises his *scull-cap* from the crown of his head, throwing, at the same time, one arm round the body of the person whom he salutes. Finding an oven heated at *Ylijasco*, we tried what effect heat would have upon the ripe fruit of the *Rubus Chamæmorus*. The berries were baked in vessels made of the bark of the birch-tree, and tasted very well afterwards.

*August*

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(1) Several plants began to be in seed: among these, *Pedicularis Sceptrum Carolinum*; *Lychnis alpina*; *Parnassia palustris*; and different species of *Epilobium*. We afterwards collected the seed of the first, when it became mature; and sent it in letters to *England*, to the *Botanic Garden at Cambridge*: where the utmost care was used to make it germinate, but in vain.
August 7.—Before we were stirring this morning, the members of our host's family, and many of the neighbouring female peasants, had seated themselves, as usual, around the chamber in which we slept, to witness the few operations of a traveller's toilette, and to see us take our breakfast. We therefore distributed such little gifts as we had been instructed and accustomed to offer; viz. to the unmarried girls, top-knots, made of wire, imitating gold and silver twist; to the married women, necklaces of glass beads, &c. As the girls seemed to place a much higher value on the gilded than on the silver top-knots, we made them draw lots; and when a silver one fell to any one's lot, we gave her another of the same, to make the portion more equal. Once in possession of these gifts, they were no longer curious about us, or our actions: they seemed entirely engrossed by discussing the beauty and value of their new acquisitions. Having no such things as mirrors of any kind, they were under the necessity of asking each other, when they had fitted on their finery, whether they looked becoming or not: and if they received a satisfactory answer, they began to caper with joy. Many of these women were handsome; which also served to separate them as a distinct race from the Lapps, among whom personal beauty is rarely to be observed.

We left Ylijasco; and passed under a rock, upon the eastern side of the Aunis, about fifty feet high. Our boatmen spoke of silver, which they said had been discovered in this rock. We were put back, that we might examine it; and plainly perceived that some person, more skilful than the natives, had
had been working in search of ore, by the manner in which a fissure had been laid open. The boatmen, however, denied the fact; maintaining, that, for many years, the metallic vein had remained unnoticed by all but themselves. We wasted some hours, to little purpose, at this new-discovered mine; being instigated by the hope of discovering some mineral worthy of notice. We found, indeed, a substance which had led many an adventurer to suspect the presence of a precious metal, by its specious appearance; namely, common Martial Pyrites, or the Sulphuret of Iron. The rock itself consists of Trap; containing ferruginous Hornblende: it is divided by vertical fissures; and in these fissures we found cubic crystals of the Sulphuret of Iron, lying in a soft, crumbling, yellow and green matrix, full of sparkling particles of the same pyritous compound. The smell of sulphur was sensible, and sometimes powerful, after every fresh fracture. Crystals of Hornblende were also discernible in different parts of the same rock.

About seventeen English miles below Ylijasco, we observed the junction of a small river with the Aunis, upon its western side, having a little island in its mouth. This small river marks the boundary between Kiemi Lapmark and the Finland province of Ostro Bothnia. As we were here to take our leave of Lapland, we heaped a pile of forest-trees upon the shore; and kindling an immense bonfire, once more dined, in the thick smoke of it, al fresco. The mosquitos, as if convened to bid us farewell (for we never saw them afterwards), were more numerous than ever: the whole atmosphere seemed to be full of them. During this, their
last visit, they made as good use of their time as possible: when we left the spot, our faces and hands were streaming with blood. The legs of our English servant were so covered with the wounds inflicted here, that an alarming suppuration took place; and unless very great care had been used, there was reason to fear a mortification would have ensued. We procured for him some of the Lapland boots, made of pliant leather; which are fastened with garters, like stockings, below the knee, and are large enough to draw over both swathing and trowsers at the same time: then, by keeping linen bandages, constantly wetted with the Goulard lotion, upon the wounded parts, the inflammation was at last subdued. The Aunis now appeared about a quarter of an English mile wide. We afterwards descended a very considerable rapid; and arrived at Alajasco, situate upon an island. The approach to it was very beautiful. Here we had the worst accommodation we had yet experienced. We were compelled to kindle a fire, that we might fry some of the abominable birch-tree bread we have before described: but there was no chimney, nor even a window for the smoke to escape. The only light in our apartment issued from our fire, through the dense smoke which filled the room; and from lighted splinters of deal, brought in lieu of candles, which they deposited in a large bundle, or fagot, upon the floor. The poor owners of the hut had not a single article of food in their dwelling. Had it not been for bark bread, which we had brought with us, and the remains of our cloud-berries, we should have been in a starving plight. At last, a neighbouring peasant arrived, bringing a bowl of delicious
delicious cream; which, with the rest, made a tolerable mess for the whole of our party.

August 8.—We left Alajasco. Cataracts and rapids are not so numerous in the Aunis as in the Muonio. Perhaps to this circumstance, as to one of the causes, it may be attributed, that the farms, which are always situate by the side of the rivers, are in general more numerous, more extensive, and in better order, here, than in Tornëå Lapmark. But the river is full of shallows, which often interrupted the progress of our boats; and of numerous islands, called Sari by the natives. Whenever we touched upon the shallows, our boatmen leaped overboard into the river, and dragged their vessels over the stones. Sometimes it was necessary for us to do the same. Wild fowl again appeared in great number: ducks, teal, geese, and loom. Two immense birds, of the stork kind, passed over our heads this day; the first we had seen since we left the south of Sweden. Seven miles below Alajasco, we passed Tolonen. All these places are single farms, stationed near the river. We dined and changed our boats at Pahta-koski. The house here was very clean; and we were regaled with barley-bread, butter, cream, and cheese made of cow's

(1) This bird is figured in the Lapponia of John Scheffer; and the remarkable formation of its feet is also stated by him, which we were inclined to consider as fabulous. "Id peculiare ipsi, quod non exeat in terras, sed aut volet, aut in aquis natet. Habet quippe pedes, sed breves admodum, si cum reliquò componas corpore, multumque ad posteriorem rejectos, ut nature quidem possit optime sustinere vero se in terra iterque institute haud valeat. Unde quoque nomen ei inditum, nam Loom, est claudum, et inhabile ad procedendum." Vide Cap. 30. de Avibus, &c. p. 349. Francof. 1673.
cow's milk. This place is eighteen English miles from Alajasco. We were enabled to procure a boat large enough to contain us all. It was about the size of a Thames wherry, but with less draught of water, and particularly elegant as to its form; lying upon the water like a feather; and calculated, by its shallow form, to pass the rapids and shallows, buoyant, without striking. These boats were afterwards common upon the river: they are all manufactured by the natives, with scarcely any other instrument than their knives; and some of them are so beautiful, that if sent to our country, they would be exhibited as curiosities. In descending with the stream, little oars, or paddles, are used; one at the prow, and another at the stern: the helmsman paddling and steering at the same time. About ten English miles from Pahta-koski, we passed Heiskari, and came to a very neat farm, with a clean house, called Pirti-koski. Here the banks of the Aunis appear to be much inhabited. We observed several farms; and meadows filled with peasants, all making hay. Around these farms we saw fields of rye, hemp, and barley: proving, that an industrious people might render the land here highly productive. In some future period, posterity may perhaps read descriptions of the provinces watered by the Aunis and the Muonio, as of the granaries of the North of Europe. The soil, it is true, is sandy; but wherever cultivation has been introduced, it is attended with success.

At Pirti-koski, we rested for the night; and found a field of young turnips, which afforded a grateful novelty to our eyes. The boats in the river, and others lying upon the shore,
with their keels upwards, afforded, by their beauty, striking proofs of the ingenuity and industry of the people. Their form is that of a crescent, the prow and stern rising high out of the water; and, as they glide along, they hardly seem to penetrate the surface. They are constructed entirely of thin slips of deal, kept clean and burnished; and even when deeply laden, are as light and manageable as the most elegant boats of the Turkish watermen, in the Canal of Constantinople. One of our English wherries, placed by the side of an Aunis boat, might seem constructed with more skill, but would appear clumsy in the comparison. Beneath the sandy surface of the soil lie pebbles of Trap: in some of the varieties, upon breaking them, we discerned threads of sulphuret of iron, resembling silver. Fragments also of red granite occur among these pebbles.

