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NARRATIVE OF A JOURNEY

TO THE SHORES OF

THEARCTICOCEAN<br>in

1833, 1834, \& 1835.

VOL. I.


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## NARRATIVE

OF A

## JOURNEY TO THE SHORES

OF
THEARCTIC OCEAN,

UNDER THE COMMAND OF CAPT. BACK, R.N.

BY RICHARD KING, M.R.C.S. \&c.

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SURGEON AND NATURALIST TO THR EXPEDITION.
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IN TWO VOLUMES.
VOL. I.

LONDON:
RICHARD B. F $\mathrm{F}_{\mathrm{A}} \mathrm{N}$ TLEEY,
 BURLHOEZE S̈TREET.隹浪ersitas Blallonisesa.

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## PREFACE.

The expedition of which the following is the Narrative, consisting of Captain Back and the Author, with an adequate number of men, was fitted out in the early part of 1833 , by public subscription, aided by a grant from Government, to effect two objects: first, to render assistance to Captain (now Sir John) Ross and his party, who had sailed in 1829 to the Polar Regions, and of whose fate at that time no information had been obtained; and afterwards, having either succeeded in the accomplishment of this humane undertaking, or having ascertained beyond question that its success was impossible, to extend our knowledge of the Northern Coast of North America.

With regard to the first object of the expedition we were anticipated by the return of

Captain Ross in the month of October subsequent to our departure; and this happy intelligence having been forwarded through the Indian country with much praiseworthy zeal, fortunately reached our winter-quarters before any final arrangements were made for visiting the coast.

Our whole attention was consequently directed towards the second object of the expe-dition-that of geographical discovery; and from an abstract of Captain Ross's proceedings inclosed to us, the completion of the survey of the coast-line from Point Turnagain eastward appeared to be comparatively easy ; but this proved not to be correct, nothing important to that end having been effected.

Nevertheless, as the various obstacles occasioning this failure were of a surmountable character; I was led, while yet tented on the shores of the Polar Sea, to form the project of returning to resume the research at the point where Captain Back had terminated his labours, after he had avowed his intention to abandon the project as far as a land expedition was concerned.

The complete survey of the coast appeared to me so easy of accomplishment, that fearing it might have emanated from too sanguine a mind, I courted every inquiry from the Indians,' traders, and voyageurs, as to the practicability of my plan; and I was rejoiced to find that their opinions were universally favourable.

I did not hesitate, therefore, on reaching England, to forward my proposition to Government; and after estimating the expense of carrying it into effect, which amounted to one thousand pounds only, I did hope that my plan would have been favourably received. After a. lapse of several months, however, I was informed that it was not the intention of Government to promote any further discoveries in the Arctic Regions.

Still unwilling to abandon an enterprise. which, if only undertaken with a proper zeal and upon economical principles, will I have no doubt eventually prove successful, I published a prospectus describing my proposed journey, with a view of obtaining the necessary funds by public subscription. As this appeal, however, was not made until within a few weeks of that period of the year when alone
such a service can be undertaken with any chance of success, scarcely a third of the required sum was subscribed. Nevertheless, as I was anxious to lose no time, and confided in the further support of my countrymen, I set sail last March; but contrary winds obliged me to return, and postpone my journey until the approaching season.

I have taken advantage of this interval to draw up the following Narrative of the late expedition; which I conceive is not superseded by the work of Captain Back. The present work enables me, moreover, to state the reasons which have weighed with myself, and may induce others to encourage a new expedition on a more moderate and economical scale, -one equipped for greater despatch and execution than any of the former. Attention is earnestly requested to this subject, which will be found particularly discussed in the concluding chapter.

The propriety of publishing this Narrative having been questioned by some persons, I have thought it right to insert the following paragraph, which formed a part of my instructions
on joining the service :-" All specimens collected and all journals kept by you are to be placed, in the first instance, at the disposal of the Committee, as materials from which to prepare an official Account of the Expedition; nor until this is completed are any private notes or Journals to be published. But, when completed, all your Journals and papers, and one half of all the specimens collected, (the division to take place by mutual agreemént;-or, failing such agreement, by two referees, one to be chosen by each party,) are to be returned to you, and become your exclusive property?"
So far, however, from fulfilling this part of the contract, the Arctic Land Committee did not until some time after the publication of Captain Back's Narrative return my journal to me, and $I$ have not yet succeeded in obtaining many of my papers and valuable specimens.

London,
November 2, 1836.

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## Narrative.

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On Saturday the 9th of February 1833, accompanied by Charles M•Kenzie, Thomas and William Mathews, I left the Regent Circus, Piccadilly, for Liverpool; where Captain Back subsequently arrived. We received flattering attentions from Mr. Horsfall the mayor, Mr. Laird, and others; and on Sunday the 17th embarked on board the Hibernia packet, Captain Maxwell, for New York.

VOL. I.

The weather during the early part of the voyage being extremely boisterous, the winds variable and contrary, our passage was much impeded; and, to add to our annoyance, we came in contact, in lat. $45^{\circ} \mathrm{N}$. and long. $48^{\circ}$ W., with an apparently interminable field of ice, in which we became fixed on the 12th of March: our further progress was in consequence for some time wholly prevented, and a protracted and disagreeable voyage was anticipated by both crew and passengers. Some time after, the dense fog, which had for some days prevailed, cleared away, and presented to our view three icebergs of considerable magnitude, but sufficiently distant to threaten us with no molestation. Two of them were right a-head to leeward; the third, by far the largest, was bearing down majestically upon the packet's weather-bow, apparently about two miles distant: the angles which its length and altitude subtended having been taken, its dimensions were estimated at about one thousand five hundred feet in length, and seventy in height. A sight so novel and imposing as those stupendous moving mountains presented, brought, as
may be readily imagined, every passenger on deck; when curiosity suggested to some of them the idea of taking a walk upon the ice in order to enjoy a nearer view of those wonders' of nature: the project was, however, abandoned on reflecting that the impetus with which they strike any object which comes in their way is so immeasurably great, that vessels have been crushed to atoms, and fields of ice of amazing extent completely broken up by the concussion; and that in a moment, while gazing on them in fancied security, the shock might hurl them into futurity, or separate them from the vessel in such a way as to defy the power of man to render them assistance.

By the 15th we were fortunate enough to get into open water; and on the 27th we took up our quarters at the City Hotel, New York, where the most polite and hospitable attention was paid to us; all classes appearing extremely anxious for the success of the undertaking. The usual forms of the Custom-House were dispensed with, and our passage to Albany in the Ohio steam-boat was kindly proffered by the

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Hudson's River Steam-boat Association. At a déjeuné à la fourchette, given by the British Consul, Mr. Buchanan, we had the honour of being introduced to, Sir Charles Vaughan, the Honourable Mr. Webster, Mr. Washington Irving, Mr. Audubon, and other distinguished and scientific gentlemen; and so great an interest had the expedition excited, that on the eve of our departure, upwards of a thousand persons assembled to see us, giving three loud cheers as the vessel moved from the wharf.

At Albany we fell in with Mr. Bloodgood, who expressed the deepest interest for the success of the expedition, and of whom I shall have to speak in another part of my narrative. A roomy travelling carriage was here engaged for ourselves, and a van for the conveyance of the baggage; but, notwithstanding there were four horses in each, the bad state of the roads soon obliged us to put up with a waggon, four feet high, and without either springs or seats. The constant jolting from the vehicle either rolling into deep ruts or large holes, caused by the decay of some portion of the logs of wood which had been laid across to mend the road,
and termed by the Americans corderoy from a similarity of appearance to the cloth of the same name, made us truly miserable. On arriving at St. John's, we begąn to forget our troubles in the anticipation of the road before us, which was said to be macadamized; our joy was, however, but momentary, for a few paces only were sufficient to convince us, that we had yet to travel over by far the worst part of the ground.

The route was full of interest; the tin-roofed churches, and the sight of burial-places near every habitation, together with maple-trees under the operation of "tapping," were novelties not to be slightly passed over.

Each returning spring and autumn, a small hole is bored through the bark of the sugar maple-tree, into which a spout of iron or wond is fixed to convey the sap into a receiver placed for the purpose. It runs more freely in the night than in the day, but always in a contir nuous stream. Several gallons are thus annually drawn from each tree. The sap is subjected to the process of boiling until it has attained a sufficient consistence: it is usually met with
in cakes of a light brown colour, and in taste it is similar to the coarsest brown sugar.

The fence of the agriculturist is worthy of remark from, its singularity, being composed of the roots of trees obtained by the process of grubbing : it appears strong, and, at the same time, forms a very fanciful object.

The croaking of the frogs is so loud, that it might be mistaken for the quacking of ducks, by one unaccustomed to the country; I was so thoroughly impressed with this idea that I more than once prepared my gun, and waded through a succession of swamps in search of them.

During our evening excursions we frequently met with parties fishing on the banks of the rivers by the side of a blazing fire, kindled for the purpose of fascinating the finny race. On taking the ferry across Missisquee Bay, where several gentlemen were thus employed, while their horses remained tied to a gate, the lamps of our carriage frightened the animals to such a degree, that they broke their bridles and escaped into the woods, to the no small dismay of their owners.

On the 9th of April, passing over a wooden bridge nearly a quarter of a mile in length, we crossed La Rivière Richelieu, where sturgeon are caught in abundance; and having spent a night of comparative torture under a pelting rain, we reached the magnificent river St. Lawrence. A boat was here waiting to ferry us across, manned by Canadians; and in a very short time we were safely lodged in Goodenough's Hotel, Montreal.

We, however, shortly removed to one kept by an Italian of the name of Rosco, where we received the kind attentions of Colonel M•Dougall, the commandant of the garrison, Messrs. Gugy, Forsyth, Peter M‘Gill, and every respectable inhabitant of the city. Mr. Keith, the principal officer of the Hudson's Bay Com, pany at La Chine, was actively employed in making every preparation for our voyage; but he had some doubt whether it would not be necessary to put off the departure of the expedition for a few days beyond the appointed time. He conceived it would be better for Captain Back to hire his men at Norway House, a depôt of the company on the Lake

Winnipic, and the resort, at the time we should pass, of a number of old " winterers:" accordingly, we engaged only a sufficient number of voyageurs to take us thus far.

During our stay at Montreal, our days were occupied in ascertaining the rates of the chronometers, in making sets of observations for the dip and magnetic intensity with Dollond's and Hansteen's needles, and with the various arrangements necessary to complete our outfit; while our evenings were agreeably spent in the society of the polite and hospitable inhabitants of the place. So great a degree of sympathy prevailed in regard to the main object of the mission, that, at a public dinner to which we were invited, two hundred persons were present.

The magnetic observations were taken at St. Helen's, an island of an oblong shape, situated in the very centre of the river St. Lawrence, opposite to, and distant from the city rather less than a mile. The lower part of the island is composed of red sandstone; the upper of a rich black mould, the situation of the governor's establishment: comprising a mansion, with other convenient buildings, and a suitable
garden. The house was in good repair, but the garden left to decay. The island produces the hickery, maple, and butter-nut tree, and abounds in riband snakes (so named from their diversity of colour), owls, bats, squirrels, and woodpeckers; and a craggy point of rock is frequented, during the months of July and August, by a minute species of humming-bird. In the waters round about it, shad, perch, eels, and suckers are caught in abundance. Spacious barracks are built upon it, in which a company of artillery are quartered, and other buildings adapted for ordnance stores. A quantity of agricultural implements occupied one of them, sent out by his Majesty's government as presents for new settlers; but, after receiving an ample supply, they so frequently passed over to the American lands that the benefit was in consequence very properly withheld from them. It is a very healthy and pleasant spot in summer, but nippingly cold in winter.

About six miles from hence is situated the village of Kănăwārkă, containing a thousand or more Indians of the civilized Iroquois nation; a very dissipated people, idle with respect to agri-
cultural pursuits, but extremely active as voyageurs and followers of the chase. The interior of their stone buildings was filthy, and offensive in the extreme. The church, where Josephus Marco, a Catholic priest, officiated daily, contained no seats; and the furniture of their houses consisted simply of a table, bedstead, and chair, made of cherry wood. Each individual of the tribe was receiving annually from his Britannic Majesty's government a cotton shirt, a blue cloth capot, a pair of leggings, a small quantity of cloth and gartering, one pound of powder, six pounds of shot, and, if necessary, a gun. The chief, Katemwa, received two hundred dollars; as did also Josephus Marco, who, in addition, received eighty bushels of wheat, forty-four cords of wood, and six tons of hay, exacted from his tribe. A large portion of land is set apart for the use of these people, and whatever quantity an individual can clear becomes his own property, which he is entitled to sell, or bequeath, at discretion, to any of his brethren.

Very little grubbing is had recourse to in clearing the land either in Canada or in Ame-
rica. The trees are cut off as closely as possible to the ground, and the stumps left gradually to decay: a very long time therefore must elapse before a field can be regularly ploughed.

There are two other villages of the same na-tion,-Bäcāndēē, situated on the banks of the Lake of the Mountains; and, about a hundred miles distant from it, Kănĕsătārkēē, comprising two tribes, the Lătylēntāsks and the Hăkoŏsārknēe, - equally populous, and under the same regulations as the village $I$ have just spoken of.

The men who accompanied us from England having become all at once dissatisfied, and given themselves up to intoxication, Captain Back was induced to address Lord Aylmer, the go-vernor-general, representing that, unless his lordship would sanction a furlough to six men from the 6th battalion of Royal Artillery, each of whom had expressed to their commander, Captain Anderson, an eager desire to join the service, the expedition in which he was engaged, and which was under the patronage of his Majesty, must inevitably fail. His excellency lost no time in granting the request ; but
the services of four only were accepted, than whom, with the exception of David Williamson, a man who had gone through the fatigues of the Peninsular war, and who was sufficiently advanced in life to have grand-children, and consequently not qualified for the service, a finer set of fellows could not have been found.

The men whom we brought from England were, it must be admitted, culpable in the extreme; yet it may be doubted whether their conduct at all endangered the expedition, and I am quite convinced that, had they been kept at a proper distance, by travelling in the other carriage, and messing by themselves, they would have sustained the high character they bore while attached to the expedition under Sir John Franklin.

Just as we had decided to attend the soirée given by Messrs. Herrman, the Bohemian brothers, on the evening of the 24th, a note arrived from Mr . Keith, with the agreeable intelligence that everything would be in readiness for our departure on the following morning. No time was therefore lost in packing up the little baggage that remained at the hotel, the greater
part having been forwarded to La Chine; after which we accompanied Colonel M•Dougall to the garrison mess, consisting of the 79th Highlanders, 24th and 15 th regiments. It was the last of many entertainments we enjoyed in their hospitable society.

Shortly after our return to the hotel, the evergreens, composed chiefly of branches from the fir-tree, employed to ornament the approach to the room where the performance of the Messrs. Herrman was about to take place, which was crowded with ladies, caught fire, with an amazing blaze ; and so rapid were the flames, that the upper windows and the back staircase afforded the only means of escape. We were so unfortunate as to lose our only barometer, which had been presented by Mr. Walker, the chronometer watchmaker, to whom we were under many other obligations; the two brought from England having been. damaged on board the Ohio steam-boat.

The ball, connecting the cross with the cupola of an isolated Roman Catholic chapel, from its proximity to the Burning hotel, suddenly appeared in flames. The appearance of
two men, who had penetrated the dome, and with well-directed axes were cutting off the communication of the destructive element, and preserving from impending danger the "Tabernacle of life," excited the feelings of every spectator in admiration of their bravery. The crash of the ponderous emblem of faith as it touched the earth, and the universal shout of applause " ab imo pectore," were simultaneous.

On arriving at La Chine the following morning, accompanied by Colonel M‘Dougall and the four artillerymen, notwithstanding the alarm and confusion that existed over-night, a large party, consisting of the officers of the garrison and many of the respectable inhabitants, had assembled to witness our departure and bid us farewell.

The canoes laden with our baggage and provision being in perfect readiness, we embarked at noon, in the larger of the two, amidst the enthusiastic cheering of our friends. The men were more ar less intoxicated, according to the custom of voyageurs on taking their departure for the interior; and Paul, an Iroquois, and a most experienced guide, lay
at the stern of the canoe in a state of perfect insensibility.

We were but lightly loaded, having in all not more than fifty "pieces;"* and, although not without a proportion of " mangeurs de lard," or new hands, there were amongst our party some of the most able men that the country afforded; an early arrival was therefore anticipated at Norway House.

We soon entered the Uttawa river, which, for a long distance after it joins the St. Lawrence, retains its peculiar brown appearance; and proceeded till we reached the rapid of St . Anne, near which once stood a church dedicated to the tutelar saint of voyageurs, whence the Cauadians considered they took their departure. The canoe having unfortunately been broken against a sunken rock, we were unavoidably detained a short time, and at seven encamped on a small island delightfully situated in the picturesque Lake of the Two Mountains, commanding a most extensive prospect on every side.

As our route to the Great Slave Lake was

[^0]the same as that followed by the Hudson's Bay Company's servants every year, which has been so well described by Sir Alexander M‘Kenzie, and very lately by Sir John Franklin, a detailed account of our progress would be superfluous. I shall merely allude to the principal places we passed, and the different incidents which transpired.

On arriving at the dangerous rapid of the - Long Sault, we determined to avoid it, if possible, by passing through the Grenville Canal; for this purpose it was necessary to obtain the consent of Colonel Douvernet. An American, for a dollar, was persuaded to unharness his very old mare; and having put on what was termed a saddle, I started for the colonel's house, distant about five miles. On leaving La Chine, I had packed up my purse, thinking it would not be required, at least for some time to come; I was therefore not a little embarrassed at the sight of what appeared to me a toll-gate. To leavemy coat or hat-for my pockets were literally empty-as a guarantee for any payment that might be demanded, immediately occurred to my mind; expecting no better treatment
than I had experienced when a boy while travelling on a pony in Yorkshire, where, meeting with a similar obstruction, I was detained nearly three hours, until a benevolent gentleman very kindly franked me through. My fears however were groundless. I was only required to state whither I was going; and I soon reached the house, one of a few isolated habitations forming the village of Grenville.

Having obtained the order, and retraced my steps, I found the men had been so actively em ployed in paying their respects to Bacchus, who had fascinated them to stupefaction, that it was with some difficulty we passed through the canal, and reached an encampment. On the following morning the canoes were towed to Bytown by the Shannon steam-boat, commanded by Lieutenant Kains, who could not be persuaded to take any remuneration for the service rendered to us. Just below the village is situated the river Rideau, falling over a perpendicular rock nearly forty feet high, in two sheets of water which assume the shape of curtains, whence it takes its name. The prismatic colours of the larger, and the snowy whiteness of the
smaller, throw a beauty on each other at once striking and picturesque; and eight locks by which they are avoided, having a rise of eight feet between each, do honour to the English nation. According to that fearless and intrepid traveller Sir Alexander M‘Kenzie, the river discharged itself in one sheet ; whether the change which must have taken place has been naturally or artificially produced I am not able to say. A little above is the Portage de Chaudière, where the body of water falls twenty-five feet over cragged, hollow rocks, in a most wild, romantic manner, and where, we were informed, six men on a raft had been engulfed, without a trace of them ever having been seen.

Thus far the lands were surveyed immediately after the conclusion of the American War, and awarded to the officers and men of the 84th regiment, when reduced.

Two of our young hands (as they are termed) thought proper to desert here: an event by no means uncommon, and indeed hardly to be wondered at. "Mangeurs de lard" is a term for novices in canoe travelling, but properly applied to those men only who engage to
take the canoes to Norway House, and return to Montreal the same season, and who usually live upon pork, to distinguish them from the northmen, or " winterers," who reside in the country during their period of engagement. The hands are hired at La Chine for a stipulated sum, under an agreement of three or five years' service. Little imagining, however, the laborious and servile duties of a voyageur, they soon perceive the abyss into which they are plunging themselves, and dash at freedom.

Just before reaching the Kettle Lake, we were agreeably surprised at seeing the habitation of a fur trader, named Day, who -kindly invited us to breakfast. The lake varies in breadth from two to three miles. On the right bank is situated one of the company's posts; where we embarked three men, and seventeen out of nineteen " pieces" which had been transported by a steam-boat.

As we advanced, our detentions became more frequent, either from pursuing a necessarily serpentine course for several miles to avoid a succession of rapids, from ridges of black rocks rising in pinnacles, and covered with low stunt-
ed wood, over which the river found its way in various channels; or to escape damage from large trees drifting with the current. The country was thickly wooded, although it occasionally exhibited a mass of rock without a particle of soil, withered stumps, and trees which had been blown down by the wind, or dry standing pines, charred by one of those extensive fires which not only destroy for miles the vast woods of America, but frequently the habitations of the hardy backwoodsmen. On the declivities of the mountains bands of red deer were occasionally seen feeding; and on the muddy banks of the more silent parts of the river vast quantities of bivalve shells of a specis of undo are found, on which the otter feeds; while frequent rafts of the finest timber, intended for sale at Quebec, glide along the stream.

So abundant are the trees, that many industrious individuals hire a few men during the summer months to select, cut down, and square the largest and finest pines, and convert them into rafts, upon which they build little dwellinge; a few oars, and long poles tipped with
hooked spikes, being all that is necessary for their management. They are floated, in detached pieces, down every fall : an operation so troublesome, and so frequently required, that an anxiety to run many places less dangerous than others has been the cause of bringing many a poor fellow to a premature and violent death.

The heat of the sun was overpowering during the day, while the mornirfgs were so cold that the globules of water cast off from the paddles became immediately frozen to the sides of the canoe; and, although we were approaching the middle of May, occasional patches of snow and ce were still to be seen clinging to the banks.

Taking the route of Lake Nipising and the French River, we reached the Falls of St. Mary n the 11th of May, the only outlet of Lake Superior, and one of the boundary lines difiding the territories of the United States from hose of Great Britain.
Vast quantities of white fish are easily taken in and about the falls, particularly in the autumn, when, in order to spawn, they leave the lakes for the running shallow waters. It is ${ }^{2}$ place of resort to the Chipeways, who not
only live upon those fish during the summer, but in the winter also, for which purpose they hang up large quantities of them by the tail as the best means of preserving them. The abundant supply of fish was formerly the means of inducing very many Canadian families to settle there; but of late years they have been considerably reduced in number, and are so improvident and inactive, living one part of the year in an almost continual state of intoxication, while during the other part they are half-starving, that they must shortly become extinct.

We took up our quarters with Mr. Bethune, at the Hudson's Bay Company's fort, a depôt for provisions, which, from economical princi. ples, are forwarded from Montreal to Kingston, via Lake Ontario to Niagara in vessels; thence overland ten miles to a water communication, where boats are used to Lake Erie; at which place they are again shipped, and at length reach their place of destination in boats by the river Detroit, lake and river Sinclair, to Lake Huron.

A vessel of one hundred and twenty tons ing
was formerly used on Lake Superior as a transport, but, having remained useless for some time, it was passed down the falls, with sixteen men on board to manage it. The most favourable state of the water was taken, at which time there were twenty-two and a half feet, although the rise rarely exceeds eighteen. The vessel drew four and a half feet of water, and, notwithstanding she struck three times, there was little or no injury done. So great a novelty had drawn hundreds of the Americans together; the day of its taking place having been duly announced in the papers. There is frequently an influx and deflux at the falls, which exceed or fall short of the computed height by a foot: this has been attributed to the wind. The phenomenon mentioned by Sir Alexander M‘Kenzie as having occurred some years before he wrote, may' be considered worthy of remark. "The water," says that traveller, "at the Grand Portage (situated in a bay on the north shore of the lake, about one hundred and sixty leagues from St. Mary,) withdrew with great precipitation, leaving the ground dry that had never before been

## 24 VISIT TO THE AMERICAN GARRISON.

visible, the fall being equal to four perpendicular feet, and then rushing back with great velocity above the common mark. It continued thus falling and rising several hours, gradually decreasing till it stopped at its usual height." A sudden rising of one or more islands might possibly account for this phenomenon; for many of the islands, which abound in the lake, display composition of lava, intermixed with granitic pebbles, or some one of the component parts of that rock.

Captain Baxley, the commanding officer of the American garrison, to whom we paid a visit, as well as to the other officers, not only received us with the most polite attention, but provided for our voyage some smoked venison, tongues, sweet corn, and a bundle of sage,luxuries we found extremely useful at winter quarters.

## CHAPTER II.

Lake Superior.-Indian Deception.-Arrival at Fort William.New Arrangements.-Mountain Fall.-Sautous Indians.-Lac de la Pluie.-Narrow Escape of several of the Men.-Lac du Bois.-Fort Alexander.-Arrival of Mr. Simpson.-Lake Win-nipic.-Norway House.-Difficulty of procuring Men.-Party separate.-Departure.

Having purchased a third canoe to assist in carrying an additional weight of provisions, which, from a scarcity throughout the country, it was necessary to take, we entered upon the vast waters of Lake Superior. We took the north shore, the usual route of the fur traders on account of its safety ; resulting not only from its mountainous embankment of primitive rock, which in some instances is seen rising upwards of one thousand feet, and which enables them to creep along in-shore under the most violent land breezes; but from the numerous coves and

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sandy bays, which are frequently so sheltered by islands from the swell of the lake that a convenient and secure harbour may always be met with.

In passing, from one point to another for the purpose of avoiding the circuit of the bays, many of which are miles in extent, there is considerable danger. The traverse, as it is called, is very commonly from twelve to fifteen miles long, and cannot be made in less than two or three hours; thus, although at starting the weather may be extremely fine, ample time is afforded for the appearance of squalls and fogs, from which it is no easy matter to escape. It it not to be wondered at, therefore, that our situation was frequently perilous in the extreme; yet, with the exception of some severe frights and thorough duckings, we escaped tolerably well. One of the dense fogs which are frequently met with on this lake, involved us in some difficulty, having been the means of leading us into a wrong track, and caused the delay of a day. It was so surprising to me how the guide, unassisted by a compass, managed to make the land, that I'took considerable pains
to elicit in what manner he accomplished it; and, notwithstanding he was somewhat reserved upon the subject, I gathered quite sufficient to convince me that for some time he was guided by the dim sun, and afterwards by the " growing waters."

At every rocky and woodless island on our route we met with vast quantities of gulls' eggs, which, with some fresh butter and bread kindly provided for us by Mr. M‘Murray of the Pic trading post, afforded us many substantial breakfasts. Nor were we less fortunate in regard to fish, flesh, and fowl : for the former delicacies we were indebted to the natives, with whom we were in constant communication; for the latter we depended upon our own shooting.

An Indian family in two canoes excited more than ordinary attention from our party, in consequence of the rapidity with which they glided past us ; so much so that we actually " brought up" to look at them. Instead of returning in expectation of some of their favourite tobacco, according to the usual practice of Indians, they only paddled the more ; and, with the exception of a young female smiling through a
face shining with grease, not a countenance was to be seen. The problem was soon solved : con-science-stricken, they were on the way to one of the American Fur Company's posts to dispose of a valuable collection of beaver skins, being at the same time highly in debt to the Hudson's Bay Company;-a deception very commonly practised by the more southern of the North-American Indians.

Lake Superior fully justifies the name that has been given to it ; the water, clear and pellucid, is of great depth, and abounds in sturgeon, pike, white fish, and trout, (which are frequently caught weighing upwards of fifty pounds,) and many other kinds. It is the grand reservoir of the river St. Lawrence, and receives its supply from the St. Louis, the Nipigon, the Pic, and the Michipicoten ; rivers however of but small size, and which flow from no great distance. The banks exhibit merely fallen stunted trees overrun with briers, raspberry, and gooseberry bushes, and are resorted to by a number of bears. From the want of shelter, the moose-deer, and the larger animals, are seldom or never to be seen.

Under a salute of six guns, we reached Fort William on the 20th of May, where we exchanged our large for smaller canoes, which were better adapted for navigating the shallow and obstructed rivers before us. The appointing of the crews, and the division of our property, created a more than usual sensation among the men, from an understanding, quite new to them, that whatever was settled that day, Captain Back would not allow to be altered.

The " portages" which we had passed over were few compared with those before us; the latter being much longer, and running over more unequal and rocky ground. A great deal of jockeying was therefore going forward among the bowsmen and steersmen, to obtain if possible the best crew, and the least quantity of baggage. Notwithstanding Captain Back took upon himself the selecting of the crews, yet every man was scrutinized by them, his capabilities discussed, and his disposition for shirking taken into serious consideration. The bag-

[^1]gage, however, was left to themselves, and consequently did not in a less degree engage their attention. Each " piece" was thoroughly examined, its weight tried by frequent lifting, and its awkwardness for carriage estimated by continued trials. After a long time thus employed, three nearly equal lots were formed; when to obtain three sticks of unequal lengths was but the work of a moment, which one of the party held in his hand with the points protruding, while the three bowsmen drew each his prize. The effect was instantaneous, and extremely ludicrous; for the party at once separated, some grumbling, others laughing, but all had lost the extreme anxiety which but a moment before was depicted in every countenance.

After leaving Fort William, we encamped at the Mountain Fall on the Kamenistiquoia river, which has been described as inferior only to that of the Niagara, but far surpassing it in pictueesque effect. It was twilight when I approached that stupendous work of Nature: mingled admiration and awe at first seized me; and, as I silently withdrew, I could but say with Cowper, "God made the country."

The attractive débouquement of the lake opposed to the yawning gulf, at once crushes the ideal significance of man, and makes him the " sprite of life." The reptile is said to fascinate its prey; but Nature, with a less monotonous will, sends forth her various warnings for the benefit and safety of every " creeping thing."

At the Savannah portage Mr. M‘Kenzie came up with us in the despatch canoe, having letters from England for the governor and gentlemen of the country, which are always forwarded on the first opening of the navigation. This "portage" constitutes the height of land situate between Hudson's Bay and Lake Superior; and near it a tributary to the Missouri takes its rise.

In the Savannah river, which is full of beavers' dams and drift wood, William Mallay narrowly escaped drowning, from having slipped off a $\log$ of wood, which he was endeavouring to sink sufficiently deep to admit of a passage for the canoes. Notwithstanding huge trees were lying across the stream in all directions, forming barriers of a very formidable nature, the voyageurs overcame them with comparative ease.

From some Sautous Indians along the route we obtained a plentiful supply of sturgeon in exchange for some tobacco; and such little value was put upon that fine and rich fish, that one weighing at least fifty pounds, which would sell at Montreal for three pounds sterling, was purchased by one of the men for a pint of peas. On taking leave of them we were assailed with a volley of fish-heads and turfs; which we could not at first account for; but, from subsequent information relative to the usages of these people, it was evident they did not consider themselves sufficiently remunerated for the fish which had been supplied to us: tobacco, in small quantities, being generally considered in no other light than a present.

They are a warlike, athletic, bold people, and evidently industrious; since they possessed vermilion, combs, and looking-glasses, which can only be purchased by the more active. Birds' feathers of different colours were fancifully entwined in their hair, which was neatly plaited; whilst to their ears and fingers were attached brass rings of all sizes; and, as is their custom
in warm weather, they were almost in a state of nature. From a commanding situation they kept us a long time in view; and the rapidity with which we descended the rapids afforded them considerable amusement.

Lac de la Pluie, which takes its name from the constant showers which attend all intruders on its waters, is remarkable for producing an abundance of wild rice; for affording a soft red stone of which the natives make their pipes; and for being overrun with a species of obnoxious plant, which, from its peculiarity in penetrating anything with its sharp and irritating prickles, is named the " prickly pear."

The rain literally fell in torrents; but as we were well supplied with oiled cloths, (a sort of Mackintosh,) which not only protected ourselves but covered the baggage, the route was notwithstanding pursued: the crews were however necessarily exposed, and got drenched to the skin. At night an unusually large fire was made, which had nearly led to the most fatal results. A lofty pine was discovered in flames, and, had it remained unobserved for a few moments longer, must have sealed the fate of
the greater number of the men. They were lying together in a row fast asleep, just on the spot of ground where the tree would have fallen ; and, although somewhat alarmed when I disturbed them over-night, an examination of the spot on the following morning so convinced them of the imminent danger they had escaped, that for an instant one and all were literally riveted to the spot.

The Lac du Bois, a sheet of water of a circular form, followed next. As its name implies, it was well wooded. On every island,-and they were very numerous,-the oak, maple, pine, cedar, white birch, and alder were met with. It is remarkable in consequence of the Americans having named it as the spot from which the boundary line between them and British America was to run west, until it struck the waters of the Mississippi river. That, however, can never happen; as a line drawn to the most northern part of the Missouri, supposing the two rivers but one, would diverge considerably to the south of west. . The lake disembogues with considerable violence, and forms the river Winnipic, a large body of water, so interspersed
with islands that numerous channels are formed, which more or less retard the progress of the voyageur, according to his knowledge of the route. A part termed the White River is a conspicuous object, exhibiting for nearly four miles a continuous line of foam, kept up by a succession of falls and cataracts, which cause such an impediment to the navigation that there are seven portages to be seen at one view.

At the termination of the river was Fort Alexander, where Captain Back determined to remain some days for the purpose of obtaining an interview with Mr. Simpson. He was the more induced to this determination from the great probability of missing him on the Lake Winnipic. The absolute necessity of seeing him was apparent from many circumstances; in the first place, the despatches which had been forwarded from the Hudson's Bay committee in London, to apprize him of our movements, had been detained so long at the Falls of St. Mary, owing to a vast quantity of floating ice which obstructed the Lake Superior, that, when we arrived, they had only preceded us eleven days. A letter also which had been
entrusted to the care of Mr. M•Kenzie in the despatch canoe, containing a requisition for men and stores, and a request that he would make all possible inquiry as to the most practicable route leading to the Great Fish River, we now ascertained to be only a day in advance of us.

