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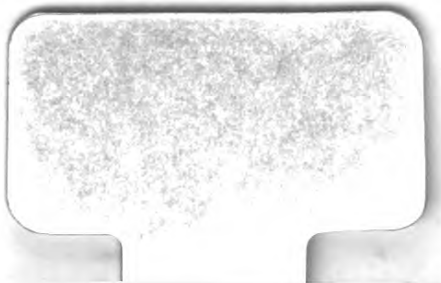


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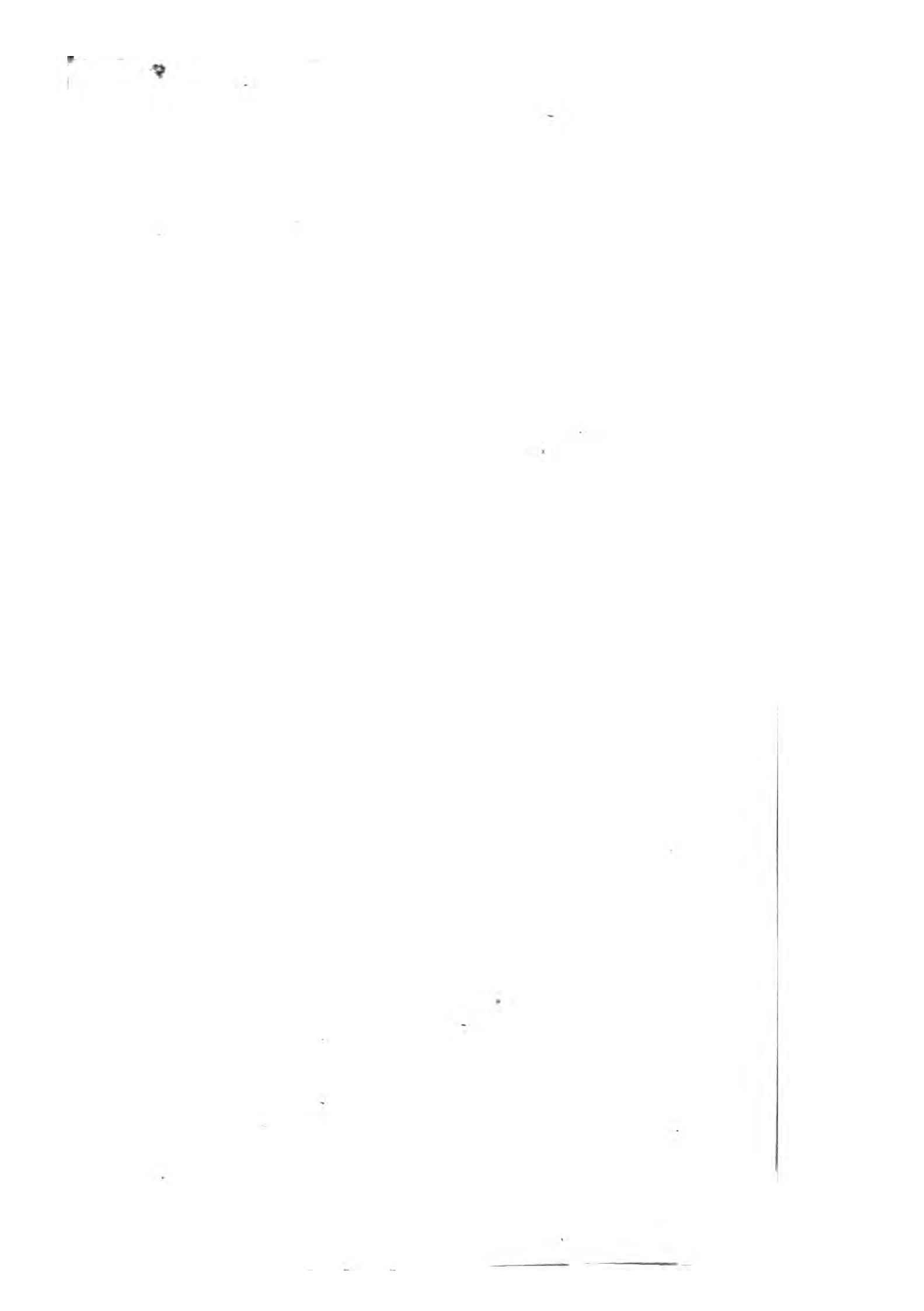
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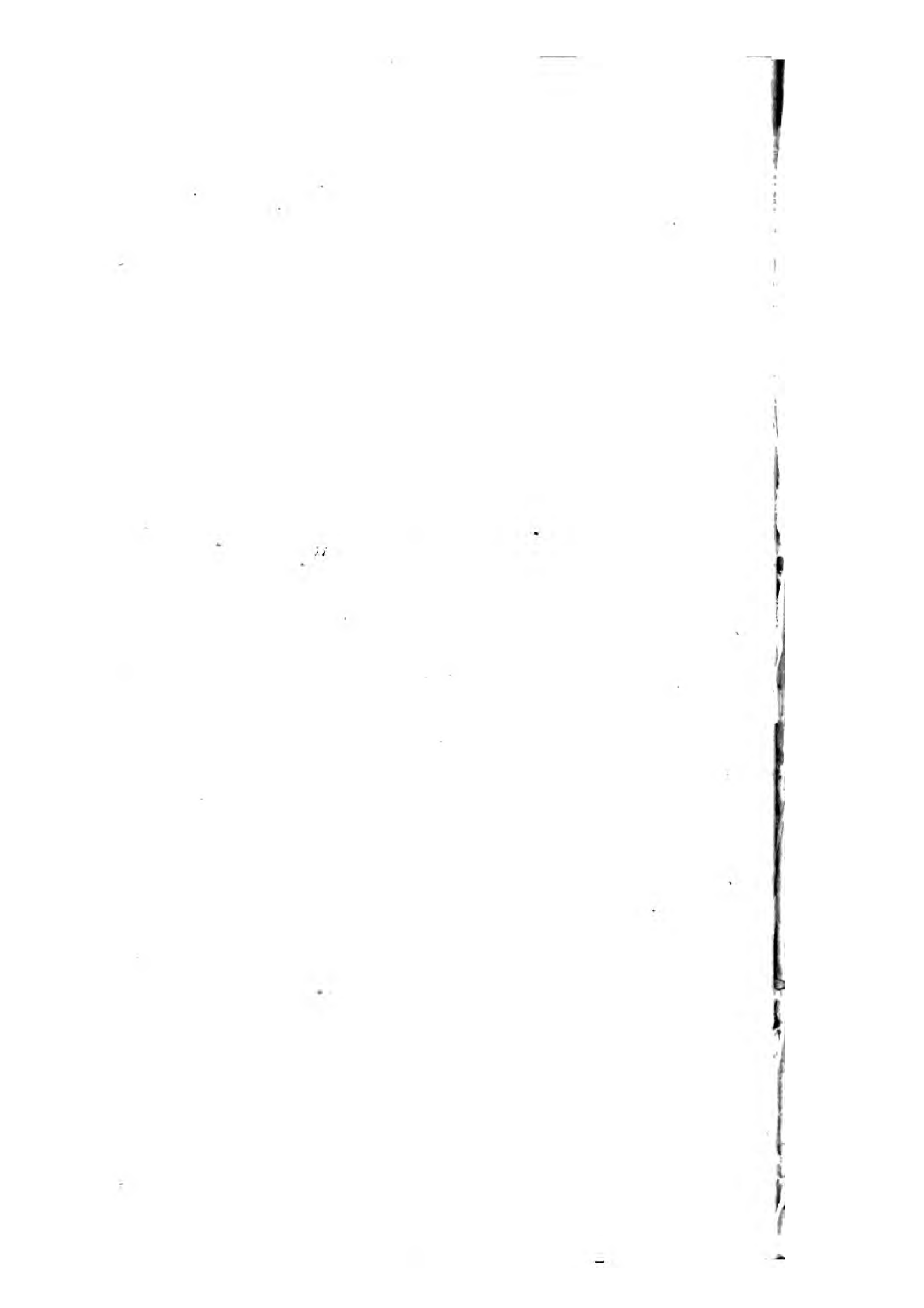
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Engraved by W. Westall, A.R.A.

WINTER VIEW OF THE APPROACH TO ARTIKLEBYR LAKK, MARCH 16TH 1834.

London. Published by Richard Bentley 1836.

NARRATIVE
OF A
JOURNEY TO THE SHORES
OF
THE ARCTIC OCEAN,
IN 1833, 1834, AND 1835;
UNDER THE COMMAND OF CAPT. BACK, R.N.

BY RICHARD KING, M.R.C.S. &c.
SURGEON AND NATURALIST TO THE EXPEDITION.

IN TWO VOLUMES.

VOL. I.

LONDON:
RICHARD BENTLEY,
Publisher in Ordinary to His Majesty.
NEW BURLINGTON STREET.

1836.

336.



P R E F A C E.

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 expedition—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.

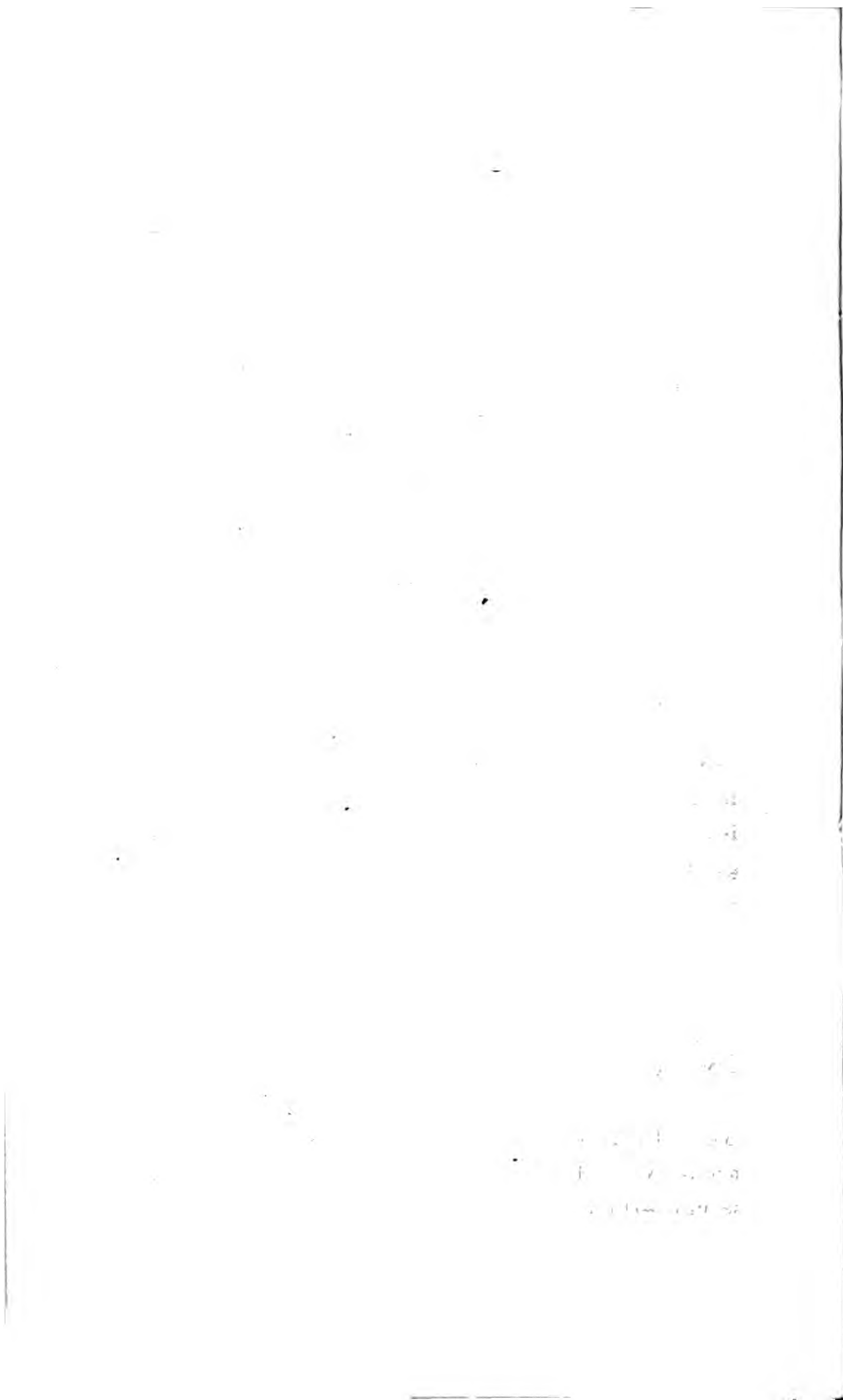
The propriety of publishing this Narrative having been questioned by some persons, I have thought it right to insert the following paragraph, which formed a part of my instructions

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 agreement,—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.

CHAPTER I.

Departure for Liverpool.—Embark for New York.—Icebergs.—Arrival at New York.—Proceed to Albany.—Bad state of the Roads.—Arrival at Montreal.—Preparations for the Voyage.—Island of St. Helen's.—Indian Villages.—Four Artillerymen engaged.—Fire at the Hotel.—Departure for the Interior.—Grenville Canal.—Falls of St. Mary.

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.

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° N. and long. 48° 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

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 began 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 wood 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 continuous 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 Good-enough'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 Company 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 hickory, 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 voyagers 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 nation,—Băcândēē, situated on the banks of the Lake of the Mountains; and, about a hundred miles distant from it, Kănēsătārkkēē, comprising two tribes, the Lătīlētāsks and the Hăkoősărknēē, — 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 governor-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 15th 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 or 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 Canadians 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

* Packages of ninety pounds' weight.

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 leave my 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 employed 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 species of unio 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 dwellings; 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 mornings 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 ice 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 on the 11th of May, the only outlet of Lake Superior, and one of the boundary lines dividing the territories of the United States from those 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 a 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 principles, 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

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

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 Winnipeg.—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

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 is 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: conscience-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 briars, 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-

* Places where it is necessary to carry the canoes and baggage, owing to some obstruction to the navigation, such as falls or shoals.

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 picturesque 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 apprise 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 for the service : his loss 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 society, 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 regions 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-

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-north-westerly 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 Chipewyan,—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 heavily-laden 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 EXPE-
DITION.

“ 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 are 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 Indians.—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.

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, Thlěwŷ-chō-dězză, the other Thlěwŷ-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 Saskatchewan 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-

* Persons who have been in the Hudson's Bay Company's employ, but are now living on their own exertions.

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 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

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 distributed 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 water-side, 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 white-fish 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 mud-banks 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 banks 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 large 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 Saskatchewan 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

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 :

<i>First boat.</i>		<i>Second boat.</i>
James M'Kay.	{ Steers- men. }	George Sinclair.
Charles M'Kenzie.	{ Bow- men. }	Pierre Kanaquasse.
John Ross, David Williamson, William Mathews, Thomas Anderson, Donald M'Donald, William Rowland.	{ Middlemen. }	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

* 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.