The next day, we left Pirtikoski. The Aunis now becomes very broad. At the distance of sixteen English miles and a half from Pirtikoski we passed Ravaniemi, a place falsely laid down in Hermelin’s map; it lies north of the confluence of the Aunis and Kiemi rivers. At Ravaniemi we observed, for the first time since returning from the borders of Finmark, a house with two stories, and window-frames painted red; evident symptoms of our approach towards a more inhabited country. Immediately afterwards, we saw the Kiemi river entering from the north-east; the Aunis joining it from the north-west. Each of these rivers has an island in its mouth, at the point of confluence. The Arctic Circle, according to Hermelin, is fixed exactly at the junction of the Aunis with the Kiemi. A sudden
A sudden feeling of exultation, at the successful termination of our expedition within the Frigid Zone, prompted us to stand up in the boat, with our hats off, as we crossed once more this polar boundary. We looked back towards the regions we had traversed, unmindful of the toils, the trials, and privations, to which we had been exposed; not being altogether insensible of a contending emotion of regret, in the consciousness that we should see those scenes no more. Similar sensations were experienced and acknowledged by a late enterprising and lamented traveller, when, being liberated from prison, he quitted the dungeons in which he had been confined: they are natural to all men who have long had fellowship even with a state of wretchedness. A moment’s retrospect upon the general condition of the Arctic regions will shew whether we had reasonable cause of regret, in the consciousness that we should never again return thither. It is true, as Linnaeus said of this country, that it is the land of peace; but it is the peace of an unbroken solitude, into which, if man presumes to penetrate, his first interrogations are answered by the howling of wolves and bears; and, at every step he takes, the stings of venomous insects inflict excruciating torments. When he looks around him, a wide and trackless forest extends in every direction; in which there is a character of sameness so little varied, that dulness rather than peace may be said to reign with supreme dominion.

(1) Semple.
dominion. Many a weary league is passed without meeting a single animal. The quadrupeds, excepting beasts of prey, are seen only near the solitary dwellings. Birds are few in number, excepting upon the rivers; where aquatic fowls, during one short season of the year, find an unmolested retreat, in which to hatch and rear their offspring. With the exception of the few colonial families settled in little farms, widely dispersed along the banks of the rivers, the human race may be considered as amongst the greatest rarities of the country. A single tent, more like a mole-hill than any habitation of men, in the midst of some forest, or upon the summit of some mountain, harbours a few wretched pigmies, cut off from all communion with society; whose dwarfish stature, and smoke-dried aspect, scarcely admits of their being recognised as intellectual beings "created in the image of God." What then are the objects, it may be asked, which would induce any literary traveller to venture upon a journey into Lapland? Many! That of beholding the face of Nature undisguised; of traversing a strange and almost untrodden territory; of pursuing inquiries which relate to the connexion and the origin of nations; of viewing man as he existed in a primæval state; of gratifying a taste for Natural History, by the sight of rare animals, plants, and minerals; of contemplating the various phenomena caused by difference of climate and latitude: and, to sum up all, the delight which travelling itself affords, independently of any definite object; these are the inducements to such a journey. Nor is it unrewarded in its consequences; for whether Science be materially advanced by it, or any addition
made to the general stock of human happiness, yet, so far as the traveller is himself concerned, he will be almost disposed to say with Reignard,† that it is a journey "he would not but have made for all the gold in the world; and which, for all the gold in the world, he would not make over again." After all that has been urged, it should be admitted, that the summer season is not that in which it is best to visit Lapland; although it be indispensable towards many purposes of scientific research. Winter is the festival time of all the inhabitants of these Northern latitudes. It is then that the Laplanders may be said to fly upon the wings of the wind. In this season, so congenial to his habits, his spirits are more elevated; a constant intercourse prevails among the nomade and agricultural families; all the fairs are held; provisions are more abundant, and more easily kept and conveyed; none of the evils of which travellers most complain are then felt; the perpetual darkness, in which the whole region is said to be shrowded, has been strongly misrepresented and exaggerated; the absence of the sun's rays is greatly compensated by serene and cloudless skies, in which all the other luminaries of heaven shine with a degree of lustre unknown in other latitudes; and, among these, the Aurora Borealis, added to the effect of reflection from a surface of glittering snow, produce a degree of light, of which persons can have no idea who have not witnessed a

Lapland winter. The air, too, is then calm and dry: even when the frost is most intense, a traveller, well wrapped in furs, and seated in his sledge, is never known to complain of those chilly sensations, and that coldness of the extremities, which are produced by dampness in a more humid atmosphere.

(2) These remarks are, of course, founded upon subsequent observations made by the author: he had, for the most part, a personal experience of their truth, during the following winter; and, besides, collected information, confirming the statement here made, from travellers who visited Lapland during the winter season.
KIEMI CHURCH.

CHAP. XIII.

FROM THE CONFLUENCE OF THE AUNIS AND KIEMI RIVERS, TO ULEÅBORG, IN OSTERO-BOTHNIA.

Korkila—Evident change in the manners of the people—Dianthus superbus—Descent of a Cataract—Vessel of three hundred tons launched—Fruit of the Rubus Arcticus—Prismatic fracture of Trap—Beautiful variety of Spar—Fruit of the Rubus Chamæmor—Reception at Kilpala—Primeval Plough—Wooden Lock and Key—Tervola—Midnight Fishery at Tivan-koski Cataract—Alaparkyla—Rovila—Appearance of Kiemi Church—Adelerantz, the Peasant Architect—Dress of the Finlanders—Kiemi Fair—Sunday Ball at the Parsonage—Of the Lapland and Finland Languages—Universality of Superstitions respecting Sneezing—Cypripedium bulbosum—Hay-making in the Streets of Torneå—Visit to a Swedish Family—State of Natural History in Sweden—Curious example of the power of genius—Dinner given to the Torneå Merchants—Prevalence of Intoxication—Character of the Finns—Departure from Torneå—Extraordinary Refraction
At its junction with the Kiemi river, the Aunis loses its name; and immediately after passing the point of confluence, we came to one of the principal Cataracts, having a Fall more considerable than any we had seen. We stopped to dine at a place called Korkila; already observing a great change in the manners of the people. Our rooms at Korkila were fitted up with the elegancies of painted tables, and with window-frames; refinements unknown beyond the Arctic Circle. We had, moreover, the satisfaction to observe, what does not always attend upon an increase of luxury, namely, cleanliness, in its utmost perfection. The house at which we were entertained bears the Swedish name of Gāstgífvaregård; by which word is meant an Inn: certain farms being appointed by the Governors of the provinces to serve as inns, and to supply boats, to merchants or other travellers passing up or down the rivers.

The Minister at Korkila supplied us with some tea and sugar, and a little brandy. One third of the said tea was made up with a mixture of cloves and other spices: this mixture, throughout most parts of Sweden, was used in preparing an infusion.

(1) Hermelin's Map is very erroneous with respect to this part of the country. The church which he has placed at Ravaniemi, on the Arctic Circle, is at Korkila, below the confluence of the two rivers, on the western shore of the Kiemi.
FROM THE AUNIS AND KIEMI RIVERS,

infusion which the inhabitants considered as a sad substitute for their favourite beverage, coffee; now universally and rigorously prohibited. Here we saw the sort of palisade, or hedge, stretching across the river, which is so commonly used in all these rivers, as a fence to intercept, and to facilitate the taking of salmon. The Aunis having now sufficient depth to admit the passage of large craft, we were no longer under the necessity of hiring two boats. In all the forests and fields south of Korkila is found that beautiful wild pink, the Dianthus superbus of Linnaeus. Just after leaving the place, as we were walking by the side of the river, we found this Dianthus flourishing in great abundance. The seed-vessels being ripe, we collected some of them, and afterwards sent the seed, in letters, to England. In the Botanic Garden at Cambridge, there still remain many thriving plants, derived from this spot: but their appearance was more beautiful upon the banks of the Aunis; because a luxuriant soil, and a longer although not a warmer summer, draws the stems to a preposterous length, without increasing the size of the flowers. North of this place, the Dianthus superbus is very rare; but the whole way from Korkila to Kiemi it grows in the greatest profusion; and in some places the ground is entirely covered with it.

Having to descend a steep and powerful cataract, we entered the boat, and were precipitated along with it.

Rapid

(1) It is considered as a rarity by the Swedish Botanists; some of whom requested that we would search for it in Lapland. It is very rare in Sweden; but common in Finland.
Rapid as our progress was, we struck sometimes with violence upon the rocks; whence bounding into the midst of the surge, we took in so much water, that it required every effort to keep us afloat. In the turbulent scene thus afforded, we saw wild-ducks sporting and diving around us, in the very midst of the cataract. Those artful birds, whenever they are disturbed in these rivers, generally make for the nearest cataract; seemingly conscious, that, by diving into the headlong torrent, they will the more quickly pass with their brood to such a distance from the persons pursuing them as to be removed out of their reach. Below this fall, the Aunis was a hundred fathoms wide; deep, rapid, dark, and clear; its shores lofty, and broken by rocks into rugged precipitous cliffs. Among the large stones and loose pebbles lying below these cliffs, the Epilobium angustifolium, of prodigious height and size, adorned the sides of the river with high mounds of showy, purple flowers: it may be considered as the garland of Lapland; often attaining the greatest magnitude, when every other sign of vegetation diminishes.