Moreover, some three or four men, who at the commencement of the voyage had expressed an inclination to proceed with us throughout, now determined not to go beyond the place of their engagement. Among them was Thomas Larke, a tall, fine-looking fellow, full of life and energy, and from his knowledge of canoe travelling, and ability to carry heavy weights, well qualified was consequently regretted by the whole party. Although they one and all refused to assign any particular reason for taking so decided and unexpected a step, I am convinced that the very inferior food on which they had been subsisting for the previous fortnight, which consisted only of boiled peas, was the principal cause.

With what pleasure we hailed Mr. Simpson's arrival, therefore, on the 10th of June, may be
easily imagined. He not only communicated the measures he had adopted, but the result of a council which had been held for the purpose of discussing the affairs of the expedition. Every assistance was to be rendered to us; the stores which might be required, were to be supplied; and the services of one of the gentlemen of the country, as the following circular will demonstrate, were rendered available for the benefit of the expedition.
" TO ALEXANDER R. M‘LEOD OR SIMON M‘GILLIVRAY, ESQUIRES ; AND TO MR. JOHN M‘LEOD OR MR. MURDOCH M'PHERSON.
" Red River Settlement, 5th June 1833.
" GENTLEMEN,
" An expedition has been planned by the governor and committee, and the Arctic socisty, in which his Majesty's government and the British public take the deepest interest; having for its object the discovery of Captain Ross and his crew, and the relieving them from their supposed perilous situation, if still in existence; together with the survey of those unknown re-. gions on the northern coast of America, lying
between Point Turnagain and the Straits of the Fury and Hecla.
"The command of this expedition has been given to Captain Back, R.N. ; and the governor and committee have directed that every support, assistance, and facility be afforded that gentleman towards carrying the important objects alluded to into effect, which we are most anxious should be met with the best feeling, in spirit and to the letter.
" Captain Back will require the assistance of one of the honourable company's officers in this mission; and we see none so likely to render him the assistance required as one of yourselves. We therefore call upon one of you, in the order in which your names stand at the head of this letter, to join Captain Back without delay, and to act under the command of that gentleman in the service in question; and, as an encouragement to enter upon this dangerous service, we hereby assure to you Alexander Roderick M‘Leod, Esquire, or to you, Simon M‘Gillivray, Esquire, our warmest support towards early promotion to a chief factorship, in the event of either embarking on this enterprise, and render-
ing to Captain Back such valuable services as we consider you qualified to afford; and to Mr. John M‘Leod, or Mr. Murdoch M‘Pherson, we hereby promise our warmest support towards early promotion to a chief tradership, in the event of either embarking on this enterprise, and rendering in like manner to Captain Back such valuable services as we consider you capable of affording, besides an increase of salary of $£ 100$. per annum for the time you may be employed on this expedition.

> " I am, gentlemen,
> "Your most obedient servant, "GEo. Simpson."

The activity of the governor had overcome all the difficulties: several bags of pemmican, and other necessaries, were on their way to Cumberland House; two men were at once hired, and facilities afforded for engaging the rest; while Mr. Charles, who would be met with along the line of communication, was instructed to give every information in his power as to the river of our search, of which, from his long stay at Fort Chipewyan, and thorough know-

40 STATE OF RED RIVER BETTLEMENT.
ledge of the Indian languages, it was supposed he could not be ignorant.

Mr. Simpson was accompanied by his lady, who, from sincere attachment, had braved all the dangers and inconveniences of a voyageur life, and experienced the monotonous effects of a dreary northern winter.

That lady described the Red River settlement as prosperous, and provisions so cheap, that beef and pork were selling at twopence a pound, and eggs at threepence a dozen; notwithstanding the crops of the previous year had entirely failed, and from the severity of the weather the wheat had frozen in the ground. The intensity of the cold is so great there, that the soil is permanently frozen to a depth of fourteen feet, and the thaw rarely penetrates more than thirty inches. The forests, notwithstanding, flourish; and " the brief, though warm summer, gives birth to a handsome flora, matures several pleasant fruits, and produces many carices and grasses."

Mr. and Mrs. Simpson having taken their departure, the main object was to reach Norway House as quickly as possible, for the pur-
pose of intercepting the different brigades of boats on their way to York Factory, in Hudson's Bay, and of selecting a choice crew of experienced men: we lost no time therefore in commencing the navigation of Lake'Winnipic. The refreshing breezes of the lake, and agreeable temperature, were welcomed by all ; for, in addition to the scorching heat of the sun, we had been tormented with musquitoes, and so disfigured by them that it was difficult to distinguish one man from another. I, for one, had over and over again wished the Bas de la Rivière, which, from its situation, it is as frequently called as Fort Alexander, at the bottom of the river; for it was surrounded by swamps, the very country for producing those blood-thirsty creatures.

The Lake Winnipic, which is two hundred and seventy miles long, running in a west-northwesterly direction, receives the Red, Swan, and Saskatchiwine Rivers, and discharges itself by the River Nelson into Hudson's Bay. The eastern shore presents an embankment of rounded granitic rocks; while, on the western shore, the country is low and level, composed of sand,
or sandy beach, here and there intercepted by banks of cream-coloured limestone, from twenty to forty feet in height, and extremely rich in fossils. It abounds in ducks, terns, gulls, pelicans, Lapland and yellow-legged plovers ; and, about the time of year when we passed, vast flights of the passenger-pigeon. The cleared lands about Red River, however, afforded so plentiful a supply of food, that we met with a few only.

On the 17th of June, having descended the Jack River a short distance, we arrived at Norway House. Messrs. Christie, Rowand, Lewes, and Donald Ross, lost not a moment in administering to our comforts in every possible manner, and lending all the assistance in their power.

But, notwithstanding every exertion, considerable difficulty was experienced in hiring men; so much so, that we began to fear we might be obliged to winter at Fort Chipe-wyan,-an event that would have led, in all probability, to the total failure of the expedition.

Before starting from England it had been
calculated that we should reach Great Slave Lake early in July; but it was now evident we could not arrive there before September. Captain Back, therefore, considered it necessary to entrust me with the charge of the heavilyladen bateaux, while he proceeded in a light canoe, with the utmost despatch, to ascertain the most practicable route to the Great Fish River.

By the 21st the greater number of men required for the expedition had engaged themselves; and fifteen were at once appointed to man a boat containing our baggage, in which I embarked for Cumberland House. Captain Back expected to complete his crew in the course of the day. Previously to starting I received the following orders.
" to mr. Richard king, arctic land expeDITION.
" Norway House, Jack River, June 22d, 1833.
" SIR,
" As I find it will be requisite for me to proceed with the utmost despatch to the Athabasca, to make arrangements for the further progress
of the expedition, I must request you to take charge of the men and property belonging to us, and to convey them to Cumberland House in a boat or any other vessel that may be provided for you.
"At Cumberland House you will find two new boats and sixty bags of pemmican in readiness for the expedition. Consequently the old boat will be left there, and you will embark the sixty bags of pemmican, together with the other stores also there, in the two new boats, and leave that establishment as soon as possible for Isle à la Crosse, and thence to Fort Chipewyan; at which post instructions will be left by me for your guidance.
"There will be provision for the men at Cumberland and Isle à la Crosse; therefore there can be no necessity, nor must you on any account suffer a single bag of the sixty to be used, as they are intended expressly for our maintenance during the voyage along the coast in 1834.
"I know that it is unnecessary to direct your vigilant attention to preserve from wet the property in general, and particularly the pemmican ;
but, should an accident happen, you ave to avail yourself of the first long portage to remedy it, by drying the "piece" in the sun.
"In the event of your requiring any supplies from the company's establishments, I enclose four signatures on blank sheets, which may be. filled up according to what you get. " I' am, sir,
" Your most humble servant, "George Back,
" Commander of the expedition."

## CHAPTER III.

Detained by Wind in Lake Winnipic.-Shooting Excursion.-Interview with Mr. Charles and Mr. Smith.-Mr. Charles' Account of the Great Fish River.-Grand Rapid.-Lake Bourbon. -A new Colony.-Arrive at Cumberland House.-Cree In-dians.-Captain Back arrives.-Departure from Cumberland House. - Superiority of Canoe Travelling. - Sturgeon killed with a Hatchet.-Lose our way.-Engage an Indian Guide.Indian Wit. - Indian Customs. - Frog Portage. -Two Days without Food.-Arrive at Fort Isle à la Crosse.

Accompanied by Mr. Annance, a clerk in the Hudson's Bay Company's service, to whom a passage to M‘Kenzie’s River had been granted by Captain Back, I retraced my steps to Lake Winnipic, and encamped at Colony Point, a spot of ground where the Earl of Selkirk's colonists remained for several days on their way to the Red River. As the wind was blowing. too fresh to admit of our proceeding with any
degree of prudence, I started with my gun for the 'swamps, experience having taught me that the marshy grounds produced far better sport than either the woods or the sandy shores of the lakes. At the first shot I killed a duck, and startled a pair of brown cranes which had secreted themselves amongst the high grass. In the confusion of the moment the duck was forgotten, and I commenced an active and eager pursuit of the cranes, determined if possible to secure them as specimens. It was not however till after wandering for several hours that I succeeded in killing one of them. The cry of the other was so piercing and constant, that, notwithstanding the trouble I had experienced, I began to charge myself with cruelty : but just at that moment the unfortunate bird flew by, the qualms of conscience subsided, and it met with the same destiny as its mate.

At night the Isle à la Crosse and Fort Alexander boats passed on their way to York Factory : of these the latter had been detained twelve days by high winds; the crews were reduced to great straits for want of provisions.

48 Joined by messrs. Charles and smith.
The cranes' bodies proved an acceptable meal to some of the men, and to others a small portion of pemmican was given, while the two gentlemen in charge supped with Mr. Annance and myself.' On the morning of the 24th, the breeze had moderated ; and, taking advantage of the moment, we put off, doubled Mossy Point, and reached Black Water Harbour by sunset.

- At breakfast the next day we were joined by Messrs. Charles and Smith in a light canoe, from the Athabasca. The former gentleman had made every inquiry about the Great Fish River, and another also called the Fish River: the one is styled in the Chipewyan language, Thlěw $\check{y}$-chō-dĕzză, the other Thlěwy̆-dězză; " cho" signifying any thing great.

The former stream Mr. Charles was of opinion, from all that he could gather from the natives, would be found full of rapids and shoals, and approachable only with great difficulty; while the other was said to be a noble stream, producing pines and birch-trees in abundance, without a portage of any kind, and resorted to by the moose-deer. He disclaimed any
knowledge of a route from the extremity of the Athabasca Lake, which Mr. A. Stewart of Montreal had mentioned; but a route to the Fish River, from a bay near the fort, was not only known to the Chipewyan Indians, but traversed by them every year. He had left two boats at the north end of Portage la Loche for the use of the expedition; and strongly advised that some dogs should be taken from his post, or wherever we could get them, as they would be found invaluable at winter quarters, for dragging provision and fire-wood. After having presented me with some moccasins (shoes),-always an acceptable present, since a pair will seldom last more than a day,-they took their departure, and I commenced making the Grand Portage at the entrance of the Saskatchiwine River.

At that place the stream forms a sudden bend to the eastward, and works its way through a narrow channel, deeply worn into the limestone strata which compose the banks; and so impetuously does the water rush over its rocky bottom, that a line of foam is perceptible for some distance. At the foot of the cascade is an
excellent sturgeon-fishery, resorted to in the summer by a number of "freemen,"* with their squaws and families; who during the winter retreat to Swan River to hunt the moose, and the other large animals, for food and clothing, and to trap the smaller animals for their valuable furs. They were well provided with maple-sugar, of which they take care to have plenty, for the purpose of bartering with the company's servants as they pass and repass the rapid ; and, for gain, they are ever ready to aid and assist in launching the boats, and carrying a part of the baggage. Every pinnacle of rock in and about the falls was occupied by one or more pelicans seeking their food; and here and there a solitary fishing-eagle was to be seen, while innumerable gulls were hovering about in every direction.

After leaving the rapid, the river became wider as we advanced, and the scenery greatly improved at that part where it forms the Lake Bourbon. It is more generally, however, called Cedar Lake by the Canadians, owing to its pro-

[^2]ducing the arbor vitæ, a tree which is mistaken by them for the cedar. It takes its first name from a fort named after the Bourbon family, which formerly stood on its banks, and was built by the French traders some time before the conquest of Canada. There a party of missionaries remained some time, giving out their pious warnings to the barbarous natives; but, the people having no confidence in them, several were murdered, and those who escaped death were indebted only to flight for their safety.

Another spot, called Frobisher's Point, was equally remarkable for a tale of horror. During the disastrous opposition that existed between ${ }^{\circ}$ the Hudson's Bay and North-west companies, Mr. Frobisher was taken prisoner by order of the leading members of the former, and secured at York Factory : he contrived, however, to make his escape, and actually reached the spot of ground that bears his name, on his way to Cumberland House,

> " Seeking a foreign home, a distant grave."

But here, alas! the pangs of hunger assailing him, emaciated and dejected, weak with fatigue

D 2
and unable to proceed, he sank to his everlasting rest, the victim of the mercenary feuds which marked the early career of these rival companies. The expiring embers of the fire he had kindled to warm his shivering limbs, were the sole witnesses of his melancholy sufferings and tragical end.

From scenes connected with such melancholy events our attention was soon after diverted by the cheerful prospect of houses, surrounded by a quantity of land, in a highly cultivated state, divided into fields of growing corn and rich meadows. Several horses and oxen were grazing round about, and pigs and fowls were distri'buted in every direction. The settlement consisted of two farms belonging to a Canadian and an Englishman, who were endeavouring to gain a subsistence by bartering for furs with the Indians, and selling their cattle, flour, and butter to any of the company's men who might be disposed to become purchasers. A fat bullock sold for twelve or fourteen shillings, and flour and butter for a mere trifle.

June 30th we left the little colony; for, including wives and children, many of whom had
married to Indians or half-breeds, they were in number about thirty ; and on the following day we arrived at Cumberland House. As Captain Back had not overtaken me, it was necessary I should remain till he arrived, a steersman being required for the second boat. In the interval the men were employed in carrying down the pemmican and other stores to the waterside, to be ready for embarkation, and the carpenters in repairing the boats.

So great a deposit of mud and sand has taken place within the last few years, that the fort is not only unapproachable for nearly a mile in boats or canoes, but a small river, which formerly discharged itself into the lake, has been filled up. To its disappearance is attributed the present scarcity of fish; for, prior to that period, the waters of the lake amply repaid the fisherman for his labour; whereas now a single sturgeon is frequently all he can boast of. In addition to the sturgeon, the fishery occasionally yields the white-fish, pike, various kinds of trout, the methy, and several sucking-carp. The sturgeon and whitefish are the most esteemed, while the methy
and sucking-carp are so little prized that they are eaten only from necessity. The pike, in the spring, is very fat and rich, and at that time much sought after. The natives have given it the name of "Indian-fish," from its being very readily caught in winter-time with a hook and line.

The ground about the house is not only excellent, but fit for immediate culture. The house a few years ago was in most excellent repair, and exhibited a very productive farm, the effect of the continued care and attention of Governor Williams, who had a great partiality for agricultural pursuits. A vast change, however, had taken place at the time of our arrival; the house was all but falling to pieces; the implements of tillage, and the capacious barns, were silent monuments of waste; the horses were becoming wild, the oxen occasional truants; the cows, although they went " to the milk-pail twice a day," gave by no means a Virgilian quantity of that sober and nutritious beverage; and a solitary hog stood every chance of dying without issue.

The various changes which are taking place
in the relative proportions of land and water are here so rapid and constant, that they may be observed at almost every step. On the northern shore of Lake Winnipic, for instance, there is a striking example of the water encroaching on the land; for the old Norway House, which in 1819 was upwards of three hundred yards from the water-side, is now distant but six feet. And, as a proof of the gaining of the land, in addition to Cumberland House, there is the Cedar Lake, the whole of which, from the immense quantity of detritus, or alluvion, annually brought down by the Saskatchiwine, must in process of time be converted into a forest. A part of it, with the exception of a narrow channel, is already impassable ; and numerous mudbanks are now to be seen covered with willow, poplar, alder, and a small sort of ash, where, but a few years ago, the water was sufficiently deep to float the company's boats: from this circumstance it has been called Muddy Lake.

In the vicinity of Cumberland House the country is low and marshy, and much intersected by lakes of a moderate size. Of vegetable productions, the aspen is perhaps the
most abundant, and much valued as fire-wood from its peculiarity of burning well in a green state. A species of poplar, which, from its rough bark and naked stem, is called by the Crees, who inhabit this part of the country, Ugly Poplar, is also plentiful; and much prized by the whites from the quantity of potash it affords, and by the natives for its resinous buds, a decoction of which they make use of with tolerable success in snow blindness. The white spruce is the most common of the pines; the red and black spruce, the Banksian pine and larch, also frequently occur: the latter tree is only to be found in swampy spots. On the bapks of the streams a great variety of willows are to be met with; while on the margin of the small lakes the alder abounds, from the bark of which the Indians extract a yellow dye. Of fruits, strawberries, raspberries, cranberries, and a variety of gooseberries and currants, are found in vast quantities; as well as many other kinds of simple and compound berries, upon which the bears usually feed. Limestone is found in the form of boulders, (pieces of rock rounded by attrition,) buried in the soil ; and Mr. Isbester,
the gentleman in charge, pointed out to me one of a darge size lying on the surface of the ground, containing fossil shells in a very perfect state.

Cumberland House is the trading-place of the Cree Indians, or Knistenaux of the French traders, once a very powerful nation, but now much degenerated. Having condensed in one chapter as full an account of the aborigines of our route as I was able to gather, it will only be necessary to mention here that they are no longer the intrepid and hardy warriors who conquered the inhabitants of the Saskatchiwine and Mississippi rivers, and drove before them the Slave nations, their natural enemies. Having obtained arms and ammunition from the first European traders, they were enabled to attack the neighbouring tribes with the most fearful success; and to such an extent were they accustomed to carry on their warlike excursions, that they have been known to penetrate as far west as the Rocky Mountains, and as far north as M‘Kenzie's River. They have long, however, been disused to war; and their character has consequently sunk among the
surrounding nations. In the knowledge of plants, and in the appropriation of them to medicinal purposes, they still stand pre-eminent; and as regards their hospitality and friendship to the whites, they are not equalled by any of the North American tribes. They are ever ready to share the provisions they possess, however scanty, to succour any of our starving countrymen who may be fortunate enough to fall in their way; and they have been frequently known to afford an asylum to the half-breed children when deserted by the unnatural white man, their reckless parent.

I secured here a few plovers, warblers, woodpeckers, and several plants, which were carefully preserved, and consigned to the charge of Mr. Isbester.

On the 5th of July, Captain Back arrived in his canoe, bringing a steersman for my second boat; I therefore ordered the two bateaux to

- be loaded, and everything to be in perfect readiness for starting the following morning. The evening was fine, and, as it was the last night Captain Back and myself could enjoy together for some time to come, we sat up later than

DEPARTURE FROM CUMBERLAND HOUSE. 59
usual. On the following morning I embarked with Mr. Annance, and took my leave of Cumberland House. Captain Back purposed remaining till the following day, to recruit his men. In each boat sixty " pieces" were carefully packed, exclusive of the men's baggage; and the crews were thus arranged:

First boat.
James M'Kay.
Charles M‘Kenzie.
John Ross,
David Williamson, William Mathews, Thomas Anderson, Donald M‘Donald, William Rowland.

Second boat. George Sinclair. Pierre Kanaquasse. Hugh Carron, Thomas Mathews, Pierre Ateaster, Norman Morrison, Malcolm Smith, Olivier Seguin.

Having retraced our steps for a short distance, and being favoured by a gentle breeze, we sailed across Cumberland Lake, and encamped at the mouth of Sturgeon River. While the men were occupied in pitching our tents and preparing the supper, Mr. Annance and myself took a stroll through the woods in pursuit of some pigeons that had been seen to alight. Although we got no pigeons, we were amply compensated for our trouble in securing a beautiful
striped marmot. The interesting little animal, as if unaccustomed to the molestation of man, permitted us to approach without being disturbed, and still kept cramming its already distended pouches with seeds, which it appeared to be collecting for its winter stores; we were fortunate enough to secure it unhurt, just as it was about to retreat. The Sturgeon River is called by the Canadians La Rivière Maligne, from its numerous and dangerous rapids; - a name we found by experience to be extremely appropriate. The weight of our cargo was such that we had to make " two trips,"* by which the distance was trebled; while the frequent operation of forming channels for the boats, by picking up the large stones that impeded the navigation, greatly delayed us. Against the strength of a rapid it is impossible to effect any progress by rowing; the boats are consequently towed, or, if the bank will not admit of it, propelled with poles, in the management of which the " old hands" show great dexterity. Their simultaneous motions were

[^3]strongly contrasted with the awkward confusion of the less experienced men, who sustained the blame of every accident that occurred.

As Captain Back overtook us during the sunshine of the 8th of July, a fair opportunity presented itself to the men composing my crew of comparing their relative situations with those in Captain Back's canoe ; for a part of the river where it required the united exertions of my two crews to drag one of the cumbrous boats only a few paces at a time, was passed by Captain Back in his canoe, not only without difficulty, but with a speed that clearly proved the superiority of that mode of travelling over any other. It had a very perceptible influence over the greater part of my men; for they began to consider the distance they had to go, the difficulties to be surmounted, and the great probability there was of being frozen up before they could reach the intended wintering-ground :in fact, so great a depression of spirits had such reflections produced among them, that I could not but feel sorry the two parties had met in so unfortunate a situation; and especially that the canoe-men should have shown so much dexte- vince, however, to dispel the cloud which had spread over them; I therefore halted for breakfast, in the busy employment of which they soon forgot their troubles.

After breakfast, they set to work with renewed energy ; and, as they waded through the stream, they succeeded in killing, with no other instrument than an axe, several sturgeon, which provided an ample supper for the whole party. Those who have been any length of time in the country become very expert in throwing the hatchet ; which, from constant practice, they perform to such a nicety, that they are not only able to secure many of the smaller quadrupeds, but partridges and other birds. That art has been taught them by the Indians; who are so dexterous in the use of this instrument, that they have been known to kill in one day, with no other arms, two deer, a hawk, a curlew, and several sturgeon. Mr. Annance, who ranks in the country as a first-rate shot, had made himself so great an adept, that, at a distance not exceeding twenty yards, he even preferred the hatchet to the rifle; and on several occasions he
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had handled it with great success against marauding parties of Stone Indians, who inhabit the extensive plains of the Saskatchiwine.

By the 9th, at night, we had the satisfaction of reaching the head of that annoying river, and enjoying the charming scenery of Beaver Lake. A fair breeze promised a respite from toil for the following day; no time was therefore lost in cutting down a small pine, and converting it into a mast, which it may be proper to mention is never procured till required, and always thrown aside when no longer useful. As we sailed along the following morning, the flat limestone country rose into bold rocks, which terminated at the mouth of the Ridge River. The islands had a green and lively appearance, and afforded an abundance of gooseberry-bushes and currant-trees bending with fruit; so much so, that we stopped in one instance to gather some, although they were still green and without flavour. Our progress for some days was not only impeded by the frequent portages, but from our want of knowledge as to the direct route to the Isle à la Crosse Lake. We found ourselves constantly either involved amongst
the numerous islands, or deceived by the false appearances of the country, which had been overrun by fire, and its general features so entirely changed, that we repeatedly took a wrong channel.

On the 13th, we surprised a party of Indians tented in the cool shade of some lofty pines. The women were actively employed in converting into dried meat the flesh of a moose-deer, which the hunters had killed on the previous day; while the children lay stretched upon the grass, eagerly seeking the lumps of raw fat, which were occasionally thrown to them. I engaged one of the young hunters as a guide, at the rate of two beaver-skins a day, which is the usual pay for such a service. The beaver: skin is the standard of exchange in all transactions with the Indians, for which a coarse butcher's knife, or a small file, is considered equivalent. A gun, worth about twenty shillings in England, is valued at fifteen beaverskins; and a fathom of coarse cloth, or a small woollen blanket, at eight skins. Three marten, eight musk-rat, or a single wolverine skin, are reckoned one skin ; a silver fox, or otter, two ;
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and a black fox, or black bear, four skins. As my guide had a companion with him, and would be able to proceed in his canoe at a much quicker rate than we could, I supplied him with a few charges of powder and shot, and directed him to go in advance to procure some birds as specimens.

At the extremity of an island, the "cri de joie," as peculiar to the natives of North America as the war-whoop, announced the approach of Indians ; and almost immediately after they appeared in three canoes. Having destroyed or driven away all the game which could be found within two days' march of their last encampment, they were seeking along shore for a new hunting-ground, in the selection of which they are guided by the recent tracks of animals imprinted on the sandy or muddy banks of the river. They appeared in excellent spirits, particularly the old man of the party, to whom I gave a small piece of tobacco; and as he smoked the highly favoured "calumet," he commenced a series of jokes, to the infinite amusement of those who could understand him. Observing that my companion Mr. Annance
was a " métif" or, as the Canadians would term him, a " bois brule," a fair opportunity presented itself of showing off his wit. "That chief," said he, "was born in the night; look how dark his face is!" And when the second boat arrived, with all the penetration of an Indian he at once caught sight of two men who were notorious for the tattered state of their clothes and long beards, which among the natives themselves is a sure sign of ill health. "Oh!" said he, " why do you not give them medicine? -see, how sick they are! they will soon be no more !" and after a hearty laugh he pursued his route.

We continued our course with comparative pleasure, having no longer any cause for anxiety about the route; and, although the interruptions to the navigation were of frequent occurrence, they were passed by the men with a degree of cheerfulness which had hitherto been foreign to them. The river increased in breadth as we proceeded, and the banks were luxuriantly clothed with pines, poplars, and birch-trees of the largest size; but the distant scenery was entirely lost to our view, owing to volumes
of smoke which were issuing from the burning woods. The woods are set on fire in various ways: sometimes from carelessness on the part of the voyageurs, who seldom take the trouble to put out their fires on leaving an encampment ; at other times intentionally on the part of the natives, for the purpose of scaring the animals, that they may hunt them with greater success; and not unfrequently they are kindled by lightning during the summer months. The smoke was so far a blessing that it gave us a respite from the attacks of the musquitoes, which had of late infested us. Nothing is more obnoxious to those insects than smoke, and particularly that which is produced from rotten wood : this fact is so well known to the voyageurs, that they make a point of placing by the side of their blanket small piles of it, which they set on fire just before they lie down to sleep. An Indian tent is always a place of security against the bites of musquitoes, from the continual smoke that fills it.

In the course of the day the Indians had been seen to kill several ducks, and, as the men appeared more than usually fatigued, I encamped
at eight o'clock, for the purpose of preparing the skins. To my surprise, however, a handful of feathers had been plucked from the breast of each bird, which I learned was a common practice with the Indians, to form a criterion of their condition; and, to add to my disappointment, two eagles had been allowed to escape, that the nestlings might be the more easily secured, being much prized for their richness of flavour. I was exceedingly mortified; and, although I said nothing, my manner betrayed my feelings. The Indian little suspected such a reception, for he had been very successful with the small quantity of ammunition that had been given to him, and, from the manner in which he threw the birds upon the ground before me, was evidently in expectation of a high compliment for the skill he had displayed. After a short pause, with a countenance full of surprise, he observed to one of the men, who understood the language, "What makes the chief so cross? He gave me but six charges of powder and shot, and "-pointing to the sixteen birds that were lying on the grass-" there they are !" Then taking up one of the birds, he add-
ed, "Show the great medicine-man how white and fat they are." When the cause of my disappointment was explained, he expressed himself perfectly satisfied, and promised to procure me some more on the following day, which should be so little injured that they would make good-looking " maneetos." The Indians frequently preserve the skins of birds and animals; but do not make use of them as idols, as has been erroneously supposed. The term " maneeto" is generally made use of to express the Master of life; but it will bear a more extended meaning, and corresponds with what is called a charm in the English language: in that sense alone do the Indians value maneetos. As inducements to activity they may be no less serviceable than the silver ring which has been gathered by sixpences, worn in this country on a particular finger as a cure for epilepsy. As the mind in the latter case has been worked upon with success, why may it not be equally influenced in the former ?

Having crossed the Heron and Pelican Lakes, an intricate channel conducted us to the Lake
of the Woods : more appropriately named even than the Lac du Bois, which has been mentioned in a previous chapter; for its borders were, indeed, walls of pines, concealing the face of steep and lofty rocks, so that it was with some difficulty we obtained a landingplace. At the northern extremity of the lake, which is thirteen miles in length, we reached the Frog Portage by a small grassy channelthe source of the waters descending by Beaver Lake to the Saskatchiwine, and thence.by Lake Winnipic to Port Nelson, in Hudson's Bay. The portage has received its name from a stretched frog's skin having been found suspended to a tree, placed there by the Crees in derision of the northern mode of dressing the beaver and other fur-bearing animals. It is, however, more commonly called by the traders, Portage de Traite; from a valuable collection of furs having been obtained there by Mr. Joseph Frobisher, of the North-west Company, from the Chipewyan Indians, who were, according to annual custom, on their way to Churchill to dispose of them at the Hudson's Bay Company's Fort.

July 15th.-We breakfasted at the end of the portage,-the banks of the Missinipi, or English River. A sheet of water sixteen miles long, and between four and five broad, like that exposed to our view, might be very well mistaken for a lake, were it not for the rapidity of the current which passes through it. Here the country assumed a new character, by far more interesting than that which we had left. The mountainous and undulating elevations receded from the banks, and at each dip the woods growing in the rich valleys behind, rose majestically into view ; while the stately Banksian pine was seen in every position, from the perpendicular to the horizontal, growing on the declivities. My guide refused to proceed any farther than this spot, apprehensive of the Chipewyans seeking his life as an atonement for the atrocities which had been committed by an elder brother, who had wantonly murdered, at different periods, three of that tribe. We soon, therefore, got involved in a confused mass of islands, through the openings of which it was impossible to discern the shore; and our perplexity continued, more or less, till
we reached the Trout Fall, where I fortunately succeeded in obtaining another guide. It was with some difficulty he was persuaded to go ; for his mother and wife were using every entreaty to detain him. Tegasterkemo, however, (for that was his name,) paid more attention to the payment of two beaver-skins a day which I promised him, and embarked. The men plied their oars with redoubled force, well knowing that the slightest delay might cause him to alter his mind, so fickle is an Indian; and the extra labour to which they had been exposed in traversing wrong channels, had taught them the value of an experienced pilot.

Between the Frog Portage and Isle à la Crosse Lake there are no less than nineteen portages, and innumerable rapids. The repeated lakes, however, which occur between them afford intervals of rest, and an occasional breeze of wind is hailed by the voyageur with inexpressible delight. The whole, route is one of no common danger; and in the neighbourhood of almost every rapid, one or more gravés may be seen, the mournful records of somt unhappy creatures who have there met with a violent and
sudden death : yet, notwithstanding in many places they overhang the very brink of the fatal gulfs, so fatiguing and laborious is the duty of a voyageur, that he glides along unappalled by the warnings before him, and not unfrequently receives the reward of his temerity in a premature grave.
July 21st.-We reached Black Bear Lake, a very inappropriate name however, as it abounds with rapids; one of which, in the very centre of the lake, called, from its silent whirlpool motion, the Rapid qui ne parle point, is extremely dangerous. The suction is very powerful, and it is therefore carefully avoided by canoemen. The length of the lake is
 twenty-two miles, and its breadth varies from three to five; yet it is so choked with islands, that a straight channel cannot be found in any part exceeding a mile in length. The waters were literally alive with fish, rising in every direction for flies. I regretted very much at that time the loss of my fishing-tackle, which had been destroyed in the fire at Montreal ; for there is little doubt that the more northern lakes of America contain many species of fish vol. I.
hitherto unknown to the ichthyologist. The nets which are made use of by the Indians and traders are all of a mesh so large that they will not ensnare/a fish smaller than a mackerel. What a vast field is here exposed to the enquiring mind of the scientific traveller! A celebrated ornithologist, who was a man of fortune, assured me that, after wandering a whole summer, if he only collected one new specimen he considered finmself perfectly satisfied. A few such men would soen enrich our museams by faying before the world new species, and even new genera. A man who will not only spend his time, but his fortune, in adding to our knowledge, is to be admired and envied by every lover of science.

Frequent detentions had already carried us beyond the time we had calculated upon for reaching Fort Isle à la Crosse, to which place we were provisioned. As it was very evident, from the distance we had to go, that our provisions would not last, I strenuously incited the men to exertion, and distinctly stated to them that, although there were forty bags of pemmican in the boats, I would not allow a particle of
it to be touched. Credit is due to them for having made every exertion; but, notwithstanding the trouble I had taken, when they were entirely destitute of food, they applied to me, urging the unavoidable delay as the cause; and at the same time informed me, which I knew before, that in the company's service they were invariably permitted to consume a part of the pemmican which was embarked as cargo, if their allowance failed them. My orders were imperative, and I at once refused. The provisions which I had remaining were, however, divided amongst them ; and on the 30th, after two days' abstinence, we arrived at the fort.
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sev in diar Lake.-Difficult Navigation of the Methye River.-Mr. A. R. M‘Leod joins the Expedition.-Indian mode of spearing Fish. -Portage la Loche.-Imprudence of the Party.-A marauding Wolverine.-Sulphưri and Bituminous Springs.-Arrive at Fort Chipewyan. - Embarrassments for want of Provision. - Departure of the Bateaux under Mr. Annance.