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-

rity while within their sight. It was my province, 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

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 beaver-skins; 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;

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 brulé," 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 mosquitoes, 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 mosquitoes, 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 landing-place. At the northern extremity of the lake, which is thirteen miles in length, we reached the Frog Portage by a small grassy channel—the source of the waters descending by Beaver Lake to the Saskatchewan, 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 Traité ; 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 graves may be seen, the mournful records of some 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

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 himself perfectly satisfied. A few such men would soon enrich our museums by laying 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.

CHAPTER IV.

Decline of the Crees.—Leave Fort Isle à la Crosse.—Buffalo 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.—Sulphur 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 moose 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 north-west, 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 mosquitoes; but, to our mortification, we found ourselves in a nest of sand-flies, creatures as irritating as they were diminutive. The mosquito (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 "bull-dogs") 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 voyager 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

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 proceeded to the north end of the portage to inspect two other boats left by Mr. Charles for

the use of the expedition, while the men commenced transporting their loads by daily journeys of two or three miles.

Portage la Loche, fourteen miles in length, is 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 discovered 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° 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

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

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 were 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-

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 impregnated 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

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 white-headed 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 visitors, and feed upon larger insects. The house-marten not only visits the same place, but the 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,

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 across 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 provisions for thirty days; but, to my astonishment, the whole fort could not produce

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 three 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 Resolution.—State of the Country as regards Civilization.—Poisson Inconnu.—Journey resumed.—Lose our Way.—Make a Portage.—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.

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 case 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-shoes, 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 prayer-book, 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.

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

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 superiority 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-

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 moose-deer, 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,

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

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.

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 Moose-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, named, 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

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 laminæ, 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-thě-nūěh. 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 a narrow part of the lake called Tāl-thěl-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-

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-höoă-tchēllēh, 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-

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-hōōă-tchēllēh 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-nūēh 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 $65^{\circ} 30''$ north and longitude 107° 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 willow-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

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 16th 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 carcass 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 leader 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 mosquitoes 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 $63^{\circ} 23' 46''$ N. as the latitude, and $108^{\circ} 8' 16''$ 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° 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 governor-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 Thlěwŷ-chō-dězză, 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 $64^{\circ} 40' 51''$ N., and longitude $108^{\circ} 8' 10''$ 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-dězză 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 $62^{\circ} 46' 29''$ N. and longitude $109^{\circ} 0' 38''$ W.; the variation was $35^{\circ} 19'$ E., and dip $84^{\circ} 44'$.

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 Indians.—Desertion of the Diseased and Aged.—Completion of our Buildings wisely abandoned.—Four Men discharged.—Lamentable State of the Indians.—Fishery fails.—Visitors of the Mouse Tribe.—Deaths by Starvation.—Mr. M'Leod leaves 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 sawing Wood for the construction of two Boats.—Exchange Interpreters.—Arrival of four Men.

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-hël-dëzză 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 hump; the stomach is extremely thick, and considered a sweet morsel by the voyageurs. 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 last. 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

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

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-hōoă-tchēllēh, 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 barren-ground 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

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 immediately under the skin, designated *depouillé* by the Canadian voyageurs; this fat disappears in about a month, when they become very lean and insipid as food. The females, however, which at that period are lean, acquire in the course of the winter a small *depouillé*, 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, bow-strings, 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 sewing-thread. 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 extracted 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 pouring 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, disdainingly 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 half-closed 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 pine-tree, 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 sand was plastered, rendering it tolerably impervious 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 distance 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, portrayed their extreme distress. The history of their sufferings was extremely affecting. They finished their sad tale in a low voice, with “ Bĭrr ōōlāh,—(We have no meat,)” and in a still lower tone, “ Bĭrr tŏwhōōteŷ,—(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—motionless—with a stare of vacancy that clearly portrayed 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 handfuls 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-starved 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 Indians, 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.

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° 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 consumed—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*; lesser 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-

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

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

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° below the freezing point; and four days afterwards the thermometer descended as low as 102° . 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

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 unfortunate,—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 mouthful 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 Christmas-day, 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 empty-handed, 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.

Our prospects now seemed cheering, and we 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 north-easterly 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 disposition. It was, however, 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-hōoă-tchēllēh, which it is necessary now to specify; for another was about that time established near the trading-post formed by Mr. M'Leod at the bottom of a bay to the south-west of Tāl-thēl-lēh. 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-hōoă-tchēllēh. 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 Charité 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 twenty-three 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° 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

step, and the tail of the shoe is dragged on the snow. Between the main bar and another 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 Camarade 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 sea-coast 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° 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 ludicrous 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

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 Mally, 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 Back considered, under all the circumstances, that it would be advisable for Mr. M'Leod to send his family to Fort Resolution, break up the fishery, and visit the tents of the Indians for the purpose of exciting them to hunt; to which effect instructions were forwarded to him. George Sinclair was now appointed as the leader of a party of five men, to sledge the rein-deer meat which the Camarade de Mandeville had collected; while Maufelly was sent to Lake Artillery to try his fortune in that quarter.

March 26th.—We were delighted by the arrival of a few of our letters from England, dated 6th of June, which had been forwarded by the Hudson's Bay Company's vessel to York Factory, whence they reached us overland. There was still another packet, which, we were afraid, would never reach us. It had been sent from Fort Resolution a month before in the charge

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 lately employed men, guided by an Indian, was entrusted with the packet, and fortunately reached us. 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 Back 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

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 Churchill, 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 Churchill 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-bound 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 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 unknown at this time of the coast line of the Polar Sea. The meat we obtained mostly came

from that 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 all 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

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, particularly 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 consequence 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,† 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,

* A Winter in Lapland and Sweden, by A. de Capell Brooke.

† Elk, or moose.

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° below the freezing-point, had slept in an atmosphere of 82° 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° or 7° minus zero, was to me in sensation the same; and although I have experienced a difference in temperature of 80° 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 double-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

speaking of the temperature during a calm, or 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° , 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 red-pole 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° to 65° 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 announcement 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 north-eastern 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 $69^{\circ} 37' N.$, and $98^{\circ} 40' W.$, which marks the termination of Captain Ross's progress,—or, *vice versá*, by proceeding first to this obelisk, and thence westward,—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 winter-quarters.

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, viâ 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 winter-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, viâ 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.

Sault, St. Mary's	. . .	20th of January.
Michipicoton	. . .	29th of January.
Pic	7th of February.
Lake la Pluie	. . .	2nd of March.
Red River	. . .	12th of March.
Fort Pelly	. . .	25th of March.
Carlton	. . .	2nd of April.
Athabasca	. . .	21st of April.
Great Slave Lake	. . .	29th of April.
Fort Reliance	. . .	7th of May.

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 sea-coast. 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 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

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 allurements, 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-lēh and Fort Resolution. How this hap-

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 Charité, 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, Clinton-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 unparalleled 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 Phalarope.—Deviate from the Course.—State of the Weather.—Desertion of our Guides.—Signals.—Caches.—Obstructions encountered.—Caccàwee.—Loon.—Continued Rain.—Snow Bunting.—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° 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, studded 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 Captain 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 clincher-built. 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

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 Malley 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 proposed placing conspicuous marks far out on the

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

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 birth-right.

The temperature, varying from 60° to 70° 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 desperate 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-hël-dëzzà 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-dězză 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, fire-steel, 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 conspicuous 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, caccàwees 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 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-deer, 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 possessed,—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 bunting, 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 com-

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. Five 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 *à propos*; for the previous day I had fallen through the ice, and soaked the pockets of my shooting-coat 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° 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 clothing,—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 *æstrus 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 current,—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 hunting-trip, although in the morning I had visited their tents and desired them to be in readiness. After about an hour'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.

CHAPTER IX.

Reflections.—Back's Lemming.—Embarrassments about the Boat.—Musk-Ox Rapid.—Musk-Ox.—Indians return with the Pemmican.—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 men 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° 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 meadow-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

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, to 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 crossing-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 precision 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 two-thirds, 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 hunter to distinguish the difference: those of the musk-ox 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 thunder,—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 $86^{\circ} 13'$. Following the serpentine course of the rapid for two miles, a tributary from the south-west joined the stream, which, ac-

According to Indian report, takes its rise from the Cöön-tōōŷ, 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: tōōŷ 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 Thlěwŷ-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 twoy-to. The Fish River, again, is more abused by the terms, The-lew, Teh-lon, Thelew-ey-aze, Thlew-y-aze; whereas it should be written Thlěwŷ-dězză. 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 lake, 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 twenty-seven bags of pemmican, varying in weight from eighty-six to ninety-four pounds each ; two boxes of macaroni 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. McLeod 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

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 threat-

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 John Ross, 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 more 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 difficulty. 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 sand-banks 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 Malay 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 Mally'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 more 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-

When 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 $65^{\circ} 38' 21''$ N., and longitude $106^{\circ} 35' 23''$ 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 eye-sketch made of the whole. This mode of dead-reckoning 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; 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 15th 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 coast of the Polar

Sea ; which, owing to the lumbered state of the boat, I was compelled to leave behind at Musk-Ox 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 $65^{\circ} 14' 44''$, and longitude $106^{\circ} 0' 53''$ W., with a variation of $39^{\circ} 12'$ 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.

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 name 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 are 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 ; beyond 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 evening-watch, 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 satisfied 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

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 of 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 us along 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 in 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 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 other impediments, clearly convinced us of the impracticability of making a land-journey to Fort Reliance. Nevertheless, 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 $65^{\circ} 54' 18''$ N. and longitude $98^{\circ} 10' 7''$ W. with a variation of $29^{\circ} 16'$ 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 $87^{\circ} 54'$ as the result. Both the vertical compass by Dolland and Hansteen's horizontal needle were remarkably sluggish, making few vibrations, 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 distance—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

* *Ledum palustre*.

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 ;

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 $66^{\circ} 6' 24''$ 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 Montessor, 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.

LONDON :
PRINTED BY SAMUEL BENTLEY,
Dorset Street, Fleet Street.





Engraved from a Drawing by Capt. DICKSON, by H. MASTON, A.R.S.A.

THE BEACHES OF THE ISLANDS OF THE PACIFIC OCEAN, WITH THE MOUNTAINS OF THE ISLANDS OF THE PACIFIC

NARRATIVE
OF A
JOURNEY TO THE SHORES
OF
THE ARCTIC OCEAN,
IN 1833, 1834, AND 1835;

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

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

SURGEON AND NATURALIST TO THE EXPEDITION.

IN TWO VOLUMES

VOL. II.

LONDON:
RICHARD BENTLEY,
Publisher in Ordinary to His Majesty,
NEW BURLINGTON STREET.

1836.

LONDON :
PRINTED BY SAMUEL BENTLEY,
Dorset Street Fleet Street.

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JULY 28th.—On as disagreeable a morning as ever dawned, we commenced the navigation of Lake Franklin, and made for an island to the north as well as a chilly north-west wind, and a short, breaking sea would admit.

From the summit of a tolerably high hill we perceived overnight a quantity of floating ice, covering the lake in the direction of our route, which by the morning had in a great measure disappeared,—although a sufficient quantity remained to unite with the wind and weather in impeding our progress. The island formed a strait with the main land, where, very much to our surprise, we found a current running to the south of east, which led us to a succession of shoal rapids.

On one of three islands situated in the very midst of the foaming torrent, were placed perpendicular slabs, set up as marks; which could only have been stationed there when the rapid was nearly or quite dry. From the uneven state of the rocks forming the bed of the stream, a very small quantity of water would be sufficient to raise a sea so overwhelming that it would be impossible for the Esquimaux to reach the island. During some part of the year, therefore, this portion of the river is in all probability everywhere fordable. It was estimated that scarcely a third of the water falling into Lake Franklin debouched

at this spot ; from which circumstance we conjectured that the principal outlet of that body of water lay somewhere to the northward, where no land was visible. We nevertheless continued on, under the conviction that it would convey us to the sea ; and whether we arrived there by the principal branch of the Great Fish River, or by a minor one only, was considered of little importance.

After passing the first rapid in safety, we reached another, of about three quarters of a mile in breadth, rolling onwards as far as the eye could reach in a continuous sheet of foam, with spray rising in every direction. After a preliminary examination, the boat, lightened as much as possible, was lowered down by means of ropes and poles, through an inner channel, running for about a mile along the western bank of the river ; hence, to avoid a fall, it was necessary to plunge into the breakers on the eastern side of an island ; and, although it was a rapidly inclined descent, not the slightest accident occurred. In the passage, the men had to lift the boat over a shoal part of the rapid ; which caused a

considerable delay, and excited in our minds great apprehensions for their safety, as triple the time that was requisite to bring them in sight had elapsed before they made their appearance. A fine open reach for three miles aided our progress, when the river became again interrupted with rapids, and was at length so pent in by high rocks, that the water rushed with so great a force against their sides as to produce a series of high waves even more overwhelming than anything we had hitherto witnessed.

Having ascertained, from the summit of the highest hill near us, that the river continued to preserve a rapid course along the western bank, we carefully scanned the eastern shore for a more favourable passage. In the course of this examination we descried a party of Esquimaux, tented on the eastern boundary of a fall, who, as soon as they perceived us, commenced running to and fro in the greatest confusion. After every attempt to pass by the western shore had failed, (for it was considered prudent to avoid a meeting with the Esquimaux if possible,) we crossed over and made

for the shore, to obtain a view of the fall where those people were encamped. The Esquimaux, about nine in number, perceiving that it was our intention to land, approached the boat, brandishing their spears tipped with bone; and having formed themselves into a semicircle, they commenced an address in a loud tone of voice, during the whole of which time they continued alternately elevating and depressing both their arms. They motioned us to put off from the shore, and at the same time uttered some unintelligible words with a wildness of gesticulation that clearly showed they were under the highest state of excitement.

We were prepared with a vocabulary of the Esquimaux language, taken from Sir Edward Parry's works, to which we referred in the hope of gathering some slight idea of what they were saying; and although it was useless in that respect, it furnished us with several words that were of the utmost importance. At the sound of *tīmā* (peace), *kāblōōns* (white people), they ceased yelling; and after repeating those words, they one and all laid down their spears, and commenced alternately patting their breasts

and pointing to the heavens. After this manifestation of their peaceful intentions, Captain Back landed with the two steersmen, and shook them heartily by the hand;—a mode of salutation as new to them, as the rubbing of noses practised by some of the tribes was to our own countrymen; for their hands were no sooner disengaged from our friendly grasp, than they again fell with a dead weight against their sides. Captain Back having presented a couple of brass buttons to each of them, proceeded with the two men to take a view of the fall, which was found too dangerous to admit of running the boat: we therefore commenced making a portage. While the men were occupied in carrying the baggage, the Esquimaux mingled amongst them without the least fear; which gave us an opportunity of observing a few of their peculiarities. They at first refrained from touching anything, but readily lent their assistance to carry the boat when by signs they understood that it was our wish they should do so. These arrangements, occupying about half an hour, were no sooner completed than we embarked: our observations, therefore, as re-

gards those people were necessarily very limited.