The Lapps call it Almoke. Among the inhabitants of Dalecarlia, this plant is called Heaven’s Grass: it is the same known in England by the name of Rose-bay Willow-herb,
Vessel of three hundred tons launched.

herb, and it may be found all over Europe, from Lapland to Italy; although it be not very common in Great Britain. Just before we came to a place called Rautio, we saw, on the eastern side of the river, the cradle of a ship of considerable size, that had been newly launched. It was a vessel of 300 tons burden; built by a Lieutenant of the Swedish army, and now aground in the midst of the Kiemi river, opposite Kiemi Church, within a hundred yards of the spot whence it would have had a safe passage to the Gulph of Bothnia. A bolder attempt was perhaps never made, in the history of navigation: it is really astonishing, that a ship of such magnitude should have been conveyed from this spot, where she was launched, over all the shallows, and down all the cataracts, to the place where she so unfortunately struck, when her owners were upon the point of triumphing in their undertaking. They chose, it is true, a season of the year when the river is swoln by floods: but when it is considered, that our little canoe, as it might comparatively be called, was with difficulty impelled along the same passage, and that, notwithstanding all the experience of our pilots, we were often striking against the rocks, it is hard to conceive how a vessel of 300 tons could be kept buoyant in such a channel. The peasants felt a great interest in her fate; and many of them assured us that they did not despair of being able to get her off in the next spring: their only fear was, that she would not withstand the shocks to which she would be exposed by the breaking up of the ice, when the thaw should commence; as the huge masses rushing towards the Gulph
Gulph might break her to pieces. However, it was unanimously their intention to make another attempt at getting her afloat. We thought, at all events, the materials would be valuable: but vessels are so cheap in the north of the Gulph of Bothnia, that when any one of them is condemned, their owners never think of saving the materials. If a ship be worn out, they set her on fire; taking out of her only what little iron they can; and very little is used in building them. They are all constructed of deal timber; and of this the King of Sweden has enough to supply more navies than all the arsenals of the world will send forth, before the Millennium. In the place where this vessel was launched, the Kiemi is nearly half an English mile wide.

Here we landed, and found in the woods, near the shore, the dwarf Arctic raspberry; bearing the first ripe fruit (August 9) we had seen upon this rare plant. The flavour of its berries is finer than that of the hautboy strawberry, which perhaps it more resembles than of any other kind of fruit. These berries are of a dark red colour, equal in size to those of our common raspberry-trees; but the plant is so diminutive, that an entire tree, with all its branches, leaves, and fruit, was placed within a phial holding about six ounces of alcohol, in which state it has been preserved, even with its colours, unaltered; and may be so for any length of time, provided it

(1) It is in the possession of the Bishop of Lincoln; to whom the Author presented it, after his return to England.
it be kept as free from the access of the external air as if it were hermetically sealed. The smell of the fruit, when fresh gathered, is delicious. The Rubus Arcticus and Rubus Chamæmorus, according to Linneæus, are found only in Sweden; and they are not found in the southern provinces even of this kingdom. Sometimes a few plants are found in Dalecarlia, near to Fahlun, and here and there in Finland. In Angermanland, Helsingeland, and all over the two provinces of Ostero-Bothnia and Westero-Bothnia, it is more abundant. In the northern parts of the Gulph of Bothnia, especially in the neighbourhood of Torneå and Kiemi, the fruit of the Rubus Arcticus is annually collected, and sent as a conserve to Stockholm. It is used in that city as a sauce with meat, and in soup. Casks filled with the fruit of the Rubus Chamæmorus are also sent to Stockholm, where it is consumed in the same way; also in the making of vinegar, and for various other culinary purposes. In the evening, we arrived at Ruika, and slept in great cleanliness and comfort in a farm-house; where, for the first time since our return, we enjoyed the luxury of candles; having found some here, and being much in want of them. From half-

(1) But this is not true: the Rubus Chamæmorus is found upon our Northern mountains. The Rubus Arcticus has also been raised from seed in some of the Botanic gardens of this country; and the late Mr. Greville succeeded in making it bear fruit in his garden at Paddington, by covering it with a bell-glass during the whole of the autumn, winter, and spring, until the beginning of June, when the cover was kept off night and day;—thus producing, artificially, an effect similar to the natural habit of the plant; which is always covered by snow until the sudden thaw, caused by a solstitial sun, annually sets it free.
past eleven until half-past twelve at night, we could not now read or write without them; the evening darkness beginning to appear again: and it was very grateful to our eyes, bringing with it a sensation of rest to which we had long been strangers, owing to the continual sunshine and twilight glare of the Lapland summer nights. We had before used splinters, as torches, in rooms where light was excluded; but this was the first time of our noticing the return of natural darkness.

August 10.—We left Ruika; and, at the distance of four English miles, descended one of the most powerful Cataracts we had yet seen in any of these rivers. The banks of the Kiemi now appeared thick set with farm-houses: its shores resembled a fine garden, through which the river flows broad and rapid. Several varieties of Trap are among the minerals which we collected here; some containing iron pyrites, and others exhibiting the prismatic fracture by whichTrap is generally characterized. In many instances, the appearance of the stone, after being broken, was strictly that which it is usual to call basaltic; and this appearance was so constant a result of fracture, that the same specimen, broken seven or eight times, regularly exhibited either a quadrilateral, a pentagonal, or an hexagonal surface; and whether with four, five, or six sides, an angle of 124°, which is that of Hornblende, and to which this fracture is due, might

(2) The specimens are now in the Woodwardian Collection at Cambridge.
might be recognised. Between Ruika and Yatila, at Narkaus Cataract, we saw a very extraordinary stratum, constituting the bed of the river; but which had been left high and dry by the water, so as to enable us to examine it attentively; and from this stratum we detached, by means of our hammers, one of the most curious minerals we had found in all Lapland. It consisted of a mass of broad foliated calcareous spar, which we at first mistook for feldspar, until we perceived its utter infusibility before the blowpipe, and its effervescence in acids. It is of a fine flesh red colour; and its surface, worn by the torrent, had all the appearance of red feldspar. Upon being broken, its sparry rhomboidal fracture and inferior hardness ought to have decided its real nature, without further trial; but, like feldspar, it was traversed by a vein or layer of white Quartz; and a species of reddish Petrosilex, in colour and appearance resembling bacon, also existed in the same stratum, in a vein about two inches wide. Among the loose detached fragments left by the river, were numerous varieties of Trap. At Yatila, a peasant had prepared a very singular article of commerce for the ensuing fair at Kiemi, which was now near at hand. Having entered his cottage, we found, as it had often happened, that we might

(1) The pillars of the Giant’s Causeway, and of Staffa, are rarely, if ever, destitute of this angle; and it is always obvious in their fracture. The fact is, that the chemical constituents of Hornblende and Basalt are so nearly the same, that the only difference between them consists in the more perfect crystallization of the former.
might take entire possession of it; there not being a living creature to be seen. Upon the floor stood several barrels, containing each from twelve to sixteen gallons of the fruit of the Rubus Chamæmorus, the berries having been boiled, in which state they are sent to Kiemi for sale to the Torneā and Uleåborg merchants. Not being able to find either the owner of the cottage, or his wife, or any one of his family, we robbed him of a barrel of his fruit; leaving upon his table three rix-dollars (about nine shillings English), to pay for our plunder; about double the price he would receive for one of these barrels, after conveying it to Kiemi. Our boatmen told us, that the old man and his wife, upon their return, would never believe that any human being had taken away the barrel, and deposited so much money for their fruit. It is the poorest of the peasants who engage in the sale of this fruit; the wealthier farmers, who cultivate land by the sides of the river, being able to employ their time more profitably. All of them engage in the salmon-fisheries, which are numerous in this river. When the fish is caught, it is cut in pieces and salted, and afterwards sent down the river in barrels, for the towns situate on the Gulph, and for the supply of Stockholm.