Fort Isle à la Crosse is situated on a low sandy isthmus, and the land is favourable for cultivation. The lake and fort have received the denomination of La Crosse from the game of the cross, which was formerly a favourite pastime with the natives. The lake abounds with the finest fish; and the surrounding banks, from the richness of the pasture, and their contiguity to extensive forests, are much resorted to by the moóse and fallow deer, besides vast numbers of
the smaller quadrupeds, whose skins are precious. During the spring and fall the place is also frequented by numerous flocks of wild-fowl. Two graves here afford another proof of the fatal effects of the opposition which existed between the two companies; for the loss of a few traps only from one of the forts occasioned a severe conflict between the inhabitants of both, in which Mr. Johnson, an Irishman, and a Canadian voyageur, lost their lives.
Who the original people were that inhabited this part of the country is not known; not a single vestige of them now remains. That a strange nation once occupied the lands, we have a proof at the Portage de Traité, where the skin of a frog was placed, not only as a mark of derision, but to point out the farthest northern situation to which the Crees had driven the natives. The desire of possessing a country which afforded without much risk or trouble every thing necessary to render the early aborigines in every way independent, created, as might be expected, a war between the contiguous nations, the Crees and the Chipewyans; the latter descending from their barren grounds
for that purpose. A severe contest ensued, in which the Crees came off victorious. The rapid decline, however, of that people enabled the Chipewyans, who were becoming more formidable every day, to make considerable encroachments; and a negociation was at length entered into, which gave both nations the privilege of hunting the same grounds, under certain restrictions; and they are now to be seen as one family, pursuing their various avocations, and even tenting together in the most friendly manner. The country is so thinly peopled, notwithstanding the fertility of the soil, that only here and there a few miserable-looking beings are to be seen. The spring no longer presents groups of independent warriors, smoking the friendly calumet, and narrating the history of their travels and war excursions; nor rejoicing parties formed into little circles for the purpose of relating the various changes which had taken place, together with the different occurrences in their respective families, during their separation. Instead of occupying their time as formerly, when they enjoyed their happy independence, in feasting,
dancing, and other pastimes, they are now either employed in petitioning, in the most humiliating manner, for guns, ammunition, and other articles, which, since the establishment of the fur trade, have become essential to their existence; or in defending themselves against the aspersions of the traders, who are incessantly blaming them for the few skins they collect. They have fallen into so abject a state, that their sacrifices and religious solemnities are wholly suspended, and their funeral and matrimonial rites entirely neglected. A few stately and athletic men are still, however, to ${ }^{-}$ be found amongst them; but they have not that independent appearance, and loftiness of manner, which would justify us in believing the celebrated West to have exclaimed on the figure of Apollo Belvedere being suddenly brought under his notice, "An Indian! a Mohawk Indian!"

On the 31st of July, having administered to the relief of several sick persons at the fort, and embarked twenty bags of pemmican and four dogs, besides provision for myself and party to Fort Chipewyan, I left the fort with
my companion, Mr. Annance. We made a short traverse, and entered the Deep River, a canal of still water of about four miles broad and twenty long, extending towards the northwest, which led us to the Clear Lake, commanding an open horizon to the eastward. Our course lay through only a small portion of it, whence by a narrow meandering channel we entered Buffalo Lake. The wind being too strong for us to proceed, we encamped upon a gravelly beach thrown up by the waves, that exposed situation having been chosen to protect us from the musquitoes ; but, to our mortification, we found ourselves in a nest of sand-flies, creatures as irritating as they were diminutive. The musquito (whose food is blood), when it has gorged itself into a transparent globule, retires satisfied; but the sand-fly never seems to know satiety. The lake is very extensive, being thirty-four miles in length, fourteen in breadth, and very deep. A solitary mountain, seven or eight hundred feet high, named the Buffalo Mountain, is not only a conspicuous object, but of considerable importance among the superstitious Canadians. To it are attributed
the frequent storms which occur in crossing this wide expanse ; probably caused by the attractive power of its summit upon the circumambient clouds, as in Switzerland and all hilly countries. No sooner is the mountain perceived by a party of Canadians, than a lengthened conversation is commenced, and various accidents and hair-breadth escapes are related, many of which in all probability originated solely in their own imaginations.

At the extremity of the lake we commenced the ascent of the Methye River, a very shallow stream ; in which, although there is not sufficient water to form strong rapids, yet, from its rocky bottom, accidents are of constant occurrence. Its course is computed at twenty-four miles; but in our case, by making double trips, it was lengthened to seventy-two. In some places where a portion of gravel had collected, several hours' labour was scarcely adequate to overcome the difficulty. In such situations it was truly distressing to behold the poor fellows labouring with their whole might; immersed in water at the same time up to their middle, and tormented about their faces and hands with
musquitoes and horse-flies (significantly called "bullodogs") until they were streaming with blood. The sight was so painful that I invariably withdrew from the scene, until recalled thither by the welcome shouting of the gallant crews as they set in motion the unwieldy craft. I never regretted the want of spirituous liquors but at those times; for I am greatly averse to a regular use of them, from a conviction that, after the effect has passed away, they leave behind a degree of languor exactly proportionate to the excitement produced. There are, however, dangers and difficulties to which a voyageur is exposed, wherein an occasional dram is not only essential to enable him to bear up against his severe trials, but to stifle also a sensation of dread which will at times flit across the mind even of the man who has the stoutest heart.

At the entrance of the Methye Lake we met five boats from Portage la Loche, laden with furs, and containing - men, women, and children -about forty persons, entirely destitute of provisions. They had stripped off the rind of every poplar and birch tree they met with,
in order to procure the soft pulpy vessels in contact with the wood; but these, though sweet, are very insufficient to satisfy a craving appetite. I gave the poor women and infants all I could spare from my own stock; and with much good feeling every man of my party shared his day's allowance with those suffering people.

By Mr. Brisbois, who had charge of this party, I received a letter from Captain Back, in which I learned that Mr. A. R. M•Leod, the gentleman first named in Governor Simpson's circular, although indisposed, and on his way to Canada for the purpose of recruiting his health, had at once consented to join the expedition. I was the more delighted at this circumstance, as I knew Captain Back was extremely anxious to obtain his services, being fully aware that he was well qualified for the performance of the duties which the nature of the service would require; in addition to which, he was supposed to have a practical knowledge of the route to the Great Fish River. I was instructed also to offer a discharge to any of my party, with the exception of the fishermen, who might be dis-
posed to retire from the expedition, in order to make room for a volunteer who had served in Sir John Franklin's second expedition. Olivier Seguin, whose health had been very indifferent, accepted the proposal ; and James Spence was engaged in the service. Mr. Brisbois, Mr. Annance, and myself, sat down to a sorry breakfast of pemmican, and an infusion of the country tea-plant; for the stock of tea and sugar given to us at Norway House, consisting of one pound of the former, and ten pounds of the latter, had been long since expended. Immediately afterwards we pursued our course along the Methye Lake, a sheet of water twenty miles long and six broad; and encamped on a point of land where a party of Chipewyans were tented.

Anxious to witness the manner of spearing fish among the natives, and the weather being calm and the surface of the water unruffled, which circumstances were not only favourable but even essential to the sport, I determined not to lose the opportunity which presented itself; and, having made my request, it was at once assented to by two of the Indians, who
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were at the time embarking in a small canoe. One took his station in the bow with a barbed spear about six feet long, while the other placed himself in the stern, and commenced paddling as slowly as possible, in order that his companion might be enabled to discern the objects of his search at the bottom of the water; which, by the bright light of a long roll of birch bark that was burning at the bow of the canoe, he was easily enabled to do. No sooner was a fish observed, than the canoe being stopped, it was with one dart transfixed and drawn up to the surface. In this way they soon supplied my party with an excellent repast, and an agreeable change from our greasy food.

On the morning of the 9th of August, by a small creek which for a mile was just deep enough to float the boats, we reached the Portage la Loche. Here the navigation ceased ; consequently the two boats in which we embarked from Cumberland House, were placed in a secure situation : and, having divided the baggage and provision equally among the men, we pro* ceeded to the north end of the portage to in + spect two other boats left by Mr. Charles for
the use of the expedition, while the men commenced transperting their loads by daily jouris the high ridge of land which divides the waters running into Hudson's Bay, from those which fall into the Polar Sea. It is of a level surface, in some parts abounding with stones, though generally of an entire sand, and covered with the cypress, the pine, the spruce fir, and other trees natural to its soil. About five miles from the north side there are two small lakes, in which crustacea, mollusca, and several species of fish are to be found, although they have no known communication with any other body of water, being situated on the elevation of the height, and, according to Sir John Franklin, two thousand four hundred and sixty-seven feet above the level of the sea.

- Within a mile of the termination of the portage, a most extensive and magnificent scene suddenly burst upon our view, and we disco-• vered ourselves, through an opening in the trees, to be on a hill upwards of a thousand feet high, and at the brink of a tremendous
precipice. We were certainly prepared to expect an extensive prospect, but the beautiful landscape before us was far superior to any thing that could be anticipated from the nature of the country we had hitherto seen. At a depth of two hundred fathoms below the summit on which we stood, the Clear Water River was to be seen winding its serpentine course in beautiful meanders for thirty miles, broken here and there, and interrupted by intervening woods; while
——""The tall pines dwindled as to shrubs In dizziness of distance."
The valley, at once refreshed and adorned by the smooth pellucid stream, was embanked by two parallel chains of hills extending towards the west, till it became lost in the purple hue of distance.

The inclining heights, here and there covered with stately forests, and occasionally interspersed with barren spots and promontories of the most luxuriant verdure, were beautifully contrasted with the incinerated tinge which overspread vast tracts of country where the once dense forests had been consumed by fire. We
sat down awhile to contemplate the magnificent scene, the picturesque and diversified appearance of which awakened in our minds mingled sensations of wonder and delight; while the calmness of the view infused an equanimity into our souls which it would be difficult to describe. We tore ourselves, at length, from this enchanting spot; and, having descended to the banks of Clear Water River, we encamped.

On the following day we paid a visit to the men, in order to encourage them in their laborious duty. Owing to the dry weather we had of late experienced, the pools, which are generally to be found in low situations about the woods, were entirely drained. Even the sphagnum, or bog-moss, which acts as a sponge in retaining rain-water, was dug up and squeezed to no purpose ; in addition to which, the thermometer in the sun indicated a temperature of $110^{\circ}$ Fahrenheit. We found the men in a high state of fever, and rather dead than alive, from excessive thirst; yet not a murmur escaped them. Mr. Annance and myself seized each a kettle, and. started, as if impelled by wings, for the creek where the boats were left, and soon obtained a
supply of water to quench their thirst. Several of the men were much weakened, and William Rowland entirely disabled. Having administered to their wants, I represented to them the folly of abstaining from water for so long a time, when an ample supply might have been easily obtained. At first they pleaded as an excuse, the expectation they had every moment of finding some. I ultimately learned, however, that a proposal to visit the small lakes had been started by some of the men, but rejected by others; on which account the idea was very unwisely abandoned, from an impression that during their temporary absence an opportunity would be afforded to those who remained of reaching the end of the portage before them,a circumstance which would have been made the subject of boast by the more fortunate party for the rest of the voyage; therefore, rather than submit to it, they dragged on, even at a sacrifice of their health. I could not but admire the spirit of emulation which induced them to proceed; nevertheless, the danger of carrying it to that extreme was so evident from the example before me, that I considered it prudent

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at once to check it, by cautioning them against committing such acts of folly again, at the risk of incurring my severe displeasure.

The gentleman in charge of the M'Kenzie River district, incapable, from the shortness of the season, of reaching York Factory with his furs, and returning before the approach of winter, deposits them half way across the portage, where he is met by a party sent from Norway House, laden with all things necessary for the ensuing year's trade, consisting of guns, ammunition, blankets, cloth, axes, files, cutlery, and several sorts of trinkets; besides flour, sugar, tea, brandy, and tobacco, for his own use. After mutual congratulations, the parties exchange loads; and, bidding each other adieu, return to their respective homes.

By the 16th of August I had the satisfaction of seeing the last loads deposited at the water's edge, just eight days from the time of commencing the portage, during which period every man of the party carried twelve pieces in six journeys, and thus travelled one hundred and. fifty-four miles, during eighty-four of which he had one hundred and eighty pounds attached
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to his back. Fatigued and exhausted, for several hours they remained almost motionless; the rustling noise as they passed and repassed the woods was no longer to be heard; the earth became as it were darkened by a passing cloud, and my companion had smoked himself into a state of torpor: all was solitude. I amused myself by inspecting the baggage, which was in good order; with the exception of the pemmican bags, the corners of which wethe mostly rounded, and in some cases torn, from the frequent falls they had met with on the portage.

In the course of the night the buffalo-skin covering one of the bags was torn off and carried away by a marauding wolverine, whose footmarks were so well defined in the sand, that with little difficulty we tracked it to the base of a hill. On one of the projecting lines at the top we soon espied the arrant thief, feasting in conscious security upon the stolen property. Mr. Annance thought it so favourable an opportunity for using his rifle, that he was about. to retrace his steps for the purpose of fetching it, when, on a second view, the distance was found to be too great. We contented ourselves there-
fore with hallooing as loudly as possible, which was resounded again in echo ; yet the cunning animal was so well aware of its safety, that it never for a moment desisted from its feasting. The pemmican had been left untouched,-a piece of good fortune that was only to be attributed to a sudden alarm,-as the habits of the wolverine are not only predatory but mischievous; and, aided by amazing strength, they frequently commit depredations that to a stranger might appear quite incredible. As a proof of the power of these animals, Hearne mentions, that on one occasion during his residence in North America, the greater part of a pile of wood, measuring upwards of seventy yards round, had been entirely disarranged in the course of a few weeks by a single wolverine, for the purpose of securing some meat that had been placed there en cachette; though amongst the pile there were many trees sufficiently large to require two men to lift them. The fact that a work of such labour was here executed by a creature not larger than a setter, might have been questioned; but having taken place during the winter season, the impressions that were dis-
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covered on the snow placed it beyond all doubt.

On the 19th we embarked on the Clear Water River, which runs, including its windings, upwards of eighty miles, when it discharges itself into the Athabasca, or Elk River. Limestone rocks were everywhere to be found along the banks; and so singularly scattered through the woods, that at one of the portages they bore the appearance of houses and turrets overgrown with moss. In many places, as we walked, the earth emitted a hollow sound, and the country was broken into faults; clearly indicating that some convulsion had disturbed the general order of stratification. The soil on the surface was alluvial, and the hills and bed of the river composed of fine yellow sand. On the south bank, the Red Willow River flows into it through a deep ravine, and is said to take its rise in Clear Lake; by which route the Indians in their small canoes pass the height of land, and thus avoid the Portage la Loche. In one instance it was passed by the company's boats; but the difficulties were so great, that the ordinary route is now
preferred. We breakfasted on the morning of the 21st near a small stream so strongly im. pregnated with sulphur as to taint the air for a great distance around it. The stones and sticks in the vicinity were covered with sulphureous incrustations of a bright yellow colour. Every man drank freely of the waters, from an impression, to use their own term, "that it was an excellent purifier of the blood." On either side of the river the hills varied from eight hundred to a thousand feet high, gradually sloping to the stream, and covered with an exuberance of rich herbage, diversified by groups of pines. Here was presented rich pasture land capable of feeding any number of animals; and, as the pines were not in thick impenetrable masses, as is generally the case throughout the American continent, it was capable of immediate cultivation. How invaluable would such lands be in Canada! Here the principal difficulty which an emigrant has to contend against-the grubbing or clearing the land, is rendered unnecessary.

At noon we reached the majestic Athabasca River, exceeding half a mile in breadth, and in many places increased to a mile by long
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muddy islands varying from three to six feet in height. Those exposed situations afforded us a protection from the musquitoes, and were so much preferred to the woods, that we invariably sought for them. The banks were inaccessible cliffs from one to two hundred feet high, and extremely favourable to the growth of the aspen and poplar; and not less so to the pines, which in many situations were estimated at two hundred feet in height, and four feet in diameter. On the tops of such enormous pines as these, the nest of the whiteheaded eagle was to be seen, over which the parent birds were observed soaring aloft, started from their airy nest by the splashing of the oars as they dipped the water.
The aquila leucocephala, bald or white-headed eagle, is to be found in the United States all the year round, but only visits the fur countries in the summer season, arriving there in the van of the migratory birds. The hen lays two eggs, and when hatched the young are a long time before they fly. In the neighbourhood of every fall that bird is to be seen either elevated on the dead limb of some gigantic tree, watching,
with half-closed eyes, the motions of the various feathered tribes that pursue their busy avocations below; or, stationed among the rocks that bound the rapids, diligently seeking after the animals that in their attempts to cross the river have been dragged into the current, and precipitated down the falls; and not unfrequently giving chase to the fishing eagle, for the purpose of securing to himself the prey which that industrious bird is employed in conveying to its nest.

As we proceeded, the current became more swift, and the banks decreased in height to the Pierre au Calumet, a rocky point of limestone, where they were reduced to twenty or thirty feet. That place is frequented by the natives for the limestones which compose the banks, and of which they make their pipes. It is interesting also as the building-place of the hirundo lunifrons, a species of house-marten, and resorted to by vast flights of them during the summer months. They slightly differ from the English visiters, and feed upon larger insects. The house-mariten not only visits the same place, but thē same nest year after year; a fact
which I ascertained by experiment while residing in Kent about ten years ago. Having selected a detached nest, I fastened a small piece of silk round one of the legs of its inmate, then sitting upon eggs. The following' season the bird returned, and, with the garter still affixed, was secured in the same nest: a convincing proof of the instinctive knowledge attributed to it.

Between the Pierre au Calumet and the junction of the Clear Water River with the Athabasca, which is called the Forks, there are some bituminous springs, into which a pole of twenty feet long may be inserted without the least resistance. The bitumen is found in a fluid state; and, when mixed with the resinous substance collected from the spruce fir, it is used for gumming the seams of the canoes so as to render them water-tight. I was instructed by Captain Back to procure three kegs of this unctuous substance for the use of the expedition ; but the bank, on which a mark for my guidance had been placed, had been washed away by the stream. The river carries away yearly large portions of soil, which increases its breadth and diminishes its depth, vol. 1.
rendering the water so muddy that the pools afford a preferable drink. Whole forests of timber are sometimes drifted down the stream, which block up the smaller channels, but especially a narrow muddy river, a branch of the Athabasca, which is so constantly obstructed by huge trees lying feross it after the manner of the Savannah River, that-it has received the name of the Embarras. After passing two deserted settlements on the opposite banks, erected for the purpose of trading with the Crees during their prosperity, the current hurried us on towards the Athabasca Lake; and, to increase our distance, we drifted at night.

The uniform appearance of two forts, one invariably opposite to the other, would naturally lead one to suppose that a dread of the Indians induced the rival companies to station themselves in such close vicinity : but their motive was widely different,-it was for the purpose of watching each other's actions, and preventing either company from winning the affections of the natives, and monopolizing the trade. A party of Indians no sooner came in sight than some men started from the forts to meet them,
armed with that most deadly poison to Indians - a keg of rum, to blind the poor natives to their own interests; and whoever arrived first invariably obtained the furs.

On the morning of the 25th of August we reached the Athabasca Lake; and by noon, Fort Chipewyan. Mr. Ross, who had been left in charge by Mr. Charles, received us in the most friendly manner; and, having seen us from a distance, had provided an excellent breakfast. He expressed himself surprised at the rapid manner in which we had advanced, considering the loaded state of the boats. I requested of him a guide to accompany one of my men to the bituminous springs; and, although the only person who knew the way was the most serviceable man about the fort, with much good feeling he at once placed him under my directions. Not a moment therefore was lost in despatching him with James Spence in an Indian canoe, with three kegs, for a supply.

I received here a letter from Captain Back, with directions to take for myself and party sufficient profisions forathirty days; but, to my astonishment henirotes cors could not produce BiAMOTMECA

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enough for twelve days; and Mr. Ross, although he was most anxious to forward the views of the expedition in every possible manner, added to my distress by informing me that he could only spare three bags of pemmican out of the six which the store contained. The rest was intended for the use of the Peace River and Slave Lake boats, as they passed on their way from the depôt at Norway House, laden with the outfits for the ensuing year. My situation was now one of considerable difficulty. The orders were imperative that I should " not on any account touch a single bag of pemmican of the sixty" I had in charge, and yet without doing so it was apparently impossible to reach the intended wintering ground; a circumstance which would be the means of preventing the expedition from reaching the Polar Sea the following summer.

To violate my orders might eventually be my own ruin; while, to obey them, would in all probability expose Captain Ross and his party to pass another severe winter on the shores of the Arctic Sea, or possibly even be the means, through delay in succouring them,
of sacrificing the whole party. I pictured to myself the crew of the Albany on Marble Island, (as originally described by Hearne, but more recently by Sir John Barrow in his history of Arctic Voyages,) "daily ascending a rock during the summer looking earnestly to the east and south in expectation of relief, and, when nothing appeared, sitting down close together, and weeping bitterly." The lives of several of my fellow-creatures were, I considered, of more importance than my own reputation; I therefore determined to break in, if necessary, upon the pemmican; but not until all other resources had failed.

I set six men immediately to work in putting four nets in perfect readiness, that we might fish our way ; and resolved, in the event of ill success, to fall sparingly upon the thrree bags of pemmican I should obtain from Mr. Ross. Meanwhile, at the suggestion of that gentleman, I set the carpenters to work in repairing the boats, and making the rudders which would be necessary for our use in crossing Slave Lake, instead of doing so at Fort Resolution; as, during the period required for that duty, some

Indians might arrive with moose and rein-deer meat. The prudence of this step was evident; for the very next day two Indians arrived with about twenty pounds of dried meat, and on the following day some more; but on the 27th all my fears were at once dispelled by the arrival of Mr. Charles himself in a light canoe.

That gentleman very kindly allowed me to clear his store of all the provisions it contained, consisting of six bags of pemmican of eighty-five pounds each, four bales of dried rein-deer meat of ninety pounds, and one of eighty pounds. That quantity was still short by five pieces of the supply required; which determined me to send forward the boats to Fort Resolution, with instructions to await my arrival there, and to subsist in the interval upon whatever fish they could obtain; and, in the event of not being able to procure food of any kind, they were to restrict themselves to one pound of pemmican each a day, - which, it may be necessary to mention, is just one-third of the regular allowance. On the following morning, therefore, the provisions, and four dogs in addition to those already obtained at Fort Isle à la Crosse,
were embarked; and I had the satisfaction of seeing the boats depart, under the charge of Mr . Annance, who kindly undertook to see that my orders should be strictly attended to. Three of the men were retained to man a half-sized canoe, in which I purposed following them as soon as James Spence returned.

## CHAPTER V.

Brief Account of Fort Chipewyan.-An Iroquois Musician.-Arrival of the small Canoe.-Embark in a half-sized Canoe.-Extreme Danger.-Embark in an Indian Canoe--Indian Mode of Travelling.-Musk-rat.-Salt Plains.-Arrive at Fort Resolu-tion.-State of the Country as regards Civilization.-Poisson Inconnu.-Journey resumed.-Lose our Way.-Make a Port-age.-Great Snowy Owl. - Reach the Wintering Ground. Captain Back's Account.-A Skunk.-Route to the Great Fish River by the Athabasca Lake abandoned.-Important Investigation as regards the Great Fish River--Further Information obtained at Fort Resolution. - Hoar-frost River, difficult Ascent of. - Artillery, Clinton-Colden, Aylmer, and Sussex Lakes.Discovery of the Great Fish River.-Return.

August 29th.-Fort Chipewyan is remarkable as having been the residence of Sir Alexander M‘Kenzie for eight years, whence he took his departure on both his overland expeditions. The establishment once presented a busy scene, and a very good building; but it is now reduced to comparative insignificance.

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The fishery is upwards of sixteen miles from the fort, a distance which frequently exposes the inhabitants, who depend entirely on fish for their subsistence, to great privations; as every prevailing wind raises so high a sea, that the crossing of the lake is attended with considerable danger. This was the caše during our stay, and we were obliged to partake of the only food in store, consisting of pounded meat and moose grease.

The fort is built upon a rock of gneiss, forming one of the sides of a small bay. The soil is good, producing barley and potatoes; and would no doubt produce wheat also, if properly attended to. The valleys between the rocks. afford plenty of grass, and all the fruits of the country. The forests contain every species of wood necessary for the use both of the Indian and the trader, -birch to make their sledges and snow-shoès, and pines for building or for firewood. In the month of May geese and ducks make their appearance, a sure sign of the commencement of spring; nor are they less welcomed for the amusement of shooting them than for the grateful change which they
afford for the table. Several species of ducks and a few Canada geese breed here; and in June eggs are so abundant that the Indians collect canoes full at a time.

Mr. Charles was accompanied by Mr. M•Lane on his route to the Columbia by way of the Peace River. That gentleman, during his passage in the Montreal brigade of canoes, which pass annually from La Chine to Norway House and return the same season, met with a party of men in Winnipic River who had lost the whole of their baggage and provisions in one of the rapids by the upsetting of their canoe; an accident which proved fatal to the bowsman. Mr. M‘Lane, with much good feeling, furnished them with a tent, some bedding, and a small quantity of provisions, to carry them to the next fort, although he could very ill afford it.

In the evening Mr. Charles entertained the men and women of the fort with a dance, in which the Canadians, and particularly my two Iroquois, Pierre Ateaster and Pierre Kanaquassè, exhibited some grace and much agility. The half-breed women, although passionately
fond of the amusement, displayed a want of animation, and an awkwardness of gait peculiar to them when in presence of their Bourgeois, or Master of the fort,-a reserved manner which by no means prepossesses a stranger in their favour ; among themselves, however, they are active and lively enough. During these pastimes the violin, the only musical instrument with which the Canadians or Metifs are acquainted, is had recourse to. They play entirely by ear, which so frequently deceives them, that it is difficult to distinguish one tune from another. In our case, however, it was handled in a very superior manner by an Iroquois Indian, who, contrary to the usual practice, played by note; in addition to which he could read and write the French and English languages besides his own. From an Iroquois prayerbook, he, at my request, chanted a hymn to a lively native air.

On the morning of the 30th of August, two Chipewyan Indians arrived with a small quantity of moose-deer meat, which enabled Mr. Ross and Mr. M‘Lane to take their departure for the Peace River. The weather was fine
and calm; the canoes passed swiftly through the glassy waters, while the voyageurs chanted some of their liveliest airs. Having watched them till out of sight, I proceeded to the woods with my gun and vasculum in search of specimens of botany and natural history; in which employment, and in administering relief to the sick people at the fort, my time was entirely engaged. Amongst those who daily came for medical advice was a half-breed woman, with her upper lip in a highly cancerous state. It was a case wherein a surgical operation was absolutely necessary, to which the poor woman readily submitted. She bore it with much fortitude, fully justifying the character imputed to those people.

September 1st.—At 8 A, m. I discovered with my glass the little canoe returning from the tar springs, riding on the disturbed waters of the lake. It appeared at first as a mere speck; and even when within half a mile of the shore, it might very well have been mistaken for a small piece of drift-wood. As every now and then I caught sight of the little vessel on the arched wave, the wind was blowing so fresh that

I thought I should see it no more. A canoe is very liable to burst asunder when on the top of a wave; for at that time a considerable portion of the bottom is out of the water, and there is nothing to support the weight of its cargo but the bark and slight gunwales attached to it. The canoe in the present case was not more than ten feet long, and two feet broad; and in it were stowed two heavy men, with two hundred-weight of tar, besides blankets and apparatus for cooking. They nevertheless arrived in safety, although much frightened, and drenched to the skin. On their starting from the mouth of the river Embarras, the lake was calm and unruffled, with a clear sky; but when halfway across a long traverse, a dark cloud was seen rising, and as it expanded towards the zenith, light gusts of wind arose, which at length gradually increased until it blew a regular storm, making their situation one of extreme danger, wherein all the skill of the steersman was required, and the utmost exertion of both to avert the destruction that threatened them.

Having taken leave of my kind friend Mr.

## 110 EMBARK IN A HALF-SIZED CANOE.

Charles, I embarked with four men and ten pieces in a half-sized canoe. On reaching the western boundary of the lake, we entered the Stony River, remarkable as becoming alternately the tributary and channel of discharge of the Athabasca Lake: a singularity occasioned by the high or low state of the Peace River, which, fortunately for us, was in the latter condition, and swept us swiftly along. Towards the evening we descried several ravens hovering in circles round a small grove of poplars,-a sure sign of an Indian encampment. I despatched, therefore, two men in search of the tents, for the purpose of obtaining a guide, a requisite which Mr. Charles could not supply. They soon returned with a young hunter, anxious to accompany me; but, as he had no provisions, I did not think myself justified in engaging him: and depending somewhat upon Spence, who had several times pursued the route while in the service of the company, I determined to run the chance of meeting a more successful hunter. Having started from Fort Chipewyan with but twenty pounds of pemmican, and twenty pounds of dried meat,
to last myself and cook for thirty days, and my crew also upon short allowance, no encroachment could be made with any degree of prudence upon our little stock.

The following morning we passed the confluence of the Stony with the Peace River, where it takes the denomination of Slave River. At that spot it was upwards of a mile broad, and the current was much stronger. It has received the name of Slave River from the circumstance of the Slave Indians having been driven from their original country by the Crees, along the borders of that part of the stream. The appellation slave by no means, however, involves the idea of servitude; but was given to those fugitives as a term of reproach. Towards the evening we came to a series of rapids and cascades extending completely across the river, which at that place was swelled out to between three and four miles by an assemblage of islands, and rocky ledges of granite, dividing it into numerous channels.

We had already descended some of the rapids when Pierre Kanaquassè, a very expert bowsman, raised himself in the canoe,
and suddenly broke out with the exclamation, " Nous sommes perdus!" he instantly recovered himself, however, and commenced paddling with all possible energy, at the same time encouraging the men by repeatedly calling out, "Nagez fort—nagez fort!" Although they but imperfectly responded to the charge, partly because they did not understand a word of French, and partly because Pierre had been accustomed to break out by fits and starts into a fierce stroke of the paddle, we reached an island in safety; from an elevated point of which we perceived the danger we had escaped. The fact was, we had passed the proper turning to make the portage, and had been drawn into the frightful falls and rapids of the Cassette; to run which is never even attempted. What was now to be done? It appeared at first as difficult to retreat as it was dangerous to advance. We had passed down the falls fast enough ; but it was not so easy a matter to ascend them, unprepared with a towing-line. We however proved the adage "Where there is a will there is a way;" and soon found a substitute for a rope in the ceintures or sashes of the
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party, with which, well fastened together, we managed to tow the canoe to a place of safety. The night was approaching; twilight had already commenced, and we had still to hunt out a small channel by which those gulfs are avoided; and so intricate was the approach, that it was past eleven o'clock before we had the good fortune to discover one. For our safety we were entirely indebted to the herculean strength and cool intrepidity of Pierre Kanaquassè ; a convincing proof of the superior-? ity of native voyageurs in overland expeditions.

The canoe had proved all along leaky, and was rendered worse by the blows it had received in the rapids; so we landed to repair the damages. A round stone will displace the lading of a canoe without doing any injury, but a slight blow against a sharp-pointed rock penetrates the bark. For the purpose of repairing it, a small quantity of gum or pitch, bark and pine roots, is embarked; and the business is so expeditiously performed, that the speed of the canoe amply compensates for every delay. We were only able to procure a small quantity of gum at Fort Chipewyan ; and, as a substi- EMBARK IN AN INDIAN CANOE.
tute, had fixed over the broken parts small pieces of bark with wooden pegs. The water, notwithstanding, accumulated so fast, that to gain time I embarked in a small canoe with an Indian whom we fortunately met at noon of the 4th of September.

Having directed Pierre and the other men to follow me to Fort Resolution as quickly as their crazy craft would admit, the Indian pushed from the shore, and silently paddled me along the river till the close of the evening; when we landed to obtain a little rest, and to partake of a small quantity of pemmican and a cup of tea, with which luxury Mr. Charles had kindly supplied me. The following morning we met with a party of Chipewyans in five canoes, who had just before killed a moosedeer, of which I obtained a small quantity in exchange for ammunition. One of the canoes contained a whole family, who were travelling in a truly characteristic manner. The Indian was steering, but labouring more at a pipe, from which he was blowing forth volumes of smoke; while his wife, surrounded by her children, with an infant resting upon her left arm,
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was paddling at the bow. The infant was asleep; and so quietly was the paddle dipped into the water by the fond parent, that it appeared perfectly motionless. The western bank of the river was low, consisting of a rich black soil, held together by the roots of trees and shrubs that crowned its summit; while the eastern shore, more elevated, was composed of a yellow clay mixed with gravel, growing fewer trees. At a short distance from either bank are very extensive plains frequented by the buffalo; and in the small lakes and tributaries a beaver is occasionally to be found. That animal invariably builds its habitation in the small lakes and rivers ; as, during the spring, the ice in the larger streams carries everything away with it. The mud banks along the sides of the river were covered with wild fowl and vast numbers of musk-rats.

The fiber zibethicus, or musk-rat, builds a small conical house with a mixture of clay and earth, which it raises on the mud of the marshes, and frequently upon the surface of the ice. It sometimes, however, spares itself that trouble by inhabiting the same lodge with
the beaver, which it very much resembles in many respects, but particularly in its fur. It has a long tapering tail, flattened from side to side, with which it steers itself. The house covers a hole in the ice, which permits the animals to go into the water in search of the roots on which they feed. In severe winters, when the small lakes are frozen to the bottom, and they cannot procure their usual food, they prey upon each other. The musk-rat is very prolific, producing three litters in a season, and breeds at a very early age. Nearly half a million of their skins are imported annually by the Hudson's Bay Company, which are bought up by the hat-makers, and substituted for beaver-skins, although very inferior in quality.