That they were labouring under the greatest alarm when the boat first grounded, there cannot be a shadow of doubt; but as the same alternate elevation and depression of their arms was made with a cheerful countenance, during the interview, to an elderly man at some distance in the rear of the party, who thereupon immediately laid down his arms, and with a fearless and quick step joined the younger warriors, I am inclined to believe those motions emblematical of peace. The men were not tattooed; neither had they any lip or nose ornaments to incommode them, like those situated farther west. They appeared strong, healthy, and of a lively disposition; nor did they seem to possess that diseased state of eyes so common to the inhabitants of the interior. The singular manner, however, in which one of them threw back his head, could only be attributed to disease or idiotcy: the latter, however, I may remark, as far as my own experience goes, would be a solitary case.

The women were variously tattooed about

their faces, and had, uniformly, circular lines round the third joint of the middle and fourth fingers. Their jet-black hair was neatly combed, and parted in front into two large curls; while the rest was tied up into a roll on each side: and from their ears were suspended portions of the ermine skin, cut into narrow pieces of about two inches in length. Their expression of countenance was lively and pleasing; and had it not been for an oblique position of their eyes, the inner portion of which was depressed, while the outer was proportionately elevated, they might have been deemed pretty. A sort of bag was attached to the back of those that had children, in which they carried their infants. Nor did they consider it necessary to remove them when they required suckling; which they performed in a manner no less singular than convenient. The little child, still resting in the couch, insinuated its head and suppliant hands round the waist of its mother to demand the breast, when her bent arm formed its luxurious bed. By a sudden twist it was at once replaced into its former position to enjoy the torpor of digestion.

There was nothing peculiar in their dress to distinguish them from those tribes which were met with by Parry and Franklin, with the exception of two of the men, who wore musk-ox-skin breeches with the fur outwards. They were singularly clean in their persons and dress, forming a striking contrast with our friends of the interior; for they were not only in the possession of combs of their own forming, but appeared to be industrious in the use of them. In return for some presents of beads and buttons, they gave us a few of their ornaments of bone; amongst which there appeared a model of the Indian dagger, precisely similar to those disposed of at the Company's posts throughout the country. As a small copper kettle was found in their possession, it is very likely that they have the means of communication, either directly or indirectly, with some of the trading posts; although it is not improbable that they might have obtained it from the Victory, abandoned by Captain Sir John Ross.

Their tents were formed in the usual manner with poles and skins; but as there was no opening at the top for the escape of the smoke,

it is probable they seldom make use of fire. Thousands of split fish were strung on lines, exposed to the rays of the sun to dry; and in the eddy of the fall were circular wells of stone, raised several feet above the level of the waters, forming repositories for the fish which, from time to time, they succeed in catching. It is possible, from the constant supply of water, that they are able to keep them alive until the temperature is sufficiently low to admit of their being laid up in a frozen state as a winter provision. They possessed seven keiyaks, or canoes, and very possibly had more concealed, since it is a practice with these people to secrete the most valuable part of their property on the appearance of strangers. An old woman held in her hand a piece of flat iron, about two inches long by one broad, with a blunt point, fastened into a handle of wood two feet in length, with which, according to her signs, she cut her food; but in all probability it was intended also as a weapon of defence.

In the use of the sling they are very expert; of which I had proof in a young man of the tribe who was persuaded to exhibit his prowess.

Having secured a stone of about a pound weight in his sling, he seized it with his left hand, while his right arm was elevated to a horizontal position with the string firmly wound round his wrist. At one motion the left hand was dropped, the sling thrown back, and the weight hurled straight-armed at least one hundred yards, with an apparent force equal to slay an enemy at more than half that distance. With one exception only, that of an infirm old man, they plucked their beards, as is customary with all the natives of the American continent. As we pushed from the shore, they assembled to see us off: the party, men, women, and children, consisted of about thirty persons.

Here we felt the want of poor Augustus, who could have explained to us, had his life been spared, many important facts relative to these interesting members of the human race. Numberless uncertainties as regards the line of coast might have been definitively set at rest, and our progress very much assisted, from the information we should have been able to glean from them. As it was, we succeeded in obtaining a sketch from one of the most intelligent

amongst them; and from the readiness with which they met our request to assist in carrying the boat, I have not a doubt, if a little pains had been taken, but one of them would have accompanied us as a guide. It would be absurd to put any faith in the rude delineation of the Esquimaux, since we could not understand a word he spoke, and our knowledge of his language consisted in three words,—tīmā, kăb-lōōns, tārřokē;—peace, white people, the sea. If it was the sea he sketched on the sand, and afterwards on paper with a pencil, he made it run north, and afterwards bend slightly to the east, where he finished; but whether the northern line was a computed distance of five miles, or five hundred, it was impossible to divine.

We had scarcely left the fall when the current ceased to be perceptible, although the breadth of the river barely exceeded half a mile: which convinced us that the main stream followed another course. Having regained the current, after much trouble, we reached some mountains on the western shore and encamped. The following morning was cold and cloudy, with a northerly breeze, which at sun-rise caused a fog

so dense, that, after finding ourselves involved in the midst of two rapids without any previous warning of their presence, we were obliged to put ashore. The atmosphere, however, soon cleared; and having taken observations, the results of which were latitude $67^{\circ} 7' 31''$ N. longitude $94^{\circ} 39' 45''$ W. and the variation $8^{\circ} 30' W.$ we resumed the journey. A majestic headland in the extreme distance to the north soon caught our view, which on a nearer approach had a coast-like appearance; while to the westward the sandbanks, at first cliff-broken, gradually decreased into low flats, here and there interrupted by sandy knolls thinly capped with grass. The remarkable promontory to the north was subsequently honoured by receiving the name of her Royal Highness the Princess Victoria.

While crossing over to the headland, a fresh breeze sprang up, which soon raised so high a sea, that the boat shipped a good deal of water, and ultimately obliged us to run for shelter into Cockburn's Bay,—so named in compliment to the first chairman of the Arctic Committee, Vice-Admiral Sir George Cockburn. Accompanied

by Sinclair and Taylor, I ascended a mountain continuous with Victoria Headland, to obtain a view of the western shore. Large quantities of ice were seen lining its whole course, to an extensive opening, which was completely covered with it at its extreme western bearing, where no land was perceptible. This opening subsequently received the name of the Honourable Captain Elliot, of the Admiralty; and another to the eastward, of about six miles deep, but very broad, was called after Captains Irby and Mangles, the Eastern travellers. In the course of the night, the boat was discovered high and dry on the beach, which at eight o'clock of the morning of the 30th was as deep in the water as when we landed.

This was considered as one of the mouths of the Great Fish River: we therefore took the opportunity of the fineness of the morning to obtain sights, which placed us in latitude $67^{\circ} 20' 31''$ N. and longitude $94^{\circ} 28' 14''$ W. This magnificent stream had now made a tortuous course of five hundred and thirty geographical miles, impeded by falls, cascades, and rapids, to the number of eighty-three, and swelled fre-

quently into immense lakes with clear horizons ; during the whole of which distance there was not a single tree lining its banks. Continuing along the high eastern shore, we rounded Victoria Headland and reached a craggy point, named after John Backhouse, Esquire, the under secretary of state for foreign affairs. Between a tolerably extensive island and the main, some seals were sporting in the water; which afforded us no little amusement, and one of them basking in the sunshine narrowly escaped with his life. From the summit of a high rock near which we landed, and directly opposite to a point called after Rear-Admiral Gage, we traced a line of ice to Elliot Bay, but no farther. That opening appeared entirely clear of the ice we had seen the day before: there was, however, still no land visible at the vanishing point; from which circumstance we strongly suspected that it had some communication with Lake Franklin.

To the north of that opening two or more islands were seen, extending across the inlet from west to east, distant about twenty miles; which offered a favourable opportunity for mak-

ing the opposite shore: we therefore advanced for that purpose. It was desirable to gain the western land before the shores diverged too much, since our present position was considerably to the eastward of the farthest point reached by Captain Ross, according to the chart which was sent out to us. Our route therefore lay entirely to the westward; and in fact, had it not been for the ice lining the western shore, we should not have made the eastern land at all. It took us between three and four hours to make the northern point of Irby and Mangles Bay, up to which spot there was every reason to look forward to a prosperous voyage to Point Turnagain. Here, however, it was evident that our progress would be rendered slow and laborious; for round Point Beaufort, so named after the distinguished hydrographer of the navy, large masses of ice were drifting with the tide, in such quantities that we were under the necessity of hauling the boat ashore to secure her from injury. From the height of this projecting barren rock, estimated at eight hundred feet, there appeared drift-ice extending from shore to shore; while to the northward it was bounded

only by the horizon. Nothing but a southerly wind could extricate us from our present difficulty, although by taking advantage of the movement of the ice we made no doubt of reaching the western land; and as this was manifestly the narrowest part of the opening, and therefore the safest part for crossing over, we had but the alternative of waiting submissively until the barrier was removed.

A specimen of Forster's shrew-mouse,* the smallest quadruped the Indians are acquainted with, was found here; the skins of which animal they carefully preserve in their conjuring bags.

A fresh breeze from the southward during the night cleared the ice around us, and packed it against the western shore, leaving a clear channel to the north-east. Had it been considered desirable at that time to reach the Isthmus of Boothia Felix, we might have reasonably expected in two days to set at rest for ever the problem of a North-west passage by Regent's Inlet: but, since it was deemed of more importance to survey the line of coast to the westward, it was evident that by proceeding farther along the eastern shore we should only increase

* *Sorex Forsteri*.

the difficulty of crossing over, for the land on either side was seen gradually widening from this spot. The water was slightly brackish, and an ebb of eight inches was observable on the shingle, which in this instance was not in the least affected by the wind, for the weather was calm and the thermometer in the shade 72° . The delay afforded us an opportunity of making a series of observations which proved extremely interesting, more especially as regarded the dip and magnetic intensity. The interval between each vibration of Hansteen's needle increased to three minutes and five seconds; while, on the contrary, Dolland's dipping-needle moved much more freely than it had previously done;—precisely the reverse of what was witnessed at Rock Rapid. The latitude was ascertained to be $67^{\circ} 41' 24''$ N., and $95^{\circ} 2' 16''$ W. the longitude, with a variation of 6° to the westward.

At ten o'clock on the morning of the 1st of August, as the ice had sufficiently cleared along the western shore to admit of our crossing over, we lost no time in launching the boat. The weather remained perfectly calm during our passage, which was effected in three hours and

a half—a computed distance of twelve miles. A slight breeze from the north-east soon hampered us again with floating masses of ice, and made it necessary to unload and haul the boat upon the beach to secure her from injury. It was satisfactory, however, to find that the whole appeared to be drift-ice as far as the eye could reach; so that we still entertained a reasonable hope of threading our way to the northward. Some old *caches* of the Esquimaux were discovered here, and a dish formed of pot stone, one side of which had been fractured and riveted with several thin pieces of copper. This part of the coast was less precipitous and bold than that we had left, although the rocks had the same naked and rounded appearance; while their bases were covered with a layer of sand of about a foot in depth, clothed with heath and grass.

The following day we divided ourselves into hunting-parties, since there was not the least prospect of getting away, and pursued a herd of deer; which circumstance led to the discovery of our being on an island, instead of the main shore, as had been previously supposed. Between Montreal Island, as it was called in compliment

to the public-spirited and hospitable inhabitants of that city, and the main land, there was an open sea, which gave us fresh hopes of creeping onwards as soon as the boat could be launched with any degree of safety. The tide was observed to rise twelve inches; which in all probability was occasioned by the wind, and very likely the vast floating bodies of ice had some influence in augmenting it. The night was very stormy, with the wind southerly; which, in the morning, we agreeably discovered had been the means of crushing a great deal of ice on the beach, and in the course of the afternoon a barrier of about three hundred feet was entirely destroyed. A visible alteration had taken place in the main body of ice to the northward; and although it still adhered to both shores, yet in the centre it had opened to a width of ten miles, which encouraged us in the anticipation of a favourable breeze yet dispersing it.

A young musk-ox cow was discovered feeding under the lee of some high rocks, by a solitary hunter, who succeeded in killing it, and thus afforded us an agreeable change of food, it being devoid of that unpleasant flavour of musk

which is so universally the case with the older animals, and more especially the males. Some great northern divers, brown cranes, as also a smaller species of diver, were found, with young ones just hatched; and a specimen of the flat-billed phalarope was shot: besides which, the island abounded in gulls, terns, snow buntlings, and a species of tringa. Our little terrier busied himself in swimming after the young broods; but, being fairly beaten off by the old birds, particularly by the cranes, was glad to seek our protection from their determined and courageous attacks.

The gale continued without intermission until the evening of the 5th of August, when the weather moderated sufficiently to admit of our launching the boat. We ran for shelter between the island and the main; for although there was less wind, and the swell had in a great measure abated, yet from the aspect of the clouds there was every reason to expect a renewal of the boisterous weather rather than a calm. Scarcely were the sails set, when a dense fog enveloped us in comparative darkness; yet we made our way through the mist

for a few miles, until arrested by a quantity of drift-ice, which was evidently the advanced guard of the main body. As soon as we landed, three of the men were directed to proceed on foot along the coast, for the purpose of examining the state of the ice, and the general direction of the western land, with permission to absent themselves a couple of days, except they saw a probability of our moving forward.

The rain fell in torrents as the day advanced, which saturated the moss and heath we used for fuel, and obliged us to forego the comfort of a warm cup of tea. As the wind lessened, the ice drifted rapidly to the southward, and the open water, on which our hopes greatly depended, soon became converted into one compact field of ice. The exploring party returned in the evening, having made a direct distance of fifteen miles. Very far, however, from bringing a favourable report, they described the whole line of coast in every direction to be literally jammed with ice. But what exceedingly surprised us was, that, during the entire march, they had an extensive body of water on their left, with a clear horizon to the

westward, and without a single particle of floating ice perceptible in any direction. In the course of their journey they had passed between thirty and forty Esquimaux encampments, some of which appeared of recent construction : to these the natives very possibly resorted in the winter, for the purpose of catching seals.

The weather cleared on the morning of the 7th, with a south-easterly breeze, effecting a general movement of the ice, which disappeared from our view with such astonishing rapidity, that a little after noon we were sailing at the rate of five knots an hour, and only overtook our enemy at eight in the evening. In our progress we passed a low sandy point, named after Sir J. B. Pechell, Baronet, whence the vegetation sensibly grew less and less until it gradually subsided into sterility. Scarcely an elevation of any kind exceeding eight or ten feet featured the western land from the mouth of the river to this spot ; while, on the contrary, the eastern coast still retained its bold and mountainous appearance. To the north of Point Beaufort it formed a conspicuous promontory, named after Captain Bowles, R.N.; and

about sixteen miles farther it jutted out in a huge projecting cape, distinguished by the name of Cape Hay, after the late under-secretary for the Colonies, a zealous promoter of geographical research. A hillock of sand, distant a mile and a half from the beach and about ten feet high, formed a conspicuous landmark; towards which we bent our course immediately on landing.