We arrived at a large farm at Kilpala; the people belonging to it, as usual, being all absent, and employed at a distance from their home, in mowing the long grass by the sides of the rivers and lakes. As soon as it is cut, it is made up into stacks upon the spot where they find it,
by means of a few poles made into a rack, for drying it, in this manner:

We frequently observed these racks near the river. In this deserted mansion we were compelled to have recourse to our former practice of plunder; and finding good store of rich cream in the dairy, we sate down to it with our barrel of berries, and began to eat our dinner. The servants also took care of themselves. In the midst of our meal, the owner of the cottage, with his wife, children, and grandchildren, made their appearance; the old man laughing heartily to see us so much at our ease; and cracking his jokes upon the thieves who had broken into his wife’s dairy, said we must make our peace with her, by giving her, each of us, a salute. He made us heartily welcome; and we became such friends, that we had difficulty in persuading him to take us away in one of his boats. “If we would consent to pass one night beneath his roof,” he said, “we should be well treated, and it should not cost us a farthing;” adding, moreover, that “he would transport us and our baggage the whole of the way to Kiemi for nothing.” This was genuine Swedish hospitality; such as no other country, perhaps, in the world, displays
TO ULEABORG, IN OSTERO-Bothnia.

we remained with our kind-hearted host as long as it was in our power; but the season was too far advanced to allow of any waste of time; for we had all the mountains of Norway to scale, before the passage over the higher alps of that country would be closed by the snow. He shewed to us several implements belonging to his farm. The sort of plough used in this country, and throughout the whole of Ostero-Bothnia, is primeval; and it proves that the soil is light, as it could not be used in deep and heavy land. It is drawn by a single horse, and guided by a peasant. In fact, this plough merely harrows the ground: it called to mind the old Samnite plough, as it is still used in the neighbourhood of Beneventum in Italy; where a peasant, by means of a cord passed over his shoulder, draws the plough which his companion guides. It only differs from the most antient plough of Egypt, as we see it represented upon images of Osiris, in having a double instead of a single coulter.

After leaving Kilpala, the shore on either side was entirely covered with prismatic Trap. To avoid the passage of a cataract, we landed, and walked by the side of the river, until we came to a farm, destitute, as before, of its usual inhabitants. Upon the door of their steam-bath we found a wooden lock, with a wooden key left in it; the whole being so singularly and ingeniously contrived, that we committed another

(1) See figures 5, 6, 7, 8, of the Plate facing p. 214 of the Quarto Edition of Part the Second of these Travels; Sect. 2. Broxbourne, 1814.
another theft for the benefit of the proprietors, and left a small sum of money for the said lock and key, upon the house table. Afterwards we arrived at Tervola, where we hired two boats. To the south of this place, the Kiemi exhibits one of the liveliest scenes imaginable, by no means destitute of magnificence. Here forests no longer crowd and darken the sides of the river; the land appears like a fine cultivated garden; farms, continually succeeding to each other in an uninterrupted series, cover the shores with cheerful dwellings. There is no scene of this description upon the Torneå. The stir and buzz of industry has succeeded to solitude: again the voice of gladness, and the burst of mirth, are heard in songs and laughter. Banks gently sloping to the wide and fast-flowing river, fringed with shrubs, and decorated by the fields of the husbandman, everywhere manifested a numerous population. Female peasants, in their best apparel, were seen crowding into boats as the evening drew on; or on foot, in large parties, hastening with their swains, along the shore, to the fair at Kiemi. About ten o’clock the sun went down; but in such splendour, as it is not easy to describe;—an horizon all of crimson! What is marvellous, and we had remarked the same before, that part of the horizon which was opposite to the point of his setting was tinged with hues as vivid as those which marked the place of his going-down. The river, like

(1) This curious wooden lock and key are now deposited in the Collection made for Lectures upon Arts and Manufactures, by Professor Farish, in the University of Cambridge.
like a broad mirror, caught the kindling glow; and sky, and land, and water, seemed to be on fire. Long after the sun had set, this appearance continued, with an astonishing effulgence of light and colour, in the northern part of the hemisphere. We could no way account for it; but we gazed upon it, with that rapturous, yet awful admiration, which bade the Psalmist exclaim, “The heavens are telling the glory of God, and the firmament sheweth his handy work!” Before we arrived at Alaparkyla, where we rested during a part of the night, it became necessary to take the boats out of the water, and to haul them over the land for a short distance, owing to a dangerous cataract, called Tivan-koski, down which no man ever ventured to descend, excepting one unfortunate individual in a fit of intoxication, and he was drowned. It was midnight when, as we were walking by the side of the river, we came to this cataract; where we found thirty or forty peasants fishing in the midst of the torrent. The scene was such as can hardly be conceived. Some of these men were in boats with lighted fires in the prows, to attract the salmon for the harpooners; others had kindled fires upon rocks, in the midst of the waters, for the same purpose; others were up to their girdles, in the midst of the turbulent waves, with spoon-nets in their hands, watching the motions of the salmon as they endeavoured, with surprising leaps, to ascend the cataract: again, others wrapped in bear-skins, with fur caps upon their heads, were employed before large bonfires upon the shore, roasting fish, by holding them upon wooden spits over the glowing embers.
We remained with them for some time, regretting only the want of a painter to represent a sight so truly extraordinary: at length, subdued by fatigue, we endeavoured to get a few hours rest at Alaparkyla: but the boats not being arrived with our beds, we slept upon wooden benches placed against the wall of the room in which we passed the night.

August 11.—From this place to Kiemi the distance is only ten English miles and a half. We embarked at eight in the morning, and passed the church and village of Rovila. Soon afterwards, we came in sight of Kiemi Church; one of those magnificent buildings which the piety of the peasants has induced them to erect in many parts of Sweden and Finland. It presented a very striking object; having in front a portico of Doric pillars, surmounted by a dome, designed in good taste, but ill executed. With the appearance of a stone building, the whole of it is of wood. A circular range of Ionic pillars, with arches, support the cupola; the general appearance of which is not much improved by the faces of a clumsy clock: but it is still more disfigured by an enormous cock, placed upon the top of the crucifix above a gilded ball; serving as a pinnacle of the whole building. If one of the Athenian temples, like the Chapel of Loretto, were to take its flight through the air, and the traveller were to find it in the wilds of America, he would not be more surprised than at the anomaly of a stately Grecian structure upon the borders of Lapland. This church, together with that of Tornøa, Skellefteå, and some others, were built by an architect of the name of Adelcrantz,
a common peasant of Finland, whom we afterwards found upon the spot; and of whom we bought the plan and elevation of Kiemi Church; the latter of which has been engraved, upon a reduced scale, as a Vignette to this Chapter. Adelcrantz is a native of Nya Carleby in Ostero-Bothnia. The interior of the building not being quite finished, we found him, the day after our arrival, at work, like a common day-labouring carpenter, in a dark part of the cupola. He told us, that there was at present a rage for building churches among all the natives inhabiting the northern shores of the Gulph of Bothnia: that, by an order of Government, if the inhabitants of a particular parish wish to build a church, they are first required to send notice to Stockholm, giving an exact account of the sum they can raise for this purpose, when regular plans and architectural designs for the proposed structure are, in consequence, returned to them. This, while it confirms the observations before made respecting the church at Skellefteå, will serve to explain the elegance of the churches, in many instances, in the north of Sweden. We could not call to mind a village in all Great Britain with so magnificent a church as this of Kiemi, and few of our towns are in this respect so well provided. Of Sweden in general it may be said, that, with few exceptions, its towns cannot boast of such stately churches as its villages. Opposite to this church we saw the stranded ship before mentioned, lying upon one of the shallows in the midst of the river.