In the course of the day we passed the mouth of the Salt River, about a hundred yards wide. Seven or eight miles from its mouth the water is brackish, but it soon becomes quite salt; and after ascending to a distance of twenty miles, including the windings of the river, the salt plains commence. They are bounded by an even ridge, six or seven hundred feet in height, from the foot of which
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several salt-springs issue, and spread their waters over a plain consisting of tenacious clay, while here and there are exposed beds of a grayish compact gypsum. During the summer much evaporation takes place, and hillocks of salt are left behind, crystallized in the shape of cubes, forming a favourite resort to the buffalo and other herbaceous animals.
Early on the morning of the 6th of September we passed the mouth of a broad channel running to the north-east, termed La Grande Rivière de Jean, being one of two large branches by which the river pours its waters into the Great Slave Lake. Several smaller channels intersect the flooded delta at the mouth of the river, through one of the most westerly of which we pursued our route, and at nine o'clock arrived at Fort Resolution; and truly glad was I to escape from my prison. The forty hours I was in the Indian canoe was decidedly the most irksome time I ever spent; for, not able to move hand or foot for fear of upsetting the canoe, I had recourse to a cup of strong green tea to prevent sleep, which made me so nervous and fidgety that musquitoes,
sand-flies, extremes of cold and heat, were annoyances of a very minor consideration ever
afterwards.
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The boats had arrived four days before me, during which time the men subsisted upon pemmican ; for Mr. M‘Donell, the gentleman in charge of the fort, had been unable to supply them with any fish, from the total failure of the gill-nets. I therefore had to produce the moose meat I had procured from the Indians, of which Mr. M‘Donell, Mr. Annance, and myself made but a scanty meal. From a letter which I received here from Mr. A. R. M‘Leod, I ascertained that the selection of a wintering situation had been left to the judgment of that gentleman, who had fixed upon the eastern extremity of Great Slave Lake, from the favourable report given of it by the Chipewyan Indians. An Indian was engaged for my guidance, from whom I learned that in about eight or ten days $I$ should be able to reach the ground. Finding, therefore, that my consumption of provision would be by no means so great as I had reason to anticipate on leaving Fort Chipewyan, I gave Mr. Annance a few pounds
of pemmican, and he hoped to kill a few ducks, to enable him to reach his place of destination on the banks of the M‘Kenzie River, distant about five days' march.
There was little in this fort differing from the establishments I had before seen. The ground on which it was erected was sandy, and not very favourable for cultivation. Barley, potatoes, and several other vegetables are, however, produced. It would be very easy to manure the ground and produce an excellent soil at this place; for, during the spring, myriads of sucking-carp, which are of no value as food, might be taken and thrown upon the land. Up to this spot I have no hesitation in saying civilization might extend itself. Industry only is required, and facilities afforded by a proper system of emigration; and if the Indians are ever made a pastoral people like the Laplanders, the Great Fish River, as will be subsequently made evident, may be of as much, and even of more importance than the rich marshes of Kent.

Here is found the salmo Mackenzii, or poisson inconnu of the traders. It is only known to exist in the M‘Kenzie and its tributaries, and is said
by the Indians to ascend from the Arctic Sea; but is not found higher than this place, from its inability to pass the cascades of the Slave River. This fish forms an important article of food at certain seasons, when in good condition. The flesh of the inconnu is white, and, when in season, palatable, although rather soft and oily; which makes it very disagreeable when used as daily food. It is taken in gill-nets, and varies from five to twenty pounds, and is stated even to exceed that weight. It may be said to connect the trout with the white-fish : from the former it differs in its general aspect, and in the smallness of its teeth; while with the latter it disagrees in the number of its gill-rays, in having palatine and vomerine teeth, and in the form of the body. In the evening my canoe arrived.

At an early hour, therefore, on the morning of the 7th of September, having taken leave of Mr. M‘Donell, and my esteemed friend and companion, Mr. Annance, I embarked with Jack, the Indian guide. Passing Moese-deer Island, of about a mile in diameter, and rising towards the centre about three hundred feet
above the lake, we steered northwards; and, favoured by the wind, encamped on Stony Island. That island is an entire rock of red granite, rising between forty and fifty feet above the lake, and precipitous on the north side. In the crevices of the rock a small quantity of earth had collected, on which we found raspberry and currant bushes, so loaded with fruit that they afforded more than a sufficiency for our whole party. The following morning we took a northeasterly direction, and made a meandering course through a group of innumerable islands, narned, after the governor of the country, Simpson's Islands. They consisted of granite, rising from one to two hundred feet above the water, and, with the exception of a few clumps of pines on the top, were mostly bare. We proceeded till we reached a jutting point of land which was named Point Keith, in compliment to Mr. J. Keith, the company's agent at Montreal ; on rounding which a magnificent expanse of water was seen east and west, with a clear horizon. From that spot we made a traverse, and reached a shore bounded by rocks from three to five hundred feet in height, sloping in vol. I.
irregular declivities to the water's edge, and thinly clad with meagre pines and birch-trees. The most predominant formation was a dark clay slate in thin laminz, peeping. through which granitic rocks were to be seen of a foliated appearance, approaching to gneiss. From Captain Back's description of the northern coast of the lake, I subsequently considered we had coasted along the southern part of Pěth-thěnūěh. Taking this for granted, therefore, we followed the course of Christie's Bay, named after another gentleman of the Fur Company; and, as we proceeded, the land, which was always on our left hand, increased rather in height, but was still so scantily wooded, that only here and there a few groves of pines were to be seen. After making a distance of about sixty miles, we turned a point, when the land trended north-west, which we followed for a further distance of seventy miles.

At Fort Resolution I had heard of anarrow part of the lake called Tāl-thēl-lěh, or the place that does not freeze; and of another part equally noted by the Indians as affording a stone for making their pipes. The very eva-
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sive answers I had received when questioning the Indian about these places, together with the circuitous route we had of late taken, led me to suspect that he had a very imperfect knowledge of the lake. The next day we made a traverse in an easterly direction towards a high table land, and, notwithstanding it trended to the south of east, so vain is an Indian of his local knowledge „which, generally speaking, is very wonderful, - that he still persisted he was taking the right course ; and it was not until he had led us to the bottom of a deep bay, that he confessed himself ignorant of the route. He was now, however, convinced that we had passed to the eastward of the narrow of the lake, and got involved in some of the deep inlets with which the lake abounds.
For the purpose of ascertaining our position, I sent the Indian with M‘Kay, my steersman, to the summit of the high land, rising upwards of a thousand feet from the beach below, where the formation consisted of cream-coloured limestone in horizontal strata. The sandy shore of the bay was covered with a variegated marl of a greenish grey colour, in all probability washed
from the rock whence the natives obtain their pipe-stone, situated, according to the Indian's statement, in a direction due north of our station. On the return of M•Kay, it was evident, from the guide's account, that we were on the southern part of the land laid down in the chart as Gāh-hŏoă-tchēllĕh, which was described as an extensive island running nearly east and west. There was no other resource, therefore, but to coast round one of its extreme points to get into M‘Leod's Bay, named after our friend and companion ; or to make a portage at a narrow part of the island mentioned by the Indian as affording a shorter route to the several parties of Chipewyan and Copper Indians who visit the eastern extremity of the lake. For that purpose then we advanced, when the rocky embankment became more and more precipitous until it had quite a mural appearance. Here and there the rocks were rent into deep chasms and rugged fissures, strewed at their base with massive débris from their craggy sides.

September 14th.-We entered a bay, running about five miles in the land, and reach-
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ed the portage of one hundred paces. Sufficient water flowed over the narrow to float the empty boat; from which circumstance it is not at all unlikely that Gāh-hŏoă-tchēllĕh is composed of more than one island. There I procured a specimen from a large boulder lying on the beach, consisting of limestone containing portions of a fossil, and so similar to the limestone which I met with the day before, that I have no doubt it was washed from that spot. After making a traverse, we reached a bold rocky ground, but less acclivitous, consisting of rounded and undulating rocks of granite.

At the encampment in the evening, I secured a specimen of the strix nyctea, or great snowy owl, measuring two feet from the tip of the bill to the end of the tail. Pěth-thě-nūĕh is called Owl Island, from being a favourite place of resort for this highly beautiful and powerful bird. It is common in the more northern parts of both hemispheres, and frequents during the summer the most. remote arctic lands; but on the approach of winter it retires to the woods for shelter, with the ptarmigan, on which it preys. We met with this bird on the rocky embank-
ment of Lake Beechey, in latitude $65^{\circ} 30^{\prime \prime}$ north and longitude $107^{\circ}$ west, where it was found so shy as to be approached with great difficulty, but in the woody districts it is less cautious. Hearne mentions that it has been known to watch the Indians in their excursions after grouse for a whole day, for the purpose of sharing the spoil. On such occasions, perched on a high tree, it no sooner perceives a bird killed or wounded, than it skims down, and carries it off before the sportsman has time to approach. Its principal food is the ptarmigan and wil-low-grouse, although it preys on lemmings, hares, and carrion ; and, when hard pressed for food, it proves itself a dexterous fisher, either sitting on a stone in a shallow stream, or, as it sails along near the surface of the water, grasping its finny prey with an instantaneous stroke of the foot. Its colour is white, with the exception of a few umber spots on the back; and therefore well calculated for traversing a snowy waste without alarming the birds on which it preys. The ptarmigans, when pounced upon, endeavour to save themselves by diving instantly into the loose snow, and

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\text { REACH THE WINTERING GROUND. } 127
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make their way beneath it to a considerable distance.

Passing along the eastern shore of M•Leod's Bay, which trended due east, I could not but remark the similarity of its appearance to the northern shore of Lake Superior. It. was a continuous embankment of granitic rocks rising from fifteen hundred to two thousand feet above the water, and entirely devoid of wood of any kind. There were numerous bays to afford us shelter from the wind, and the banks generally produced pines and birch-trees of a fair size. To the north and west we had hitherto, seen no land; but on the morning of the 15th, land was seen bearing north-east, which by noon of the 16 th we reached, and to our mortification found ourselves again at the bottom of a deep bay. The momentary vexation, however, vanished on beholding from the craggy summit of a lofty rock the spot of ground selected for our winter-quarters about a mile distant; where, contrasting with the dark-green foliage, stood the framework of a building.

It was necessary that the party should return for some distance to double a jutting point of land.

I therefore descended the rock, and walked to the bank of a small river, when the report of my gun soon brought a canoe, which ferried me across; and I had the satisfaction of finding Captain Back in good health, waiting at the water's edge to welcome my arrival, and to introduce Mr. A. R. M‘Leod, the gentleman who was to share our future fortunes. The boat arrived at six in the evening, and I delivered up the cargo in as sound a state as when it was first embarked.

After Captain Back passed me in the Sturgeon River, he proceeded without interruption to Fort Isle à la Crosse, where he arrived on the 17th of July. On the shores of Buffalo Lake one of his party encountered a skunk, mephitis Americana, a small pleasing-looking animal, with a full bushy tail, long black hair, and a broad white stripe along each side. The animal resented the intrusion in the usual way, by the discharge of a noisome fluid of a deep yellow colour, which emits one of the most powerful stenches in nature. The unfortunate man, who had unconsciously brought the evil upon the party, was half-stifled, and obliged to
throw his capot into the lake, well aware that nothing would take away the smell which that obnoxious secretion had occasioned. Were it not for this peculiar power of annoyance, the race would soon be extirpated; for the animal has a slow gait, and can be overtaken without difficulty. When care has been taken not to soil the carcase with any of the strong-smelling fluid, the meat is considered by the Indians as a great dainty.

Having crossed Portage la Loche, which occupied the party two days only, they proceeded to the Pine Portage on the Clear Water River, where Mr. J. Stuart and Mr. A. R. M‘Leod were encamped, having got thus far on their way from M‘Kenzie River with a large cargo of furs. The latter gentleman immediately, upon Governor Simpson's letter being handed to him, expressed his sympathy for Captain Ross and his party, and at once declared his gallant determination to sacrifice his own plans by joining the expedition. At his suggestion a requisition was made to the Hudson's Bay Company for further supplies, to support the expedition during the year 1834 .

Captain Back states that it was with some difficulty his guide managed to find room for the additional baggage, and six more persons; viz. Mr. M‘Leod, his wife, three children, and a man who had volunteered as a middleman to the expedition. They were in fact forced " to cram fourteen persons into a space intended for eight or nine." At Chipewyan, on the 29th of July, he found the Indians usually resorting to that station so much dispersed that he was obliged to rest satisfied with the meagre narrative of an infirm old Indian, who had not passed by the route described by Mr. Charles since he was a young man; and his account was so vague, that Captain Back abandoned at once all idea of taking that route. Mr. M‘Leod however confirmed Mr. Charles's statement.

After remaining two days at Fort Chipewyan, Captain Back proceeded down the Slave River, where he met with great matted rafts of driftwood floating down the stream. "On the granitic rocks of the Mountain or Pelican Falls, which were bare and clear when Sir John Franklin passed, was a deposition of fourteen
inches of mud ; a proof how great a quantity is annually carried down by the spring floods into Slave Lake." On arriving at the Salt River, the party ascended that stream in search of some Indians, who, from marks about the place, it was supposed had gone to the plains in search of the buffalo and other animals. They had not proceeded far before they met with them; and, as was expected, the leadèr of the party, a very intelligent Indian, called by the traders "Le Camarade de Mandeville," possessed considerable information relative to the river of our search, having an extensive knowledge of the country to the northward and eastward of Great Slave Lake. Mr. M‘Leod, therefore, returned with the Indians to the mouth of the river. Captain Back proceeded to the Salt Plains, which he did not reach before the following day, from having taken a wrong channel. He returned, however, in the course of that evening, laden with five bags of salt for our use during the winter.

The information which Mr. M‘Leod had collected was then explained, and made more intelligible by means of an outline of the north-
eastern country, drawn by the Camarade. The rude map represented the Great Fish and Fish Rivers, maintaining a nearly parallel direction E.N.E. to the sea; though it was a matter of doubt where that sea was. The Indians were unanimous and positive upon one point; viz. the many advantages of the Fish River over the Great Fish River. "The former was described as being a broad and noble stream, decorated on either bank with tall pine and birch, and flowing in uninterrupted tranquillity to its journey's end. The latter was graphically portrayed as abounding in rapids, narrows, and dangerous shoals, destitute of wood even for fuel, full of dangerous cascades, and, after a course more tortuous than that of any river known to the oldest and most experienced of their tribe, tumbling over its northern barrier in a foaming cataract into the sea." They agreed also with the information given by Mr. Charles, that the distance between the mouths of the two rivers was inconsiderable.

On arriving at Fort Resolution, further information was gained with respect to the river from the leader of a small party of Indians, and
a métif named La Prise. He described the lake to the north of the eastern extremity of Great Slave Lake as running due north to the source of the Great Fish River, and estimated the distance at about five days' journey for a light canoe well manned. La Prise, as well as other Indians at the fort, agreed one and all with the Camarade in the superiority of the Fish River over the Great Fish River. "And why," said they, (speaking of the latter river,); " should the chief wish to go there, when the Fish River is not only nearer, but offers him so many more advantages? where he will find musk-ox, moose and rein-deer; wood, fish, and animals, wherewith to pass a comfortable winter." Captain Back, however, could not reconcile to himself the notion of high woods, frequented by moose, on the banks of a river flowing through the barren grounds; except on the supposition that it trended far away to the south-east, in a line for Hudson's Bay. He decided therefore on following up the original plan; and, in furtherance thereof, divided his crew into two parties. Five were left as an escort to Mr. M‘Leod, and four were selected
to accompany him in search of the Great Fish River.

A half-sized canoe which happened to be at the fort, being lighter to carry, and in other respects more convenient than a larger one for ascending the shallow streams, which, it was expected, would be found to the eastward, was immediately put in repair ; and, having accepted Mr. M‘Donell's offer of his Chipewyan interpreter, Louison, in lieu of an educated Chipewyan Indian, who, during his stay at the Red River settlement, had received the rudiments of education, and had somewhat lost his native language, Captain Back embarked on the morning of August 11th.

Mr. M‘Leod remained behind for a few days, to arrange with a Chipewyan chief, called Le Grand Jeune Homme, who had been engaged by Mr. Charles to accompany the- expedition. For various reasons, however, his services were dispensed with in favour of Akaitcho, the chief of the Copper Indians. . On the appearance of the chief, it was so evident that he had incurred considerable losses by waiting the arrival of the expedition, that a douceur of forty beaver
skins was given to him as a remuneration.Captain Back, as he proceeded along the northern shore of Great Slave Lake, made as accurate a survey as his rapid march would admit of ; and, having met with a favourable passage, reached the mouth of Hoar-frost River on the 18th of August.

That river was rushing most impetuously into the lake, in two white and misty volumes, over a descent of upwards of sixty feet, which was named after Mr. Beverley, the companion of Sir E. Parry. It was only the commencement, however, of a series of appalling cascades and rapids ; for, after passing a second fall, fresh clouds of spray were seen rising from a third and fourth fall too dangerous to approach. To avoid them, the party had to force their way through a thickly wooded country, in order to reach an open space: this created so much fatigue, that Louison, the interpreter, became exhausted, and almost incapable of proceeding. The laborious duty had been rendered doubly severe by the combined attack of musquitoes and sand-flies. The river was found to trend N. N. E., much intercepted with rapids, to a
calm sheet of water, gradually widening for a distance of three or four miles, named Cook's Lake; beyond which another rapid river was to be contended with.

An extensive sheet of water then followed, which has been called after the Rev. Dr. Walmisley, of Hanwell; at the eastern extremity of which a set of observations gave $63^{\circ} \mathbf{2 3 ^ { \prime }} 46^{\prime \prime} \mathrm{N}$. as the latitude, and $108^{\circ} 8^{\prime} 16^{\prime \prime} \mathrm{W}$. as the longitude. By a chain of lakes inclining to the eastward they reached a magnificent lake, surrounded by a low and level country, occasionally, however, elevated into moderately sized hills. By one of these, to the eastward, lay a route to the Fish River. Proceeding along the lake named Artillery Lake, the land on each side swelled insensibly into a different character, attaining an elevation of one hundred and seventy feet, with rounded summits, partially covered with rich lichens and strewed with huge boulders. The valleys afforded a luxurious pasturage, and a few deer were seen scattered about. On reaching a narrow,-a favourite deer-pass, -the country became extremely barren and forbidding : not a single shrub could be found.

The pass led to a large body of water called Clinton-Colden Lake, as a mark of respect to the memory of the distinguished individuals so named ; from which spot land could be faintly distinguished to the north, while east and west it was indented with deep inlets and bays. The islands were numerous, and so extensive as to be frequently mistaken for the main land. Some time was lost in ascending, every now and then, the elevated grounds, with a view of seeking the best route; and on August 26th, the temperature having fallen to $31^{\circ}$ of Fahrenheit, the lake was coated, for a few hundred yards from the shore, with a thin sheet of ice, which required the utmost caution to pass through, and, consequently, a slight delay took place. The narrow of the lake was ultimately reached; where a conical mound of sand about two hundred feet high, situated in the very centre of the narrow, was sufficiently conspicuous to note the place ever afterwards. It is distinguished among the Copper Indians by the name of the Sand Hill.

From its summit another large lake was descried, extending with a clear horizon to
the south-west, and abounding with large islands, and bays from ten to fifteen miles deep. Resuming their journey, they passed through the upper end of the strait, in which the current set to the southward, and entered upon a splendid sheet of water, which received the name of Lake Aylmer, in honour of the gover-nor-general of Canada, to whose kindness and consideration the expedition was much indebted. According to the testimony of the Indians, the lake extends for about sixty miles towards the north-west, varying in breadth from twenty to thirty miles. The main land was described as shelving, and covered with moss; while the islands were round, naked, and rising abruptly from the water's edge to a height varying from eighty to one hundred and twenty feet. After traversing several deep bays, and rounding a few points of land, some sand-hills appeared in sight, which Maufelly, the Indian guide, recognised as the situation of the source of the Thlĕwy̆-chō-dĕzză, or Great Fish River.

On reaching the spot situated at the extremity of a bay on the northern shore of the
lake, the river was seen taking its rise from a small body of water to the eastward, distinguished by the name of Sussex Lake, after his Royal Highness the vice-patron of the expedition. Having thus placed beyond doubt the existence of the Great Fish River, Captain Back describes the delight it occasioned: "Yielding to that pleasing emotion," he says, "which discoverers in the first bound of their transport may be pardoned for indulging in, he threw himself down on the bank, and drank a hearty draught of the limpid water."

The portage from Lake. Aylmer to the river was short of a mile; and the actual height of the dividing land not more than two feet, where the river runs from Sussex Lake in a narrow stream, featured at first by a chain of sand-hills, dipping to the north from one hundred feet high, intersected by many ravines and dry water-courses. A crooked rapid soon impeded the party, principally from its shallowness; when the country became more broken into hills, some of which exposed inconsiderable masses of rocks, principally gneiss, while the débris thickly strewed over part of the
valleys, formed the bed of numerous ponds and watercourses then dry.

Afterwards the stream received the waters of Icy River, flowing from the westward, where it widened into a small lake. Beyond that, some islands occupied the centre of the stream; and one of them, consisting of stones ground round by attrition, piled in the form of a cone, was noted for its singularity. A narrow brought the party to Musk-ox Lake, about six miles long, surrounded by tolerably steep hills, abounding, according to Maufelly's account, at certain seasons, with those animals. This was the farthest point reached by Captain Back, in latitude $64^{\circ} 40^{\prime} 51^{\prime \prime} \mathrm{N}$., and longitude $108^{\circ}$ $8^{\prime} 10^{\prime \prime} \mathrm{W}$., where the rapids ran in a meandering course for an estimated distance of four miles; then expanding into a wider part, the river cut its way transversely through a range of mountains in a north-easterly direction.

On the 4th of September Captain Back reached the narrows of Clinton-Colden Lake, on his return; where he met with two Copper Indians, who informed him that in a dispute between a Chipewyan and their countrymen, the
former had been killed; but, as he was an orphan, no one would avenge his death. Captain Back then proceeded with his party to Artillery Lake, which he followed to its southern extremity, where it discharges itself by the A-hēl-dĕzză River into Slave Lake. This deviation from the track was to find a shorter route to the wintering ground. After running two or three rapids, the river became so difficult of descent, that the canoe, together with the baggage, was placed en cachette; when, after walking about twenty miles over a rocky country intersected by gullies, the party reached the confluence of the A-hēl-dězză with Great Slave Lake, and the site of our winter establishment, named Fort Reliance, in latitude $62^{\circ} 46^{\prime} 29^{\prime \prime}$ N . and longitude $109^{\circ} 0^{\prime} 38^{\prime \prime} \mathrm{W}$.; the variation was $35^{\circ} 19^{\prime}$ E., and $\operatorname{dip} 84^{\circ} 44^{\prime}$.

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## CHAPTER VI.

Preparations for Building.-White-fish.-Observatory finished.Mild State of the Weather.-Take possession of the House.Establish a Fishery.-Account of the Rein-deer.-Starving In-dians.-Desertion of the Diseased and Aged.-Completion of our Buildings wisely abandoned.-Four Men discharged.-Lamentable State of the Indians.-Fishery fails.-Visiters of the Mouse Tribe.-Deaths by Starvation.-Mr. M‘Leod leayes us. -Saves a Party of Indians. - His Return. - More Deaths by Starvation. - Akaitcho's Noble Conduct. - Mr. M‘Leod leaves us with his Family. - Arrival of Maufelly with Rein-deer Meat.-Commence sarving Wood for the construction of two Boàts.-Exchange ITnterpreters.-Arrival of four Mẹn.

Mr. M‘Leod in the mean time had erected the framework of the men's houses, with only four assistants: reinforced, therefore, by my party and that of Captain Back, the work of building went on briskly enough. The party was \divided into companies: some were despatched to obtain clay for plastering, and stones
for the chimneys; others were engaged in felling trees, and converting them into beams or rafters; while the rest were employed in sawing slabs and planks. We obtained a small quantity of rein-deer meat from the Indians; and a solitary net, to which Louison attended, supplied us with a few fish, scarcely sufficient however to furnish what was termed the officers' mess, consisting of Captain Back, Mr. M‘Leod, his wife, three children, and myself; while the men received a daily allowance of pemmican.

The situation of our establishment was on a level bank of sand, at the northern extremity of M‘Leod's Bay, about fifteen miles long and five broad, into which the A-hēl-dĕzză flowed from the westward, and a smaller stream from the eastward; while undulating granitic rocks, varying in altitude from five to fifteen hundred feet, dipping to the south, bounded the bay. The buildings went on but slowly, although every exertion was made on the part of the men, and of Mr. M‘Leod, who had the management of them. This was the more distressing, as it was not intended to establish a regu-
lar fishery until the house at least was completed. Our dependence for food was chiefly on the white-fish, which were expected to collect in vast numbers to spawn, the season for which was fast approaching.

The coregonus albus, or white-fish, is an inhabitant of all the interior lakes of America, and celebrated for the delicacy of its flavour. Several Indian tribes subsist upon it ; and it forms the principal food, at many of the fur posts, for eight or nine months in the year. Although it is a rich fat fish, instead of producing satiety, it becomes daily more agreeable to the palate; so much so, that, though deprived of bread and vegetables, those who make use of it as daily food are never tired of it. The colour of the flesh is bluish white, changing when boiled to a pure white; whence its appellation of white-fish. When in season, it is loaded with , fat, particularly between the shoulders, where it forms quite a hümp; the stomach is extremely thick, and considered a sweet morsel by the vöyageurs. In October, the " attihawmeg," as it is called by the Crees, or the "poisson blanc" of the Canadians, quits
the lakes, and enters the rivers to spawn. It has some resemblance to a herring; and, like that fish, dies speedily when taken out of the water. Its usual weight is from two to three pounds, though sometimes it has been caught weighing seven or eight. . The fish are taken in winter in gill-nets after an easy method; as many holes are made in the ice with a chisel, at a distance of ten or twelve feet from each other, as the length of the net may require; when a line is passed beneath them by means of a long pole, and readily conveyed from one hole to another with the assistance of a forked stick, until it arrives at the Tast. The net is then strung upon the line, to either end of which a large stone is fixed, to keep it from expanding, and rising from the bottom with every waft of the current, as it otherwise would do. In overhauling or searching a net, the two extreme holes only are opened; when the line is veered away by one person, while the net is hauled from under the ice by another. In angling for fish in winter no other process is required than that of cutting a round hole in the ice, from one to two feet in vOL. I.
diameter, and letting down a baited hook, which should be kept in motion, not only for the purpose of preventing the water from freezing round about it, but the more readily to attract the attention of the fish.

The observatory was completed about the middle of October. It was situated on a gentle rise, one hundred yards from the eastern extremity of the house, and two hundred from the lake; consisting of a building twelve feet square, facing respectively the four cardinal points, with an angular roof of rough slabs of wood, plastered over with a mixture of clay and cut hay. Occupying the centre of the space within, was a framework three feet square, grooved and mortised, encasing the trunk of a tree two feet in diameter and seven feet'long; three feet of which was firmly fixed in the ground, and the interstices filled up with clay and sand. A porch with double doors, of which the outer one opened to the south, occupied the western side of the building. The floor was of planks; and four moose parchment windows, containing a small pane of glass in the centre of each, completed the building. The whole was
surrounded by a circular fence of seventy feet in diameter, for the purpose of preventing the accidental approach of any of the Indians, or of men with iron in their hands.
A number of observations were then taken to ascertain the magnetic force and dip; and a daily-variation instrument, made by Jones, carefully adjusted to the magnetic meridian, was screwed down to the central framework. The position of the needle was registered ten times a day ; the temperatures, as indicated by thermometers placed in the sun, shade, and inside of the observatory, fifteen times; and, by a vane fixed to the roof, the direction and force of the wind.

The month of November set in without the least appearance of winter; and although an occasional crust of ice formed on the surface of the lake during the night, yet it invariably broke up again in the course of the following day. From the mildness of the weather the deer kept on the barren grounds; their usual haunts were unfrequented, and our supply of meat from the Indians was in consequence extremely small. A man was therefore appointed to assist Louison ; and, instead of one net, three

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were set, in the hope of lessening our daily consumption, of pemmican, which was seldom less than three quarters of a bag. Instead, however, of increasing our stock of fish, the nets totally failed; and it was very evident that the spawning season had been allowed to pass by. There remained only the alternative of sending the fishermen to the different small lakes about us, for which purpose they suspended their work of building ; but the task was fruitless, and, as in the bay of our establishment, no fish was to be found, while our pemmican was rapidly diminishing.

On the 5th of November that part of the house intended for Captain Back and myself was sufficiently completed to enable us to take possession; when M‘Kay, with four men, was sent to the western shore of Gāh-hơoă-tchēllĕh, where, while passing, my party with but a small net caught a quantity of fish in a few hours; and a reasonable hope, therefore, was entertained that it might prove a productive fishery. About that time Akaitcho arrived with a small quantity of rein-deer meat, and expressed his determination that the white men should not
want for food as long as he had any thing to send to them. He wore around his neck a silver medal, presented to him by Sir John Franklin, of which he was evidently extremely proud.

As the rein-deer is the principal food of the Copper Indians, it may not be considered uninteresting to give some account of that animal. The cervus tarandus, or rein-deer, is of two kinds; the larger of the two inhabits the wooded country, while the other, of which I shall attempt a description, frequents the barren grounds, and is a smaller variety. The barrenground rein-deer, or caribou, as it is termed by the Canadian voyageurs, is of small size compared to the other deer. The buck, which is the larger, seldom weighs when in good condition, more than one hundred, or one hundred and thirty pounds. The antlers of the caribou, which assume a great variety of forms, are of large size, highly ornamental, and covered during their growth with a hairy skin, soft and like velvet to the touch. In an early stage they contain a substance having the flavour of marrow, much esteemed by the voyageurs.

The horns become hard as they increase in size; and, when they have attained their full growth, the hairy covering peels off in ragged filaments, which is a sure sign of the fatness of the animal, and generally takes place in the males between the months of September and November. The bucks generally shed their horns in January, although in some cases they retain them considerably longer; while the does cast theirs in the spring, at the time they drop their young. The shortness of the hair of the caribou, and the lightness of the skin when properly dressed, render it the most appropriate article for winter clothing in the high latitudes. The skins of the young deer make the best dresses; and the animal should be killed for that purpose in August, as after that month the hair becomes long and brittle. They are so drilled into holes by the larvæ of the gad-fly, that eight or ten skins are required to make a suit of clothing for a grown person. But the skins are so impervious to cold, that, with the addition of a blanket of the same material, any person may bivouack in the snow with safety, and even with comfort, in the most intense cold
of an arctic winter's night. The hoofs of this variety of rein-deer are wonderfully adapted to the country it inhabits; for, instead of being narrow and pointed, like those of the roebuck or the fallow-deer, they are broad, flat, and spreading; a formation not only useful in preventing the animal from sinking in the winter so deep as it otherwise would do, but in shovelling away the snow from off the lichens clothing the rocks of the barren grounds, on which substance it feeds. They are, however, saved that trouble when driven to the woods for shelter, where they find a favourite food, a species of lichen, hanging from the trees, which from that circumstance has been called rein-deer moss.

In June, when the sun has dried up the lichens, the deer are to be seen in full march toward the sea-coast, to graze upon the sprouting carices, and withered grass or hay of the preceding year, which at that period is still standing, and retains part of its sap, in all* the moist places covering the bottoms of the narrow valleys on the coasts and islands of the Arctic Sea. Having dropped their young, they

152 REIN-DEER, CHIEF FOOD OF INDIANS.
commence their return to the south in September, and reach the vicinity of the woods in October, at which time the males are in good condition, and there is a layer of fat deposited on the back and rump to the depth of three or four inches, and frequently five or six im. mediately under the skin, designated depouillé by the Canadian voyageurs; this fat disappears in about a month, when they become very lean and iusipid as food. The females, however, which at that period are lean, acquire in the course of the winter a small depouille, which lasts till they drop their young. The rein-deer supplies the Chipewyans, Copper Indians, Dog Ribs, and Hare Indians with food, who would be totally unable to inhabit their barren lands were it not for the immense herds of this deer that exist there. Of the horns they form their fish-spears and hooks; and, previously to the introduction of iron by the traders, ice-chisels and various other utensils were made of them.

In dressing the skins, the shin-bone split longitudinally is used for the purpose of scraping off the hair, after it has been repeatedly moistened
and rubbed : the skins are then smeared with the brains of the animal until they acquire a soft, spongy character; and lastly, are suspended over a fire made of rotten wood until thoroughly impregnated with the smoke. This last-mentioned process imparts a peculiar odour to the leather, and has the effect of preventing its becoming so hard after being wet as it would otherwise be. The skins thus dressed are used as winter clothing; and, by sewing sixty or seventy together, will make a covering for a tent sufficient for the residence of a large family. The undressed hide, after the hair is taken off, is cut into thongs of various thickness, which are twisted into deer-snares, bowstrings, net-lines, and, in fact, supply all the purposes of rope. The finer thongs are used in the manufacture of fishing-nets, or in making. snow-shoes; while the tendons of the dorsal muscles are split into fine and excellent sewingthread. In some instances I have seen the skin so finely dressed that it equalled chamois leather.
Every part of the animal is consumed, even to the contents of the stomach; a savoury mixture, much esteemed by the Canadian voy-
ageurs after it has undergone a degree of fermentation, or has lain to season, as they term it, for a few days. By collecting the blood and boiling it, they also form a very rich soup, which is considered a dainty. When all the soft parts are consumed, the bones are pounded small, and a large quantity of marrow is ex. tracted from them by boiling, which is used in making the better kinds of the mixture of dried meat and fat, termed pemmican; it is employed also by the young men and females for anointing the hair and greasing the face on dress occasions. Pemmican is formed by pour. ing one-third of melted fat over the meat, which has been previously cut into thin slices, dried in the sun or over the smoke of a slow fire, and pounded between stones, and then incorporating them well together. If kept dry, it may be preserved sound for four or five years; and, from the quantity of nourishment it contains in small bulk, it is the best kind of food for those who travel through desert lands.