The sandy point of our encampment, called after Vice-Admiral Sir Charles Ogle, was made somewhat more acute by a small island, which at low water appeared connected with the main by a very narrow isthmus. It rained incessantly for two days, accompanied by thunder and lightning, rendering our situation extremely uncomfortable; which was greatly aggravated by the want of fire. The rain ceased at noon of the 10th of August, when it was succeeded by a fog; but, as the ice had in a great measure disappeared, we pulled to the island and made a portage across the small isthmus. After advancing a mile, the ice again paved the shore, being drifted by a north-westerly breeze, which

obliged us to haul the boat on the beach and encamp.

The men, in wandering along shore, found a log of drift-wood nine feet long and nine inches in diameter, but little soddened, which caused many suggestions as to the situation whence it came. One of our party who accompanied Sir John Franklin down the M'Kenzie, and who was proverbial for a certain straining of the imagination, persisted that it must have come from the banks of that stream; pointing out as a proof of his assertion the freedom from knots which the log presented. The rest supposed it to have come from the eastward, having been drifted down the Fish River; which, according to the Indians, it will be recollected, was not only said to fall into the sea so close to the mouth of the larger stream, that a fire could be seen from either, but that its banks were well wooded also.

On the following day I strolled to the westward as far as a sandy hill, between forty and fifty feet high, named after Sir John Barrow, Baronet; whence I could distinguish open water to the south as far as could be seen with

a telescope, and bounded to the westward by a bold rocky shore, precisely similar to that observed at Lake Franklin. The view, after following the course of the rocks in a north-easterly direction for about fifteen miles, was obscured by a number of islands, running nearly east and west, and terminating opposite to our encampment, in a rocky point, named after Captain Maconnochie, R.N. From Cape Hay, the land, blue in the distance, trended north-north-east, when it dipped the horizon; but a little space, however, intervened to a land gradually rising into boldness, following a north-westerly course, the extremes of which were named Points James Ross and Booth.

My impression was that the sea formed a deep bay in that direction, and that the only passage lay between the Points Maconnochie and James Ross, where the lands appeared to diverge more and more east and west, with an open sea to the north. With regard to the opening to the south of Mount Barrow, a strong presumption arose in my mind that it communicated with Lake Franklin, and formed the principal mouth of the Great Fish

River. The clear horizons seen both north and south of these vast bodies of water, and the inland lake, as the men described it, running in the same direction during their entire march of the 6th of August, a computed distance of fifteen miles, goes far to confirm this supposition. Moreover, the Delta,—by which is meant the whole of the western land from the Esquimaux encampment to Point Ogle,—is, in my opinion, divided into several portions, the three principal of which are intersected by the two openings north and south of Point Gage; this would agree with the Indian accounts, that three large islands were situated at the mouth of the river.

Immediately on my return to the tent, I reported these observations to Captain Back; which induced him the next morning to despatch three men, prepared with a telescope and compass, with a view of getting their opinion. Very far, however, from receiving a satisfactory account, they differed from each other in a most extraordinary manner. Two of them agreed with me; while the third gave it as his opinion that there was a western

passage, but only wide enough for the boat to pass. At the same time he estimated the distance from Mount Barrow to our encampment at twelve miles, although according to my reckoning it did not exceed three. As regards that particular spot, there could be no doubt in recognising it as the same that I had reached, from the circumstance of my having killed a musk-ox there, which was particularly named by him in pointing out that position. These contradictory statements will, however, in a great measure be subsequently accounted for.

During the absence of the exploring party, the dip was ascertained to be $89^{\circ} 26'$; but as regards the magnetic intensity, the observations were very unsatisfactory, owing to the extreme irregularity of the intervals between the vibrations. The different needles also differed materially in noting the magnetic north; Dolland's and Hansteen's pointing several degrees to the eastward of those which had cards. Professor Christie proposes discussing the whole of the observations on magnetism made during

the progress of the expedition in a paper shortly to be laid before the Royal Society.

The morning of August the 13th set in with rain, and in the course of the evening a smart gale from east-south-east drove the ice, previously wedged against the shore, to the west-north-west: it, however, returned again on the shifting of the wind. The following day, therefore, Captain Back sounded a retreat; and having launched the boat between the island and the main, we took up our quarters at our former station of the 9th. The latitude was ascertained to be $68^{\circ} 13' 57''$ N. longitude $94^{\circ} 58' 1''$ W. with a variation of $1^{\circ} 46'$ to the westward. The men were assembled on the afternoon of the 15th, and informed by Captain Back that as the period fixed by His Majesty's Government for the return of the expedition had arrived, it only remained to unfurl the British flag, and salute it with three cheers in honour of His Most Gracious Majesty; whilst his royal name was given to this portion of America, under the title of William the Fourth's Land. This done, we embarked.

CHAPTER XII.

Inquiries with regard to the North American Indians.—Three Japanese men wrecked on the North-west Coast of America.—Philological Researches.—Contradictory Accounts of the Indian Character.—Their extreme Honesty.—Insensibility the Effect of Custom.—Sioux Woman.—Affliction for the Loss of Relatives.—Attachment to their Children.—Self-command.—Humanity and Hospitality.—Marriage Ceremony.—A Matchless Beauty.—Singular mode of Courtship.—Plurality of Wives.—Laws.—Funeral Rites.—Transmigration of the Soul.—Religious Festivals.—Dreams.—Demoralizing Effect of the Fur Trade.—Policy of the Hudson's Bay Company.—Value of Furs.—Baneful Effects of Ardent Spirits.—Judicious Investigation by Government.—Missionary Zeal.—Civilisation of the Indians.—System adopted by the Quakers.—Education of the Native Children.—Suggestions for their Amelioration.

THE manners and customs of the aboriginal inhabitants of the American continent have, from the period when that vast territory was first discovered down to the present day, furnished matter of curious and interesting inquiry to very many authors in England, France, and

America. Nor has their attention been less directed to the discovery of the probable root whence the native tribes originally sprung. Various theories have been raised, which, from their plausibility, have caused much discussion, and both sacred and profane history have been ingeniously referred to for their support. History and tradition, as well as physical geography, point to the north-western extremity of America as the inlet by which that vast continent must have received almost all the numerous and varying tribes of its earliest inhabitants.

Notwithstanding such apparently strong evidence, we may be far from the truth; for two years have scarcely elapsed since three Japanese men were discovered in the vicinity of the Columbia River. Mr. M'Laughlin, the superintendent of the Hudson's Bay Company's establishment, situated on the banks of that stream, received intimation from the neighbouring tribes that some strange people had suddenly appeared amongst them. With much good feeling, that gentleman succeeded in rescuing them from a state of slavery; and in the course of a long

winter, partly from their knowledge of a few English words which they had learned during their stay, but principally from signs and rude delineations, their mysterious appearance was in a great measure accounted for. It appeared that they formed part of the crew of a Japanese junk, laden with porcelain and rice, trading between China and their own island, when a violent storm drove them so far to the eastward that they became perfectly lost. Their sufferings were so great for want of water, that they gradually dwindled from a very large number to a few individuals; when, at the expiration of a period exceeding a year, just as the rice upon which they had been living was expended, they were wrecked on the north-west coast, where only three escaped. Mr. M'Laughlin, conceiving that some good might arise to this country by embracing the opportunity of restoring them to their native land, and with a view of making us more intimately acquainted with those singular people, sent them to England, and they arrived in the London Docks last October. The leading members of the Hudson's Bay Company, apparently looking upon them in the light

of an incumbrance, or possibly conceiving that so interesting a circumstance might lead to an undesirable exposure of their trading system, promptly despatched them with the utmost secrecy to their native land.*

The judicious investigation of the different languages spoken by the Indian nations promises, if followed up, to throw more light upon this subject than is likely to arise from any other species of inquiry. The members of the Philological Society of London have lately had their attention called to the importance of studying the languages spoken by uncivilised nations, with the view of elucidating their origin, by my esteemed friend Dr. Hodgkin, than whom no one is more zealous for the welfare and improvement of the condition of these interesting people. By particular request, his valuable paper on the subject has been published. Nevertheless, it is by no means advisable to neglect recording their different tradi-

* This fact alone proves that America might have been peopled from the eastern portion of the Old World by a water passage, and therefore renders the views of Dr. Lang, as regards that country having received its inhabitants from the Polynesian Islands, additionally probable.

tions upon these matters, however absurd and impossible the fables, since they will have some weight in elucidating their previous history. Physiognomic and other characters should also be regarded with attention, as a means of tracing their origin.

Although the various authors who have written on this subject have differed with respect to the manner in which that vast portion of the western hemisphere has been peopled, yet they all agree as regards the peculiar customs, disposition, and pursuits of the inhabitants. A host of evidence has been published by some, teeming with favourable sentiments respecting the Indian character, which experience had taught them to entertain; while others, on the contrary, have laboured to paint the aboriginal inhabitants as despicable, vicious, and brutal, and even have gone so far as to pronounce them inferior to the rest of mankind both in mental and corporeal qualities.

The early French settlers describe them as a very intellectual people, possessing a far greater capacity than the peasantry of the most civilised countries. Their reasoning faculties are repre-

sented as being extremely acute ; they are said to be sound in judgment, eloquent in language, valorous, faithful, generous, and humane ; education alone being wanting to guide their reasoning powers. They are patient of hunger and fatigue, and are characterised by such unbounded hospitality, as to be ever ready to share with their fellow-creatures, whether white or red men, the last morsel of food they possessed. Their honesty is so strict, that, notwithstanding the frequent violations of the rights of property they witnessed among the traders, and but too often experienced in their own persons, they scrupulously avoided committing a single theft. To so great a degree of self-denial do they carry this principle even to the present time, that they will rather fast several days than consume a particle of provision which does not belong to them, even where there exists a certainty of replacing it. We had proof of their strict probity at Fort Reliance, both as regards the Chipewyan and Copper Indians, who were starved to the number of fifty with abundance of provision within their reach. Nor was this the effect of conscious weakness,

since their number exceeded two hundred, while our whole force at that time consisted of a dozen individuals only.

The apparent indifference with which an Indian after a long absence meets his wife and children, has been brought against them : this I am, however, convinced, proceeds rather from custom than insensibility. The story of the Sioux woman, originally told by Captain Carver, is sufficient to show that the North American Indians are not unmindful of the claims either of connubial or parental tenderness. "Affected by the loss of a son of about four years of age," says that author, "she pursued the usual testimonies of grief with a rigour little inferior to that of her husband, whose anguish was so great as to occasion his death. This woman, who had hitherto been inconsolable, no sooner saw her husband expire, than she dried up her tears, and appeared cheerful and resigned, alleging as a cause, that as the child was too young when it died to be able to support itself in the country of spirits, both herself and husband were apprehensive that its situation would be far from happy. No sooner, however, did she behold its

father depart for the same place, who not only loved the child with the tenderest affection, but, from being a good hunter, would be able to provide plentifully for its support, than she ceased to mourn. She saw no reason to continue her tears, as the child on whom she doated was happy under the care and protection of a fond father ; and she had only one wish that remained ungratified, which was that of being herself with them."

Expressions like these, so replete with unaffected tenderness, would do honour to the most civilised, and, it is to be hoped, will tend to counteract the prejudices of those who argue in support of Indian insensibility. That reluctance to be separated from a beloved relation which is implanted either by nature or custom in every human breast, is peculiarly apparent amongst these people. At intervals, for years after the death of a relative, the living bemoan the fate of the deceased in a plaintive melancholy song, and frequently visit his grave to bestow some token of their regard either in a lock of their hair, or in an offering of tobacco. With the wife, a recapit-

tulation of the actions her husband has performed, and what he would have done had he lived, is always a favourite theme. Franklin's narratives are full of affecting instances of parental regard; and I had myself an opportunity of witnessing several examples. One case I have already mentioned as having occurred at Fort Reliance during the appalling season of famine, where an Indian was insensible to his own starving condition until roused by the information that his child was dying for want of food, and sacrificed his life in attempting to save it. Another instance transpired in the spring, when a man and his wife reached our fort who had walked barefooted over ice and snow for nine days, having laid aside their moccasins as a mourning rite observed for the loss of an only child.

The North American Indians are affectionately attached to their children. They instruct them carefully in their own principles, and train them up with attention in the maxims and habits of the nation. Their system consists chiefly in the influence of example, and impressing upon them the traditionary lore of

their ancestors ; which may in some cases account for the vague and extraordinary tales that are current amongst them. When the children act wrongfully, the parents remonstrate and reprimand, but never chastise them, from an impression that they are incapable of judging between right and wrong ; which holds good also with respect to children in general. An Indian has been frequently known to receive the blow intended for the child, by throwing himself between it and its white parent.

The Indians possess a nobleness of soul, and an equanimity, which we seldom attain with all the aid we draw from philosophy and religion. They are so completely master of themselves, that not the least possible alteration is perceptible in their countenance even when they meet with most unexpected insult. A Huron chief, having been insulted by a youth who was on the point of being punished by some of the tribe for his audacity, is said to have exclaimed, " Let him alone ! did you not perceive the earth tremble ? the youth is sufficiently conscious of his folly." But, what is more striking, an

Indian prisoner sleeps with his accustomed soundness although well aware that a painful death is about to terminate his captivity.

Their delicate and humane attention towards Captain Sir John Franklin and his party in a season of great distress speaks volumes in favour of the aborigines of the North. "The Indians," says that gallant officer, "treated us with the utmost tenderness, gave us their snow-shoes and walked without themselves, keeping by our sides that they might lift us when we fell. They prepared our encampment, cooked for us, and fed us as if we had been children, evincing humanity that would have done honour to the most civilised people." After arriving at the Indian camp, that officer states in continuation, "we were received by the party assembled in the leader's tent with looks of compassion and profound silence, which lasted about a quarter of an hour, and by which they meant to express their condolence for our sufferings; when Akaitcho showed us the most friendly hospitality, and all sorts of personal attention, even to cooking for us with his own hands,—an office which he never performs for

himself." The same kind treatment was experienced by Captain Back in a season of plenty from a party of Indians who accompanied him on a winter excursion. "They behaved," he states, "in the most exemplary and active manner towards myself and party, and with a generosity and sympathy seldom found even in the more civilised parts of the world; and the attention and affection which they manifested towards their wives evinced a benevolence of disposition and goodness of nature which could not fail to secure the approbation of the most indifferent observer." I wish we could record a reciprocal kindness on our part, for the facts mentioned in a former chapter exhibit a striking contrast.

So much confusion has arisen from the great variety of names applied without discrimination to the various tribes, that it would be an endless task to attempt to determine the precise people designated by the early writers. The subject, however, has engaged the attention of some of the most able philologists both of England and America; and notwithstanding the extreme difficulty with which the investi-

gation is attended, they have already succeeded in classing several of the languages and dialects.