The

(1) See p. 244. Chap. VII. of this Volume.
The pure costume of the Finland peasants is very elegant: we saw it here generally worn. It consists, among the men, of a jacket, with pantaloons, buskins, and a yellow sash worn as a girdle round the loins. The sash, although generally yellow, is sometimes red, and sometimes it is variegated with flowers. The buskins are bound about the ankles with scarlet garters, ending in a black tassel. The jacket and pantaloons are of the same colour, and generally white; but blue, black, and grey, are also used. Some of the men, but very few, appear in long white coats, bound with the same sort of sash, like the Don Cossacks. The dress of the women resembles the costume of the females of the Venetian territory, and is very beautiful. They appear in a short scarlet or striped vest, made as gaudy as possible, with large and loose shift sleeves of very white linen, and white hoods or handkerchiefs upon their heads. The vests are often of silk or rich damask, embroidered with large brocade flowers. The name of this place, written Kiemi, is pronounced Chimmy, with the Ch, as in our word Chimney. We were fortunate enough to arrive in the very heyday of the fair, which lasts during ten days, and brings hither all the principal merchants from Uleä and Torneä. This being the Sabbath, was considered as one of the days upon which the most business is done. The fair is held upon an island, where several log-houses, like those of Enontekis, are stationed as warehouses, ranged in the form of streets, for exposing the goods belonging to the traders; by much the greater part of whom come from Uleä. They sell linen and woollen cloths, reindeer harness, handkerchiefs, hardware, caps, and trinkets.
The *Lapps* and *Finns* come to this fair from the most distant provinces; and it amused us to see how the wives and daughters of the dealers had dressed themselves, to attract the notice of these people: the more remarkable and conspicuous their appearance, the more custom they gained; many being fantastically dressed, and painted, like the strange figures exhibited to attract notice at a puppet-show\(^1\). It was a gay scene: the boats passing to and fro from the isle to the shore, and the crowd assembled upon the little island, afforded a pleasing *coup d'œil*. The church service had just ended, as we landed. A vast throng of peasants were filling all the boats, to go over to the island\(^4\). Seeing this, we stepped into one of the boats, and were speedily conducted into the midst of the jovial multitude. Of what nature the church service had been, they were very ill calculated to inform us: by much the greater part of the men were very drunk, shouting, singing, and romping with their favourite lasses. Great allowance may be made for the joyous season of this annual festival; but these were almost all of them *Finlanders*; and the *Finns* are notoriously of a livelier and more profligate disposition

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(1) The custom being itself *Asiatic*, and of *Scythian* origin, whence the whole *costume* of a fair may be said to have been derived: witness the form of the booths, and the sort of shows, exhibited at the fairs in the interior of *Russia*.

(2) "The *Finlanders* of *Uleåborg* made their appearance, at this fair, in a dress which resembles the habits of the lower order of *Jews* in *England*; and is so far *Asiatic*, that it is common in *Russia*;—a long blue coat, fastened in front, by *loops* of *lace*, to *small round silver* or *white-metal buttons*, and bound about the loins with a *coloured sash*.

*Cripps's MS. Journal.*
disposition than the Swedes. We had never seen a drunken mob in Sweden upon the Sabbath-day; nor indeed on any day, among the peasants. If intoxication prevail at all in that country, it will be found in the class of society who style themselves their betters. We were told, that, upon the ensuing Sabbath, the Priest intended to give a ball, at his own house, to all his friends in the fair: so much does custom decry or authorise the same thing in different countries. What would be thought, in England, of a ball given by a Clergyman, at his parsonage-house, upon the Sabbath-day? The whole country would be up in arms; and as great a ferment excited, as if a Bishop were seen dancing at a ball upon any other day. We had the pleasure of becoming acquainted with this Clergyman, and found him to be in all respects a worthy member of the pastoral office; bearing an excellent character; respected by his flock; and possessing considerable literary attainments. We received from him much useful information respecting our travels, and many rare plants which he had collected. Of all men, he was one of the least disposed, either to neglect his clerical duty, or to be guilty of any violation of the sanctity of the Sabbath. It was, in fact, an annual

(1) "At Kiemi, we had, for the first time, an example of a person pretending to the power of witchcraft. Our interpreter having told a woman that she was the only dirty person he had seen at the fair, she answered, with a threatening countenance, "Look to yourself! I will take care that mischief befal you! Whenever you return to your own home, look to yourself!"—Cripps’s MS. Journal."
annual custom, long established in the place, that the Clergyman of Kiemi should thus receive and treat his friends; and he had conformed to it, as his predecessors had done before.

Both the Lapland and Finnish languages are pleasing to the ear, and admirably suited to poetry, owing to their plenitude of vowels. They constantly reminded us of the Italian; and we might cite several instances of words common to all the three. Acerbi, as an Italian, sometimes understood the expressions used by the natives of Finland. But how great is the obscurity which involves the origin of the Finnish tongue! The people who speak it have no written character: their language therefore suffers in writing*. Foreigners judge of it by the manner in which it is written either by the Russians or by the Swedes; and both these nations, using their own characters, express the language of the Finns, not merely according to their peculiar notions of its pronunciation, but, what is worse, according to their peculiar method of expressing that pronunciation. Nothing can be softer, or more harmonious, than the sounds uttered by a Finland peasant, when reciting his Pater Noster. It is full of labials, nasals, open vowels, and diphthongs, and is destitute even of a single guttural. It may be considered, therefore, as having, of all languages, the least resemblance to the Arabic, which, as spoken by the

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* "Une des entreprises les plus utiles aux progrès de l'Archéologie seroit donc un Glossaire Finnois."

the Arabs, is full of the harshest gutturals. We have subjoined a correct copy of the *Pater Noster*, as published by the Swedes in the Finland tongue. Judging from sound only, the language of Lapland, supposed to be a remote dialect of the Finnish, resembles that which is spoken by the natives of Japan; yet the same ideas are not expressed by the same sounds, as may be made instantly apparent, in the comparison of a few nouns.

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<th>ENGLISH</th>
<th>JAVANESE</th>
<th>LAPPISH</th>
<th>FINNISH</th>
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<tr>
<td>God</td>
<td>Sin</td>
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<td>Fire</td>
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<td>Ice</td>
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<td>Mountain</td>
<td>Jamma</td>
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<td>River</td>
<td>Kawa</td>
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The language of the *Lapps*, in its different dialects, seems to be very extensively dispersed. There seems good reason for believing that it exists, under different modifications,

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1. "Isa meidän joka olet taiwaista. 
Pybitetty olkon sinun Nimes. 
Læhes tulkon sinun Waldakundas. 
Tapatukon sinun tahtos, niin maasa, kuin taiwasa. 
Anna meille tenæpaiwaææ meidæn joka 
pæiwæinen leipæemme. 
Ta anna meille meidæn syndimme 
andexi, niinkuin me kin andexi 
annamme, meidæn welwollistemme. 
Ta elæ johdata meitä kiusaureen, 
Mutta pææstæ meitä pahasta. 
Sillæ sinun on Waldakunda ja Woima 
ja Kunnia, ijankaikkisesti. Amen."

over the north-western parts of Russia, Finland, Lapland, Greenland, and the coasts of Hudson's Bay, and Labrador, inhabited by the people called Esquimaux. The territory of Russian Lapland alone is nearly 700 British miles in diameter, but it does not contain more than 1200 Lappish families; so widely dispersed are this nomade people, in whatsoever land they dwell. A curious custom exists among all these northern nations, as among the French and Italians, and many of the inhabitants of Asia and Africa, for which it would be difficult to assign an origin; namely, that of making a low bow, accompanied by some expression of benediction or of salutation, when a person happens to sneeze. The effect produced in a whole army of the Antient Greeks, by the mere circumstance of a person sneezing, is related by Xenophon⁴. The approaching return of Ulysses was hailed by Penelope in the sneezing of her son Telemachus⁵; and a religious reverence for sneezing, so antient,
so universal, so utterly absurd, and so unaccountable, is not only alluded to by the Greek and Roman Historians, but has excited the curiosity of antient and modern philosophers'.

Botanical travellers will not visit Kiemi with indifference: it is the only spot in all Europe which may be referred to as the habitat of that rare and beautiful plant, the Cypripedium bulbosum. The students and professors of Upsal send to Kiemi for specimens of this plant. Linnaeus, who published an accurate representation of it in his Flora Lapponica, and gathered his account of it from Rudbeck himself, failed of finding it, when he visited the place. It is, in fact, one of the indigenous plants of North America; and, therefore, it appears here only as an emigrant, who has settled upon the borders of Lapland. The clergyman of Kiemi annually collects some specimens of it, as he receives applications for them from so many persons: he very kindly presented us with four of these'. Among the Swedish botanists, it is always considered as the greatest rarity their country affords. It was in procuring specimens of this plant that we heard, to our great surprise, that Signor Acerbi, and his friend Colonel Skiöldbrand, had recently passed through Kiemi, in their return to Uleå, from the North Cape. They arrived at Enontekis the day

(1) See Aristotle, Plutarch, Pliny, &c. &c.
(2) See Tab. xii. fig. 5. Flor. Lapp. Amstel. 1737.
(3) Sir Joseph Banks has specimens of the same species of Cypripedium, from the banks of the River St. Lawrence in North America; which he shewed the Author, soon after his return to England. The American specimens differ, as varieties, only in being of larger size.
day after we left it; and finding Mr. Grape absent from home, they made no stay there, but descended the Muonio and Torneå with all possible expedition; and we, coming by other rivers towards the same spot, had nearly met them.