The caribou travels in herds, varying in number from eight or ten to one hundred thousand; and, with the exception of the rutting season,
the bulk of the males and females live separately. Their daily excursions are generally towards the quarter whence the wind blows; and of all the deer of America they are the most easy of approach. The Indians kill them with the gun, take them in snares, or spear them in crossing rivers or lakes. The Esquimaux also take them in traps ingeniously formed of ice or snow.

When the Indians design to impound deer, they look out for one of the paths in which a number of them have trodden, and which is observed to be still frequented by them. The pound is built by making a strong fence with bushy trees, without observing any regularity, varying from a few yards to a mile in circumference. The entrance to the pound is about the size of a common gate; and the inside is crowded with counter-hedges, in every opening of which a snare is set, made of thongs of parchment deer-skins well twisted together, which are amazingly strong: one end of the snare is usually made fast to a small growing tree. The pound being thus prepared, a row of small brushwood is stuck up in the snow on
each side of the door or entrance, and these hedge-rows are continued along the open part of the lake, river, or plain, which, from its openness, makes them the more distinctly observed. The brushwood rows are generally placed at the distance of fifteen or twenty yards from each other, and ranged in such a manner as to form two sides of a long acute angle, becoming gradually wider in proportion to the distance they extend from the pound, which sometimes is not less than two or three miles; while the deer's path is exactly along the middle between the two rows of brushwood. From a commanding situation the Indians watch the approach of the deer, when they close in upon them in the form of a crescent. The poor timorous animals finding themselves pursued, and mistaking the brushwood for ranks of people stationed to prevent their passing on either side, rush on, and entangle themselves in the snares, thus becoming an easy prey to the ingenious hunter. This manœuvre is sometimes so successful that whole families find subsistence without having occasion to remove their tents above once or twice during the whole winter.

From the middle to the latter end of November starving parties of Indians were hourly arriving, whose sufferings were truly distressing, and too plainly indicated by the screeching of the women and children. These were to be seen singly, or in groups, standing by the men at their meals, eagerly watching each envied mouthful, and, when refused, disdaining to utter a word of complaint : severer trials, however; awaited them. They were not permitted to remain on the ground, and Mr. M‘Leod received directions to separate them into parties, and send them by different routes in search of fish, flesh, or fowl ; for which purpose they were supplied with a few hooks and a small quantity of ammunition.

An old woman, however, with a frame so bent as to be almost horizontal, and nearly blind from disease, would not depart. She had been deserted by her friends during the summer, and had subsisted solely upon the berries she could gather, when a distant smoke, the well-known signal of a habitation, suddenly burst into view. The blood, at that time nearly stagnant, suddenly, through hope, recovered its
free circulation ; and, collecting all her remaining powers, she arose, making an effort, guided by the effect, to reach its cause, and thus preserve her existence-now stopping, and throwing back her head on her bent frame, supporting herself by a stick fast clenched in her left hand, while with her right forcibly raising the halfclosed lid to view her welcome guide-the smoke; then moving with as brisk a step as her tottering limbs would admit, over rock, bush, or rivulet; sometimes falling from breathless haste, and oftentimes from an ill-timed blow against a tree or rock: thus she must have reached our fort.

The little hut which she had built for herself, chiefly composed of the branches of the pinetree, was so ill adapted for securing her emaciated frame from the intense cold of an arctic night, that her extremities became severely frost-bitten. Incapable of walking, she came daily for advice, crawling upon her hands and knees, dressed in a deer-skin robe, and dragging a stick in one hand to make known her presence, which she applied in quick successive blows against the hall-door. I remember no.
scene to equal it; although, when attached to a very useful institution, the most wretched were frequently before me.

The diseased or decrepit Indian, when no longer able to travel with the active hunter, is left by children and friends to perish in a hut erected for that purpose. The Indians reconcile themselves to such unnatural abandonment by replying when remonstrated with, "They were dead; they appeared alive, but they were dead :" such is their figurative style for expressing that they were lost to this world, being no longer able to provide for themselves, or to keep pace with the women of the tribe, who. "bring up the rear" with the heavy baggage at a slow pace. Desertion, and consequent starvation, is universally the fate of the aged. This appears at first attributable to barbarity; and to a certain extent it is so. Much may, however, be said in extenuation. At the different fur-posts during the winter-season considerable numbers of white men are collected together; a scene of attraction which the Indians, naturally curious, are incapable of withstanding. Concentrated around the strangers,
they are readily persuaded to cherish their whiter brethren with that provision which they intended for a winter store. Being dependent upon the chase for food, the success of which is extremely uncertain, and knowing that the capricious movements of the deer often requires a constant and rapid march, they are aware from experience, alas! too frequent, that death by starvation must accrue to the whole party if they wait for the helpless. They, therefore, in spite of the most piteous exhortations from the sufferers, build a hut, kindle a fire, and tear themselves from the sacrifice of the unhappy parent of their birth.

On the 7th of December, our mansion, fifty feet long and thirty broad, was completed; it consisted of four separate rooms, with a spacious hall in the centre for the accommodation of the Indians. Between the logs of wood with which the building was formed, a mixture of clay and sañd was plastered, rendering it tolerably imperviôus to the snow. Each room had a fire-place, and two or more windows. This, and the men's houses, which had been raised by Mr. M•Leod, formed two sides
of what was intended to be a square,-a design more wisely abandoned than persevered in. We would willingly have compounded for a smaller building, as requiring a less quantity of wood to warm it, fewer men as woodcutters, and, consequently, a smaller consumption of our sea-stock of pemmican, a third of which was already expended.

The lake was now permanently frozen, the ground covered with snow, and the white partridges made their first appearance near the house ; these birds are considered as the infallible harbingers of severe weather. Four of Captain Back's light-canoe men were therefore discharged according to their agreement ; and one of them, De Charloît, was entrusted with our letters for England as far as the Red River settlement; thence they would be forwarded by way of Montreal along with the company's packet. De Charloît, as every voyageur should do, thought as lightly of the trip he was about to take as an Englishman would in contemplating a walk from one extremity of London to another ; although, with provision, bedding, \&c. he had to drag a weight of at least one
hundred pounds over ice and snow for a dis. tance little short of two thousand miles, which he calculated would take him about six weeks, probably less, though decidedly not more.

There was little to admire in the surrounding scenery; every thing was in its winter garb, and few animated objects occurred to enliven the picture : an occasional wolf and a few birds afforded the only variety. The universal stillness was interrupted now and then by the arrival of a few emaciated Indians in search of provision! whose countenances, poor creatures, pourtrayed their extreme distress. The history of their sufferings was extremely affecting. They finished their sad tale in a low voice, with "Bĭrr ōolăh,-(We have no meat,)" and in a still lower tone," "Bĭrr tơwhōōtey̆,-(Not a particle of meat;)" and then, with a countenance brightening with hopeful anticipation, they exclaimed, at the same time pointing to our store, in as high a tone as their low condition would admit, "Ar-chēēse-klĕss sthlāh," -(There is plenty of pemmican:) " Give us," they added, "but a little to save our lives; we shall soon get strong, and, before the chief de-
parts for the sea, be able to bring him more than he can carry." At that instant one of their companions burst into the room, and announced that the child of one of the party was dying for want of food. The distracted parent instantly jumped up; but there he stood-motionlesswith a stare of vacancy that clearly pourtrayed his mental agony. This was too much! the determination of not supplying any of the Indians with a particle of provision was for that moment forgotten ; and a couple of handsful of mouldy pounded meat, which had been furnished by themselves to feed our dogs, was allotted to each, and they took their departure. A few miles distant, however, they lay scattered in an everlasting sleep;' swept away apparently as suddenly as a row of sparrows by the discharge of a single gun.

To add to the misery, Louison arrived from the fishing-station with an account of the loss of three nets, which had been carried away by a breeze of wind, and drifted out of sight. He represented the party as in a very impoverished state: they had been successful with the nets for a few hauls, which afterwards produced
seldom more than thirteen small fish per day,a quantity barely sufficient to support them and a few half-starced natives congregated around their fire-side. For the purpose of inspecting the state of the fishery, and disencumbering it of the natives, Mr. M‘Leod volunteered to visit it; hoping also on his way to fall in with Akaitcho and his tribe, and by his presence to excite them to hunt and furnish us with provision. He set out, on the 16th, with Louison and another man, and, at the expiration of the fourth day, met with a party of exhausted In. dians, who, but for his appearance, would in all probability have lost their lives. By dint of driving them forward, they were enabled to join Akaitcho in a few days, and found themselves in the land of plenty. The deer were then numerous, but they still continued to linger on the verge of the barren grounds. A cache was there made of fifteen deer; for the distance was so great to our fort, that, had an attempt been made to forward it, the persons employed would necessarily have consumed all, or the greater part, on their way.
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This favourable news spread far and wide; and, although distant fourteen days' march, all those who were capable of exertion made direct for the land of promise, deviating a little, however, to visit us, in the hope of some relief. The scene was then truly heart-rending, for

> "Famine with her gaunt and bony growth"
was a daily spectacle—shades of mortals, either glided before us, or crowded in silence round the fire, devouring roasted pieces of their reindeer robe, the only protection from a temperature $90^{\circ}$ below the freezing point. Men, women, and children, notwithstanding, slowly moved towards their place of destination, expecting death at every step; yet, strange to say, some reached their elysium : many, however, met their fate in a sepulchre of snow. The feeble gait of the torpid and downcast father-the piercing and sepulchral cry of the mother-the infant clinging by a parched mouth to a withered breast, faintly moaning through its nostrils-the passive child, calmly awaiting its doom-the faithful dog, destroyed and con-sumed-the caribou robe dwindling almost to
nothing,-can give but a very inadequate idea of their sufferings.

In search of the birds and animals that remained I made a daily excursion; and, although I seldom returned empty-handed, yet, compared with what is generally met with at the other establishments, I found so few, that it was evident we had fixed upon an unpropitious spot. The birds that I met with consisted of the white-winged crossbill, loxia leucoptera ; les. ser red-poll, linaria minor ; common three-toed woodpecker, picus arcticus; Canada jay, garrulus Canadensis; willow-grouse and ptarmigan, tetrao saliceti et tetrao rupestris; great snowy owl, strix nyctea; and the raven, corvus corax. The wolf, squirrel, and ermine were numerous, and an occasional wolverine and marten was seen.

The American field-mouse, mus leucopus, soon became an inmate of our dwelling; several of these I succeeded in trapping, and kept in a wooden cage during the winter. The gait, and prying actions of this little creature, when it ventures from its hole in the dusk of the even.
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ing, are very similar to the domestic mouse. At a temperature below zero they keep in their lurking-places. Those I succeeded in trapping were males, a circumstance I could not but remark, for out of a hundred there was not a single female. This little animal has a habit of making hoards of grain and small pieces of fat, which, instead of being found in its retreats, are generally deposited in a shoe left by the bed-side, a night-cap, or an empty keg; and in one case I found a quantity of rice in the pocket of a coat hanging in my room, which had been brought from the store, and must have passed through two apartments. Although they possess no regular pouches, their cheeks will admit of considerable extension, much more so than in its English representative, the mus sylvaticus, which it greatly resembles. The fur of the upper part of the body is very fine, short, and of a light brown colour, terminating along the spine with a narrow black mark, while the under parts are white. Its length varies from three to four inches, of which one-half may generally be allowed for

168 INSTINCT OF THE FIELD-MOUSE.
the tail. The hind feet are long, and it thus possesses the power of making extraordinary: leaps. I have witnessed them leap three feet perpendicularly. A remarkable instance of the instinctive knowledge of this pretty little animal is well worthy of remark. At the top of the cage wherein the mice were kept was a small door, through which, on one occasion, I was introducing food, when one more bold than the rest, immediately seizing the opportunity, made an attempt to escape ; this, however, was not only prevented, but the offender secured by one of its hind legs to the hinge of the door, where it was allowed to remain suspended by way of punishment. On approaching, after the lapse of about five minutes, to release it, I was not a little astonished to find several of its companions clinging to it, whose additional weight in the course of a few seconds afterwards actually rescued the little prisoner.

Early in January an Indian woman, with a girl about six years old, made her appearance, having deserted from a party of natives with
who
whom she tented. She had unconsciously stepped over a gun belonging to one of the hunters, which, in the opinion of the Indian, was sufficient to destroy its shooting qualities ever afterwards. Alarmed for the consequences, the poor creature sought our protection; and, by way of making her gain a subsistence, she was employed in preparing moccasins for the men.

A few days afterwards, an Indian in a diseased state, with his wife and three children, arrived in so miserable a condition that they were mere skeletons; and in the evening of the same day another Indian came in, with two boys of the age of ten and fourteen years. The latter we soon got rid of, and, on the 13th, the two women and four children were sent away; the diseased Indian was allowed to remain : in fact, his legs were so excoriated from the constant friction of his frozen robe against them, that he literally could not move. He soon, however, recovered, and followed, but not to join them ; for out of that party of nine not a soul escaped. Poor creatures! they lay stretched on the lake, far happier, let us hope, than the disconsolate being who was destined to wit-
ness so horrid a spectacle. The temperature on ${ }^{*}$ their departure was $92^{\circ}$ below the freezing point; and four days afterwards the thermometer descended as low as $102^{\circ}$. Such intense cold, in their emaciated state, very soon put an end to their sufferings.

The old woman was found at the same time frozen in her hut, a circumstance so little anticipated, that it was not until the dogs had dragged her from her miserable dwelling that we were aware of it. That calamity was the more deplorable as she had recovered of late so rapidly, that in a few days more she would, in all human probability, have walked again. No time was lost in burying the body, as the only means of saving it from the voracious dogs, which had of late been on very short allowance of pemmican, $a$ food that does not agree with the canine species.

At that time between forty and fifty human beings lay dead around us; and so scattered that it was impossible to walk in any direction within twenty miles of the house without stumbling against a frozen body. This was not, however, a solitary instance of extreme

## RAPID EXTINCTION OF THE NATIVES. 171

misfortune to the natives of the north ; for the two previous years had been pregnant with the same appalling visitations to the inhabitants of the country about Slave Lake and the M‘Kenzie River. In the neighbourhood of the Rivière au Liard, a tributary to the M‘Kenzie from the westward, many of the Chipewyans had been destroyed by famine : the actual number of deaths could not be ascertained, with the exception of forty of the choicest hunters, whose fate was known. Considering, therefore, that their wives and families were equally unfortu-nate,-and, generally speaking, they are the first that fall a sacrifice,-there could not have been a less number than from one hundred to one hundred and fifty of our fellow-creatures deprived of life at that place alone. It will not , require many such years to exterminate the whole of the noble and intelligent races of the north.

We were gratified on the evening of the 9th of February by the return of Mr. M•Leod with a party of men laden with meat. They were all severely frost-bitten about their faces; which was not to be wondered at, as their route lay
across the most unsheltered part of the lake. Mr. M‘Leod's account was not by any means consolatory. The deer were numerous enough, but very shy, and distant from the establishment upwards of fourteen days' march. He had been ever since his departure surrounded by Indians, importuning for a few mouthsful of the rein-deer meat which had been supplied him by some of their more fortunate countrymen. Very many of them were in so low a condition that he feared they were past recovery. Nine more deaths by famine had occurred, to which might be added some four or five infirm persons abandoned to their fate by relatives and friends. Their hunting-grounds no longer afforded a support, nor their forests shelter; in every attempt, at every turn, they met with that suffering which of late years has become quite an inheritance to the poor Indian : nor had Mr. M‘Leod, during his absence, been exempted from his share of privation; for days together he partook but sparingly of food, and frequently went altogether without. On the fishery, according to his statement, no dependence could be placed; but from the Copper Indians and

Chipewyans it was still hoped some provision might be obtained. This was desirable, if even it supplied our men only, without adding anything to our sea-stock, which was now reduced from sixty to twenty-five bags. With that view Mr. M‘Leod determined to run up a small hut in the neighbourhood of the place where the deer were plentiful, for the purpose of drying the fresh meat he might receive, which would by that means be made more portable.

Akaitcho, during this appalling season of calamity, proved himself well worthy of the rank of chief of the Yellow Knives, and was in every way the firm friend of the expedition. He set the example of hunting early and late every day, and, by continued exertion, made every attempt to avert the distress which was pressing heavily upon his tribe. The bold manner with which he encountered every difficulty, mitigated in a great measure the growing evil, and dispelled the gloom which had seized both the old and the young. On one occasion, when complaints were made by some of his people of the severe losses they had sustained, he replied, "It is true, many sleep with our fathers both-
from among the Yellow Knives and Chipewyans, whom I look upon as one nation; but better is it that ten Indians should perish than one white man. Is it not to us they look for succour? prepare your guns, and show the white chiefs you are men."

Mr. M‘Leod left us on the 14th of February, with his family, and two men, which reduced our party to four persons. It was a period of severe trial to our excellent companion. A man may endure any hardships, any fatigue, any privation; but when his wife and children are participators, the case is greatly aggravated. He, however, met the exigency of the time with that spirit and energy which proved him alike persevering and intrepid. To his indefatigable exertions and extraordinary activity is to be attributed the partial success of the expedition. For our farewell dinner we had a plum-pudding, the gift of Mrs. Maxwell of New York, the wife of the gentleman with whom we crossed the Atlantic. That feast was to have taken place on Christmasday, but was postponed until the return of our friend and companion, who was then absent.

Scarcely was Mr. M‘Leod's party out of sight in a westerly direction, than an Indian was seen making towards the fort from the eastward. It proved to be Maufelly, Captain Back's guide in determining the Great Fish River. We had already numbered him with the dead; for, when he left us in the early part of November, he promised to visit us again in January, since which time he had not been heard of. So accustomed were we to see the Indians emptyhanded, that it was at first suspected he was come for relief; but, upon looking at him more minutely, he exhibited a vigorous and cheerful countenance, and, with the assistance of the few words we were masters of,--for
> "Short speeches pass between two men who speak No common language,-"

it was soon ascertained that he had five deer killed for us within a day's march. He recounted the narrow escape of his party; whence it appeared they had wandered for days together without seeing the track of an animal, and were all but sinking from weakness and want, when the sight of a few deer roused the apathy of exhaustion, and saved the party.

176 PREPARE-TO BUILD TWO BOATS.

Our prospects now seemed cheering, and we
in began to hope for better days. Three men were immediately despatched for the meat; and having but one left, we were necessitated to economise the wood, and otherwise expose ourselves to many inconveniences.

February 23rd. - George Sinclair and the two carpenters arrived, after fourteen days' travelling, with a small quantity of half-dried meat; and on the following day departed for a clump of pines, distant about twelve miles in a northeasterly direction, with instructions to saw sufficient planking for building two boats, combining all the requisites for sea and river navigation. That undertaking was familiar to the elder carpenter, Thomas Mathews, who had built similar boats under the command of Sir John Franklin. From them we learned that a misunderstanding had arisen between Akaitcho and our interpreter, in consequence of which the chief declared his intention of proceeding to Fort Resolution to trade his provision. Little credit was at first given to that report, but it will be subsequently seen that it was to a certain extent true. Every confidence was placed
in Mr. M‘Leod, whose presence among the Copper Indians it was to be hoped would soon restore their chief to his former friendly dispoşition. It was, howeves, considered prudent to seize the opportunity of exchanging Louison for Thomas Hassel, the educated Chipewyan, who had been left at Fort Resolution with an understanding that he should return about that period : not that any blame was attached to Louison; on the contrary, his conduct had been exemplary in the extreme, and it was with very great regret that we parted with him.

On the 6th of March a messenger arrived from the fishery at Gāh-hŏoă-tchēllĕh, which it is necessary now to specify; for another was about that time established near the tradingpost formed by Mr. M•Leod at the bottom of a bay to the south-west of Tāl-thēl-lěh. The men at the fishery were, it appeared, in a starving state; the nets never produced more than seven small fish per day, upon which eight persons had to subsist. With the prospect before us of obtaining more meat from Maufelly, four of them were ordered to join the establishment; to the end that by lessening the party their sufferings
might be somewhat ameliorated. In the interim we received some more provision from the Indian hunter, accompanied, however, with the unwelcome tidings that the deer had again disappeared; and, when the four men arrived, we had an additional mortification in finding that Mr. M‘Leod could neither gather fish nor flesh at his post, and had therefore sent all the men to M‘Kay's fishery at Gāh-hǒoă-tchelllěh. The additional number of men, it was considered, would be of use in assisting to transport the planking, which the carpenters had now prepared, to a bay on the western shore of Artillery Lake, where it was intended the boats should be built.

## CHAPTER VII.

Building of the Boats.-Snow-shoe and Sledge.-Regular Supply of Meat.-Infidelity of Akaitcho.-Mr. M‘Leod instructed to send his Family to Fort Resolution, and visit the Indians.-Arrival of Letters from England.-Anxiety about Augustus.-Exposure of Men to Starvation.-Important Information as regards the Fish River.-Moose-deer.-Sensation of Cold.-Cramps the Effect of Cold. - Arrival of a Despatch announcing the Safety of Captain Ross and his Party.-Preparations for the Seacoast Voyage.-Advance of Spring.-La Charite and two other Men discharged.-Arrival of Mr. M‘Leod.-Uncertain Fate of Williamson.

- On the morning of the 14th of March I left the fort with five men, and reached the saw-pit, where several necessary arrangements were made in the course of the day; and, on the following morning very early, I sent forward the party heavily laden with fir and birch planks. The route was mountainous, barren, and always ascending, which proved very laborious to the men, encumbered as they were
with heavy sledges. At nine o'clock in the evening they arrived, with the exception of Thomas Mathews, who, having exhausted his strength, had crawled under a fallen pine, where he was found in a half-frozen state by George Sinclair, who with much good feeling went in search of him, and without whose timely aid the poor fellow must have lost his life. On the 16th, by following the track of the men, I reached their encampment between ten and eleven o'clock, an estimated distance of twentythree miles, when we commenced our return. Notwithstanding the wind was blowing fresh enough to drift the snow, the thermometer at the same time indicating a temperature of $30^{\circ}$ below zero, we arrived at the saw-pit at four o'clock in the afternoon. The country was so hilly and broken, that to attempt another trip under two days was impossible, for which time the men were not provisioned; I started therefore for the fort, with one man, at six, in order to obtain a fresh supply; where I arrived at half-past nine, having accomplished, since five o'clock in the morning, a computed distance of fifty-eight miles. I do not mention
this as anything extraordinary, but merely to show that much greater distances can be made in a cold climate than in a temperate one; for less exertion by three-fourths in England has on more than one occasion completely tired me.

A description of the northern snow-shoe will not be misplaced here; of which so clear and faithful an account has been given by that talented and much-lamented officer, Lieutenant Hood, that I cannot do better than repeat it. " A snow-shoe is made of two light bars of wood, fastened together at their extremities, and projected into curves by transverse bars. The side bars have been so shaped by a frame, and dried before a fire, that the forepart of the shoe turns up like the prow of a boat, and the part behind terminates in an acute angle. The spaces between the bars are filled up with a fine netting of leathern thongs, except that part behind the main bar which is occupied by the feet; the netting is there close and strong, and the foot is attached to the main bar by straps passing round the heel, but only fixing the toes, so that the heel rises after each in front of it, a small space is left, permitting the toes to descend a little in the act of raising the heel to make the step forward, which prevents their extremities from chafing. The length of a snow-shoe is from four to six feet, and the breadth one foot and a half, or one foot and three-quarters, being adapted to the size of the wearer. The motion of walking in them is perfectly natural, for one shoe is level with the snow, when the edge of the other is passing over it. It is not easy to use them among bushes without frequent overthrows, nor to rise afterwards without help. Each shoe weighs about two pounds when unclogged with snow. The northern Indian snow-shoes differ a little from those of the southern Indians, having a greater curvature on the outside of each shoe; one advantage of which is, that when the foot rises, the over-balanced side descends and throws off the snow. All the superiority of European art has been unable to improve the native contrivance of this useful machine."

A sledge is made of two or three thin birch-
boards, turned up in front, and fastened together by narrow pieces of wood fixed transversely on the upper part at a distance of two feet between each. Such flexibility is thus given to this simple carriage, that, when laden, it bends to the inequalities over which it must necessarily pass. Varying from eight to ten feet in length, and generally eighteen inches in breadth, it weighs about thirty pounds. To the curvature, traces are attached to harness the dogs to; and round the sides, a lacing for securing the lading. A weight of three hundred pounds is an ordinary load for three dogs; which they will drag between forty and fifty miles a day for a month together, subsisting upon merely a small fish each, weighing about two pounds, which is given to them every night in a frozen state. A cariole is merely a covering of leather for the lower part of the body affixed to a common sledge, which is painted and ornamented in various ways, and very much resembles in shape an infant's cradle. In it, unlike the Laplander, who sits up and drives himself, the proprietor, stretched out his full length, is wrapped in blankets and caribou robes
up to his chin, which gives him a very helpless and silly appearance. A driver is appointed, whose duty consists in driving the dogs, and steering the cariole free of any trees, stumps, or inequalities that may obstruct the road.

During my absence, the Camarade de Mandeville made his appearance at the fort with two sledges of dried meat, which he and his son had dragged from their lodges, situated on the banks of the Fish River, distant about five days' march, where a small portage only divided that stream from a tributary to the Great Fish River. From this and many other circumstances we had reason to regret that our wintering establishment had not been situated somewhere in that neighbourhood. The material difficulty we had to contend against-that of crossing with our boats and heavy baggage over Lakes Artillery, Clinton-Colden, and Aylmer, to reach the Polar Sea-would have been thus avoided, and our arrival at the coast must consequently have been much earlier. So convinced was the Ca marade that the Great Fish and Fish Rivers emptied themselves into the Arctic Sea close to each other, and the superiority of the latter
stream in having less obstructions, that he volunteered to proceed to its mouth with a party of young hunters, await there our return from Point Turnagain, should we be fortunate enough to reach it, and guide us back to Fort Reliance by that route; a proposition which was subsequently rejected.

On the 16th of March, John Ross was despatched with provision to the men, and directions to resume the transport of the planking to Artillery Lake; where I arrived the following evening, just after they had finished that laborious duty. The situation was well adapted for building the boats, and afforded plenty of dry wood for fuel ; in addition to which, bands of deer were seen feeding on the lichen covering the rocks. This was considered truly fortunate, as holding out a prospect of not only supplying the carpenters with sufficient provision during their stay, but of laying up a stock for the seacoast voyage, which would be so far on its way to the sea; and thus the trouble of transporting it thirty-five miles, the distance between the house and that spot, would at least be saved. As soon as the carpenters had raised
themselves a hut, they were directed to lose no time in commencing the boats; to facilitate the completion of which, according to their request, Norman Morrison was allowed to remain, while, with the rest of the party, I returned to the fort. The wind was blowing fresh, with the thermometer $45^{\circ}$ below zero, which was felt so severely as we made the traverse of Artillery Lake, that my chin and cheeks were frost-bitten; a disaster not confined to myself alone, for three of the men were marked in a similar manner. The frost invariably attacks the skin covering the chin and cheek-bones, where it makes its first appearance as a white marble spot, which gradually extends itself in a circular form. With one man these marble spots commenced at his nose, for which the frost had such a particular affection, that the only way he could protect it was by wearing a case of rein-deer skin, that gave him a very ludicraus appearance. As we advanced the wind increased, and the temperature rose,-a circumstance which invariably happened. Were it not so wisely ordained, the regions of the north would be insupportable in the winter season. When the atmosphere is
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in motion, the abstraction of animal heat is much more rapid than during a calm; a fact well known to the voyageur by experience. Both biped and quadruped are so well aware that the sensation of cold depends less upon the state of the temperature than the force of the wind, that during a gale they invariably seek for shelter; the former in their huts, and the latter in the thick woods.

Just as we broke into view of the fort I met Mallay, with a message from Captain Back, that he had unfortunately let down his two chronometers; the safety of mine, however, soon made him easy on that head. A further supply of meat had arrived from Mr. M‘Leod, which, it was feared, would be the last for the season; as, according to his letter, he was surrounded by difficulties, privations, and deaths. Six more natives had sunk under the horrors of starvation; the nets had failed, and Akaitcho was twelve days' march away. The chief had been wavering before Mr. M‘Leod's arrival at his tent, and, apparently, had parted with a part of his provision elsewhere; he, however, expressed himself sorry for what had tran-
spired, and promised to be faithful for the future. As a proof of his fidelity he had already, notwithstanding the distance, despatched some of his strongest hunters with a small supply,the very meat which we then received. Captain
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of two men, an Iroquois and a Canadian, accompanied by Augustus, the Esquimaux interpreter, who distinguished himself so much in Sir John Franklin's second expedition, and was on his way to join the present service. At the expiration of the eighteenth day the Canadian and Iroquois returned in a very weak state, having been so reduced for want of food that they were reluctantly obliged to kill one of their dogs; but the worst of all was, that they appeared without Augustus, who, according to their account, persisted in proceeding on, when the others, finding themselves bewildered, determined to return. Mr. M‘Donell immediately despatched two fresh men, Iroquois, well provisioned, with instructions to follow the same track in search of Augustus, and conduct him to the nearest fort, according to the situation in which he was found. Fifteen days, however, had elapsed when the letters were sent to us, without anything having been heard of them ; from which circumstance Mr. M‘Donell concluded that they had all reached our establishment in safety. Three days afterwards we received the other part of the packet; and,
strange to say, that at the expiration of the eighteenth day, a similar lapse of time having occurred between the departure and return of the first party, the Iroquois returned, having been bewildered; and after expending their provision, were forced to retrace their steps to the fort. Pierre Ateaster, one of our lateus. According to Ateaster's account, Augustus was much disappointed, on leaving Fort Resolution, to find he had to drag his sledge, while the Iroquois possessed dogs; and another source of grievance to the Esquimaux was, the entrusting the packet to the other men in preference to himself. He was a chief of a small tribe; and nothing is so great a degradation to an Indian of any importance as that of dragging a sledge. He appeared to vent his rage where it was not due, and repeatedly expressed himself in terms of disapprobation towards Captain Backs in not having ordered him a train of dogs and a gun. The sullenness that these grievances produced increased as he felt the weight of his load more irksome, and to it was repor
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attributed his refusal to return with the two other men, impressed no doubt with a belief that he would soon reach our fort. Faint hopes were entertained, however, that his life would be spared ; for, just before the men left him, the reports of two or three guns were heard at no great distance.

By letters from York Factory we were informed that a quantity of drift-ice had so completely blocked up Hudson's Straits as to oblige the company's two ships to winter in Hudson's Bay; one at Churchhill, and the other at Moose Factory. It was expected from the increased number of men which would consequently be quartered at those establishments, that they would suffer severe privations for want of food. The different forts in the north seldom lay up more provision than will last out the winter, and the ships are only supplied for the voyage. Subsequent information verified that supposition; for a party of men starved out of Fort Churchhill made for York Factory, in which some of them died, and the others narrowly escaped the same fate. Surely such a sad example will induce the

Hudson's Bay Company to provision their vessels for a period of twelve months at least; and not only that company, but the owners of every vessel trading in those icy seas. The case of the ice-boutd .whalers, where upwards of six hundred souls were exposed to death and cannibalism, seems to require the interference even of the legislature itself.

By the return of George Sinclair and his party we received some moose-meat, which placed beyond all doubts the existence of that animal on the banks of the Fish River. The communication from that stream to the Great Fish River was so far proved, that George Sinclair had crossed the tributary described by the Camarade, which was seen by him trending in $\therefore$ a direct course for it, through a country well wooded, and affording everything necessary for a winter establishment. Had we but followed the route by the Athabasca Lake, and wintered on the land dividing the waters of the Fish River from those that fall into the larger stream, the probability is that little would be left un. known at this time of the coast line of the Polar Sea. The meat we obtained mostly came
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from thát quarter: considering, therefore, that the consumption which must have taken place in transporting it ten days' march would have been saved, our supply must have been more than trebled, and distress would not have fallen so heavily upon the natives as it did. Besides, the "Large Hares Lake," whence the Fish River is said to take its rise, might have afforded us an ample fishery : at ail events, one thing is certain, that the boats, as soon as they were built, and the stream open, would have been launched at once into the waters running to the Polar Sea; and the laborious duty of travelling over about two hundred miles of ice, with the boat and heavy baggage, which, it will afterwards be seen, occupied four weeks, would have been thus saved, and that period, therefore, gained for exploring the country between Point Turnagain and Ross's farthest discovery, estimated at three hundred miles. What might have been done there in that time, may be readily imagined from what was accomplished between the mouths of the M‘Kenzie and Coppermine Rivers, where a distance of nine hundred and two statute miles was discovered VOL. I.
by Dr. Richardson and Lieutenant Kendall in one month and four days.