With regard to the manners and customs of these people, I shall offer only a few remarks ; not only because that subject has been dwelt upon at length by several late travellers, but because it is far more important to speak of their condition with a view to their amelioration. Many of their traditions are forgotten, and those that they retain are strangely distorted by the present generation. Although they do not observe any particular form of religious worship, they are not altogether devoid of pious impressions ; since they believe in a good and evil spirit, and a state of future rewards and punishments. Beyond this I could never obtain any satisfactory account : for independently of a disinclination to enter upon the subject, their ancient traditions were mingled with the information they have more recently obtained by their intercourse with Europeans. Akaitcho invariably evaded our questions on these points, as did also that intelligent Chipewyan the Camarade de Mandeville ; but they both

expressed a desire to learn from us. On one occasion, while endeavouring to impress the Camarade with a few moral precepts for his future guidance, he replied in a low and solemn tone : “ The chief’s words have sunk deep into my heart, and I shall often think of them when I am alone. It is true that I am ignorant ; but I never lie down at night in my lodge without whispering to the Great Spirit a prayer for forgiveness, if I have done anything wrong during that day.”

The ceremony of marriage is extremely simple. A day having been appointed, the father of the girl intentionally absents himself while a tent is erected for the happy pair. “ What is that I observe !” exclaims the Indian on his return, with pretended astonishment ; “ a new tent ! it must be for my son-in-law.” A feast is then made, to which the parents and friends of both parties are invited ; when to the assembled company the bride is introduced by her mother as the wife of the Indian, whose name she mentions, and at once becomes the mistress of the new habitation. Several speeches are then made on the occasion complimentary

of the parties, particularly with regard to the lady, whose beauty is extolled to the skies. "Behold, my brethren, her broad flat face, small eyes, high cheek-bones, low forehead, broad chin, hooked nose, tawny hide, and pendent breasts, and you will say with me she is the very essence of perfection. Only perceive what strength she exhibits: a weight of two hundred pounds is nothing for her to carry; and as for hauling a sledge, she will vie with any of the tribe." Such is a Northern Indian's idea of the beauty and accomplishments of the fair sex.

With very many of the tribes, the females are not allowed to judge for themselves, but are betrothed at a very early period to those considered most able to support them; and in some cases their parents receive a remuneration for their lost services. With other tribes, marriage originates from pure affection; this is especially the case with the Crees, Chipewyans, Sautoux, and Copper Indians. Among the Flat Heads, a tribe bordering upon the North Pacific Ocean, a singular custom prevails in this respect. The Indian belle, on

returning from the river-side with her barken dish charged from the limpid stream, is accosted by her lover with the request of a drink of water. After he has partaken thereof, should the object of his affections proceed with the remainder to the camp, it is considered as an acceptance of his offer of marriage; but if, on the contrary, she should return to the water-side for a fresh supply, it implies a refusal.

Plurality of wives is common amongst them; and as regards the number, they are guided by their capabilities of supplying them with provision. They live very happily together, and the wives are very submissive to their husbands, who have, however, occasionally their fits of jealousy, and punish any act of infidelity by cutting off their hair, nose, or ears; which is considered as a severer punishment than blows, although these are frequently inflicted with such cruelty as to occasion death. This severity generally proceeds from the infidelity having been practised without the permission of the husband; for it does not appear that chastity is considered by them as a virtue,

or that fidelity is believed to be essential to the happiness of a wedded life: a temporary interchange of wives is not uncommon, and the offer of their persons is considered as a necessary part of the hospitality due to strangers. This may account for the rapid and fatal extension of disease introduced amongst them by European visitors.

They are still extremely particular as regards their funeral rites, and in the due observance of them. Some of the tribes bury their dead dressed in the same clothes in which they breathed their last, all the property the deceased possessed being laid beside the corpse. Among others, however, the body is placed, together with the property, in a canoe, which is then elevated on a platform or on the branches of a tree. To the westward of the rocky mountains, a few tribes burn their dead, and afterwards bury the ashes, previously deposited in a vessel made of pot-stone. On their tombs are carved or painted the symbols of their tribe, which are taken from the different animals of the country; and in addition, they place in a conspicuous situation some tobacco,

a pipe, and ammunition, that they may not be destitute of the means of subsistence in the other world. With those who believe in the transmigration of the soul, it is customary to place a small bow and arrow in the right hand of the dead, that they may be enabled to hunt their way back again to this world. Should an Indian have died in the flower of his youth and his mother be still living, a lock of her hair is placed in his left hand: this they consider will have its influence in causing him to be born again of the same parent.

The Chipewyans have been charged with insensibility in not burying their dead: it arises, however, from necessity, owing to the high latitudes they inhabit; and then the rite is neglected only during a season of famine or disease. At Fort Reliance, all those that died were left as a prey to the carrion crow or ravenous wolf; whose bodies might indeed have been secured by logs of wood, since those calamities occurred in the vicinity of the forests; and I have not a shadow of doubt that this precaution would have been observed, had not the

emaciated condition of those that survived rendered them incapable of such exertion. That they are not deficient in common respect to the memory of their departed friends, is made manifest in a long period of mourning, and in the destruction, not only of the property belonging to the deceased, but of their own also; and as a token of extreme regret and sorrow, they frequently cut off their hair, blacken their faces with charcoal, and mutilate themselves in a dreadful manner.

The celebration of the return of the seasons by religious festivals is only retained by a few tribes beyond the pale of civilisation, except on very particular occasions. It exists more particularly among the natives bordering upon the Columbia River. They sacrifice the first salmon that is caught with great solemnity, when a speech is delivered by the chief, beseeching the Master of Life to show his goodness towards them by granting a prosperous fishing season. The Chipewyans and Crees in the course of the hunting season make sacrifices somewhat after the same manner; but they are generally confined to the conjur-

ors or cunning men of the tribe. These medicine men, as they call themselves, are supposed to possess supernatural power, and are invariably consulted previously to the waging of war, or the taking of a decided step of any kind : from their decision there is no appeal. The Crees attribute their knowledge of the medicinal virtues of many of the vegetable and mineral productions of their country to deceased wise men, by whom they suppose it to have been communicated to them in dreams.

It is a matter of melancholy reflection that the civilisation of the North American Indians, a numerous race, gifted with the finest qualities that human nature is capable of displaying, should have been obstructed, rather than promoted, by their communication with Europeans : but so it is. They have, by force of example, been taught every vice that could tend to their degradation ; while they have not been instructed in those arts which would have added to their comforts and conveniences. At the same time that their land is taken from them either by force or artifice, they are de-

based by a ruinous system of traffic, particularly by that adopted by those engaged in the fur-trade, which has been the means of removing from the face of the globe many numerous tribes that once composed the finest and noblest of the uncivilised nations of the North.

The agents of the Hudson's Bay Company are not satisfied with putting so insignificant a value upon the furs, that the more active hunters only can gain a support which necessarily leads to the death of the more aged and infirm by starvation and cannibalism ; but they encourage the intemperate use of ardent spirits. From the effect of intoxication upon Europeans, an adequate notion of the frenzy with which a North American Indian is inspired when under the influence of liquor, can scarcely be formed. He will then with equal indifference shed the blood of friend or foe ; his dearest connexions are murdered without compunction : and when the unfortunate wretch has recovered his reason, he laments in vain the misery which his own fury has entailed upon him. Notwithstanding the Indians justly

ascribe to the fur-traders the blame of having supplied them with that which has caused such desolation, they will not scruple to seize the first opportunity of again obtaining the poisonous draught, and plunging with headlong infatuation into new scenes of riot and bloodshed. They will even descend to the most humiliating entreaties to procure the noxious beverage, and assume an abjectness of behaviour quite unnatural to them.

Revenge for the death of kinsmen murdered through the means of intemperance has been productive of wars which have ceased only with the extirpation of the contending parties. Additionally, the natives clearly perceive that the use of spirituous liquors is depopulating their country in a fearful manner; and yet they have not strength of mind to withstand the temptation which the traders, from interested motives, are daily holding out to them by an ample supply as long as they have any furs to barter. Sir John Franklin pointed out these baneful effects, since which period the Hudson's Bay Company have prohibited its introduction beyond Cumberland House. If

the leading members of that company suppose they have benefited the natives by that prohibition, they are much mistaken; for the Chipewyans who inhabit the country to the north of that establishment are averse to its use, and to this cause may be imputed, not only their superiority in numbers, but in moral character also.

By various means this company has succeeded in rendering the natives entirely dependent upon them for existence, and they deeply feel their degraded situation. The introduction of fire-arms may be assigned as one cause: for as long as they could obtain a supply of ammunition, they neglected the use of the bow and arrow, the spear, and the various modes of trapping and snaring their game; which, from constant disuse, they have now wholly forgotten. That of granting on credit, both in the spring and autumn, a larger outfit of clothing and ammunition than the Indians are able to repay by their winter and summer hunting excursions, places them so completely in the power of the trader by the debt thus incurred, that this must be considered another

cause of their decline. When they become advanced in life and no longer able to hunt, they are refused a supply of ammunition, which has become essential to their very existence, and they die consequently from absolute starvation. These evils have been increasing upon them of late to so great an extent, that they have become cannibals by necessity ; and scarcely a month passes but some horrid tale of cannibalism is brought to the different establishments.

By comparing the value given to the Indians for their furs, and the price they are sold for by the Hudson's Bay Company in London, we may draw our conclusions as to the oppression of those people. Three marten-skins are obtained for a coarse knife, the utmost value of which, including the expense of conveying it to those distant regions, cannot be estimated at more than sixpence ; and three of these skins were sold last January in London for five guineas. With the more expensive furs, such as the black fox, or sea-otter, the profit is more than tripled ; and but a few years ago a single skin of the former species

sold for fifty guineas, while the native obtained in exchange the value of two shillings. Surely that honourable company which by royal charter is permitted to reap such golden harvests might appropriate a small fund to rescue from starvation the decrepit and diseased, who in their youthful days have contributed to its wealth.

Next to the introduction of ardent spirits, a contagious disease, produced by the demoralizing intercourse of Europeans, has, more than any other cause, been the means of depopulating the country. It has of late so extensively spread itself among them, that there was scarcely an Indian family which I met with during my progress through that vast territory that was not more or less affected with it; and to such a deplorable condition are the Copper Indians reduced by that scourge, that in a few years, if some aid be not afforded them, they will cease to exist. It is gratifying to know that the subject of ameliorating the condition of the aborigines bordering upon our colonies is now engaging the attention of the Government. Hitherto no system has been adopted

for their improvement, and, with the exception of the exertions of the missionaries, no attempts have been made.

In 1622, missions into the wilds of Canada first commenced, principally directed by the society of the Jesuits; but after one hundred and fifty years of zeal and exertion they had not converted a single tribe, when they either voluntarily retired or were driven away by the natives. We look in vain for any moral improvement or the slightest trace of benefit obtained by those remote and uncivilised races to which the missions extended; but we find, on the contrary, a history of barbarous warfare, treachery, bloodshed, and extermination. The cause of the failure of those missionaries has been attributed to their having engaged in the fur-trade at the same time that they were rendering their pious warnings to the natives; and no sooner did the fur-bearing animals become scarce, than they are said to have retired, leaving the heathens to convert themselves. In Canada, an Indian chief thus addressed the council: "While we had beaver and furs, he who prayed was with us; he instructed our

children, and taught them to pray; he was inseparable from us, and sometimes honoured us at our feasts: but when our merchandise failed, these missionaries thought they could do no further service among us."

With regard to the subject of civilising the Indians, it is one of extreme difficulty; for we have not only to combat the native prejudices of the Indians, but to effect the more arduous task of making them forget the impressions we have already given to them. If it were possible to eradicate from the mind of the North American Indian all knowledge or traditionary remembrance of the interference of the whites, which has been exerted with fearful demoralisation for two centuries, and place him in the same state as when first discovered, it would be far easier to effect his civilisation. Dr. Richardson thus describes the influence of the Hudson's Bay fur-trade upon the Crees; a tribe once so formidable, that they drove all the other nations before them; but who now, alas! are degenerated into abject slavery:—"It might be thought that the Crees have benefited by their long intercourse with civilised nations. They

are capable of being, and I believe are willing to be, taught, but no pains have hitherto been taken to inform their minds; and their white acquaintances seem, in general, to find it easier to descend to the Indian customs and modes of thinking, particularly with respect to women, than to attempt to raise the Indians to theirs. Indeed, such a lamentable want of morality has been displayed by the white traders, that it would require a long series of good conduct to efface from the minds of the native population the ideas they have formed of the white character."

Some have supposed that there is little prospect of success while the Indians are surrounded with the white population; but that the result would be more favourable if they were located in districts of their own, with the aid of such establishments amongst them as might tend to promote their general improvement. Others, again, are of opinion that the endeavours to civilise and to convert them should be carried on at one and the same time. This has been questioned, however, by a few, who conceive that prior to making the attempt

of converting the adult Indian to Christianity, it should be invariably preceded by an endeavour to improve his condition, gain his confidence, and instruct him by example. I think they should be both civilised and converted; but, from my own experience, I certainly am of opinion that it will be found a far easier and more successful task to commence by the former; and if proper attention be paid to the rising generation, conversion would promptly and happily spread amongst old and young.

The Society of Friends were the first to try the experiment of endeavouring to civilise the Indians before attempting to convert them, and supported several agricultural establishments amongst some of the tribes, at a considerable expense. This mode of procedure is said by a late traveller to have benefited the Indians so much, that he remarks: "If the Society of Friends would undertake to revolutionise the habits and opinions of the Indians, they would have the advantage of at least an entire generation of confidence and good will in their favour over every other religious sect:—a

circumstance that would operate as a miracle in arriving at the measure in view." *

It is necessary, however, fully to understand the peculiar habits of these people before an endeavour is made to amend them; but above all, slowness and caution are indispensable in attempting to introduce changes amongst uncivilised nations. The education of the native children must chiefly claim the attention of those who look most anxiously towards the civilisation of the Indians. It is at present so much more difficult for an Indian to maintain his family than it was in earlier times, that they are now disposed to agree to a partial separation from their offspring. They possess a laudable curiosity, which might easily be directed to the most important ends: they are, for instance, well acquainted with the anatomy of those animals which they seek either for food or for the sake of their furs.

Nor are they deficient in physiological knowledge; for they very readily answered many

* It ought to be stated, that the labours of the Quakers amongst the Indians have been rendered almost entirely abortive by the constant removal of the tribes under their care.

questions I put to them upon that subject. With the effect of wounds I found them particularly familiar: they were aware that an injury done to some of the organs of the animal frame caused either an instantaneous or lingering death, while a more severe wound to others would merely produce temporary inconvenience; and the frequent appearance of cicatrisation, both in the stomach and spleen, convinced them of the correctness of their judgment.

In the formation of their canoes, snow-shoes, and calumets, they have shown themselves by no means inferior mechanics; and although the tools used by an Indian merely consist of a hatchet, knife, file, and awl, they are so dexterous in the use of them, that everything they make is executed with a neatness not to be excelled by the most expert artificer, assisted with every instrument he can wish. Thomas Hassel, whom I have mentioned before as an educated Chipewyan Indian, succeeded in making a violin at Fort Reliance that would not have been discreditable to those who have learned the trade.