We hired carts to convey us to Torneå. The country between Torneå and Kiemi is covered with dwarf fir and birch trees. We passed several poor farms, and crossed three ferries. The bridges had been destroyed by ice, during the preceding winter. Those bridges had not been long finished: they had cost the peasants 3000 rix-dollars. The road is excellent: it was full of well-dressed people, going to and returning from the fair. We soon came in view of the churches of Torneå, which make a conspicuous and imposing appearance, in the otherwise unbroken line of the horizon. As we crossed the river to the island upon which the town stands, Torneå, once so strange to us, seemed as it were a home, to which we were returning. At the time of our arrival, the inhabitants were making hay in the midst of the streets of the town, according to their annual custom. We drank tea with the father of our Lapland interpreter, Mr. Pipping, one of the principal merchants. A party of gentlemen belonging to the place, his guests, were playing at backgammon, throwing the dice, from their fingers, against the sides of the tables, instead of using dice-boxes in the common way. The whole company, as usual, were smoking tobacco. The tobacco commonly used for smoking in Sweden is, all of
it, the produce of the country; and it is execrable. There is a manufacture for preparing it at Malmö. The genuine Dutch knaster is not to be bought, even at Stockholm: the Swedes sell a spurious composition of their own, under the name of knaster.

We prolonged our stay a little, during this our second visit to Torneå. Our good friend Mr. Lunneberg, Director of the School, was with us every day. He accompanied us upon an excursion to the new Finnish church, which was built by Adelcrantz, the peasant architect before mentioned. Near this building was found (August 12) the Dianthus superbus, still in flower. We paid a visit to a family residing in the country, at some distance from Torneå; and here we were introduced to a party of young ladies, who were embroidering flowers and landscapes very elegantly in tambour. They spoke the French language with fluency. One of them was reading a volume of Swedish poetry. We examined this work: it contained several long odes, and other miscellaneous poems, some of which were humorous. Of the odes, one was "To Sleep," another "To Morning," and so on for the rest. The favourite measure of the Swedes, in their poetical compositions, consists of thirteen feet; the rhyming termination of each line being formed with a Trochee. Of this it is not easy to give examples in our language; although we had something like it in the ballads of our ancestors.

The specimens of Natural History which we had brought with us from Lapland became the subject of conversation,
and especially the birds—the *Fringilla Lapponica*, and the *Motacilla Svecica*. Of the last, we had two stuffed; finding it impossible to procure a living specimen. They told us that this bird will not sing when it is confined in a cage; but that, in its native woods, it surpasses the *Nightingale* in the variety, harmony, and sweetness of its modulations and cadences. Perhaps this may be doubted: the *Swedish* ladies, who thus extol it, are not likely to know more of its melody than what they hear from the reports of others; and in our long rambling amidst the wilds and woods of *Lapland*, whether by night or by day, we never heard the notes of this boasted songster. Generally speaking, however, respecting the *Natural History of Sweden*, there is no want of accurate information in the country; because this branch of science is more particularly studied than any other. There is hardly

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(1) The author would have inserted an engraved representation of this bird, which is not bigger than a Wren; but even with the aid of a coloured plate, it would be difficult to picture the hues upon its breast. (*See the Note from Mr. Cripps’s MS. Journal, p. 355 of this Volume.*) In English books of *Natural History*, it is called “the Blue-throated Warbler.”

(2) *Acerbi* mentions the *Motacilla Svecica* as superior to the *Nightingale*, and “far better calculated for a companion in a room,” but he does not say that he ever himself heard it sing; and certainly no one, as yet, ever succeeded in making it sing in a captive state. “It lives,” he says, “in the bushes of marshy places, and particularly likes to perch on the dwarf-birch (*Betula nana*): its flight is generally low; it makes its nest in the moss, and lays between five and seven eggs, of a greenish colour, nearly resembling that of the moss with which they are surrounded. It feeds on insects and worms; and I have seen several of them with caterpillars in their beaks, which were destined for their young.” *Acerbi’s Travels*, Vol. II. p. 224. Lond. 1802.
an apothecary or physician who has not either a collection of stuffed birds or of insects, or of other living or dead animals, according as his knowledge and means of acquiring and preserving them is more or less extensive. A remarkable instance of the zeal shewn by this class of men, in such studies, occurred upon our return to Torneå. We had sent to the apothecary of the place for a few jars of conserved berries of the *Rubus Arcticus*, which it was said he prepared better than any one else; with a view of sending them to our friends in England. They were brought by a boy without either shoes or stockings, who, having executed his master’s orders, by their delivery, began to cast a longing eye towards the books of plants which we were engaged in turning over, being then busied in arranging our specimens; when, to our astonishment, he named every one of them as fast as they appeared; giving to each of them, with great accuracy, its *Linnaean* appellation. This extraordinary youth, with whom we soon became better acquainted, was the dutiful son of a poor widow of the name of *Pyppon*, living at *Uleåborg*, who having bestowed upon her child the best education her circumstances would afford, had placed him as an apprentice under this apothecary. The apothecary himself had a turn for *Natural History*; but did not choose that his little pupil should quit the pestle and mortar for the pursuits of botany and entomology: “it interrupted,” as he said, and perhaps very truly, “the business of his shop.” The consequence was, that this young *Linnaeus* carried on his studies unknown to his master; concealing his books and his plants, and rising every
every morning before three o'clock, that he might snatch a
few stolen hours from the duties of his profession, and dedicate
them to inquiries which had already qualified him to become
his master's instructor. If he found, in his bare-footed
rambles, a new plant, or a new insect, he was compelled to
hide it in his hat, and thus bear it to his hidden museum. It
fell out, however, that his master discovered his boxes of
insects; and these he afterwards allowed him to place in the
shop, because they attracted the notice of customers, and
gratified his master's vanity, who always exhibited them as
of his own collecting. They had been thus exhibited to us,
at our first coming to Torneå. This curious example of the
power of genius, rising superior to all circumstances, and
overwhelming every obstacle in one so young and friendless,
induced us to take some pains in prevailing upon his master
to allow a free scope to the bent of his inclination; and
many were the pretences upon which we sent to the shop,
that our young philosopher might be made happy in bringing
what was required. Upon one of these occasions, we told
him that a plant, rather rare, the Sonchus Sibiricus, was said
to grow in the neighbourhood of Torneå, but that we had
failed in our endeavours to find it. The words were scarcely
uttered, when he ran off, as fast as his legs could carry him,
and soon returned, bearing in his hands two or three specimens
of this plant.

Upon one of the days after our return, we invited the
Merchants of Torneå to dine with us; and our room not being
large enough to hold them, we had borrowed the apartment
of
of a Danish gentleman for their accommodation\(^1\). This gave rise to rather a ludicrous embarrassment: after the dinner ended, we sat waiting, in vain, to have coffee served, as usual. At last, the mistress of the house entered; and a good deal of whispering taking place, we asked the cause of it; when it came out, that she did not dare to serve coffee in any room but that which we had ourselves hired: and why? because coffee, being a prohibited beverage, there ought to be at least ground for a pretext that we had brought this article with us to Tornevå. We then adjourned to our own apartment; but some of the elder merchants were so scrupulous in observing the prohibition, that they would not touch a drop of the coffee, when it was brought in. One respectable old gentleman said, that "no Swede who loved his country would ever taste or encourage the exportation of an article which had contributed so largely to its ruin." Tea, or tea-water, as they call it, is generally used as a substitute. The Swedes do not sit, as we do, after dinner: the custom is, to rise from table, and walk about the room, smoking a pipe of tobacco. In the north of Sweden, as in Norway, they smoke tobacco lying in their beds; and during the whole day, carry about with them a huge tobacco-pipe, the bowl of which

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\(^1\) "For ten rix-dollars a year a man may have two very comfortable rooms. The wages of servants are very low. At Enonteki, we were told by Mr. Grape, that he hired his maid-servants for five rix-dollars a year. At this time, the exchange with England was so much against us, that English bills could not be discounted, but with a loss of ten per cent."—Cripps's MS. Journal.
which is as big as a man’s fist, while the tube is seen sticking out of the pocket, or swinging about in the hand. Intoxication is not less frequent, in consequence of the short time they remain at their meals: it is, in fact, the prevalent and almost the only vice of the inhabitants of Torneå. Drunkenness seems to pervade all ranks of people in the place;—but here the story of their vices begins and ends; it goes no further;—no thefts, no rapine, no murders. Great crimes are unknown among them. There had not been an instance of punishment for any capital offence, for a great number of years. Examples had occurred, in past times, of women destroying their infants, through utter incapacity to provide them with the means of subsistence, and to prevent their being starved to death; presenting an idea of poverty which we could hardly credit, from anything we saw in the country: but we were told, that the last public punishment was for a crime of this nature; at all of which, both the crime and its cause, humanity recoils. Acts of violence, if ever committed, are attributed, not to the Swedes, or to the Laplanders, but to the Finns; a lively but irascible race of men, of whom we shall soon have occasion to speak more fully. The traveller who visits this extremity of the Gulph of Bothnia, whether from Umeå on the south, or from the Lapland provinces lying towards the north, will frequently have occasion to remark, that whenever the Finns are mentioned in conversation, the inhabitants shake their heads, ascribing to them, or to their influence, all deeds of anger, lust, violence, and drunkenness. The Finns are to the Swedes and Lapps what the Irish are to the English and Scotch;
Scotch; that is to say, a nation in which the extremities of virtue and vice are singularly blended; haughty, impetuous, and arrogant, in prosperity; abject and spiritless in adversity; in all things given to excess, whether on the brighter or on the darker side: which is the real reason why it has been so often observed of the Irish, that every individual among them has two characters: and fortunate is it for those who have witnessed only a manifestation of the one, which is deserving of all praise.