The moose-deer, cervus"alces, which is said to derive its English name from the Cree appellation of mōōsōōă, acquires a large size, particucularly the males, which have been known to attain a weight of eleven or twelve hundred pounds. This magnificent animal may well be called "the monarch of the northern forests;" for it is the largest of the species, and much higher at the shoulders than the horse. Pennant gives seventeen hands as the greatest height of the animal; but one, scarcely two years old, which reached this country from Sweden, had attained the height of nineteen hands. Had it not been for an unfortunate accident which befel the animal between Harwich and London, it would have gained, in all probability, an additional foot by the time it arrived at its full growth. It possesses, in common with the rein-deer, palmated horns, but so much more ponderous, that sixty pounds is a very common weight : accordingly, to bear this stupendous head-dress, nature has endowed the moose with a short and strong neck, which
takes from it much of that elegance and symmetry of proportion so generally predominant in the deer. It is, nevertheless, a very energetic and imposing animal. It is said neither to gallop nor leap; acquirements rendered unnecessary from the disproportionate height of its legs, by which it is enabled, as it trots along, to step with the greatest ease over a fallen tree, a gate, or a split fence. During its progress, it holds the nose up so as to lay the horns horizontally back; which attitude exposes it to trip, by treading on its fore-heels. Its speed is very great, and it will frequently lead an Indian over a tract of country exceeding three hundred miles before it is secured. This animal is said to possess in an eminent degree the qualities both of the horse and the ox, combining the fleetness of the former with the strength of the latter. In former times, when it was found in great abundance in Sweden, it was used for the purpose of conveying couriers; and has been known to accomplish, when attached to a sledge, two hundred and thirty-four English miles in a day; a speed which far surpasses the rein-deer. That animal rarely can exceed two
hundred miles a day; although a case is related, where, " in consequénce of the Norwegians making a sudden and unexpected irruption into the Swedish territories, an officer was despatched from the frontiers of Norway, with a sledge and rein-deer, to Stockholm, to convey the intelligence; which he did with such speed, that he performed a distance of eight hundred English miles in forty-eight hours." The same author* mentions that Darelli, a Swedish gentleman, in an interesting account which he sent forth to the world, of the habits, docility, and sagacity of the moose, " introduces some curious speculations upon the uses to which these animals might be applied in time of war; asserting that a single squadron of elks, $\dagger$ with their riders, would put to immediate rout a whole regiment of cavalry; or, employed as flying artillery, would, from the extraordinary rapidity of their motions, ensure the victory."

The flesh of the moose, which bears a greater resemblance in flavour to beef than to venison,

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is more relished by the Indians and fur-traders than that of any other animal. This is principally owing to the softness of its external fat; wherein it differs from all the other species of deer, in which it is found as hard as suet: the nose is the most esteemed part. Their skins, when properly dressed, make a soft, thick, pliable leather, well adapted for moccasins, or other articles of winter-clothing. They frequent the woody tracts in the fur countries to their most northern limits. Several were seen on Captain Franklin's second expedition, at the mouth of the M‘Kenzie, feeding on willows. It has the sense of hearing in very great perfection, and is the most shy and wary of all the deer species ; and, on this account, the art of moose-hunting is looked upon as the greatest of an Indian's acquirements. The skill of a moose-hunter is most tried in the early part of winter; for, during the summer, the moose as well as other animals are so much tormented by musquitoes and other insects, that they become regardless of the approach of man. Keeping to leeward of the chase, the cautious hunter, in his approach, takes care to avoid making
the least noise; for the rustling of a withered leaf, or the cracking of a rotten twig, is sufficient to alarm the watchful beast. Upon discovering, either by the softness of the snow in the foot-marks, or by other signs, that he is very near the chase, the judicious hunter disencumbers himself of everything that might embarrass his motions, and proceeds cautiously along till within shot of the animal ; and, if found lying down, which is generally the case, a small twig is broken,-the snapping noise of which alarms the moose, and, instantly starting up, it presents so fair a mark, that the hunter seldom fails to plant a shot in a mortal part. In the rutting season, however, they are to be brought within gun-shot by scraping on the blade-bone of a deer, and by whistling; which deceiving the animal, he blindly hastens to the spot to assail his supposed rival, and is readily secured.

As the severe weather was by this time over, and I had seen the thermometer on the 17th of January $102^{\circ}$ below the freezing-point, had slept in an atmosphere of $\mathbf{8 2 ^ { \circ }}$ below "under the canopy of heaven," with a single blanket for
a covering, and had had some experience in snow-shoe walking, I may be allowed to make a few remarks upon the intensity of cold in the inhospitable regions of the North, as they are termed. During a calm, whether the thermometer stood at $70^{\circ}$ or $7^{\circ}$ minus zero, was to me in sensation the same; and although I have experienced a difference in temperature of $80^{\circ}$ from cold to heat, and vice versa, in the course of twenty-four hours, still its change was not sufficiently oppressive to put a stop to my usual avocations. I have been shooting grouse at every range of the thermometer, from the highest to the lowest point, wearing the very same clothing as in England on a summer's day, a fur cap, moccasins, and mittens excepted, instead of a hat, tanned leather shoes or boots, and kid-gloves. Merely a cotton shirt was sufficient to protect my breast from the most intense cold that has ever been registered; and notwithstanding my waistcoats were made dou-ble-breasted, I never felt sufficiently cold to be under the necessity of buttoning them : neither flannel nor leather was worn by me in any way. It must be understood, however, that I am only when the atmosphere is but slightly in motion. The lowest descent of the thermometer would not prevent my making an excursion of pleasure; but a higher temperature by $40^{\circ}$, accompanying a stiff breeze, would confine me to the house : the sensation of cold, as I have said before, depends so much more upon the force of the wind than upon the state of the thermometer. Such endurance may appear incredible to those persons who have read each ponderous quarto as it issued forth, fearful in aspect as in subject; and it is no wonder. I was astonished at myself, while sporting in a country always pourtrayed as unfit either for man or beast; but, what was my astonishment, when, hopping before me from bough to bough, the lesser redpole caught my sight,-the little bird that so frequently adorns, in England, the cottager's room! If so small-a creature can find the climates of England and Great Slave Lake equally congenial to its constitution, surely man may exist there. A sudden transition from heat to cold produced cramps; a fact well worthy the notice of those persons who are subject to
that painful disease,-for an extra blanket or two, and a trusty thermometer to indicate when to put them on and pull them off, may save much excruciating pain and many restless nights. Other phenomena were noticed as consequent upon a variation of temperature, extremely interesting in a physiological point of view. We made several experiments during the extreme cold, but more for amusement than instruction; such as freezing mercury, pyroligneous acid, and diluted spirits. The most important of them was that of a mixture of three parts of rectified spirits of wine and one of water, which became solid at a temperature varying from $61^{\circ}$ to $65^{\circ}$ minus; and a mixture of four parts of rectified spirit and one of water became of the consistence of new honey, at the same temperature, but perfectly transparent : in all cases, however, of perfect congelation, the transparency was lost.

While seated at breakfast on the morning of the 25th of April, the anniversary of our departure from La Chine, and the first general thaw, we received a packet from England, which created at first much astonishment. Lit-
tle time, however, was allowed for speculation by the messenger, who, with a cheerfulness of countenance that indicated some happy event had taken place, pronounced the return of Captain Ross and his gallant little party to their native country; a fact confirmed by extracts from the Morning Herald and Times, as well as by letters of both an official and private character from England, America, and even from Captain Ross himself. The intelligence was indeed gratifying ; for we, as well as our friends in England, looked upon it as a perfect resurrection. To go with more than one boat was impossible; for we had only sufficient pemmican left to provision a crew of eight men. What was to be done then with Captain Ross and his party, had we been fortunate enough to have found them? How render them relief? Should we have shared their hard fate, and sacrificed our own lives; or have allowed them to perish by tearing ourselves from their society? Such and many other reflections soon found vent both from Captain Back and myself, when we found the objects of our search were safe. A mere glance at the chart forwarded from the

Hydrographer's office, of Captain Ross's survey, however, convinced us that such severe trials would have been spared. Where we expected to find water, there appeared land, under the appellation of Boothia Felix; an obstacle not to be overcome by a boat-party pursuing the same plan we had adopted. The official an- . nouncement of the joyful tidings was communicated to Captain Back in the following letter from Sir Charles Ogle, Baronet.
> "ARCTIC LAND EXPEDITION.

" 21, Regent Street, 22nd Oct. 1833.
"Sir,
"I have much pleasure in acquainting you, on the part of the committee for managing your expedition, that Captain Ross and the survivors of his party returned to England a few days ago, in a whaler, which picked them up in Barrow Straits; and that thus one object of your expedition is happily attained.
"In concert, therefore, with his Majesty's Government, (though the signature of the Secretary of State for the Colonies cannot be immediately procured, in consequence of his ab-
sence from town,) you are hereby directed to turn your whole attention to your second object ; viz. completing the coast-line of the northeastern extremity of America. You will observe from the enclosed abstract of Captain Ross's proceedings, that this also is become an object of comparatively easy acquisition. By proceeding first to Point Turnagain, and thence eastward to an obelisk, in about $69^{\circ} 37^{\prime} \mathrm{N}$., and $98^{\circ} 40^{\circ}$ W., which marks the termination of Captain Ross's progress,—or, vice versá, by proceeding first to this obelisk, and thence west-ward,-it is believed that you may accomplish all that is now wanting in one season. But even should this prove impossible, and you find that a second season on the coast is desirable, I believe that I may confidently assure you that the means will be obtained for that purpose.
" Your choice of routes will, of course, depend on the point where the Thlew-ee-choh joins the sea; on which head, therefore, the committee has few or no observations to offer. If, as Governor Simpson imagines, it falls into Bathurst's Inlet, and is identical with Back's River there, you will of course proceed thence
to the eastward; or, if any branch of it, or any other river you may meet with, turn decidedly to the westward or eastward, the committee would rather recommend your endeavouring, in this case, to start from one or other extremity. But beyond this it can offer no hints.
" I cannot conclude, however, without earnestly recommending to you, in its name, and that of all the subscribers to and promoters of your expedition, to be careful not to expose yourself and men to unnecessary hazard. The satisfaction which we all experience in receiving Captain Ross again is very great ; but it will be much impaired by any casualties in your expedition.

> "I have the honour to be, sir,
> " Your obedient humble servant, " Charles OGLe, Chairman.
" P.S.-As we are not yet quite certain of obtaining funds for a third year, (although reasonably confident that his Majesty's Government will, if necessary, supply them,) you will be entirely guided, with regard to it, by further instructions, which will be forwarded to
you in the course of next season, and which you will receive on your return to your winterquarters.
C. O."

An account of the destruction of the British American Hotel by fire had reached England, and the loss of some of our instruments been made known to the public through the medium of the press. No less than three letters were received expressive of an anxiety to replace them; two of which were directed to myself, from Sir Astley Cooper, Baronet, and Dr. Hodgkin; and one to Captain Back, from Mr. Bloodgood of Albany in America. Nor must the despatch that accompanied this information be omitted, which was in the form of a letter addressed to Mr. Bethune, at the Sault de Sainte Marie, from the Secretary of the Hudson's Bay Committee in London, bearing date the 22nd of October 1833, and ran thus: -"I am directed by the governor and committee to acquaint you that the packet by which this is sent will be forwarded to your address in duplicate; one copy, via Montreal, to be transmitted from post to post by the Grand River; and the other, by the

American mail, to the care of the commanding officer of the garrison at St. Mary's. It contains letters for Captain Back, apprising him of the arrival of Captain Ross in England; and it is of great importance that he should receive this information before his departure from his win-ter-quarters. I am therefore to request, that the copy which first reaches you be sent on to the next post by a couple of the most active men you can find, without the delay of one day at St. Mary's ; and that it be forwarded in like manner, accompanied by this letter, with the utmost expedition, from post to post, viâ Michipicoton, the Pic, Fort William, Lake La Pluie, vià Rivière aux Roseaux to Red River; thence to Fort Pelly, Carlton, Isle à la Crosse, Athabasca, and Great Slave Lake, until it reaches its destination; where, if due expedition be observed, it ought to arrive early in April. The governor and committee further direct that the officers at the different posts do not, on any pretence whatever, detain the packet; and desire that the date of the arrival at and departure from each post, signed by the officer in charge, be endorsed on the back hereof; and also, that
the messengers from each be instructed to proceed to the next, without attending to any directions they may receive to the contrary from persons they may meet en route. And when the second copy of this packet gets to hand at the Sault, let it be forwarded in like manner."

By the duplicate which reached us on the 7th of May, the rate of travelling in the North during the winter can be estimated. An account of its progress, therefore, may not be uninteresting.


Although the first object of our mission was thus happily terminated, yet the ardour for the accomplishment of the second, that of geographical discovery, remained unabated; and we commenced the transport of our baggage and pemmican for the sea-coast voyage as far as

Artillery Lake. The first party that returned brought a report of the progress of the carpenters, so far from satisfactory that it obliged me to visit them; when I found the boats by no means in that state of forwardness that would ensure their being ready by the 1st of June, the appointed time for starting to the seacoast. After remaining three days, I was so perfectly convinced that the delay had not been occasioned by negligence on the part of the builders, but was entirely owing to the knotty and indifferent wood of which they were obliged to construct the boats, that on my return to the fort two men were sent to assist them. We now received more agreeable accounts from the Indians, who were recovering strength and beginning to hunt a little; but their spirits were still too much depressed by the loss of their children and relatives, to lead us to expect any exertion in search of animals beyond what might be necessary for their own support. The sun had gained such power over the snow and ice, that by the 6th of May it was expedient to send forward to Fort Resolution, David Williamson, Norman Morrison, and La Charité,
who had received their discharge, and were to
they obtain a passage in the Company's boats to York Factory in Hudson's Bay, and thence to England by one of the ships annually trading to that place.

May 25th.-Mr. M‘Leod arrived with a party of Indian hunters, whom he had engaged to carry a portion of the pemmican to the Great Fish River, and to hunt our proposed route with the view of making caches of animals for our support while following on with the heavy baggage; by which means there would be a less expenditure of pemmican. Every day brought a few Indians. The busy scene that now presented itself, compared with the solitude of the winter, was quite enlivening; men, women, and children greeted our eyes in our accustomed walks; : and their voices, though far from musical, were the sweetest that ever saluted our ears. In every direction within sight of the house, the country was deluged by the melted snow; a small lake at the back of the house was open, and the river to the eastward freed of its icy fetters. "But, where are the birds?" was the exclamation of every one. "Where
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they can find food," was the remark of one of our men, who had felt the severity of the winter by an occasional day's starvation. The snow was melted, - the elevated grounds perfectly dry, but not teeming with the fragrant offspring of the season, as at almost every other fort in the country. The green plants, sprouting mosses, bursting buds of the dwarf birch and shrubby potentilla, variegated by the Lapland rose, and blossoms of the three vaccinia, or, the black, red, and great whortle-berry, were searched for in vain. For a chosen ground it was indeed a barren spot,
> " Where the birds dare not build, nor insect's wing Flit o'er the herbless granite."

Neither were the natives ignorant of the poverty of the place ; for no allurement, in the way of tobacco, ammunition, and clothing, would induce one of them to take care of the establishment in our absence.

Mr. M‘Leod having recovered from the fatigue of his journey, related to us the melancholy tale, that David Williamson, the artilleryman, had lost his way between the fishery near Tāl-thēl-lĕh and Fort Resolution. How this hap-

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pened it was impossible to obtain a correct account ; but, from an Indian, who accompanied him and the other men, it was ascertained that, finding himself invariably in the rear, he started one morning earlier than usual, while the rest of the party loitered so long in the encampment that they lost sight of each other. Thus separated, Williamson must have involved himself among some of the islands with which the lake abounds. After a rigid search, the Indian retraced his steps to the fishery, to convey the information; but, finding Mr. M‘Leod had left on a visit to Akaitcho's camp, he pursued his route to the westward with Norman Morrison and La Charite, and left the fate of the poor fellow, for the present, buried in obscurity.

June 3rd.-The men arrived from the fishery ; when Mr. M‘Leod left us, with the Indians and all the men except three. It was arranged that Mr. M•Leod should precede us, with seven men and his chosen party of Indian hunters, along the eastern shore of Lakes Artillery, Clin-ton-Colden, and Aylmer, laden with a bag of pemmican each; and, at the same time, to deposit along the route any animals he might kill.

A platform was now erected in the hall of our dwelling, where the remainder of our stores was deposited; while our journals and other documents were carefully secured under a tarpaulin in one of the rooms. A keg, containing eight gallons of rum, was buried under the flooring of the store-house; and the windows and doors of all the buildings blocked up, to prevent both wolves and wolverines from obtaining an entrance. Thus terminated not only a sorry winter, but one of upparalleled severity, during which the only recreation we experienced was the receipt of our letters from England; which invariably, for a time, made
"Ice seem paradise, and winter sunny."

## CHAPTER VIII.

Departure from Fort Reliance.-Artillery Lake.-Boats finished. -Advance of the Party.-Ingenious Contrivance.-Increasing Scarcity of Wood.-Indian Tradition.-Geological Remarks.Advantages of the Moccasin.-Indian Customs.-Wilson's Pha-larope.-Deviate from the Course.-State of the Weather.-De. sertion of our Guides.-Signals.- Caches.-Obstructions en-countered.-Caccàwee.-Loon.-Continued Rain.-Snow Bun-tling.-Return of our Guides.-Deer Pass.-Sand-hill Bay.

At noon of the 7th of June, accompanied by three men and an Indian heavily laden with baggage, besides two dogs equipped with saddlebags containing our provision, Captain Back and I left Fort Reliance; most sincerely rejoicing that the long-wished-for day had arrived when we were to proceed towards the final object of the expedition. We pursued the same route I had taken in my various jaunts to the carpenters; but instead of a track carpeted with snow as at that time, we had now to make our way through a succession of swamps, here and
there interrupted by lofty rocks, or deep ravines bestrewed with angular pieces of granite. In an atmosphere of $107^{\circ}$ of Fahrenheit, and loaded as the men were with a weight of one hundred and eighty pounds each, we of necessity proceeded at but a slow pace. The sand-hills were green with vegetation, and afforded plenty of cranberries, mellowed by exposure to the cold of the winter; while the dwarf birch was budding, and the catkins of the willows already half an inch long.

Captain Back's servant, William Mallay, at the end of the sixth mile was so completely fatigued, that we were reluctantly obliged to encamp. The poor fellow, very much against his inclination, had accepted the office of cook; which during the winter perceptibly impaired his health,-it was hardly therefore to be expected that he could immediately undergo the same fatigue as those who had at intervals been exposed to the severest weather. After passing a restless night, he arose in a fever, and had proceeded onward for a short distance only, when I put an end to his sufferings by pronouncing him incapable of any such exertion; a report
which induced Captain Back to leave him and John Ross in my charge, while he advanced towards Artillery Lake with the remaining man and the guide Mauffley.

Moving slowly on,-for Ross had to carry Mallay's load in addition to his own, which obliged him to make double trips,-we waded first through a large swamp, stadded with round hummocks of moss-covered earth which, from their dry appearance, were at first diligently sought after. Owing, however, to their slender base, they treacherously gave way, and led us into a pool of water, from which we experienced considerable difficulty in extricating ourselves. To avoid as much as possible a repetition of such evils, I ascended from time to time the high rocks, for the purpose of guiding Ross across the more elevated grounds; which on the third day fortunately led to the discovery of a party of four men, sent by Captair Back to assist in carrying the baggage; whereby I was enabled to join him that evening.

The two boats were completed: for although the original plan of proceeding to the sea with both of them was necessarily relinquished, yet
a second boat was required, to enable Mr. M•Leod to fulfil the instructions with which Captain Back purposed to furnish him when we separated. The smaller boat was launched into a pool for a future occasion, and the larger one selected for our voyage; being thirty feet over all and twenty-four feet keel, with the lower part carvel, while the upper part was clincherbuilt. The former construction was desirable as not possessing any overlapping edges to impede the progress of the vessel by striking against either stones or sunken rocks in the rapids; and in the event of accident, as being much more easily repaired; which was' of the more importance, as neither of the carpenters would form part of her crew. Great credit was due to Thomas and William Matthews for the superior manner in which they had executed their work, more particularly on account of the difficulties they had to contend against: the planking was obtained while the trees were yet frozen, besides being formed of a very inferior quality of pine; independently of which, they had fared so ill for want of provision, that on vol. I.
one occasion they were driven to the necessity of boiling skins into size for nutriment.
Nor had the other men been idle: they had formed for themselves runners for the conveyance of their loads; which materially differ from the snow sleighs. They resemble a brewer's sledge, and are well adapted for conveying heavy weights over ice when the snow has melted from the surface. Birch is generally used in their construction; an article, however, so scarce with us, that barely sufficient could be found for making snow-shoes: they were necessarily, therefore, built of pine, which it was feared would prove too soft a wood to last out the voyage. This circumstance was rendered still more serious, from an oversight in not having treasured up some pieces of rein-deer horn or tibial bone, with which the voyageurs repair them. Should they not be found to answer in their present state, Thomas Matthews ingeniously suggested the conversion of our pit-saw into narrow bars of steel, which might be nailed on the bottoms of the runners to protect them from the grinding power of the ice.

It now only remained to divide the baggage,
consisting of twenty-two pieces, into different portions, besides the boat with the oars and masts. As our party of nine persons (for Mallay was still too ill to bear any share in the toil) were apparently too few to convey the whole under two trips,-which, I have said before, exactly trebles the distance,-it was arranged that Captain Back should lead the van, in charge of the first portion of the baggage; and that I should remain until the men returned for the rest, and bring up the rear. After these arrangements were completed, each of the men destined to compose the boats' crew received a new gun, in trying the qualities of which they were fully employed until the time of rest.
Mauffley, and another Indian who had been persuaded to join him as companion, were now directed by Captain Back, to hunt along the western shore of the Lake, and to await at the narrow our arrival, with as much provision as they could gather; while we pursued the route along the eastern land, for the purpose of collecting any caches which Mr. M‘Leod might have secreted. For our guidance, that gentleman pro- ${ }_{\lambda}$ posed placing conspicuous marks far out on the

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ice, to prevent the possibility of our missing them, and to save us the trouble of making the circuit of the bays. On the morning of the 10th of June, having hauled the boat across a jutting point of land, it was placed on a runner made for that purpose, well shod with iron, and drawn on the ice by two men and six dogs; while each man dragged the weight of rather more than a piece. It was highly gratifying to witness the cheerfulness with which the men commenced a journey that threatened to be extremely laborious.

After proceeding a distance of six miles, the party returned; when I received instructions to set the carpenters to the work of converting the pit-saw into proper lengths for bottoming the runners, which at first slid along easily enough, but ultimately became worn into ragged filaments. Besides portending a very speedy destruction, the roughness greatly impeded their progress, and required an increased force to draw the runners along. It was a source of great relief when we saw our runners gliding over the ice on the following day with a lightness that astonished every one. To a party of
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strangers to the country and the service, such difficulties would, in all probability, have proved fatal to the expedition; the greater number of our men, however, had been, from children, engaged in a similar service: ice and snow were their elements, and starvation their birthright.

The temperature, varying from $60^{\circ}$ to $70^{\circ}$ of Fahrenheit during the day, was overpowering; whereas, in the evening the air was frosty and refreshing: the advantage of travelling at night was therefore so evident, that it was no sooner suggested than put in practice. The country we passed along was less bold than the opposite shore, and merely consisted of rounded hills; covered with lichens, moss, and dwarf-birch ; while here and there the scenery was relieved by rich meadows, from which an occasional rivulet was seen winding a serpentine course, marked by two distinct lines of willows clothing the banks. In preventing the growth of trees, Nature has indeed deprived these parts of their softest beauties; and with justice procured them the epithet of barren. Nevertheless, their gigantic features, in many cases, amply repay
the loss of the pleasant feelings arising from such beauties, by calling forth emotions of a far higher order. That the barren grounds were formerly far less bare of wood than they are at present, we had proofs in the dead stumps that were met with beyond the living trees; fully confirming the account of the Indians, that large tracts of country now naked were once covered with thick forests. This decrease of wood in certain meridians has not been accounted for; although the same phenomenon exists in the more northern parts of the European continent: in Iceland, where wood was formerly abundant, scarcely any remains; and the same may be observed of the Orkney, Shetland, and Western Islands. The natives of North America cannot assign any cause for this change.

Near our second encampment was situated a conical rock, which has received the denomination of the Beaver's Lodge; while one in a line with it on the opposite shore, of the same shape, is named after the musk-rat. These conspicuous mounds of earth, according to Indian tradition, were formerly inhabited by animals of an
enormous size. The beaver, at least equalling the buffalo, had committed very many depredations, sometimes alone, and sometimes with the co-operation of his friend the rat; which at length led the neighbouring tribes to the determination of killing him. Having ascertained, through a rent in the rock, that the animal was in the lodge, several arrows were shot simultaneously, which had no other effect than that of alarming the monster, who by a subterraneous passage made his escape, and crossing the lake, sought the protection of his neighbour. Far from obtaining it, however, the rat, with the instinct peculiar to his race, foresaw the approaching danger, and at once disclaimed his former friend and ally. This led to a despepate struggle, which was only arrested by the approach of the Indians in their canoes. At one dive the enraged creature reached the southern extremity of the lake; but was so closely pursued, that on re-appearing at the surface, several arrows pierced his body, and severe was the struggle during the whole course of the narrow to Slave Lake, where he was ultimately killed. On the return of the Indians, instead
of a narrow with a gentle current, they found a river full of rapids and falls, the A-hēl-dězză of the chart, which it was impossible to ascend, and they were thus obliged ever afterwards to make a laborious and long portage. This difficulty was no sooner overcome, than they advanced to reconnoitre the monster's house; where they were swallowed up by a whirlpool, which soon afterwards disappeared.

This traditionary tale may, in all probability, owe its origin to some extraordinary convulsion of nature; and I think it very likely that the Great Slave Lake was once hemmed in by a perishable barrier which rose the waters to a level with Lakes Artillery, Clinton-Colden, and Aylmer. That they one and all formed the same sheet of water formerly, I have not a shadow of doubt : the intervening land for some distance distinctly shows a gradual subsidence of the Great Slave Lake, in exhibiting sandbanks rising one above another, forming a complete flight of gigantic steps. This regularity is, in one instance, broken by a valley; in the centre of which a lake nearly a mile in circumference is situated, and possibly once con-
nected the A-hēl-dĕzză with the eastern stream, forming with the land the letter H. On approaching Artillery Lake, the regularity is altogether lost, and a bold rocky ground is presented to view, with deep chasms intervening, from six to seven hundred feet deep. It is probable, therefore, that there has been one sudden fall of the water, by the breaking away of some western barrier; while, from prevalent winds and other causes, the waters of the Great Slave Lake have been piling up sand from time to time on the eastern shore, and have thus formed a barrier against themselves.

The refreshing coolness of the evenings had rendered the labour of the men comparatively so easy, that they were induced to convey the whole of the baggage at one trip; by which means we made a daily distance of ten miles. The boat's runner was unluckily ill calculated to bear the extra weight, and gave way near the centre, but was soon repaired. The ice now became worn, by the action of the sun, into minute holes, with innumerable intervening cones, giving the lake the appearance of an immense harrow ; which not only rendered the
operation of walking extremely painful and laborious, but so lacerated the dogs' feet, that they were obliged to be moccasined like ourselves.

The terms shoe and moccasin have been used as synonymous; and, inasmuch as both are outer coverings of the.feet, their separate identity may naturally be confounded. So widely different, however, is the latter from the former, according to the English acceptation, that the moccasin more closely resembles a mitten, which from its pliability is ill adapted for walking over a bed of spikes like that we were now traversing. The pliant moccasin has its advantage in the winter season, when the surface of the earth is carpeted by Nature and all her inequalities rendered smooth, and imparts to the wearer the free use of the extensor and flexor muscles of his feet, rendering the circulation free, and therefore not only defying the severest weather, but effectually preventing the formation of chilblains and corns. For either of those diseases I sought in vain among the Indians; a fact well worthy the remark of every mother of a family. An infant among us is no sooner
born than its little feet are encased in a torturing receptacle. Young children surely might be spared this severe tax of fashion, which in after life is the cause of many bitter moments and restless nights.

Deeming it no longer necessary to remain with the party, Captain Back proceeded ahead with two men, merely loaded with his tent, canteen, and an apology for a bed, consisting of seven blankets and an oiled covering; while I followed in charge of the brigade, seldom progressing more than two miles an hour, and frequently but one. I was compelled, therefore, to walk the distance twice over, by pacing to and fro like a soldier on guard or a marine on duty, as the only means of keeping myself warm. We reached Captain Back's encampment four hours after him; a part of which leisure time he had employed in angling for trout in a small river; but instead of a fish, he hooked a copper kettle bent double, containing thirty-four leaden balls, a file, awl, firesteel, and crooked knife; which, to an Indian, is valuable property. Here was an example of a singular custom prevalent among the In-
dian tribes,-that of destroying their property either as an atoning sacrifice for some calamity, or as a token of affliction for the loss of a dear relative.

Since the stream had afforded no sport, I sought the swamps in search of wild fowl, and was fortunate enough to secure a specimen of Wilson's phalarope; a treasure little anticipated, for this elegant little bird had not hitherto been met with beyond the 55th parallel, which was considered as its farthest limit northward. As several more were afterwards seen, and always in the neighbourhood of small grassy lakes, it is more than probable that they breed in such situations, or possibly even farther north. Two of the men, Sinclair and Taylor, were equally happy with myself in not returning from the chase empty-handed: they had succeeded in killing a couple of deer, which, although less interesting in a scientific point of view, were highly valued, as holding out a hope of saving our pemmican by a repetition of such good fortune.

Two caches were discovered in the course of the evening, pointed out by bits of moss ex-
tending far out in the ice from a mound of stones containing their hidden treasures; which were welcomed not only for the meat they afforded, but as a convincing proof that we were pursuing the right track,-for this had of late been much doubted. The land was so indented and so irregular, that we had already doubled our distance, either by traversing deep bays, or mistaking the various islands for jutting points of the main land. By Mauffley's hunting-trip along the western shore, we were not likely to gain any considerable quantity of provision, since so much had been already expended in the delay occasioned by his absence. In fact, we would willingly have compounded for his return empty-handed, that, benefiting by his local knowledge, we might make something like a straight course.

For twenty hours out of the twenty-four, the sun now shone upon the earth, softening the ice so much, that the runners sank four inches; which considerably increased the labour of hauling them forward. Frequently it required the whole force of the party to extricate the boat from a deep rut which it had formed
for itself in the ice; while the men and dogs were sadly foot-fallen, and more or less affected with snow-blindness. William Mathews was perfectly blind; for, independently of a severe inflammation of his eyes, the eyelids were much tumified : the application of a couple of drops of laudanum and a smart cathartic, however, relieved him in a few hours.

The lowering aspect of the weather during the night indicated a change, which by noon showed itself in a fall of sleet, accompanying a cold northerly wind. Notwithstanding the light particles of snow had made the ice very greasy and caused some awkward falls, the travelling was preferable to the day before. To our mortification, in the morning, however, we were occupied in retracing, step by step, every inch of the distance previously accomplished; and on the following day, making for the goal again, which, after a second peep, proved right. The appearance of a country is so different in its winter and summer garb, that a change from one to the other will frequently banish all recollection even of the most familiar spots: a collection of hoar frost on the
eyebrows and cheeks disguises the countenance to such an extent, that it is difficult to recognise the friend of the previous day. I was myself exposed to this as lately as Christmas-day last, and was so disfigured in a similar manner by walking through a misty atmosphere from a friend's house at Eltham, where I had been dining, that with difficulty I obtained admission into my own apartments. It was hardly to be expected, therefore, that Captain Back should recollect the outline of a country intricate at all times, but rendered more so by the circumstances I have mentioned.

The narrow between Clinton-Colden and Artillery Lakes was open in the more rapid parts, but frozen where the current was not so strong. The ice in some parts was as firm as a rock; while at others, it would not support the weight of one man, but quietly, though not pleasantly, popped him into the curly stream. We therefore alternately took the water and ice; and fortunate indeed was that man who escaped with but one ducking during the day. It was now, however, of little consequence; for we had abundance of willows
wherewithal to make a fire, which but the day before must have been ill supplied with moss.

Snow, rain, and hail, now followed each other almost as quickly as I can write the words. This kind of weather continued more or less during our course along this narrow; and truly rejoiced were we to find ourselves encamped upon a rock of Clinton-Colden Lake. The cold and wet state of the moss we sought to ignite, defied all our ingenuity and perseverance to fan, blow, or coax it into flame; we therefore retired under the cover of our blankets to procure warmth. The next morning we set strenuously to work, and fortunately succeeded; when not one fire alone, but many, were kindled, for the double purpose of keeping the kettles at work, and notifying to the Indians our presence. They were nowhere to be found, however; and after allowing them ample time to sleep out any comfortable nap they might be taking, we made so extensive a smoke by way of a finale, that within a mile or two around us, they must have been drawn from either hill or dale, nook or crevice, or wherever else they
might have sheltered themselves. We are told :

> " Men are the sport of circumstances, when The circumstances seem the sport of men."

With us, however, there was no seeming in the case; for we were actually sporting in and out and round about, owing to the circumstance of allowing Mauffley to leave us, and acting Penelope over again by undoing at night what we did in the day; while Mauffley was laughing in his sleeve at the trick he had played us, and sporting upon the circumstance.

Every day a cache, containing a fewer or greater number of animals, was discovered; in one of which we learned, from a note left by Mr. M‘Leod, that he had made a straight route with his mixed party of red and white men to Clinton-Colden Lake, instead of following the course of the narrow; by which manœuvre he expected to head the vast herds of deer supposed to be somewhere in that direction; and that he had made two more caches than we found. This was hardly to be wondered at, considering the crooked road we had taken,
and the misty weather we had experienced; although, as may readily be imagined, every vigilance had been observed that could possibly lead to the detection of those precious hoards, more valuable in our case than the rich mines of Peru. Having no longer any decayed ice to contend with, we moved briskly forward, as happily as could well be expected, considering the loss of our Indian guides, and the conviction of every one that his labour would be more than trebled by that sad event; which was the more sensibly felt, since scarcely one-third of the journey was at this time accomplished. As we proceeded, the rocks on either side gradually increased in height, until they attained an elevation of two hundred and more feet; while their rounded summits were richly ornamented with lichens, and featured occasionally with huge boulders: the valleys between afforded a luxurious pasturage.