Mere imitation, however, does not satisfy the North American Indian ; his aim is to equal the white man : and in several cases the Indians have succeeded in that desire. I have already mentioned one instance of an Iroquois at Fort Chipewyan who played the violin by note ; and Hassel made such progress on the flute, by means of an instruction-book with which I furnished him, that in less than a month he could play three tunes with tolerable accuracy. They also possess a great facility for acquiring different languages ; for they very commonly speak three, and I have met with some that could converse in four, viz. the English, French, Cree, and Chipewyan tongues ; and they are all more or less gifted with wit and penetration. There cannot be a greater proof of the latter forming a part of their character than the remark of Tsēnthĭrrĕy, a Chipewyan, to Mr. M'Leod, who, some time after he had refused to supply him with a gun, was attempting to instil into his mind some religious and moral impressions. "That is good," said the Indian with a heavy sigh ; "and if the chief wishes

to teach us in that way, let him show that he fears the Great Spirit, and sell me a gun to hunt with, for my family are starving.”

With regard to their civilisation, the Red River colony is of the utmost importance, as the centre from which any improvements that may be determined upon by the Government or by the Hudson's Bay Company might emanate. The greater part of the population is composed of the mixed breed ; a circumstance which would very much facilitate the object in view. For this purpose, it is essential that the administration of that settlement should be placed under the control of the Government. The Hudson's Bay Company hold absolute power over that colony : it is, however, very far from prosperous under their management. No means are afforded to the settlers for the sale of their crops ; their barns are filled from time to time with corn only to run to waste ; and, as a consequence, they have sunk into a state of idleness. A gentleman who visited it last August informed me that it was in a most deplorable condition : heaps of filth and dirt in the neighbourhood of every hut contami-

nated the air with their effluvia ; and so sensible were the colonists of their oppression, that they appeared perfectly ready to throw off the yoke, and were only waiting for a favourable opportunity to effect it.

Dr. Hodgkin, whose continued and solicited attention has been directed for years towards the unhappy fate of the North American Indians, suggested, on my arrival in England, the propriety of teaching the aborigines the Lapland system of training the rein-deer ; and thus making them a pastoral people in the first instance, which would naturally lead them in the course of time to agricultural pursuits. A more certain method of ameliorating their condition, in my opinion, could not have been conceived ; for they already evince a fondness for animals in a tame state, which was apparent with regard to bears, foxes, and many smaller animals, constantly met with as pets amongst them. The most desirable pasturage in the summer season might be found in the luxuriant growth of rich grass, along the whole course of the Great Fish River, but which in the present condition of the Indians

is of no value to them. That vast extent of country may with great propriety be called no man's land; for the wars which have existed between the far northern Indians and the Esquimaux have made them so fearful of each other, that they leave that wide space at the will and pleasure of the animals who sport there. Millions of deer find security therefore, while human beings both north and south of them are dying of starvation. What advantage would accrue to these unhappy people if peace could be firmly established amongst them! The Copper Indians and Chipewyans are extremely eager to enter into an amicable arrangement with the shivering tenants of the arctic zone, fully aware of the benefit which would accrue from that step; but to effect this they require our interference. What a wide field is here exposed for the humane attention of a liberal country! and a few hundred pounds would be sufficient to effect this grand object.

CHAPTER XIII.

Detention by Weather at Montreal Island. — Violent Rain. — Arrival at the River. — Disappearance of the Esquimaux. — Their extraordinary Conduct. — Continued Rain. — Accident to the Boat. — Arrival at Rock Rapid. — Disappearance of the Animals. — Effects of the Stormy Weather. — Another Party of Esquimaux. — Conjectures whence they came. — Migration of the Feathered Tribe. — Shallow state of the Stream. — Further Detention by Storms. — American Hawk Owl. — Musk-Ox Rapid. — Arrival at Sand-hill Bay. — Meeting with Mr. M'Leod. — Melancholy Fate of Williamson. — Reappearance of the Animals. — Supply of Provision. — An unfortunate Indian Custom. — Arrival at the A-hël-dëzzä. — Our Progress arrested. — Mauffley meets with an Accident. — Arrival at the House. — Its dilapidated state. — Arrival and Departure of Mr. M'Leod. — Recommencement of the Observations. — Remarks on the Aurora Borealis. — The Death of Augustus. — Indian Etiquette. — The Copper Indians deplore the ill-feeling existing between them and the Esquimaux. — The Opinion of the Natives with regard to the Creation and Confusion of Tongues.

AUGUST 15th.—In a few hours we reached Montreal Island, and partook of a warm repast, for the second time in nine days. Here we were detained by a heavy rain, accompanied

by strong breezes from the north, until nine P. M. of the succeeding day, when the weather sufficiently moderated to admit of our resuming the journey. The western range of mountains was honoured by the name of Her Most Gracious Majesty, while the eastern range was distinguished after Her Royal' Highness the Duchess of Kent. In making the traverse to Point Beaufort, a thick fog enveloped us for a short time in darkness, which afterwards turning to rain, drenched us to the skin; and notwithstanding every exertion on the part of the men, it was past two in the morning before we reached the eastern shore. It had no sooner ceased raining, than a violent gale of wind set in from the north-west, which obliged us early in the morning of the 17th to seek a more sheltered situation, as well for our own comfort as for the security of the boat. The day following commenced equally rough, causing a high surf along the shore; but the weather sufficiently calmed on the morning of the 19th to justify us in embarking.

A light breeze from the eastward aided our progress at first, but ultimately freshened so

much, that we were glad to run for shelter under the lee of Victoria Headland. The wind soon after increased into a gale, and the rain fell in such torrents, penetrating through and beneath the eaves of the tent like so many rills, that it was with extreme difficulty we managed to keep ourselves dry. A fog ensued; not, however, so dense, but that we were able to creep along in-shore to the mouth of the river; in effecting which, the boat frequently grounded on the shoals. The following day (22nd) we reached the fall where the Esquimaux were first discovered, who, to our great astonishment, had disappeared: this was the more singular, as we parted from them on the most friendly terms. Notwithstanding the heavy rain that had been experienced almost continually for the last five days, the water in the river, as indicated by the marks on the rock, appeared three feet lower than was observed in our descent, and we were enabled to haul the boat along the western shore, with the exception of a narrow part where it was launched. All the rapids were found so extremely shallow as to occasion the utmost difficulty in towing

the boat along, and obliged us frequently to lift it over almost bare stones. This part had the appearance of the source rather than the approach to the mouth of a river, and but for the heavy rain, would in all probability have caused us considerable delay from the shallowness of the water. In the latter part of the season, when the smaller tributaries become frozen, scarcely any water can pass down these rapids; for in our descent, when the river appeared in a complete state of flood, the current was not perceptible beyond Cockburn Bay.

Just on opening the view of Lake Franklin, the Esquimaux were perceived flying with the utmost consternation to the far-distant hills, where they could be just made out with our telescopes as living objects. Their tents were deserted and their canoes secreted; a conduct so widely different from what had been expected from our first interview, that we were convinced something extraordinary must have taken place. Nor could this be in any way accounted for until after our arrival in England, when it was ascertained that the three

men despatched to Mount Barrow, whose evasive manner at the time gave indications of something unusual having occurred, had fallen in during their march with a party of Esquimaux, and an affray ensued, in which three of the natives lost their lives. The men, it appeared, having surrounded a small lake to secure some wild fowl, were surprised by a party of Esquimaux, and at once retreated. The natives in following them fired a few arrows, upon which the men turned, and discharging their guns, killed three of the party, and might possibly have wounded others, it being a practice with the *voyageurs* to load their fowling-pieces with two balls, so as to give them a double chance of securing their game. The natives, thoroughly dismayed at seeing their countrymen fall around them, fled in the greatest disorder; and the men, equally alarmed, betook themselves to flight also.

It is a lamentable fact, that these ill-fated people have hitherto met with nothing but merciless warfare from those whites who have visited their lands. It is to be hoped this sad example will operate as a warning to

future travellers never to send a party of men for any distance in a newly-discovered country without one or other of the officers composing the party accompanying them. A practice exists amongst some of the tribes to fire blunt arrows in token of their peaceful intentions; which, in all probability, was the case with these Esquimaux, though the men were labouring under too much fear to ascertain the fact. If it was so, (and the friendly conduct of the natives in the first instance justifies the correctness of the assumption,) that unfortunate affair is to be the more deeply deplored. A depression of spirits in the steersmen, two of the three men that visited Mount Barrow, was observed by Captain Back for some days previously to our leaving the coast; and it increased as they approached the site of the Esquimaux encampment and fell to so great an extent, that a gloom spread itself, as if by infection, over the rest of the party, nor could it be dispelled without the aid of a glass of rum. I confess that these symptoms of fear escaped my notice; and although the circumstance was not mentioned to me by Captain Back at the

time it happened, it doubtless occurred ; which I am now the more inclined to believe, from my knowledge of the conflict with the natives.

The Esquimaux, had they been inclined, might have murdered us in our beds with the greatest ease ; for Captain Back and I were so little apprehensive of danger, that the night-watch had for some time been discontinued. That some of the party were in a far less happy state of mind, was evinced by the gloom Captain Back perceived amongst them ; and, in all probability, it caused them many an anxious night. Ignorant of this circumstance, and considering no good could arise from any further interview, we neither crossed over to that side of the river where the natives were encamped, nor made the least signs to attract their notice, which must have very much increased their suspicions of our amicable intentions. On our leaving the rapids, a number of iron hoops were placed on a pile of stones, together with ribands of various colours, awls, fish-hooks, brass rings, and beads ; which of course would be construed into treachery on our part, for the purpose of alluring them across the river, that they might fall an easier

prey to our attacks. During the whole of the 23rd, which was too boisterous to admit of our moving, some of the Esquimaux were distinctly seen, by the aid of our telescopes, watching our motions from behind the rocks, while others were busily engaged in hiding their kieyacks. About noon, the wind having moderated, we hauled up a rapid, and sailed along the waters of Lake Franklin. This was the last time these people were seen ; and, it is much to be feared, we left them with a very unfavourable impression of the white character.

As we advanced, the weather improved until the 25th, when the rain again poured down in torrents, and the wind and current combined obliged us to relinquish the oars for the towing-line ; by which means the distance was considerably lengthened, as we necessarily had to make the circuit of all the bays. However, the next day a fair wind made up for this, and carried us to Wolf Rapid ; although in several parts we had to lower sail and have recourse to tracking. This duty was rendered exceedingly fatiguing, not only from the steepness of the banks, but from a mixture of boulders and small

stones lining their sides, which slid away under the pressure of the men's feet and occasioned some severe falls. The shallowness of the stream also afforded another impediment, and in many parts the rocks were perceptible over which the boat had passed in our descent. Having picked up in the course of the afternoon our *cache* of ammunition, which was found perfectly secure and dry, we encamped for the night.

Running against a sunken rock the following day in ascending some rapids, we stove in the boat under her larboard bow, which was, however, made sufficiently water-tight to admit of our reaching a *cache* of two bags of pemmican. It had evidently been opened, and the contents examined, though carefully covered up again; which was attributed to the Esquimaux; and as several of their encampments were found close by, this was very likely to have been the case. Having effectually repaired the boat at this spot, we continued on to Escape Rapid, in one of the eddies of which the oar broken in our descent was found. After hauling up this rapid, aided by a fair wind, we arrived at Sinclair's Falls, on the shelving sides of which some

musk-oxen and deer were feeding, neither scared at our approach, nor at two white wolves that were baying them close by.

After making a portage in the same place as on descending the river, at 9 A. M. of the 29th we arrived safely at Rock Rapid, and in less than three hours afterwards were navigating the waters of Lake Macdougall. This overwhelming torrent, so fearful and appalling in aspect at first view, had now subsided into insignificance; and, in fact, the whole of the rapids were so changed, that it became a matter of considerable difficulty in very many instances to recognise them. It was not a little singular that, with the exception of the musk-oxen, the animals had entirely deserted us; and what had become of the vast herds of deer could not be divined, except that some other extensive river, either to the east or to the west, afforded a fresh pasturage for their southerly migration. Having ascended the line of rapids connecting Lake Garry with Lake Macdougall, we bent our course to a sand-hill, the site of our former encampment, where we had evidence of the stormy weather that must have visited this part

of the country, by the fields of unbroken moss washed from its summit and shelving sides, and covering its base. At that part of the lake where we were first detained by the ice, several fresh marks tipped with newly-gathered moss were perceptible ; and, on landing, several tracks of men and dogs were also imprinted on the sand. We had not proceeded far on our course before some of the men espied three Esquimaux slowly rising from behind some rocks, where they must have lain concealed at the time of our pacing the shore.

A little farther on, we came suddenly in sight of ten tents, surrounded by men, women, and children, altogether amounting to about seventy or eighty Esquimaux. The women and little ones instantly fled to the rocks for protection ; but the men awaited us along the shore, uttering some unintelligible words, and making the same motions with their arms as had been witnessed with the former party. In a few moments, however, we were beyond their sight, with the exception of an elderly man, who followed us for some distance whirling his sling, and, from a variety of antics, appeared to be

conjuring us away ; or, for aught we know, might have been addressing our commander in the words used by the Lapland woman to Linnæus, when he reached her hut, exhausted by hunger and the fatigue of travelling through innumerable marshes :— “ O thou poor man ! what hard destiny can have brought thee hither to a place never visited by any one before ! This is the first time I ever beheld a stranger. Thou miserable creature ! how didst thou come, and whither wilt thou go ? ”

Captain Back rather avoided an interview than otherwise, as he considered, from the want of an interpreter, little or no information could be gathered from them ; which plan, now that we are aware of the unfortunate attack upon the first party, was the very worst that could have been adopted. Where they came from we had no means of ascertaining ; and, from so cursory a view, it is perhaps uncharitable to form any criterion of their appearance ; but the opinion was very general, that they were less cleanly and good-looking than their neighbours. Being tented on the north shore, it is very probable they came from the coast of the Polar Sea ; and,

from the circumstance of our having seen only four kieyacks lying on the beach,—a very small number for so large a party,—it is not unlikely that a deep bay exists to the north of Lake Garry. Should it equal in extent Bathurst Inlet, the distance overland to the Arctic Ocean would fall short of ten miles. Had they approached by a water communication, a greater number of canoes would have been lying exposed to our view, for our appearance amongst them was too sudden to allow of their being secreted. To imagine that they had made their way over land from Bathurst or Chesterfield Inlets, would be giving them credit for a herculean task which they have not hitherto been known to perform.