August 15.—We prevailed with the apothecary to allow little Pyppon to accompany us to Kiemi fair. Upon the evening of this day, therefore, we bade a final adieu to Tornea. If our horses had been gifted with Pegaséan wings, they would not have flown fast enough for our young companion, so eager was he to reach Kiemi, and for once enjoy unrestrained liberty. During six years, with the exception only of his summer-morning scampers after a plant or an insect, he had never been farther from the shop than his master’s door, or the limits of his court-yard. We had given him some English needles for his insects, and a few other trifles from our trunks, with which he considered himself possessed of great treasure. In this manner, with the most buoyant spirits, he took his seat in our waggon; making his appearance, for the first time, with a coat on, and his feet and legs clad in shoes and stockings, that he might seem dressed for the occasion: but complaining, shortly after, of the confinement and heat his holiday suit occasioned, he begged permission to divest himself of the incumbrance. As night drew on, however, we felt the coldness of the air very
very sensibly. The coldness of the fogs, after sun-set, is very piercing in the valleys; but in ascending a small hill, or any little eminence, hot gusts of wind are felt as from a stove. The moon, this evening, exhibited some remarkable phænomena, owing to the state of the atmosphere. Indeed, the horizontal moon in Northern regions, at this season of the year, may be deemed as great a curiosity as the solstitial sun. In our own country, the rising of a fine harvest moon is one of the most glorious sights in nature; but the size of the orb this evening, when it first appeared, was as large as the fore-wheel of a common chariot. At first, half the periphery was visible in the horizon, like an arch of fire, with the most brilliant indentations. Soon afterwards, a new and singular phænomenon was displayed: the upper part of this semi-orb seemed separated from its truncated segment below, and remained suspended above it, like a lambent flame over an expiring lamp; the band of vapours, which separated the two parts, forming a line perfectly straight, and parallel to the horizon; and having the same hue as the rest of the atmosphere: the planet itself seeming separated into two parts, which receded from each other. Another circumstance, yet more remarkable, attended this rise of the moon. We thought that the upper part of the periphery appeared rather the segment of an ellipse than of a circle, resting on its major axis. Presently, all doubt was removed: when the whole orb had cleared the verge of the horizon, owing to the very great refraction of the lower stratum of the atmosphere, we saw the moon, perfectly elliptical as to its form, like a vast egg resting upon rolling clouds. It afforded proof of the dense
medium through which we viewed it; and probably, therefore, it is no unusual appearance in these regions¹; but a more magnificent sight can scarcely be conceived. The antient mythological fable of the Egg of Night resting upon Chaos may have owed its origin to a similar appearance²; and it may be

(1) "The air’s density and refractive power are increased by cold, and diminished by heat; not to mention the changeable mixture of vapours and exhalations with the air near the horizon. There is a famous observation of this kind made by some Hollanders that wintered in Nova Zembla, in the year 1596, and were surprised to find, that, after a continual night of three months, the sun began to rise seventeen days sooner than according to computation, deduced from the altitude of the Pole, observed to be 76°; which cannot otherwise be accounted for, than by an extraordinary quantity of refraction of the sun’s rays passing through the cold and dense air in that climate. Kepler (Paralipom. in Vitellio, p. 238) computes that the sun was almost five degrees below the horizon, when he first appeared; and consequently the refraction of his rays was about nine times greater than it is with us."—Smith’s Optics, vol. II. p. 62. (Remarks.) Quarto Edit.

After the preceding remarks upon the First Book of his Optics, the author mentions the oval figures of the horizontal Sun and Moon.

"Since the apparent vertical diameters of the horizontal Sun and Moon (by reason of the unequal refractions of the highest and lowest rays) are much more contracted than their horizontal ones, their pictures upon the retina, and consequently their apparent figures, become oval; their longest and shortest apparent diameters being frequently as 5 to 4, (Balthasaris Micrometria, p. 101, fig. 103.) especially in the mornings, when the rays are most refracted through a colder, denser, and moister air."—Ibid.

(2) Aristophanes in Avibus, v. 692. “Sable-winged Night produced an Egg: whence sprouted up, like a blossom, Eros, the lovely and desirable, with his glossy golden wings.” This subject afforded to Darwin the machinery for one of the finest passages in his poetry:—

"When Love divine, with brooding wings unfurled,
Called from the rude abyss the living world—
‘Let there be Light!’ proclaimed the Almighty Lord,
Astonished Chaos heard the potent word;
Through all his realms the kindling Ether runs,
And the mass starts into a million suns;
Earths round each sun with quick explosions burst,
And second planets issue from the first;"
be observed, that this Egg was called ὀν ῥηνήμων, which, according to Hesychius, signifies ῥηνηκος rainy.

This changeful scenery still continued, varying at every instant: at last there ensued a more remarkable appearance than any we had witnessed. The vapours dispersed, and all the rolling clouds disappeared, excepting a belt collected in form of a ring highly luminous around the moon, which now appeared, in a serene sky, like the planet Saturn, augmented to a size fifty times greater than it appears through our best telescopes. The belt by which the moon’s rays were reflected became beyond description splendid, and the clear sky was visible between this belt and

Bend as they journey with projectile force,
In bright ellipses, their reluctant course;
Orbs wheel in orbs; round centers, centers roll;
And form, self-balanced, one revolving whole:
Onward they move, amid their bright abode,
Space without bound, the bosom of their God.”

(3) ᾿Υπηρέμων ἄμμον, ῥηνον. Hesychius.
and the full fair orb which it surrounded. Certainly, if the same phænomenon had been visible in England, the whole country would have been full of it, from one extremity of our island to the other.

The effect produced by the moon's rising, considered merely as a beautiful spectacle, is often more striking than that of the sun: because, in latitudes where the sun's rising is always preceded by much twilight, its orb is more gradually introduced; but the moon, "covered with light as with a garment," bursts all at once from her obscurity. It is perhaps to this circumstance we may attribute those beautiful allusions to this planet, which are so frequent in the poetry of Northern nations\(^1\).

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(1) Of which we have instances in our language that it were superfluous to mention. Two or three may be cited. The first, remarkable for its exquisite moral feeling, is from Beattie:

\begin{quote}
"Roll on, thou fair orb! and with gladness pursue
The path that conducts thee to splendour again:
But man's faded glory what change shall renew—
Ah fool! to exult in a triumph so vain."
\end{quote}
In the north of Sweden, they have neither apples, pears, cherries, plums, nor any kind of fruit produced by cultivation; but Nature has been sufficiently bountiful to the inhabitants, in pouring forth a profusion of wild and delicious dainties. Among these, as the most abundant, may be mentioned no less than six species of raspberries, besides white, red, and black currants, which grow wild in all the forests. Our common raspberry appears abundantly, in a wild state, producing highly-flavoured fruit, between Torneå and Kiemi, as indeed throughout all Sweden. Wild gooseberry-trees may also be observed, but they are less common. Of the whortle-berry, they have four species, producing black or red berries. The black whortle-berry grows in such profusion, that it often covers the soil. The mouths of the children

Something, perhaps more pathetical, occurs in Charlotte Smith’s Poems:

“‘And oft I think, Fair Planet of the night!  
That in thy orb the wretched may have rest.’”