At the commencement of a narrow, I met Peter Taylor with a note from Mr. M‘Leod, which Captain Back had discovered, fixed in a canspicuous situation, among some willows that were growing on the borders of this contracted
part of the lake. It was to apprise us that he had made three caches, two on the eastern, and one on the western shore of our track. The two eastern ones I had already secured; and the other was soon added to our stock by two men, sent back for that purpose. Taylor just before he found me had narrowly escaped with his life : having stepped upon some rotten ice, he was precipitated in the water; and but for his gun accidentally falling across the opening, he would most likely have perished. The rotten state of the ice is easily detected by its dark appearance : in this case, however, a fall of snow had obscured the marks. As the narrow was open, we took advantage of it, and rowed the boat laden with the baggage for a distance of two miles. Some Canada geese, caccawees and loons were sporting in the water, but kept far out of shot.

The peculiar cry of the harelda glacialis, or long-tailed duck, has given to it the name of caccàwee; by which epithet it is celebrated in the songs of the Canadian voyageurs. The long tail of the male bird, which sometimes exceeds ten inches, gives to its flight the resemblance of
that of a swallow. Advancing north with the advance of spring, it reaches the shores of the Polar Sea among the first of the migratory birds; while in retreating southwards, it is the last of the water-fowl that quits the country, halting on the lakes of the interior as long as they remain open : the female may be seen even as late as September, making a track for her young brood, by the continued action of her wings breaking through the thin crust of ice which usually forms in that month round ${ }^{\circ}$ the margins of the large lakes in the course of the night. The constant repetition of caccàwee, caccàwee, which lasts out the live-long night, is rather melodious than otherwise: not so, however, with the colymbus glacialis, the great northern diver, or loon, whose cry is loud and extremely melancholy, sometimes resembling the howling of a wolf, while at other times it is like the distant scream of a man in distress. These birds abound in all the interior lakes of -America, where they destroy vast quantities of fish, in the eager pursuit of which they frequently entangle themselves in the gill-nets. Its limbs are ill fitted for walking, and conse-
quently the bird is rarely seen on land; they are nevertheless admirably adapted to its aquatic habits, for it can swim not only with great swiftness, but for a very considerable distance : it can remain under the water for a very long time, and on appearing at the surface seldom shows more than its neck. Its call is said to portend wind and rain ; which was in our case verified by a heavy gale, attending repeated showers of snow and hail.

What with wind, hail, caccàwees, and loons, I welcomed a gleam of sunshine with more than usual delight on the following morning, as enabling me to escape from such turmoil. Not so with the men, however; for they lay in a sound sleep, unconscious, until I aroused them, of the wind and snow, much less of the screeching of the water-fowl. A short distance brought us to a cache of two buck-deẹr, killed by Mr. M‘Leod himself; which were in excellent condition, and more especially noticed as the first palatable meat we had obtained; for all the previous collections were lean and insipid.

In the course of an hour afterwards we got embayed, and at the expiration of ano-
ther hour, discovered the right track again; in which manner we progressed throughout that march. The snow once more blighted the resuscitating verdure; but a slight shower of rain was sufficient to remove it, which saved us from much inconvenience as well as hazard; for such quantities had fallen as to render the good and bad ice undistinguishable, making it a mere matter of chance whether we fell through or not. We, however, reached in safety a narrow and favourite crossing-place with the rein-deer, where we found four animals en cachette.

For two days we experienced heavy showers of rain ; between which the intervals were so short, that it might with some degree of propriety have been called continuous. The moss was saturated, and no willows were to be found; which obliged us to dispense with the only real luxury we posisessed,-a cup of warm tea. During the dry weather, the lichen of the rocks confined between two stones, placed parallel to each other so as to admit of a draught between them, made by no means an insignificant substitute for wood; and, under
favourable circumstances, was capable of producing a very powerful heat. The recent rains had softened and honeycombed the ice so much, that the boat's runner cut deeply into the surface; which required the continued exertion of two extra men to keep it in motion, and notwithstanding the strenuous exertions which were used, it was with the greatest difficulty that my party reached Captain Back's encampment. The place was selected owing to the appearance of a quantity of willows, which, favoured by a southerly aspect, and sheltered from the cold northerly winds by a high bank of sand and boulder, were of luxuriant growth.

The emberiza nivalis, or snow buntling, was here busily employed in feeding upon the buds of the saxifraga oppositifolia, one of the most early of the arctic plants. This neat and elegant bird is a native of the colder regions of both hemispheres, breeding on the northern coasts of the American islands, and on all the shores of the continent, from Chesterfield Inlet to Bhering's Straits. It is the last bird that leaves the north, and lingers about the forts
and open spaces, picking up grass-seeds, until the snow becomes really deep. Composed of dry grass, neatly lined with rein-deer's hair and a few feathers, its nest is generally fixed in the crevice of a rock, amongst stones, or in a pile of wood. Captain Lyon found a nest of this bird in an Esquimaux grave, on Southampton Island, placed on the bosom of the corpse of a child.

To avoid the rotten ice, the runners were lifted over dry stones and rivulets; which strained them so much, that they were rendered useless except as fire-wood. In this exigency it was desirable, not only as regarded our personal comfort, but the successful termination of this laborious duty, that the weather should be fine. One gale, however, was no sooner ended, than another began, followed by heavy showers, which decayed the ice far more extensively than the extreme heat of the sun. Twice the whole party, with the boat and baggage, were nearly precipitated into the water, the ice on which we walked undulating with our weight. The weather, instead of improving, was hourly getting worse; which exposed the
men so constantly to wet and fatigue, that it was very much feared some of the weaker hands would not be able to bear up against it. As the moon approached the full, the wind became more boisterous, the sky more gloomy, and the clouds rapidly accumulated in the northern horizon, until at last they constituted one black mass, which formed a striking contrast with the alabaster whiteness of the ice. In vain we cast an anxious look to windward for a favourable change, for some propitious omen to encourage us forward. To remain was out of the question, for every moment was precious; and the more unfavourable the state of the weather, the greater was the necessity of pushing forward. Making an effort therefore to advance, we worked our way as well as possible through heavy showers of sleet, which made it extremely difficult to keep in view our distant bearings.

An occasional break in the sky gave some slight indication of a change, and the wind decreased with the close of the evening, but only to rage with. increased force on the reappearance of the sun, which brought us comVOL. I.
pletely to a stand. Even the lestris parasitica, or arctic jager, sought refuge from the raging elements under the lee of our tent. Like the pomarine jager, or gull-hunter, this bird subsists on putrid fish and other animal substances thrown up by the sea, as well as upon the matters which the gulls disgorge when pursued by it. Returning from the north in winter, it appears again about May or June at York Factory, in all the northern outlets of Hudson's Bay, and not uncommonly on the shores of the Arctic Sea, invariably arriving from seaward.

By long and frequent lulls the gale wore itself out; yet the weather was overcast, unpromising, and dull. We nevertheless commenced the traverse across a wide opening, and brought up at a cache which had been made by Mr. M‘Leod four days previously. FFive extensive openings in the form of an immense glove made us hesitate in what direction to bend our next course,-whether to the right or to the left : we therefore took the centre one as a sort of goal, whence two or more scouting parties might diverge in
search of the narrow known by the name of Sand-hill. In this instance our doubts were soon removed by the appearance of a second cache, and ultimately by a view of the conical mount of sand itself.

The appearance of the white tent, which on the barren grounds forms a conspicuous object, was responded to by the report of two guns from the opposite shore, announcing the arrival of our truant Indians, who, from a note which they handed to us from Mr. M‘Leod, had, it appeared, mistaken the gift of a few charges of ammunition, presented to them for the purpose of hunting the western shore of Artillery Lake, for hunting the whole track to the Great Fish River. Whether such was their actual impression, or whether it was mentioned as a mere excuse, was a matter of doubt. Mauffley's instructions were dictated in the Cree language, of which he had a very imperfect knowledge, and by that means might easily have erred; while, on the other hand, he had very improperly attempted to desert us at Fort Reliance, at a time when we could not have supplied his place as in the present
instance. The latter circumstance, therefore, condemned him; but, from policy, he was allowed to escape punishment until a favourable opportunity offered to inflict it.

June 24th.-The weather was now as fine, clear, and warm, as it had lately been foul, obscured, and cold; which gave the men an opportunity of drying their clothes and blankets. Nor in my own case was it less a propos; for the previous day I had fallen through the ice, and soaked the pockets of my shootingcoat with water. The London linings were so ill adapted for containing a geological hammer, fish-hooks, pebbles, and the like, that I had commissioned an Indian woman to replace them by well-dressed rein-deer skin, rewarding her with the old pockets, which, from their morone colour, were highly prized. I was now sorry for the change; for, owing to the spongy nature of the deer-leather, no less than four hours' exposure to the rays of the sun, which rose the spirit of the thermometer to $66^{\circ}$ plus, was required to dry them.

In every direction, within a few yards of
the stream, this narrow was adorned with willows; while the waters were rich in fish. It is a favourite crossing-place-with the reindeer; or a " deer-pass," as it would be termed by an Indian. Here was fuel, food, and cloth-ing,-all that is necessary to render man capable of wintering at the very poles of either hemisphere. Such situations were sure to be peopled: we sought therefore for the Indian tents, which were descried on the very top of the highest land, containing altogether about fifteen families.

The Indians, accurate observers of nature, seek the very pinnacles of the mountains, as less frequented by musquitoes and sand-flies; while the animals seek the same places of refuge, from the astrus tarandi, or gad-fly, as well as from other diminutive tormentors. For the same reason, the towering mountains of North Cape are more resorted to than any other part of Finmark during the summer by the mountain Laplander. We were here informed that several of Mr. M‘Leod's red men had consumed a part of the pemmi-
can entrusted to their care; the truth of which statement we had not at that time the means of ascertaining.

In the evening we rowed up the narrow,for the ice was broken up by the strong cur-rent,-and reached Lake Aylmer, where the boat and baggage was again placed on the runners. On the eve of departure, we were not a little surprised to find Mauffley a silent spectator of our movements; while his companion was gone off on a hanting-trip, although in the morning I had visited their tents and desired them to be in readiness. After about an haur's delay, however, the one accompanied us, and the other followed shortly afterwards.

Pursuing a tortuous course, to avoid either the black and rotten ice, lanes of open water, or soft particles of snow, I followed Captain Back's party, which was now increased to four by the addition of the Indians. Myriads of insects covered the surface of the ice, apparently driven there by the wind, seeking in vain for the distant foliage; and at the same time a few musquitoes and sand-flies
made their appearance, but were not troublesome.

After a laborious march of about twenty miles, some of my party reached the encampment; while others were lying at various distances on the ice, literally incapable of motion. That a distance greater by one-third than the men had hitherto been accustomed to should all of a sudden be taxed upon them, could not at first be well defined : the fact was, that one of the Indians and a half-breed of Captain Back's party, each of whom were allotted a load lighter by three-fourths than the main one, had been walking against each other; which folly might have occasioned the most serious consequences had it happened a little earlier. The following evening we had reason to appreciate the presence of our guides, who had, independently of a dense fog, occasioned by a sudden fall of the temperature several degrees, threaded their way within a few miles of Sand-hill Bay, which we reached about noon of the morning of the 27th of June.
ten as sce me rap tiv anc the
Reflections.-Back's Lemming.-Embarrassments about the Boat. -Musk-Ox Rapid.-Musk-Ox.-Indians return with the Pem-mican.-Stock of Provisions.-Mr. M‘Leod volunteers to conduct a party of Indians overland to Point Turnagain.-Party separate. - Akaitcho. - Imminent danger to the Boat. - Boisterous Weather. - Embarkation. - Obstructions from the Ice.- Perilous situation in a Rapid. - Plunder of a Bag of Pemmican. - Heavy Showers. - Obstacles encountered. - Observations. - Hunting Excursion. - The River makes a bend to the South. - Further Detentions by the Ice. - Cascades. - Shoals of Fish. - Northerly course of the River. - Esquimaux Marks.

After recapitulating past occurrences, our thoughts on our arrival at Sand-hill Bay were occupied in hopeful anticipations for the future, -a future fraught with much danger and still greater uncertainty.

The party was about to separate;-Captain Back and myself to proceed with some of the mę to the north ; while Mr. M‘Leod, with the remainder, was destined to travel south ;-each party having difficulties to con-
tend with that involved considerable doubt as to their favourable termination. In our descent to the sea, we had reason to expect innumerable obstructions in the form of falls and rapids besides the danger of meeting with natives, unaccustomed to the appearance of whites, and ignorant of our peaceful intentions. On the other hand, Mr. M‘Leod had to make a long and tedious journey on foot to Fort Reliance ; not by a direct route, but by following the tortuous course of the lakes which we had just passed over: to make that establishment in a direct line was at this time out of the question, since the ice was everywhere more or less broken up. His labours would not, however, terminate there, as he would have to proceed immediately to Fort Resolution, at the western extremity of the Great Slave Lake. During the whole of this distance he could look to chance alone for supplying himself, ten persons, and fourteen dogs with their daily provision.

We were under the necessity of retaining our sledges a few miles further: for although the Great Fish River at this spot had burst its icy fetters, the Musk-Ox Lake was still fast; and
until the stream was in some measure increased by its various tributaries, such impediments were very likely to be met with. The report about the pemmican appeared to be entirely without foundation; for, with the trifling exception of a couple of pounds or so pilfered by the wife of one of the Indians, neither Mr. M•Leod nor the interpreter were aware of any loss. One of the Indians, named Jack, put on a very sullen countenance when he was informed who had been the means of spreading the report; and although he said nothing, the injury was evidently still "corroding in the cavern of the heart."

Under almost every stone on the sandbanks, the georhycus trimucronatus, or Back's lemming, was found burrowed, affording considerable amusement to a small terrier that accompanied us as a pet dog. This lemming was first discovered on the borders of Point Lake, in latitude $65^{\circ}$ N. by Sir John Franklin; and afterwards, on the shores of Great Bear Lake, as well as at Igloolik, by Sir Edward Parry. Dr. Richardson describes it as inhabiting woody spots; but from the vast numbers we met with
during the whole course of the Great Fish River, even to the shores of the Polar Sea, it would appear that barren grounds are evidently most congenial to its habits. It feeds entirely upon vegetable substances, and possesses capacious cheek-pouches.

We found occasionally another species, rather larger, of a darker fur, with auricular appendages; and had it not been for the shortness of its tail, we might have mistaken it at first for the arvicola Pennsylvanicus, or Wilson's mea-dow-mouse. With the exception, however, of the ears, it had all the characteristics of the lemming; and according to my recollection, (for somehow or other the specimens brought home have been mislaid or lost,) it seemed to connect the lemmings with the genus arvicola.

June 28th. - Just as we were about to commence the portage to follow Mr. M‘Leod, who left us overnight with his party, the carpenters expressed an opinion that it would very much injure the boat to drag it over the ground. This casualty had not been calculated upon; for when Thomas Mathews built Sir John Franklin's boats, there were no such difficulties as

252 DIFFICULTIES RESPECTING THE BOAT. portages to be taken into consideration : whereas, with us, the case was widely different ; for not one portage alone, but many carrying-places, might be expected in the course of our journey to the sea. We had but one alternative, and that was to try our crew of eight men as to their capability of carrying it ; for which purpose, the wash-boards were removed, and the boat placed bottom upwards on the shoulders of the men. In this manner it was conveyed across the portage of four hundred paces. The distance being short and the path even, the present was a favourable trial; but the men declared that it would be impossible to sustain the weight over a rugged and uneven ground: twice, one of the strongest of the party felt his strength failing him. If the difficulty was so great now that the boat was new and dry, what would it be when the boat became saturated with water, and consequently rendered very much heavier?

This was not, however, a time for reflection, since the evil could not be remedied. Even had the keel been made stouter, it would have been a very great disadvantage among the shal-
lows and rapids; and had we resorted to the plan pursued by the traders, of placing small pine sticks to protect the bottom from the gravel and stones, how could they have been conveyed? where should we have packed them ? The boat would not hold them; for, as it was, we could barely find room for provision. It is but justice to the carpenters, however, tq admit that no blame whatever could be attached to them : they had done their utmost to render both the boats as serviceable as possible. It was one of those cases of difficulty to which persons traversing new ground must ever be exposed, and furnishes a useful lesson for future travellers.

At one o'clock in the afternoon of the 28th of June, we had the satisfaction of seeing the boat launched into the waters of the Great Fish River, and poled down the stream by three men, with the oars and masts slung to the stern. When a sheet of ice, covering a broad part of the river, interposed, the boat was dragged across it, and then launched into the water again.

In this way Musk-Ox Lake was reached, which we crossed on the ice for a distance of about
seven miles, and arrived at Musk-Ox Rapid on the 1st of July, where our labour terminated. The circuitous route being taken into consideration, we could not have travelled a less distance than two hundred miles over ice, since leaving Artillery Lake, dragging a weight of one thousand nine hundred and eighty pounds in baggage and pemmican, exclusive of the boat, oars, and masts. During the entire journey, I can safely assert, there was not a single man of the party whose clothes were not more or less drenched with rain, for they possessed neither a tent nor any other covering; and although it was by no means an uncommon circumstance, as their blankets became soaked, to see them arise and wring them to ensure sleep, yet so inured were they to every atmospheric variation, that it never in the least impaired their health.

Musk-Ox Rapid, the farthest limit Captain Back reached the previous year, is resorted to by the Copper Indians, for the purpose of spearing the caribou that pass and repass that cross-ing-place, every spring and fall; when vast numbers are secured for food. The natives, seated in their canoes, remain in ambush until the first
two or three animals have landed on the opposite shore; when they dart forward from all quarters, and spear them in vast numbers, fully aware that the deer, like a flock of sheep, will follow their guides notwithstanding the intrusion. The deer, however, this spring were beforehand with their pursuers; and the natives were reduced to the necessity of feeding on the flesh of the musk-ox, which is so little relished that they never partake of it from choice. It is to that animal having been first seen here, that the rapid and lake have received their denomination. We, however, partook of some of the meat deposited by Mr. M‘Leod at the northern extremity of Clinton-Colden Lake, where many of them had been killed for the sake of their skins, which, well dressed, make excellent moccasins,-articles rendered extremely precious during the spring, when a pair will seldom last out the day.

A specimen of the skin of the ovibos moschatus, or musk-ox, sent to England by Hearne, the celebrated traveller, gave Pennant the opportunity of describing and systematically arranging it; which M. Blainville has placed, as
its Latin name implies, in a genus intermediate between the sheep and the ox. A slight information of it had been previously obtained through the medium of M. Jeremie, who has the credit of having first brought it into public notice by the produce of some stockings made of its wool, which were said to be even far more beautiful in appearance than silk. By its dense woolly coat, it is effectually protected from the severest weather; and the shortness of its legs renders it admirably suited to the barren grounds of which it forms one of the characteristic inhabitants.

By the term "barren," the traders designate the north-eastern corner of the American continent, of which the extreme point is Melville Peninsula. These lands have received that appellation on account of being destitute of wood, except on the banks of some of the larger rivers that traverse them: from this circumstance the traders have not formed there any settlements. The district is generally featured with primitive rocks, consisting of an assemblage of low hills with rounded summits more or less precipitous, and separated by narrow valleys. An imperfect
peat-earth, covering the lower grounds, nourishes a few stunted willows, glandular dwarf birches, black spruce-trees, or larches; but the soil more generally consists of minute debris of the rocks, forming a dry, coarse, quartzose sand, unfit for supporting anything but lichens. In all the larger valleys, lakes of transparent water are met with, containing fish : some of these are perfectly land-locked, but the greater number are connected by a rapid and turbulent stream, and thus they flow onwards to the sea.

In these barren and desolate parts of the earth, the musk-ox remains both winter and summer contented and happy; feeding, like the caribou, on grass at one season, and on lichens at another; either climbing the most precipitous situations, with all the agility and presision of the chamois, or mountain-goat ; or seeking the valleys either in search of more luxuriant food, or shelter from the raging wind.

When fat, their flesh is palatable enough, and although of a coarser grain, resembles the caribou; but when in a lean state, it is rendered far inferior to that of any other ruminating animal in North America, owing to its being taint-
ed with a strong flavour of musk, which is more particularly the case with the bulls. Although it exceeds the weight of the caribou by twothirds, the hoofs of the musk-ox are so similar to those of the former animal in form, that it requires the experience of a practised bunter to distinguish the difference : those of the muskox are, however, rather larger and narrower.
These animals assemble in smaller herds than the other quadrupeds of the North, seldom more than twenty or thirty being seen at one time; from which circumstance, together with the rocky situation they are in the habit of frequenting, it is the most easy matter to approach them; and if the hunter has only the precaution to keep himself concealed, he may destroy, one after another, the whole herd. Instead of betaking themselves to flight, they crowd closer and closer together as their companions fall around them; which has been attributed to their mistaking the report of the gun for thun-der,-as, notwithstanding the shortness of their legs, they can run extremely fast. Should they, however, discover their enemies by sight, or by their sense of smell, which is extremely acute,
the cows immediately have recourse to flight; while the bulls, being of a more irascible nature, attack the hunter, whose life is placed in great jeopardy unless he possess both activity and presence of mind. The musk-ox was found by. Sir Edward Parry on the broken land of Melville Island, but has not been known to cross over to the Asiatic shore, like the reindeer.

Mr. M‘Leod's party joined us in the evening; when with our united forces we commenced the conveyance of the baggage to the north end of the portage, while the boat was safely moored in a bay at the foot of the first rapid. As the distance was four miles, it occupied them the whole of the following day to complete their labour; when two Indians were despatched in search of one of their countrymen who was yet missing with a bag of pemmican. The intervening time was occupied in verifying the observations for latitude and longitude, and obtaining the dip, which was ascertained-to be $86^{\circ} 133^{\prime}$. Following the serpentine course of the rapid for two miles, a tributary from the south-west joined the stream, which, ac-
cording to Indian report, takes its rise from the Cǒŏn-tōōy, or Rum Lake of Hearne, whose western extremity Sir John Franklin passed in his season of distress at Belanger's Rapid.

How Rum Lake can be called Con-twoy-to, by a late traveller, I am at a loss to comprehend : tōōy signifies lake; twoy-to has no meaning. From not having pursued an orthographical system, many discrepancies have arisen, and very many are still likely to occur. For instance, the Great Fish and Fish Rivers have a host of names, because travellers will not give themselves the trouble to make use of their sense of hearing. The Great Fish River is compounded of three words, and should be written Thlĕwy̆-cho-dězză, Fish-Great-River: instead of which, the word for river is written dezeth, deseh, and even tessy ; while the word for fish is compounded into thlew-ee, thlew-ey, thelew-eye,-meaning nothing at all, like twoyto. The Fish River, again, is more abused by the terms, The-Jew,Teh-lon,Thelew-ey-aze,Thlew-yaze; whereas it should be written Thlĕwy̆-dĕzză. To avoid any errors of this kind, I have invari-
ably made use of the English terms for all lakes and rivers.

A line of rapids beyond the first tributary led us to a widening, or small laké, about four miles broad, which was covered in the centre with ice, while the sides were open and free to navigation : a ridge of blue mountains bounding the north shore, was named after the late Captain Peter Heywood, R. N.

The Indians returned in the course of the evening with the straggler; when the pemmican was examined and appeared perfectly sound. Our provision now consisted in all of twentyseven bags of pemmican, varying in weight from eighty-six to ninety-four pounds each; two boxes of maccaroni of eighty-six pounds each ; one hundred pounds of flour, sixty pounds of cocoa, ninety pounds of sugar, twelve pounds of tea, and two gallons of rum ; besides some dried meat and rein-deer tongues : the whole forming an adequate supply for about four months.

It had been previously arranged that Mr. M•Leod should commence his return at this spot with all the men, except eight, selected for the voyage. When the time drew nigh,
however, he felt his desire to accompany us increase, and proposed to proceed with a party of Indians overland to Point Turnagain, and await there our arrival, for the purpose of leading us back in case the season should be too far advanced to admit of the return of the party by the Great Fish River. It was, however, considered of more importance that Mr. M‘Leod should proceed to Fort Resolution with the men, and having obtained our outfit for the winter, return to Fort Reliance. He was then to embark at Artillery Lake, with four men and two Indians, in the second boat built by our carpenters, for Sand-hill Bay, where he was to remain until the commencement of October. Should we not have arrived by that time, he was directed to proceed down the Great Fish River, as far as was practicable to ensure his return before the close of the navigation, in order to afford any assistance to our party that unforeseen misfortunes might have rendered necessary.

Mr. M‘Leod had now a most serious undertaking before him-ten persons and fourteen dogs to provide for during the whole distance to Fort

Resolution, at the western extremity of the Great Slave Lake. To Fort Reliance he could no longer make a direct course, as he had done on leaving it ; for the ice was now too rotten, and the lake too much broken up, to admit of it. He would, therefore, be obliged to make the circuit of Lakes Aylmer, Clinton-Colden, and Artillery ; but, what was worse, he could not by any means expect a sufficiency of provision, the track having been hunted not only by ourselves, but by the whole tribe of Copper Indians. As there were still a few miles of ice to cross, to overcome which it was proposed to take' the whole of the men, Mr. M‘Leod was obliged to remain until their return, when he intended to commence his arduous undertaking with barely sufficient provision for one day. Having reached Fort Reliance on foot, he would embark in one of our bateaux for Fort Resolution.

A little before noon of July 4th, having parted with our zealous and kind-hearted friend, and crossed the lake bounded on the north by the Heywood range of mountains, with the runners, we launched into the stream, and soon
reached a fall with an island in the centre, where it was necessary to make a portage. Hemmed in by a chain of rugged rocks and mountains with rich intervening meadows, this part of the river is resorted to by both musk-oxen and deer in vast numbers during both spring and fall. Akaitcho was well aware of this, and had accordingly planted his tents on the very summit of a high mountain, commanding an extensive view of the surrounding country, for the twofold purpose of watching the movements of the animals, and protecting himself from the maddening attacks of the musquitoes and sand-flies.

The chief soon made his appearance, with his son and another Indian, to take a last farewell of the great chiefs : for, with all the composure possible, he said he was afraid of not seeing us again, and cautioned us at great length both as to the treachery of the Esquimaux, and danger of the river.

The boat, with four hands, was now pushed off to run the fall; but had scarcely made half the descent, when it was thrown, by the force of the water, with a sudden crash, upon a

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shelving rock, where it remained hanging by the stern, until the steersman, a very powerful man, jumped upon the rock and pushed it off. Every moment threatened her destruction, and, for a brief space, the fate of the expedition was. suspended by a mere thread. Fortunately, however, neither the men nor the boat received any injury.

The captain then descended the stream for a short distance, in the boat, half loaded; when the men returned for the remainder of the baggage, and brought me instructions to break up the runners for fire-wood, and send all the spare people, except the carpenters and another man, detained for the purpose of caulking the boat, to Akaitcho's tents, where they were to await until further instructions were forwarded for their guidance. Having taken my leave of Akaitcho and the party collected on the shore, I embarked, and in the course of half an hour joined Captain Back; when no time was lost in hauling the boat on shore to dry, preparatory to caulking.

With the declining sun the clouds began to gather, and the weather put on the most threatVOL. I.
ening appearance, terminating in a violent storm. The rain poured, and the wind blew a perfect gale, without the least abatement, until the morning of the 7th, when the sun shone brightly, and the carpenters commenced the reparation of the boat, which was completed towards the close of the evening. They were then directed to join the other men at Akaitcho's lodges, with Pierre Kanaquassè, who had been retained for the express purpose of guiding them. The whole party were now desired to return to Mr. M‘Leod. Besides Captain Back and myself, the party at this time consisted of James M‘Kay and George Sinclair, steersmen and bowsmen; and JohnRoss,William Mallay, Hugh Carron, Charles M‘Kenzie, Peter Taylor, and James Spence, middlemen.

On Tuesday, the 8th of July, we embarked, and launched into the deep and pellucid stream, which had risen six inches since the commencement of the rain. By following the course of the river for six miles, hemmed in by rocks of gneiss and granite broken into cliffs and precipices, with numerous gullies between, that had apparently once formed the bed of minor
streams, we reached a rapid; and a lesson having been gained by the narrow escape from accident at the first fall, it was determined for the future to inspect each rapid and fall prior to running it. With this view, M‘Kay and Sinclair proceeded on foot to examine it, when it was found inconsiderable enough to admit of its being run with a full cargo. This brought us to a small lake; but soon contracting again, it formed a slight rapid, at the foot of which we landed to deposit one of the bags of pemmican intended to be secreted at various distances for our return : by which means we should lessen our load and increase our distances.

The banks of the river were still rocky, but of inconsiderable height compared with Heywood range, while they were môre thickly covered with fragments of the surrounding rocks. The river gradually widened into a lake, covered with ice more or less decayed, which obliged us to encamp for the purpose of sending M•Kay and Sinclair; on either shore, to ascertain the extent of the diffculty. During their absence a gentle breeze
opened a channel along the western shore, of which, on the return of the men, we immediately took advantage, so that by dint of poling, and separating some of the pieces with our axes, we managed to reach the open water.

Under a cloudy and gloomy sky we made the following morning a circuitous course to avoid a quantity of packed ice; and having passed four tributaries on the western shore and one on the eastern, we came to a long rapid, in the very centre of which the boat grounded. The men, as usual in such cases, leaped into the stream: when thus lightened, the boat swept swiftly along, and reached the more silent water in perfect safety. Here we first saw the musk-oxen grazing at the base of some sandbanks on the eastern shore; which, unlike the more timid rein-deer, remained quietly gazing at us, although we made every attempt to frighten them, by hallooing, and striking the water with the oars.

The stream soon drifted us from their sight to a fall and portage, from which a calm sheet of water of three miles in extent led to a long and fearful-looking rapid, bounded right
and left by rocks of an extremely rugged appearance, on the summits of which were huge stones and splintered fragments of granite. The ice in many places still adhered to the banks, and projected in wide ledges, several feet thick, over the breakers, which had hollowed them out beneath, while particles of snow in some instances filled the fissures of the rocks. The boat, lightened of her cargo, swept with the speed of an arrow down the foaming torrents, and brought up in an eddy below. It was an anxious time; for, notwithstanding the cool judgment and surprising dexterity with which the men guided her past a multitude of yawning gulfs, it was impossible to suppress the feeling that a single error-the mere breaking of one of the oars, or a sudden fright, might prove fatal to the expedition.

It was late before the portage was completed; for, independently of the distance, which exceeded two miles, the ground was extremely rocky and uneven. Some time, therefore, elapsed before it was discovered that Mallay was missing ; when, alarmed for his safety, two men were sent in search of him. Having
wandered from the track, he involved himself among some swamps, where he was found wading as fast as possible from the river; which, on his return, caused considerable amusement to the older voyageurs. In conformity to the general custom of recording such incidents by giving a name to the spot, the present was called Mallay's Rapid.

One of the men, while conveying a bag of pemmican across the portage, let it fall against a point of rock, which burst the covering and spilled a part of the contents, consisting, instead of pemmican, of a collection of stones, dirt, and putrid meat. As soon as this was discovered, M‘Kay inquired if it was the weighty bag; which being answered in the affirmative, he fixed the delinquency on the straggler we were under the necessity of sending after at Musk-Ox Rapid. The accident was so far fortunate, that it caused an inspection of the whole of the pemmican, to make certain we were not carrying and secreting bags of stones instead of provision; but, with the exception of a small quantity rather rotten, the stock appeared perfectly sound.

It rained heavily during the night, with a strong breeze from the north; which, however, somewhat abating the following morning, we resumed our journey, and reached a rapid where there was apparently no receding after the boat was once launched into the stream. In case of any accident, therefore, the guns, ammunition, and instruments were carried along the bank, that we might be provided with the means of subsistence; which plan it was determined to adopt for the future, wherever the least danger was to be apprehended, or the crew had to disembark for the purpose of lightening the boat.

We advanced, although with difficulty; for, independently of heavy rain, a thick fog prevented the bowsman from seeing the shoals and sharp stones covering the bed of the river: added to which, the rapids were hourly increasing upon us. As the fog became mare dense, everything appeared magnified: the rapids seemed falls; the hills, mountains; and the wider parts of the river, lakes. Nevertheless we continued on until the nearest land was scarcely perceptible, when we necessarily encamped. Af-
ter the fog had cleared away, the river appeared about two hundred yards wide, flowing over a bed of gravel; while, close to our encampment, a river disembogued from the westward, exceeding in width the main stream, and bounded by cliffs of fine sand. On a level with their summits, sandy plains extended for a distance of six or seven miles; when that uniformity was broken by irregular rocky hills, grey with lichens. The plains were richly clothed with grass, and literally covered with rein-deer feeding on the luxuriant pasturage, but difficult of approach from the open character of the country.

After two days' detention by violent wind and rain, we pursued our course early on the morning of Sunday, July 13th, along a strong current for a few miles to a small lake; and having passed another tributary from the westward, we put ashore to take advantage of the sunshine to dry our tent and clothes. This was the first time for nine consecutive days that we had seen the sky: not a moment was therefore lost in obtaining sights, which gave
the latitude $65^{\circ} 38^{\prime} 21^{\prime \prime} \mathrm{N}$., and longitude $106^{\circ} 35^{\prime} 23^{\prime \prime}$ W.

The survey of the river was made by taking the bearings of every point with a pocket-compass, the distances estimated by the time occupied in reaching them, and a connected eyesketch made of the whole. This mode of deadreckoning is extremely simple, and, when corrected by celestial observations, is sufficiently accurate for geographical purposes.