Little difficulty was experienced in ascending the rapid leading to Lake Pelly, where we arrived on the 1st of September, and soon afterwards secured our third *cache* of provision. An island close by was discovered literally covered with drift willows and goose-quills, which had escaped our observation on passing it before. Several hundreds of geese commenced their southerly migration on the 4th, taking advan-

tage, as had been frequently before observed, of a fair wind. Although equally favourable for our place of destination, that benefit was unavailing to us, owing to the numerous rapids which obstructed the part of the river we were then ascending. The sand-banks and islands which, owing to the shoal state of the water, appeared in every direction, proved extremely troublesome, and so changed the general feature of the stream, that it could scarcely be recognised as the same. The Hawk Rapid was particularly low ; but in this instance it proved a blessing, for within a short distance of its centre the line by which the men were towing the boat suddenly gave way, and, as the boat grounded, no accident occurred. Had this casualty transpired at a time when the force of water was anything like so great as in our descent, it would undoubtedly have been attended with the most distressing consequences.

For two days we were detained by a violent storm from the north-east, that caused the river to rise four feet, and by overflowing its banks, obliged us to remove the boat and baggage three different times, to secure it from the inundation.

On the 8th, however, as the sun shone bright, a favourable opportunity presented itself of continuing our journey; and although a perceptible increase had taken place in the current, we encamped at the upper part of the rapid above Baillie's River. That stream now seemed a mere rivulet, compared with its previous appearance; in the extent of which, however, it was now evident from the low banks on either side, we were in the first instance deceived. The continual northerly breezes produced an atmosphere so chilly, that on one occasion the rain was turned into sleet; but the warmth of the ground melted it as it fell. The softer earth of the banks everywhere presented innumerable crannies, formed by the rain; an obvious demonstration of the season having been unusually wet, of which there cannot be a more convincing proof than the fact that scarcely a musquito or sand-fly had been seen during the whole voyage, and the few that made their appearance were too weak to give us the least annoyance.

At the cascades on the 11th we were favoured with the company of a little visitor, the *strix funerea*, or American hawk-owl, which appeared

hovering round our fire after its accustomed manner. This small owl, which inhabits the arctic circle in both continents, belongs to a natural group that have small heads destitute of tufts, small and imperfect facial disks, auditory openings neither covered nor much exceeding those of other birds in size, and considerable analogy in their habits to the diurnal birds of prey. It winters in the high northern latitudes, and is very common throughout the fur countries, from Hudson's Bay to the Pacific Ocean. That it is more frequently killed by the hunters than any other bird, may be attributed to its boldness and habit of flying about by day. When the hunters are shooting game, this bird is occasionally attracted by the report of the gun, and is often bold enough, like the *strix nyctea*, on a bird being killed, to pounce down upon it, though, unlike the large species, it may be unable from its diminutive size to carry it off. In the summer season it feeds principally on mice and insects; while in the winter it mostly preys upon ptarmigan, and is a constant attendant on the flocks of those birds in their spring migrations to the North.

After a detention of a few hours by wind on Lake Beechey, we arrived, late in the evening of the 15th of September, at the upper end of Musk-Ox Rapid. With the exception of a herd of musk-oxen that quite perfumed the air for a short distance, not a trace of a living creature was to be seen, the Indians having apparently deserted the place as soon as we took our departure in July. After crossing Musk-Ox Lake in a fog, brought on by a northerly wind, we found ourselves, on its clearing away, abreast of Icy River, which from some peculiarity is always, as its name implies, clothed in a wintery garb.

On the 17th of September, at 8 A. M. we reached Sand-hill Bay, where we had the pleasure of finding Mr. M'Leod, with four men and two Indians. For several days his attention had been riveted to the north, most anxiously watching in that direction for any distant fires or other signs of our appearance. Although he had effected his most arduous journey to Fort Reliance without the least accident, he had not been without privation: for days together neither himself nor party had tasted food, and two of the dogs had died from absolute want. Having

embarked in one of the bateaux, he acted from necessity as his own steersman, a duty to which he was fortunately quite competent, and after a prosperous voyage arrived safely at Fort Resolution. No time was lost in loading the boat with our outfit from York Factory, and having retraced his steps to the house and placed the goods under the charge of one of the men, fulfilled his last instructions by arriving at the source of the river.

The melancholy fate of poor Williamson was soon told: he was found dead, lying on his back with a few sticks near him, which he had apparently been gathering together, while his pockets were charged with a few cranberries. On an island of a few paces in length and a less number in breadth, in the most contracted part of the Great Slave Lake, which has been mentioned before by the title of Tāl-thēl-lēh, he met his death by famine, and was interred almost on the very spot where he breathed his last. It appeared, from his sledge being with him, that he had made the island on the ice, and possibly slept there, when a disruption suddenly taking place, cut off his communication with the main

land. The spot he had been cast upon was extremely barren; not a particle of *trip de roche* could be found, and but a very few berries. Every effort had apparently been made to lengthen out his existence; a fish-hook and line having been found near him, and a raft, half completed, unquestionably intended as a ferry-boat to the main shore, had his strength enabled him to finish it.

A more able and willing man than he could not be found among the whole party, up to the period of his reaching the portage La Loche. The exertion, it would appear, of carrying a weight of between seven and eight hundred pounds across that formidable barrier was his bane; as from that time he complained of weakness, and shortly after his arrival at winter-quarters became feverish and despondent. Nevertheless he continued to perform the same duty as the other men, although it evidently occasioned pain, until near the close of the winter, when his health began rapidly to improve. At that time he received his discharge, which acted as a complete death-blow; for he conceived that to join his regiment without his companions

would expose him to ridicule; an impression that dwelt so heavily upon his mind, that he at once relapsed into his former state of ill health.

It was the opinion of Morrison and La Charité, the two men who accompanied him from the house, that he had voluntarily strayed away from them on that very account; and, from many circumstances, this is by no means unlikely. His body was found but a short distance from the fishery he had left, having retraced his steps through a very intricate country. Several days after he was lost, a party of our men encamped directly opposite to the island where his remains were found, and amused themselves with firing at swans in the open water of the narrow; yet they neither heard nor saw anything of him, although from the state of the ice at the time they are convinced he must have been there. Notwithstanding he was quite aware of the importance of making a fire to direct the steps of those who were in search of him, yet he could not have had recourse to that expedient; for no less than four parties of our men, in addition to a concourse of Indians, had at different periods passed by that

very spot after his absence was known without having perceived the least signs of smoke. I am therefore strongly impressed with the idea, that he purposely strayed away with the intention of returning to the fishery after the time appointed for the Company's boats leaving Fort Resolution for York Factory had passed by; but that a sudden disruption of the ice around the island having taken place, prevented his escape.

For two days we were detained by stormy weather; but as Mr. M'Leod and his Indian hunters had killed several deer, the delay was of no immediate importance. The animals were exceedingly numerous, appearing from the eastward; whence it is not unlikely that after having reached the Polar Sea, they had retraced their steps along the banks of the Fish River. This plentiful supply of provision was hailed by the Indians with inexpressible delight; for they had endured extreme suffering in the privation of food, in consequence of the severity of the weather, which since our departure had been worse than was ever remembered even by the elderly men of the tribe. Mr. M'Leod having

determined to take advantage of the abundance of deer, remained behind to hunt the shores on either side of the lake ; while we made a direct route to the house. Prior to starting a slight frost had covered the ground ; but the weather as we sailed along Lake Aylmer appeared more like summer, and in the evening became calm and warm.

We encamped near the first rapid at the southern extremity of Clinton-Colden Lake, where a party of Yellow Knives visited us, who were tented about two miles further on. They had a quantity of dried rein-deer meat and grease prepared for us ; and a party of Chipewyans, according to their account, not far distant, had a larger supply at our disposal. Having learned that Mauffley's old father lay ill at their tents, accompanied by the interpreter I crossed over land to visit him ; but his illness was beyond the aid of medical skill. Grief for the loss of one of his sons, aggravated by constant exposure to the extreme heat of the sun with scarcely a covering of any kind, had caused a melancholy which time alone could remove.

“ A mind diseased no remedy can physic.”

Independently of the destruction of the whole of his clothes and property, according to a custom that unfortunately prevails amongst all the American tribes upon the loss of a relative, he had shaved his head in order that the rays of a meridional sun might effect the greater injury. At the encampment of the Chipewyan party, Mauffley himself and a younger brother were in the same pitiable condition, except that they had very wisely abstained either from shaving their heads or exposing themselves to the mid-day sun.

Mauffley was engaged to accompany George Sinclair to Fort Chipewyan in a small canoe, for the purpose of conveying the greater part of Captain Back's baggage to that post, so as to render the more easy a trip across the ice in the spring of the ensuing year,—which plan he intended to adopt to secure an early arrival in England. Burdened with as much provision as the boat could well carry, the Indians were directed to convey the remainder to the fort; when we hoisted the foresail, and about noon of the 24th of September reached the

A-hēl-dězză. After running a succession of rapids and making several portages,

“Charming the eye with dread, a matchless cataract,”

compared with anything we had seen during the whole course of the Great Fish River, entirely arrested our progress. On either side of this fall, named after Captain Anderson, R. A., the country was so rugged and mountainous, that to convey the boat, or in any way to proceed with it beyond this spot, appeared utterly impossible. We therefore placed it in security among some willows, and having made a *cache* of everything not in immediate requisition, commenced a journey across land to the fort, each man being laden with a weight of rather less than a piece.

Mauffley, who was again leading the way as guide, fell backwards with his load against a shelving point of rock, from which he received so severe an injury that he was incapable of proceeding any farther. Leaving him therefore with an ample supply of provision, we resumed the journey, fully intending to

send some Indians back to his assistance immediately on our reaching the house.

Having placed ourselves under the guidance of George Sinclair, whose knowledge of the route was little inferior to that of the Indian, we breakfasted on the morning of the 27th of September at Fort Reliance. It was quite evident the summer had been as stormy here as elsewhere, for the buildings were in a great measure unroofed and the mud used for plastering mostly washed away by the rain: the house moreover inclined so much to one side, that our first care was to prop it up. The necessary repairs were immediately commenced; and as Captain Back had determined upon relinquishing any further attempts at discovery by land, we made only those arrangements indispensably requisite to render our situation as comfortable as possible during the winter, and were therefore soon again domiciled in our habitation.

Mr. M'Leod soon joined us, and a few days afterwards proceeded with his family and all the men except six to the fishery at Tāl-thēl-lēh. The boat in which we embarked con-

tained the greater proportion of pemmican and other goods, which, now that it was not intended the expedition should remain out a third year, was to be forwarded to Fort Resolution, for its use through the country. The men were then to return without loss of time laden with fish from Tāl-thēl-lēh for our consumption during the winter. In the mean time the observatory was thoroughly repaired, and having placed the instruments in adjustment, we recommenced the registers on the 22nd of October.

The aurora borealis, as soon as evening sets in, overspreads the ethereal space, as if intended by Providence to cheer the hours of darkness by its beautiful and varied coruscations. For about two hours after midnight it was invariably observed by us to be most brilliant and active; passing from east to west or *vice versa*, and northerly; sometimes appearing in the form of a splendid arch flitting across the heavens with inconceivable velocity, and resembling the spiral motions of a serpent. Then suddenly disappearing, the veil of night would be at once diffused around; when, as

quick as the flash of a star, a thousand dancing lights would again be seen playing mysteriously through the sky, assuming a variety of forms and diversity of motion, of which it is too difficult for an inanimate description to convey an adequate idea. It seldom appeared southerly, as if there was something in that part of the heavens which it did not dare approach; but commencing in the eastern or south-eastern horizon, in which particular it coincides with the remarks of Parry and Crantz, would shoot across the zenith to the west, and descend in a variety of forms to the northern part of the earth, covering the whole of that portion of the concave with a brilliant light, while the opposite quarter of the hemisphere was enveloped in darkness.

Notwithstanding the aurora is most frequent in the severest weather during a calm, yet I have seen equally vivid coruscations when the wind was blowing a stiff breeze; and although directly opposed to its motions, far from being in any way affected, it continued uninterruptedly on in its accustomed eccentricity. At times there would appear

two currents in active motion from opposite points, approaching the zenith, where they formed a corona presenting the appearance of so many snakes twisting with amazing swiftness; while at the same time a fringed, undulating arch, composed of numberless bright rays, would be seen flitting with inconceivable velocity from the horizon towards the zenith. Among them might be frequently observed streams of light perpendicular to the horizon, collected together, and moving with even greater velocity than the rest; which from their peculiar appearance have acquired the name of the "merry dancers."

The appearance of the aurora is not confined to an unclouded sky: it was frequently observed by us in active motion when the heavens were partially obscured by a hazy atmosphere, and occasionally perceived emerging from behind a black cloud. Capell Brooke observed this peculiarity at Hammerfest; and we had an opportunity of witnessing the same strange phenomenon at Fort Reliance in November 1833; at which time there were two dark clouds in opposite directions, and the

coruscations brilliantly streaming in a variety of fantastic figures from behind them. The clouds in detached masses remained for some time assuming various forms, while the aurora nimbly played round and through them until not the slightest vestige of their presence remained. We had also frequent opportunities of observing the appearances described by Parry, of long horizontal separations of the aurora, resembling so many dark parallel streaks lying over it; which was evidently the dark indigo sky only, as the stars were plainly visible. I have often observed a grey haze effectually obscuring the sky suddenly give way to a mass of light that illumined the whole face of the heavens, as if the atmosphere had instantaneously taken fire, leaving the sky after it vanished of a dark blue colour, and studded with twinkling stars; while, on the contrary, the same grey mist has been noticed to take place on the subsidence of the aurora, which was especially the case on the 4th of April, 1834.

There cannot be a doubt but that this meteor, from the intensity of its light, dims the stars;

and from the following fact it is equally certain, that it obscures the sky also in the form of white clouds during the day, when its luminous appearance is eclipsed by the brightness of the sun. A mass of white cloud was observed at ten A. M. of the 28th of October, precisely similar in shape to an aurora of the previous evening, and situated in the same place, at which time the sun was shining brightly. Captain Back having placed himself in the shade of a fir-tree, imagined that he saw a faint filmy arch of pale white issuing from it; and after watching more attentively, a pale yellow arch was perceived shooting from the mass of cloud to the westward, and extending southerly to S.E. by S. at an angle of 30° . Afterwards several detached radial clouds became visible in the same point, which he more than once thought differed much in brightness. Clouds were often observed by us in the daytime in form and disposition very similar to the aurora, especially on the 25th of last December, when an arch of streaky and filmy clouds exactly resembling its coruscations extended from east to west across the zenith. Captain Parry was also "struck with

the general resemblance in the form of the aurora assumed by the clouds in the polar regions at particular seasons."