But, as more peculiarly applicable to the sudden display of majesty in which the rising of the moon is here said to be characterized, there is no passage more striking than that which Byron, in one of his “eagle-winged raptures,” and with that “deep sense of beauty” which belongs to all his poetry, has expressed in the finest Canto of his finest poem:—

“‘The Moon is up, and yet it is not night—  
Sun-set divides the sky with her—a sea  
Of glory streams along the alpine height  
Of blue Friuli’s mountains; heaven is free  
From clouds, but of all colours seems to be  
Melted to one vast Iris of the west,  
Where the day joins the past eternity;  
While, on the other hand, meek Dian’s crest  
Floats through the azure air—an island of the blest!’”
children were everywhere stained by eating of those berries, at this season of the year. Of the red whortle-berries they make a conserve, by boiling them in molasses, which they eat as a sauce for meat. All round the Gulph of Bothnia, the traveller, at this season of the year, will see old women and children waiting near the public roads, in hopes of meeting passengers to whom they may offer their large baskets filled with raspberries or whortle-berries. The baskets are made of birch-tree bark. Children frequently followed our carriage, presenting baskets of these berries. If, in return for a gallon of berries, they obtained a few pence, they endeavoured to load the carriage with more fruit; kissing our hands in gratitude, and bowing to the ground. We made tarts with the fruit we thus purchased;—a use to which the inhabitants never apply it, owing probably to the scarcity of sugar.

When we arrived once more at Kiemi, we found the place resounding with the shouts of stragglers from the fair. A forest on fire appeared towards the north, covering all that part of the horizon with the tremendous red glare it occasioned. To the inhabitants, this sight is so common, that no attention is ever paid to it. The conflagration extended for several leagues; but by the accounts given of it by persons from that part of the country, it was at a very considerable distance. The next morning we waited on the Clergyman, and saw his well-selected Herbarium: the specimens were in high preservation. He had also a few minerals, left by his predecessor; but they were scarcely worth notice. We then conducted young Pyppon
TO ULEABORG, IN OSTERO-Bothnia.

CHAP. XIII.

Departure from Kiem.

Here we saw assembled almost all the Torneå merchants; and, accordingly, we took leave of our friends; especially of Mr. Pipping, our Lapland interpreter, who was transacting his father's business; and whose good offices we can never sufficiently acknowledge. We found him at his favourite diet of raw salmon, surrounded by a crowd of Finns and Laplanders promiscuously mingled, all merry, and very noisy. A consciousness of the many pleasant hours we had passed together, added to the thoughts of never meeting again, depressed all our spirits, casting a gloom over the otherwise gay scene which was here exhibited. When we returned back to the ferry, we had another melancholy separation from little Pyppon, whose attachment to us would not allow of his remaining without us, even among his acquaintance: he therefore accompanied us to the other side. His request, when we asked him what we might send him from England, will add another trait to the sketch we have given of his character. “If you should remember me,” said he, “when you arrive in your own country, send me Drosera longifolia: I am told it is a common plant in England.” We then shook hands and parted: the poor boy, shedding abundance of tears, set out for Torneå; and we gained the main road leading to Uleåborg. It was now towards evening, and we did not proceed farther upon our journey this night than Kjanfraniemi; passing through Rautiola, about two English miles from Kiemi, and also Maxaniemi; at each of which
places we changed horses¹. We had often found as good accommodation in Lapland as we met with in Kjanfraniemi. Upon entering Finland, a very evident difference of manners is discernible. The disposition, habits, dress, and other national distinctions of the people, are very strikingly opposed to those of Sweden. We have already pointed out some of the discriminative characteristics of the Finns; and shall have occasion to mention more. We might say, perhaps generally of them, that, like the territory they inhabit, they are intermediary between the Swedes and the Russians; being nevertheless superior to the Russians in every amiable qualification. The inhabitants of this part of Ostero-Bothnia, and indeed the Finns in general, are a healthy and athletic race of men, inured to labour, and by nature active and fitted to undergo the severest trials of bodily strength. The King of Sweden has not in his dominions a finer nursery for soldiers than Finland: of this Russia is well aware, and never loses sight of that decided policy of her Cabinet which directs her, by all manner of means, fair or foul, to get possession of Swedish Finland².

The

¹ Parnassia palustris grows to a magnificent size between Rautiola and Kjanfraniemi. The Dianthus superbus also flourishes near the road, and attains much greater magnitude than in Lapland. The forests are low, and little varied in appearance: they consist of birch and dwarf firs. Several Lapland plants were here in seed; especially the Pedicularis Sceptrum Carolinum; but this was becoming rare, and only reared its exuberant stems here and there.

² The Reader will perceive that these and other remarks respecting the relative political interests of Sweden and Russia were written previously to the peace between the two countries, by which Russia at last wrested this territory from Sweden.
The custom of transporting houses from place to place, which is everywhere prevalent near the Gulph, is similar to what one sees in Russia. The houses are built in the forests: then they are taken to pieces, and conveyed to the spot where they are to be inhabited. The horses are, as usual, small, but beautifully formed, and very fleet. The peasants take them from the forests when they are wanted for travellers, and, with very little harness, fasten them to the carriage. In this state, they are without shoes, and seem perfectly wild; but it is surprising to observe how regularly and well they trot. A pair of them, with our little wagon, went frequently at the rate of twelve miles within the hour. The carts which we hired to follow with the baggage were large and clumsy, without any tire to the wheels; but they are so contrived, that the shafts act as springs. A person sitting upon the shafts, close to the horse's tail, and journeying upon the superb roads which he everywhere finds in Sweden, but especially in this part of the country, might travel conveniently in one of these carts, without being jolted.

About a quarter of a Swedish mile from Kjanfraniemi we passed a sawing-mill of great magnitude: finding that it was conducted upon a very extensive scale, we wished to have examined the works; but no business was going on, and the owners were absent. Just before we arrived at Alafva, we came to a glass manufactory, by the road side. Here we visited the laboratory, but observed nothing more than what is usual in such places. They were occupied in blowing cylinders about six inches in diameter and two feet in length:
length: these cylinders are afterwards again heated, for the purpose of being cut, and rolled out into plates of window glass. One of the men, to amuse the servants, made a glass trumpet ten feet in length, upon which he afterwards performed with wonderful skill: the tones were so loud, shrill, and clear, that they might be heard at a great distance.

From Alafva we came to Ijo, or I, pronounced Æ,1 so called from the river I, which is named Ijocki. We crossed this river by a ferry to the town; which, like many other towns on the Gulph of Bothnia, consists chiefly of empty houses, repositories for merchants during the annual fairs. The fair of Ijo succeeds that of Kiemi. Fresh salmon sold here at one penny English the pound; exactly the price at which the author remembered it selling some years before at Cardigan in Wales. The Church at Ijo is a picturesque object: in its style of building, like many of the smaller churches in Ostero-Bothnia, it resembles those of Switzerland. In our road from Ijo to Haukebodas, we were frequently followed by women and children offering raspberries and whortleberries. Fahrenheit's thermometer, this day at noon, 68°. We now began to pass villages, which is rarely the case on the western side of the Gulph, and never so in Lapland; the different stages extending always, in Lapland, from one place of settlement to another, without any appearance of habitation in the intervening district; unless, indeed, it be some wild Laplander's tent, which

(1) There is a river with the same name in Kuban Tahtary. See Part I. of these Travels, Chap. XVI.
which is never a fixed abode. The population of Ostero-Bothnia is very considerable, and the ground is better cultivated than in any other part of Sweden. The harvest for rye and barley had commenced: the crops of rye were everywhere excellent; those of barley bad; some of the latter hardly worth reaping. Throughout the whole of this district the soil was in fine order; the ground being well cleared, and kept remarkably clean. The Finland farmers are particularly neat in husbandry. Wild currant-trees were in great abundance upon this road. We dined at Haukebodas, upon fresh salmon and cloudberries and cream. Leaving this place, we proceeded to Jukuri, where we changed horses. Here the road became bad, a very unusual thing: it had been newly made, and consisted of deep sand. The country, unlike that of the western side of the Gulph, lies open to view. The town of Uleå, or Uleåborg, makes a conspicuous figure, in its approach. It has two churches, as have also almost all the other towns in this country; one for the people of the town, the other for the peasants. During divine service, they never mingle together; the peasants rather choosing to supply the expense requisite to maintain a church and minister of their own. We crossed a ferry to Uleå; being conducted, round a point of land, to the Custom-house, which is opposite the town. The officer had retired to rest, and did not choose to be disturbed by the usual examination of the luggage. The approach by water to Uleå is picturesque; but it was rendered more highly so, this evening, by the rising of the moon, in all her brightness, from behind the town. In this prospect, the warehouses of the merchants constituted