While Captain Back and myself were thus employed, the men occupied their leisure time in pursuing a herd of deer, in number at least six or seven hundred; from amongst which they succeeded in killing four bucks. A portion of the meat was immediately cooked for our breakfast; while some of the party contented themselves with the blood of the animals boiled into a soup, and others consumed the marrow, still retaining the warmth of life. I partook of the soup; but could not persuade myself to take a sufficient quantity to judge of its taste, although quite enough to convince me of its extreme richness. It so closely resem-
bles boiled cocoa in appearance, that the Indians mistook that beverage for their favourite dish, which ever afterwards bore with them that appellation.

By a line of deep rapids, walled in by almost perpendicular hills of between two and three hundred feet high, with rugged sides terminating in even and round eminences, we reached a lake, commanding so extensive a view to the south-east, that the extreme distance was scarcely perceptible. Considering this expansion of the river as Great Slave Lake in miniature, we bent our course to the westward, where an opening was perceptible; which, however, on a nearer approach, proved to be a bay only. As a strong ripple had been observed when we opened the view of the lake, a party of men were sent across-land to determine that point, which turned out to be a tributary that joined the river at that part. Although, from the direction of the rocky embankment, it was evident we should have to make the south-eastern extremity of Lake Beechey, as it was subsequently called, yet we edged along the northern shore, in the hope of finding an opening. We
ran under the fore-lugsail until arrested by a barrier of ice, extending from shore to shore, and ahead as far as the eye could reach; this obliged us to seek a deep bay for shelter. The country was extremely rugged and desolate, entirely composed of reddish granite rocks, broken into deep chasms and craggy fissures, with intervening meadows rich both in grass and animals. Not less than two thousand were seen at one time from the summit of a lofty rock; 女which, from the extremely broken state of the land, might have been approached with the greatest ease.

The men were occupied the following day in seeking along the western shore for an opening amongst the ice; which was found so completely packed, that we had only the alternative of waiting its change of position. A strong breeze from the north-west, in the course of a few hours, however, broke it entirely up, and on the morning of the 15 th of July we reached the end of the lake; where it rushed with impetuous fury over and between rugged rocks, forming a line of cascades a mile and a half in length, and altogether of a descent of sixty
feet. From the right bank of Lake Beechey we commenced making a portage; while $M^{`}$ Kay and Sinclair proceeded to examine the state and force of the water.

After the portage was finished, and another bag of pemmican secreted, a strong line was fixed to the stern of the boat, firmly held by four men, while two others possessed a similar power over the bow; the bowsmen and steersmen now took their respective places, prepared with poles to fend the boat from the shore : in this manner it was carefully lowered down the cascades. Vast shoals of fish were seen sporting in an eddy below the falls, but of what species remains in doubt; for, notwithstanding my anxiety to obtain specimens throughout the voyage, there were frequent difficulties in the way, too formidable to be surmounted : either the delay of setting the nets, the fear of an accident happening to the boat, or the impossibility of carrying the preserved skins, was raised as an objection. But what I regretted more than all was the loss of a small box, made for the express purpose of preserving those insects frequenting the cơast of the Polar

Sea; which, owing to the lumbered state of the boat, I was compelled to leave behind at MuskOx Rapid.

Before reaching Lake Beechey there appeared every probability that the river would fall into Bathurst Inlet; for we had then approached within sixty miles of its confluence with Back's River; whereas now the observations gave the latitude $65^{\circ} 14^{\prime} 44^{\prime \prime}$, and longitude $106^{\circ} 0^{\prime} 53^{\prime \prime}$ W., with a variation of $39^{\circ} 12^{\prime}$ to the westward: at present, therefore, we were more likely to make the Sea of Chesterfield Inlet than that of the Arctic Ocean. From the cascades the stream flowed in a northerly direction for a short distance, but soon turned away at an acute angle to the southward; when it formed a line of rapids running easterly between sand-hills extremely precipitous and irregular; and after a very tortuous course through a low, sandy soil, rushed furiously in the form of rapids and cascades, over a rocky bed, for a distance of three miles. It then received the waters of a large river flowing from the south-east, which was named after Mr. Baillie, Agent-general for Crown Colonies.

On the left shore three primitive rocks appeared, majestically towering above the extensive and rich plains; while, on the right, we found decided traces of the Esquimaux, consisting of small circles of stones which they make use of in the formation of their tents, and pieces of rock conspicuously placed on the different elevations. Throughout the whole line of coast frequented by those people, it is customary to see long lines of stones set on end, or of turfs piled at intervals of about twenty yards, for the purpose of leading the caribou to stations where they can be more easily approached. The natives find by experience that the animals, in feeding, imperceptibly take the line of direction of the objects thus placed before them ; and the hunter can approach a herd that he sees at a distance, by gradually crawling from stone to stone, and remaining motionless when he perceives any of those animals looking towards him.
c We were not prepared to meet with these early traces of the Esquimaux, since they seldom penetrate far inland; from which circumstance it was conjectured that the river would fall into
some deep inlet not very far distant; although, as the same marks were observed to exist along the banks of Baillie's River, it was not improbable that they had made their way from Chesterfield Inlet, notwithstanding the distance, according to Mr. John Arrowsmith's map, could not be less than from one hundred and fifty to one hundred and sixty miles. Had they come from Bathurst Inlet, they would in all probability have made the river at the western extremity of Lake Beechey; or, at all events, they would have left some marks on the north bank of the river.

## CHAPTER X.

Advance of Spring.-Rein-deer and Geese.-Parry's Marmot.Hawk Rapid.-Expansion of the River.-Lake Pelly.-Deviation of the River.-Back's Grayling.-Further Obstructions.Advantages of a Canoe.-Lake Garry.-Succession of Rapids.Imminent Danger.-Embarrassments about the Route.-Lake M‘Dougall.-Dangerous Descent of Rock Rapid.-Accuracy of the Indians with regard to the Great Fish River.-Sluggishness of the Compass.-Polar Hare.-Detention from Wind.-Sinclair's Falls.-Escape Rapid.-Hoard of Bones.-American Wolf.-Altitude of the Rocks.-M‘Kay's Peak.-Lake Franklin.

Continuing an easterly course, the river widened so much, that, had there not been a strong current, it might very well have been mistaken for a lake. The water was divided by several sandbanks and low alluvial islands into numerous channels; so tortuous that the boat frequently grounded.

The weather was at this period extremely fine, and the deer so numerous that we could not have seen less in the course of the day than
twenty thousand. The graceful motions of these animals were the admiration and delight of the whole party. Nor did we witness with less pleasure the progress which vegetation had made within the few last warm days: the willows and dwarf birch in the vicinity of the various tributaries had put forth their leaves, and several flowers ornamented the ground.

As we advanced, the sandbanks decreased almost to a level with the water, and were bordered with willows, affording shelter to large flocks of Canada geese, which were unable to fly from having cast their large quill-feathers. Had it been desirable, several hundreds might have been killed without a weapon of any kind; for although they run extremely fast for a short distance, they soon become fatigued, and fall an easy prey to the nimble hunter.

The spermophilus Parryi, or Parry's marmot, was found here very abundantly. This spermophile inhabits the barren grounds skirting the sea-coast, from Churchill, in Hudson's Bay, round by Melville Peninsula, and the whole northern extremity of the continent to Bhering Strait, where specimens precisely
similar were procured by Captain Beechey. It is found generally in stony districts, but seems to delight chiefly in sandy hillocks amongst rocks, where burrows inhabited by different individuals may be often observed crowded together. One of the society is generally seen sitting erect on the summit of the hillock, whilst the others are feeding in the neighbourhood. Upon the approach of danger, the watchful sentinel gives the alarm, and they instantly betake themselves to their holes,-remaining chattering, however, at the entrance until the advance of the evening obliges them to retire to the bottom. When their retreat is cut off, they become much terrified, and, seeking shelter in the first crevice that offers, they not unfrequently succeed in hiding the head and fore part of the body only; whilst the projecting tail is, as is usual with them when under the influence of terror, spread out flat on the rock. Their cry in this season of distress strongly resembles the loud alarm of the Hudson's Bay squirrel, and is not very unlike the sound of a watchman's rattle. The Esquimaux náme of the animal, "Seek, seek," is an at-
tempt to express the sound. According to Hearne, they are easily tamed, and are very cleanly and playful in a domestic state. They àre supposed to feed upon vegetables, as their pouches were invariably observed to be filled, according to the season, with tender shoots of herbaceous plants, berries of the Alpine arbutus and of other trailing shrubs, or the seeds of grasses and leguminous plants; - a sufficient quantity of which provision they lay up for the winter.

After passing a wide opening to the left, caused by a river which was called after Captain Sir Samuel Warren of Woolwich Dockyard, the land sensibly increased in height, occasionally diversified by mounds of sand. Another large tributary, named Jervoise River, was seen flowing from the right; when the stream for a short distance made a bend to the northward, interrupted by two rapids, and then followed its more general north-easterly course. Beyond this spot the river diminished in breadth, but increased in velocity, until we reached a mass of rocks, consisting of a reddish granitic compound approaching to gneiss; when,
confined between extremely craggy and perpendicular cliffs, the body of the river, pent within this narrow chasm, dashed furiously past the projecting rocky columns, until it terminated in innumerable whirlpools and eddies.

The water, however, was sufficiently deep to admit of our running this defile without discharging any part of the cargo; and notwithstanding the extraordinary rapidity with which the boat was carried past several protruding rocks, against which a single stroke would have dashed it to atoms, we reached the end without sustaining any injury. Several hawks of a small size were building their nests in security; from which circumstance it was called Hawk Rapid : and as the appearance of those birds in a situation precisely answering to our present position was mentioned by the Indians in their description of the Great Fish River, we could no longer doubt their knowledge of it thus far.

At the foot of the rapid, the river flowed with a more gentle current in a wider channel, through a level and open country, consisting of alluvial sand, to its confluence with M‘Kinley River; when the land became more hilly, and
everywhere exhibited marks of the Esquimaux. At certain distances along the line of stones, semicircular screens were raised, with a number of apertures, apparently for the twofold purpose of hiding the natives from the animals, and shooting their arrows unperceived. At the mouth of a large tributary, called after Mr. Buchanan, His Majesty's Consul at New York, a pile of stones, somewhat higher than the rest, was for some time, owing to the refracted state of the atmosphere, mistaken for an Esquimaux : and so extremely deceptive was the illusion, that it literally appeared in motion.

The river now frequently exceeded a mile and a half in breadth, until it expanded into the form of a lake, where it received the waters of a wide tributary, named after Captain Sir Charles Bullen of Pembroke Dock-yard. Scarcely any current was now perceptible; which, with the numerous islands and various extensive openings, created some little embarrassment as to what course we ought to pursue. The Indians had described an immense lake, with deep bays, particularly along the eastern shore, with which they were quite unacquainted; but by
keeping to the westward, we should reach a steep fall, making its way between high rocks, close to which was situated the "stinking lake," as they term the sea.

Following their directions, we reached a deep bay, more or less obstructed with ice; beẏond which, a strong current swept us eastward, to a very extensive sheet of water, with clear horizons at different points of the compass, where every appearance of a stream was completely lost: it was named after Mr. Pelly, the Governor of the Hudson's Bay Company. Here the ridges and cones of sand were of considerable height, with mossy tops, and oddly broken into ravines; while occasionally an isolated rock burst into view, which, from its barren appearance, strongly contrasted with the green soil around.

July 19th. - Pursuing a northerly course along Lake Pelly, we steered for two islands of considerable magnitude, between which it was expected a ripple or some other signs would be found for our guidance. Past experience had taught us to seek in such situations for the direction of the current; which, notwithstanding we were frequently baffled, and had to turn
back again only perhaps to make another deviation, was nevertheless a safe plan of procedure, and always satisfactory, since, if led somewhat astray, we invariably congratulated ourselves that the error had been so early detected. In this instance we had not laboured in vain, since a rapid flowing to the eastward pointed out that quarter as the general direction of the lake; and as it was a favourable opportunity for making a cache, we landed for that purpose.

While some of the men were occupied in seeking a good situation for depositing our hoard of provision, the others amused themselves in exploring the land, where they found a small piece of wood that had once formed a part of an Esquimaux canoe, besides other remnants of those people. From their blanched appearance a considerable time must have elapsed since those shores were visited by them ; yet it was considered advisable, as a precautionary measure, to establish an eveningwatch, as well for our own safety, as to prevent any alarm seizing the natives from the sudden and unexpected appearance of our party. Profiting by the hint the rapid afforded, we
pursued an easterly course, and had every reason to be satified with our judgment. In the narrows formed by the islands, which were very numerous, vast shoals of grayling were sporting about, and rising from time to time to secure the flies which accidentally fell into the water.

The salmo signifer, or Back's grayling, is an extremely beautiful fish, with a magnificent dorsal fin,-a mark of attraction with the natives, but especially with the Esquimaux, whose name for it implies "wing-like fin." It is found in all the clear waters flowing through the primitive country, and seems to delight in the most rapid parts of the mountain-streams; but neither its spawning-place nor precise period of spawning has yet been ascertained. According to the Indians, it takes place in the spring; but I think it not improbable that it deposits its eggs in the month of August, since vast shoals of this fish were seen in the shallow water of M‘Leod's Bay about that date. This grayling affords excellent sport when first struck with a hook, and generally springs entirely out of the water, tugging so strongly at the line, that it requires as much dexterity
to land it safely as would secure a trout of six times the size. I caught several of them, with a hook baited with a piece of fat, in the narrows of Clinton-Colden Lake, while the ice was still clinging to the banks. They are not esteemed as food; for although they are far superior in flavour to the sucking carp and inconnu, they are very inferior to the white fish and the other species of coregonus. We were indebted to the appearance of these fish for finding several of the narrows: so far a knowledge of their habits in frequenting the outlets and channels of connecting waters was of the greatest importance.

Extensive and unbroken fields of ice at last arrested our progress; we therefore sought a high sand-hill for the purpose of viewing the extent of the obstruction, and encamped. On reaching the summit, it was evident that the larger proportion of the lake was still before us, and had not yet broken up: we had therefore only the alternative of making the circuit of the south shore to another narrow, bearing due east of our position. Huge boulders, covered with tripe de roche or lichen, were situated on VOL. I.
the very pinnacle of the sandy cone, towering above our encampment, from which we obtained a splendid view of the surrounding country. It was not unlikely that they had been made use of for the same purpose by the Esquimaux ; for close beside them were trenched divisions of ground, containing the stones of circular encampments, precisely similar in form to those that were met with near Baillie's River. From the circumstance of some of the circles being thickly covered with tripe de roche, while others were perfectly bare, it seemed probable that the natives were constant visitors to that spot.

The following morning we bent our course to the south-west for a lane of open water, apparently extending to the eastward from the base of a sand-hill; but on reaching the passage, it was found so narrow as to render the use of the oars impracticable : poles were therefore had recourse to, not only for the purpose of propelling the boat forward, but of fending off masses of ice detached from the larger and more compact body, which were floating between it and the main land. Thus our progress was
so slow, and the danger of breaking the boat so great, that we put ashore and ascended the highest hill around us to see how far it would be practicable to make a portage in a direct line for the open water. The ice, which appeared extending far away in every direction, was as firm as during the middle of winter, with a surface so sharp and ragged, that to make the attempt of crossing it would have been absolute madness: the keel would have been ground away as speedily as if reduced by a plane, as was the case with the runners at Artillery Lake. To carry the boat we had already ascertained was impossible, even when the wood was dry; whereas now every plank was more or less sodden. If, instead of a boat, we had possessed a canoe, two men would have been sufficient to convey it across the obstruction ; while, with four times that force, the lightest boat ever used in those latitudes could scarcely be moved. Not only time and labour therefore would have been saved had a vessel sof the former construction been made use of, but the danger of being crushed altogether averted.

We continued our route therefore by following the sinuosities of the shore, and, as long as the ice was found floating, we proceeded as briskly as could well be expected; but in the more shallow parts, where it was immoveably fixed to the land, we were under the necessity of removing the whole of the cargo, and lifting the boat over the impediments. In this manner we at length again reached open water, when a strong current led us to a line of sand-hills, between which this extensive sheet of water was confined in a very narrow space. Here we encamped. Our first care was to ascend to the summit of a hill, when there appeared more cheering prospects for the following day; for notwithstanding the current soon ceased, and a body of ice was seen stretching to the extreme point of vision, yet there were lanes of open water intersecting it in an easterly direction, which was manifestly our course. Nor were our anticipations groundless; for, with the exception of making two or three portages, we rowed the whole distance to a rapid, or second division of this vast body of water, which received the name of Lake Garry, after Nicholas

Garry, Esquire, the disinterested and zealous supporter of arctic research. To his indefatigable exertions may be attributable the cessation of bloodshed between the Hudson's Bay and North-west Companies; which caused the demoralisation of the aboriginal inhabitants to so great an extent, that they are still labouring under its baneful effects.

Very far from looking upon the rapid in the light of a disagreeable object, as had previously been the case, we hailed it with inexpressible delight, as the termination of a lake which had not only occasioned trouble, but delay ; and, after congratulating each other upon our release, we continued on with renewed spirits. A succession of strong rapids swept usalong with extraordinary velocity in a northerly direction for three miles, through a range of low conical sand-hills, broken into cliffs, with gigantic boulders strewed in every direction from their bases to their summits. The threatening appearance of curling waves, with the loud roar of rushing water, now suddenly attracted our attention, and rendered it necessary to land for the purpose of examining what we might have to contend with. We
had proceeded too far to retreat to the main land without incurring considerable risk: the men were therefore directed to make for an island commanding an extensive view of the surrounding rapids. There the river was beheld flowing between the islands and from shore to shore with the same violence.

Making a virtue of necessity, we ran them with the full cargo. Fortunately no accident occurred, except the breaking away a part of the keel-plate, by grazing a rock in the descent: but so perfectly were we at the mercy of the torrent, which whirled us about in every direction, that I question whether a single man of the party would willingly make another such attempt. From this scene of confusion we reached a wide and extensive opening, with, very much to our satisfaction, a clear horizon to the northward: for the easterly direction had of late led us to imagine that the Great Fish River would turn out to be identical with the Wager River of Chesterfield Inlet, the proximity of which began to give us no little uneasiness.

We had scarcely encouraged the hope that the tediousness and uncertainty of worming our
way was at an end, when the current, perceptible enough at first, became lost in the undefinable space before us, and was so broken into deep bays, several of which were estimated at from twelve to fifteen miles deep, that our situation was more than ever perplexing : although, as long as the islands were numerous, the rapids between them served to solve our doubts as to the correctness of following a northerly course. We came at last, however, to so extensive a sheet of water, that the steersman exclaimed, " All the lakes we have yet seen are nothing to this!" Here considerable embarrassment was occasioned as to the most probable direction for falling upon the outlet. Neither current, islands, nor grayling, had we to pilot us forward: even the animals had deserted us, from whose general line of movement some idea of the trending of the river might have been gathered. All the likely openings between north and east were ineffectually explored, when, much to our chagrin and annoyance, the drifting of large fields of ice, and subsequently the faint sound of a fall, pointed to the south as the proper direction.

The appearance of these floating bodies, evidently not long separated from the surrounding shores, clearly indicated the tardy departure of winter from this inhospitable land. Notwithstanding this cold and cheerless prospect, the earth around was rich with vegetation, and afforded me a ranunculus and some poppies as an addition to my botanical collection. The increasing noise and contracted channel led us, on the 22nd of July, to the termination of the lake, which was named after Lieutenant-colonel Macdougall of the 79th Highlanders.

Having secured the boat in a small bay, we proceeded to examine what was supposed to be a fall, from its roaring hollow noise, but which proved to be a succession of cascades and rapids, presenting as terrific a sight as could be well conceived. The water rushed with impetuous and deadly fury between four mountains of reddish granite, extremely barren and naked, and from six to eight hundred feet high. An insulated rock, about three hundred feet high, situated in the very centre of the torrent, expanded the foaming river to a breadth of four hundred yards; where, from the inequalities of the sunken rocks, a surge was raised so overwhelming, that huge masses of ice were swallowed up, and in a moment afterwards tossed high into the air in innumerable splintered fragments. A serpentine rapid and fall, " mixed is one mighty scene," which terminated the cataracts, caused a roaring noise even more deafening than all the rest. A valley, scarcely a foot above the level of the lake, was situated to the left of the mountains, covered with rounded pieces of the surrounding rocks. This valley had most assuredly once formed the bed of the river, and afforded a more silent débouquement to Lake Macdougall. By that path it was determined to convey the baggage as soon as the boat was lowered down the cascades; which was performed precisely in $\therefore$ the same manner as at the eastern extremity of Lake Beechey. It was an undertaking, however, attended with much greater danger, and created, consequently, in our minds the most anxious concern for its safety, as an accident happening at that time would have been fatal to the whole party.

The series of lakes we had hitherto passed, their distant boundaries and innumerable deep
bays, independently of various otherimpediments, clearly convinced us of the impracticability of making a land-journey to Fort Reliance. Nevertheles's, the various precautions which had been taken,-such as depositing provision along the route, the landing of the guns and ammunition at every rapid, and carefully noting in our memory different land-marks,-were calculated to render our return not altogether impossible. The boat received some severe shocks in the descent; for sometimes it was hurled by the force of the current against the projecting rocks with a force that threatened instant destruction, while at other times it was swept in the very centre of the raging stream. Nevertheless, so cool and collected were the intrepid crew, that they parried every danger, and guided her in safety to the last fall, where, with the assistance of Captain Back and myself, she was carried over a point of rock for a few paces and placed in security. The difficulty was no sooner overcome than the gallant fellows were treated with a glass of spirits, which they had well earned; and they retired early to rest, in the anticipation
of seizing the first dawn of the morning to commence the portage.

On the smooth table summit of one of the highest rocks which we ascended, the Esquimaux had erected piles of stones into various forms; but, although every part was minutely examined, no traces of encampments could be detected : it was, therefore, more than probable that they were intended exclusively as landmarks. From so commanding a situation our view was necessarily extensive; yet, from the peculiar appearance of the country, it was by no means certain as to what would be the ultimate course of the river. To the south-east, water was distinctly seen extending as far as the eye could reach, assisted by a telescope; while to the north a stream appeared winding a serpentine course towards some sand-hills. If the former proved to be the route, there was little doubt that the stream would fall into Chesterfield Inlet, not more than ninety-four miles in a direct distance from our present position, called Rock Rapid. We had every reason, however, to expect that the latter was our course, not only
from the appearance of sandy mounds in the vicinity, but from the concurrent testimony of the Indians, that the river, after running east for a long way, would ultimately cut its course through high rocks and flow north to the sea. Hitherto they had been remarkably correct. The Hawk Rapid was resorted to by a small species of falcon, as they had foretold ;-there were vast bodies of water to be contended with, which, for the sake of convenience, has been divided into Lakes Pelly, Garry, and Macdougall; and now the singularly conspicuous mountains through which those waters disembogued were convincing proofs of their acute observation, and intimate knowledge of the stream.

While the men were occupied in making the portage, the fineness of the weather enabled us to take some observations, the result of which gave the latitude $65^{\circ} 54^{\prime} 18^{\prime \prime} \mathrm{N}$. and longitude $98^{\circ} 10^{\prime} 7^{\prime \prime} \mathrm{W}$. with a variation of $29^{\circ} 16^{\prime}$ to the eastward. From the increasing sluggishness of the compass, which of late was only set in motion by tapping the sides of the brass
box containing the needle, we were induced to ascertain the dip also, which gave $87^{\circ} 54^{\prime}$ as the result. Both the vertical compass by Dolland and Hansteen's horizontal needle were remarkably sluggish, making few víbrations, and hanging at the extremity of every oscillation : of the two, however, Hansteen's was the more lively.

On the eve of our projected departure from Rock Rapid, a disruption of the main body of ice from Lake Macdougall was effected by the united strength of the wind and current; when it descended the cascades and choked the river. The spray immediately disappeared; our voices, previously inaudible beyond a few paces, could now be heard at a tolerable dis-tance-so completely was the chaotic confusion of the cascade converted into a comparative calm. The ice continued to descend for four hours without the least intermission; when the grinding hollow noise which betokened its destruction gave way to the previous more deafening roar of the overwhelming torrent. Still, however, very many floating pieces yet
remained beating about the eddies in-shore, which rendered it impossible to launch the boat for the present.

The polar hare, or lepus glacialis, afforded us in the mean time considerable sport; for, far from being shy at our approach, it merely ran to a little distance and sat down; which manœuvre was repeated as often as we came nearly within gun-shot, until at length, thoroughly scared by our perseverance, it made off. The Indians have a method of walking round it and gradually contracting the circle, by which means they are enabled to approach within a few yards. This animal is very common on the barren grounds, but it is not found in the thick woods; although it occasionally visits the confines, where small and low chumps of spruce-fir are thinly scattered. Seeking the sides of hills where the wind prevents the snow from lodging deeply, it feeds during the winter on the berries of the alpine arbutus, the bark of the dwarf willows, and the evergreen leaves of the Labrador tea-plant.* Captain Lyon states that on the barren coast of

[^5]Winter Island, several animals of this species visited the vicinity of the discovery-ships, and fed on the tea-leaves which were thrown aside by the sailors. The polar hare shelters itself amidst large stones, or in the crevices of rocks, like the American hare: its winter fur is much more dense, of a finer quality, and of the same snow-white colour as the coat of that animal, and bears a close resemblance to swan-down. It varies from seven to fourteen pounds in weight, as is the case with its English representative; the flesh is whitish, well-favoured, and greatly superior to any of the same species.

In the course of the evening the river was completely cleared of the ice; when we launched into the midst of rapids, at first of a minor character, but sufficiently formidable after running two of them to oblige us to make a portage of half a mile. The night was stormy, and overcast with repeated showers of rain, which continued without the least cessation until the afternoon of the following day. It was impracticable to run a rapid then before us whilst the wind continued: M‘Kay was, therefore, directed to examine the state of the
water as far as the sand-hills to the north. The wind was sufficiently calm on his return, however, to admit of our resuming the journey ; and we reached Sinclair's Falls, so named after one of the steersmen, where it was necessary to make another portage. Here the river was nearly a mile broad, and intersected with rocky islands, over and between which the stream flowed in a furious manner, precisely similar in appearance to the Pelican Fall of the Slave River. It was, however, by no means so formidable, for the boat ran it with a part of the cargo; and following the bend by the sand-hills for a few miles, we reached a wide channel running to the south-east, where a fourth cache of pemmican was made.

The banks on either side were low, consisting of sand with boulders, many of which were laid bare along the shore from the surrounding earth having been washed away by the action of the water. After following a northerly course for a few miles, another expansion of the river occasioned us some perplexity in seeking the current : nevertheless, waving the
uncertainty and difficulty, we continued on the same course until the river gradually contracted, when for about a mile it formed a line of dangerous rapids. Captain Back and myself, with four men, landed for the purpose of lightening the boat; when the rest of the party launched into the stream : and although the same precautions were used here as elsewhere, the rush and whirl of the water were so powerful, that the boat was twice nearly plunged into one or other of the gulfs formed in the hollows of the rapid. In the short space of a few. yards, might be seen a fall, rapid, and eddy, as singular as they were dangerous; while the power of the water far exceeded what had been witnessed before. To avoid such imminent danger required no ordinary nerve. So inured to peril, however, were the men, that notwithstanding the boat was turned completely round, they guided it stern foremost through this frightful abyss without incurring any other accident than the breaking of one of the oars. It was very properly called Escape Rapid; for during the whole voyage
the expedition was never exposed to such imminent peril as at that dangerous spot : twice the boat was all but dashed to atoms.

In order to lighten the boat as much as possible, another cache of pemmican was made at this place, and we pursued our course; but soon afterwards a violent storm drove us ashore for shelter. In the evening our journey was resumed through a range of cliffy sand-hills, where the current, previously strong enough, increased so much as to form a line of heavy rapids, which carried us past rocks and other dangers with such fearful velocity, that a row of piled stones placed a few feet apart were mistaken for figures gazing at us. Of late, every hill and mountain, as well as the banks of the rivers, were dotted with marks of a similar construction, which uniformly pointed to the north-east. From that uniformity it was not improbable that they were intended to guide the Esquimaux, during the winter season, to the several caches they were enabled to make in the summer, when the deer were plentiful. A cache was discovered, containing the bones of several rein-deer and musk-oxen ;

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\text { ESQUIMAUX PRECAUTION.-WOLVES. } 307
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which very possibly these provident people had secured for a season of famine. This is not mere speculation; for necessity may have taught the coast Indians to adopt the same precaution as those of the interior, who make it a practice to hoard the bones of the animals they have killed; from which, in a time of need, they extract a considerable quantity of fat by pounding them between stones, and afterwards submitting the pulverised material to the process of boiling.

Near a detached mountainous rock, the contracted state of the stream, accompanied as usual with a hollow roar, plainly indicated a descent of some kind; and as it was too late to see the stones in the water, we encamped.

On landing, several wolves were observed prowling about; and aware that these beasts, as is natural, are only numerous in those districts which nourish large herds of the ruminating animals on which they prey, we profited by the hint, and soon succeeded in killing a musk-ox bull. The American wolf differs in countenance and general appearance from its European representative; but it has
not yet been determined whether it is a distinct species, or merely a variety produced by climate and other local causes. The wolves and domestic dogs of the fur countries, from their similarity to each other, cannot be distinguished at any great distance: the want of strength in the former is the principal difference; while the mixed breed are prized by the voyageurs as beasts of burthen, being stronger than the ordinary dog, and more prolific. The common colour is grey, changing to white in the higher latitudes during the winter; yet black and even pied wolves are occasionally met with. For two hours I was surrounded by these animals, and far out of sight of the rest of my party; yet they did not attempt to molest me. Sir John Franklin states, however, that Dr. Richardson "was roused by an indistinct noise behind him, and, on looking round, perceived that nine white wolves had ranged themselves in the form of a crescent, and were advancing, apparently with the intention of driving him into the river ; but on his rising up they halted, and when he advanced they made way for his pass-
age." It is very evident, therefore, that, under favourable circumstances, the American wolves are dangerous animals; but at the same time it is equally apparent that their courage ceases with the gaze of man,-a fact of which the Indians are quite aware, and frequently turn to a good use. I am not only convinced that a courageous man, unless he becomes the aggressor, with very few exceptions, is perfectly secure from the attack of the brute creation in a wild state; but that they will invariably shun him, if there is only space enough to admit of their escape. I have frequently, for experiment's sake, approached the rein-deer with closed eyes, without alarming them; when a single glance made them bound again with fear.

Wolf Rapid, as it was called, broke over a fall five feet deep, along the left bank of the stream; while to the right, there appeared little more than a strong current, which we passed without difficulty. The primitive formation was here predominant; and what seemed to augur favourably for the northerly bend of the river was, that the rocks were situated on
our right, whereas hitherto they had been quite the reverse. The stream now maintained an imposing appearance, exceeding in some parts a mile in breadth, more or less uninterrupted with rapids, as far as a picturesque and commanding mountain, called Mount Meadowbank, where an observation gave $66^{\circ} 6^{\prime} 24^{\prime \prime}$ as the latitude, and where another cache was made.

After following a south-easterly course for six miles, the river trended northerly again, with a strong current, sometimes increased into a rapid. To the westward, the rocks attained considerable altitude; they had a desolate, rugged, and barren appearance, with the exception of their bases, which were partially covered with moss, shrubs of willow, and dwarf birch. Thousands of the finest quills; strewed in the sand, pointed out this part of the river as a favourite resort of geese during the moulting season; while the reindeer and musk-oxen were feeding in myriads around us. The river, still maintaining the same direction, varied from three-quarters of a mile to a mile in breadth, bordered on either hand with granitic mountains, distin-
guished from those further south by their precipitous and cliff-broken sides, facing to the westward. The river was contracted somewhat at its confluence with a large tributary named after Lieutenant-general Sir Thomas Montressor, where the country was more mountainous, but it soon swelled again into a broad stream, as far as a rocky hill, rising into a cone, at the foot of which lay the contracted outlet of the river.

So favourable an opportunity for obtaining an extensive view of the river before us as this enormous mass of grey rock presented, was not to be overlooked. We landed therefore for that purpose; when the men vied with each other in ascending its summit, and in consequence of M‘Kay having first made his appearance there, it was named after him. From the commanding situation which M‘Kay's Peak afforded, a sheet of water was beheld, so extensive that no land could be seen at the extreme point of vision to the northward : little doubt, therefore, was entertained as to its being the Polar Sea, in which light it was welcomed by the whole party as the termi-
nation of our labour. The problem was soon solved; for with wild swiftness we were borne along for about six miles to a rapid, winding its course at the base of a sandy cliff, in a wide stream, which swept us into the expanse of a spacious lake, instead of the sea, and stretching away in a north-north-westerly direction, bounded only by the horizon. It was called Lake Franklin, after Captain Sir John Franklin, whose name will always be associated with this portion of America.

> END OF THE FIRST VOLUME.


Ottaviensis

LOXDOM:
PRIMTED BY AAMUEL BENTLEY, Dorset Street, Fiect Street.


[^0]:    - Packages of ninety pounds' weight.

[^1]:    - Places where it is necessary to carry the canoes and baggage, owing to some obstruction to the navigation, such as falls or shoals.

[^2]:    - Perspns who have been in the Hudson's Bay Company's employ, but are now siving on their own exertions.

[^3]:    * By " two trips" is to be understood the making a certain distance in a boat half loaded, and, having disembarked the baggage, returning for the remainder.

[^4]:    * A Winter in Lapland and Sweden, by A. de Capell Brooke. + Elk, or moose.

[^5]:    * Ledum palustre.