It has always been an interesting question with those who attempt to ascribe this beautiful phenomenon to electrical causes, whether the aurora be attended with any sound or noise; and although many accurate observers have paid particular attention to this subject in various parts of the northern hemisphere, yet the point is far from being settled. While Captain Franklin and Doctor Richardson assert they never heard the least noise, although two hundred instances of the aurora were witnessed by them, Lieutenant Hood and Captain Back thought they heard something. Thienemann, who observed the northern lights in Iceland in 1820 and 1821, says positively in his description of them, "that they are attended with no sound." Mr. Landt, in his account of the Feroe Islands, where he resided seven years, observes, that the northern lights are sometimes accompanied with a "snapping noise." Sauer, in his history of the geographical and astronomical expedition to the northern parts

of Russia in the reign of Catherine, remarks that he sometimes "heard" them shoot along. "A crackling noise, resembling that which accompanies the escape of the sparks from an electrical machine," was heard by Henderson, who wrote an account of Iceland. Stewart, in his description of Prince Edward's Island, remarks that in a calm night the sound caused by the flashings of the aurora may often be distinctly heard. Hearne "positively affirmed that in still nights he frequently heard the northern lights make a rustling and crackling noise, like the waving of a large flag in a fresh gale of wind;"—in which opinion, it is worthy of remark, he is borne out by the uniform testimony of the natives.

Parry and his officers "listened attentively for any noise which might accompany it, but heard none." On no occasion during two winters was any sound heard to accompany the motions of the aurora by either Captain Back or myself. Once or twice I thought a sound was audible, but afterwards ascertained it to be the hissing noise produced by the sudden condensation of my breath into icy parti-

cles ; and Captain Back several times positively declared he heard a whizzing noise during the rapidity of the motion, until he convinced himself it was the faint murmur only of Anderson's Fall that had deceived him.

That a change of colour is perceptible in the aurora, is admitted by almost every author who has described its appearance. I believe it, however, to be of rare occurrence ; for during two winters of five months each, notwithstanding scarcely a night passed away without our observing this beautiful phenomenon, Captain Back and I only witnessed it vary from the flame or straw colour eight times ; five of which it appeared of a red, and the remaining three respectively of an indigo, lake, and orange colour. In about the same lapse of time also it was noticed by Parry to vary three times only, of which it appeared twice of a lilac, and once of a green tint.

Whether the magnetic needle be affected by the appearance of the aurora or not, still remains in doubt. There are different opinions upon the subject, and the observations taken by Captain Back and myself have not yet been

reduced by the professor who has undertaken to work them. Parry and Forster were of opinion, from their observations at Port Bowen, that the aurora did not influence the motion of the needle; and Franklin, after having noted down not only its daily, but almost hourly variations, arrived at quite a different conclusion. To account for this discrepancy, the latter officer subsequently stated that it required brilliant and active coruscations to cause a deflection of the needle; that to render it so, they should appear through a hazy atmosphere, and that the prismatic colours should be exhibited in the beams of arches. Now, it appears from the registers kept at Port Bowen, that the aurora was seldom seen in motion, and more rarely exhibited the prismatic colours. Hence Franklin infers that the parallel of 65 N. is more favourable for the frequency, brilliancy, and the activity of this phenomenon, than the higher latitudes.

In my humble opinion there are not sufficient facts yet collected to justify us in coming to any conclusions either as to the effect of the aurora on the magnetic needle, or as to the

most favourable situation for solving that problem.

According to Captain Back, who witnessed the aurora at Forts Franklin and Enterprise, that meteor was not only more brilliant, but the streams of light more rapid at Fort Reliance than he had observed it at either of the former places; from which circumstance it might be inferred that the 62nd parallel of latitude is even more favourable for the appearance of this phenomenon than the 65th. If, as has been stated, "a low temperature is favourable to brilliant and active coruscations" of the aurora, it is to the eastern extremity of Great Slave Lake that observers should direct their course to further this very interesting inquiry, as in that situation a more intense cold was experienced by ten degrees than had ever before been registered. Prior to the knowledge of this fact, some persons, by comparing the registers kept by Parry and Ross, had concluded that the most intense cold was not in the vicinity of the North Pole, but near the Magnetic Pole; and consequently, that in navigating the Arctic Ocean for a

north-west passage, the attention of explorers should be directed to far higher latitudes than had yet been reached. They had even gone so far as to hazard an opinion, that around the North Pole a pool of open water would be found. Unfortunately, however, for these theorists, the observations taken at Fort Reliance, instead of showing a warmer temperature than those registered by Ross, a far greater cold was experienced at a far greater distance from that scene of attraction.

The result of Franklin's observations, when reduced by Professor Barlow, placed the Magnetic Pole in $69^{\circ} 16'$ N. latitude, and $98^{\circ} 8'$ W. longitude; and those of Captain Parry, in latitude $70^{\circ} 43'$ N. and longitude $98^{\circ} 54'$ W. As the latter officer in the course of his discoveries passed from east to west of the Magnetic Pole, it was reasonable to suppose that a more accurate computation of its position would be the result of his observations than those taken by Franklin; which, as everybody knows, was subsequently verified. However, from the united labours of these officers, a beautiful and satisfactory proof was drawn of

the solar influence on the daily variation of the magnetic needle. During the same months, at an interval of one year only, and at a distance not exceeding eight hundred and fifty-five geographical miles, Parry and Franklin were making hourly observations on two needles, the north ends of which pointed almost directly towards each other; and while the needle at Port Bowen was increasing its westerly direction, that at Fort Franklin was increasing its easterly, and the contrary.

It fell to my share, during the two winters the expedition remained at Fort Reliance, to register the position of the needle one thousand and fifty times; but as the subject will shortly be brought before the Royal Society, I shall offer only a few remarks.

I have sometimes observed the needle quite stationary, when the whole concave has been illumined with brilliant and active coruscations; and at other times witnessed it moving horizontally several degrees, without the least appearance of an aurora, although from the deep indigo colour of the sky it must have been seen had it been present. The same

anomaly was remarked in a hazy atmosphere. During the prevalence of counter-currents, the needle was observed to dip, by estimation, at least ten minutes. On one occasion, however, the same action was apparently caused by applying the finger to the front glass of the frame containing the needle.

Captain Franklin noticed that on several occasions the needle oscillated when he approached it in a dress of water-proof cloth, although it remained stationary when others of his party examined it in their ordinary garments. On two occasions Captain Back noticed a swagging motion of the needle opposed to the rotatory one; which he thought was caused in the one case by the accidental scraping out of a kettle while it was swinging, at a distance of one hundred and fifty yards; and in the second case, by the simple scraping out of a keg.

A very common movement was that in an opposite direction to the position of the aurora indicating a repulsive action; just the reverse of what was observed by Sir John Franklin, who invariably found the needle attracted towards that situation where the aurora ap-

peared most brilliant. At times we thought the wind caused the vibration of the needle, it having been noticed very frequently to keep to that quarter whence the atmosphere was in violent motion. Captain Franklin was of opinion also that "the deviation of the needle was effected by changes in the weather,—in a gale of wind or a snow-storm always considerably so."

One thing is certain, that the needle was as frequently in active motion in the course of the day as during the night; and if the oscillation was caused by the aurora, we may infer that the phenomenon exists at times during the whole twenty-four hours, but rendered opaque by a more brilliant light than its own.

An idea which is very generally entertained by all the North American tribes with regard to this phenomenon is singular and romantic. They believe it to be the spirits of their departed friends dancing in the clouds; and when the aurora borealis is brighter than usual, at which time it varies most in colour, form, and situation, they say their deceased friends are very merry. It is remarkable that the

Laplanders should also entertain the same belief, which is evident upon the authority of Capell Brooke. "The Laplanders, who are very superstitious," says that author, "imagine the northern lights to be the shades of their departed relations dancing about; and as they are continually changing their form, will exclaim, There is my father, or mother, according as fancy may suggest a likeness to them in the flitting light." The Tunguses, in Siberia, where the northern lights are constant and very brilliant, consider that they are spirits at variance fighting in the air.

In Finmark an idea is very prevalent among the lower class of the inhabitants, that "the northern lights are caused by the immense shoals of herrings in the Polar Sea, which, when pursued by large fish, make a sudden turn; and the luminous appearance which takes place in consequence from the agitation of the waters, and perhaps their own natural phosphorescent qualities, they believe to be reflected by the heavens, and to occasion these brilliant lights." I have a faint recollection of having heard the same opinion from a Chipewyan

at Fort Reliance; but having omitted to note it down at the time, I may possibly be mistaken. I am the more inclined, however, to believe it was so, from the fact that the far northern Indians are well acquainted with the phosphorescent properties of the sea.

The melancholy fate of Augustus, of which there had been for some time an imperfect rumour, was now correctly ascertained from a party of Indians who brought us a supply of meat. His remains were found not far from La Rivière à Jean, whither he had retraced his steps, apparently towards Fort Resolution, when, exhausted by fatigue and famine, the poor fellow sunk to rise no more. Another day, had it been the will of Providence to spare his life, he would in all probability have gained the land of plenty by reaching the Company's post. It appeared, from his corpse having been discovered lying on the ice a considerable distance from the land, that he had been overtaken in making a traverse by one of those snow-storms which at times are so overwhelming that even the strong and hale fall victims to their rage, much less those

whose frames have become weakened by a continuance of suffering and privation. Thus terminated the life of an Esquimaux chief and interpreter, to whose fidelity and bravery such honourable testimony has been borne by Captain Sir John Franklin, that there needs no further comment from me.

Mauffley recovered but slowly from the injury he received; another Indian was therefore engaged to accompany Sinclair to Fort Chipewyan towards the close of the month of October; and almost immediately afterwards they took their departure. Two nets that were set in the bay produced daily a few white-fish and trout, and the Indians brought us an occasional supply of meat. Akaitcho and the Yellow Knives contributed only a small quantity towards replenishing our store, having been far less fortunate in their summer hunts than their neighbours the Chipewyans. Akaitcho, as soon as Indian etiquette would permit him,—it being customary with the Indians never to broach a subject until some time after their arrival from a journey, and at all events not until after they have smoked one or more calumets of tobacco,—put many questions to us about the river, and

more especially regarding the Esquimaux. The early traces of those people surprised him exceedingly; for, although the young men of the tribe had on several occasions, when hunting a few miles to the north of Musk-Ox Rapid, declared they descried the natives crossing the mountains in the distance, he had hitherto regarded the subject as imaginary. The information was received by them with evident concern, and notwithstanding every pains was taken to point out by chart how far the stream might be descended on their hunting excursions without the least fear of meeting with the inhabitants of the coast, it was quite apparent in their countenances that they did not intend to incur the risk of penetrating farther north than had been customary.

The representation of the vast herds of deer seen feeding on the rich plains extending from either side of the river, drew from them expressions of the deepest regret at the hostility still existing between the nations. The incalculable advantage that would arise from making peace was to them as evident as the extreme difficulty which must attend the accomplishment of this important object if the attempts

at effecting it be left to themselves. Akaitcho did not hesitate to give it as his opinion, that without the interference of the white chiefs it would be utterly impossible to effect an amicable arrangement with a nation they had warred against from time immemorial; of which idea he was the more certain from the difficulty that would naturally arise, if they were fortunate enough to obtain an interview, in comprehending each other, since the two languages are utterly distinct. The gloom that had spread itself during this conversation over all the Indians assembled together gradually gave way to peals of uninterrupted laughter, which resounded again in the hall, when we imitated the actions of the Esquimaux upon our first appearance amongst them. Their rude carvings were minutely scrutinised: a pair of boots in particular, which I represented to them had been worn by a *chācquëe* or woman, underwent an especial examination.

The rein-deer were so numerous and easy of approach, that the happiness which this good fortune occasioned was apparent in every hut and depicted in every countenance, forming a

striking contrast to the ghastliness of the previous year. Old Soul, a Chipewyan, and renowned warrior in his youthful days, freely and cheerfully related to us the tradition current among his tribe with regard to the creation, being in substance as follows:—The Indian did not pretend to give an opinion in what way man got into the world, but commenced by saying he made his first appearance during the summer months, when the berries were abundant on the earth, upon which his subsistence entirely depended. As soon as the winter set in, the depth of snow inconvenienced him in so great a degree, that in accordance with the trite adage, “necessity is the mother of invention,” he at once conceived the formation of the snow-shoe. After the lapse of a short time the birchen frames were perfected; but as he could not net them, for that was a woman’s work, they remained unfinished in his lodge; from which circumstance his labour was very much increased, and the chance of gaining a subsistence became every day more precarious. One day, on returning to his hut, a noise as if some one was working at the snow-shoe frames

attracted his notice ; and upon a nearer approach, a wood-partridge flew from the opening at the top, which at that time he paid little regard to. The succeeding day he sallied forth on another hunting excursion ; and having remained out until quite dark, his attention was suddenly drawn towards his hut by the appearance of volumes of smoke issuing from it. Returning home with all speed, he perceived a wood-partridge again make its escape ; and on entering the tent, found his snow-shoes more than half netted, and carefully placed beyond the reach of a fire that was blazing inside. Suspecting the partridge had effected all this, though in what manner could not be divined, he determined to secure it if at all practicable ; and with this view the roof of the tent was carefully closed prior to his departure on another hunting trip which he took a few days afterwards. It occurred to him that by returning earlier than usual the bird might be taken by surprise ; he therefore approached the door of the tent with the utmost caution, and was fortunate enough by that means to cut off the retreat of the partridge, which in-

stantly became metamorphosed into a young wife ; whence the world soon became peopled.

His rude idea of the confusion of tongues, which is a generally entertained opinion throughout the tribe, was related somewhat after this manner :—For several generations after the creation there existed only one language ; but, owing to an unfortunate circumstance, that harmony was soon destroyed. A number of children assembled together, having exhausted all the games they had been accustomed to play, were at a loss how they could further amuse themselves. Having observed and participated in the joy that invariably spread itself through the whole camp on their parents killing and cutting up the several animals of the chase, they agreed among themselves to go through the ceremony in play. One of the juveniles was accordingly hung after the manner of strangling the deer when caught in a snare, until he ceased to live, and the body immediately afterwards divided into several portions. Each, laden with a share, proceeded to the respective tents of their parents, and related the droll game they had been playing. The horrid deed so shocked

them, that they were not only utterly confounded, but rendered incapable of comprehending each other, and in consequence separated into far-distant countries.

That vanity forms a part of the Indian character, we had ample proof this winter on taking some portraits with the camera-lucida. A young female having unfortunately lost the sight of one of her eyes, had ingeniously formed a drop-curl, which effectually hid the blemish; and when, by drawing her flowing hair on one side that her face might be the more perfectly reflected on the paper, the defect was exposed to our view, she was so exceedingly mortified as for a long time to refuse sitting for her portrait, and then persisted in covering that imperfection. Akaitcho, who had an excrescence about the size of a pea upon his forehead, seemed amused in the highest degree as long as he thought its appearance on paper was intended as a caricature; but finding it remained so, he placed his finger over the representation, observing, with a smiling countenance, in that way it was *năzōō* (good); but withdrawing his finger, he said, in a contemptuous manner,

nāzōōlāh (bad). Green-stocking, the Indian belle represented in Franklin's Narrative, remarked, on presenting herself before the instrument, that she was now old, and therefore unworthy of being drawn. The sketch, however, was no sooner finished than she appeared highly delighted, and asked whether we thought the great chief in England (meaning Sir John Franklin) would remember her. It was not a little singular that I should have been the first to recognise Green-stocking; but, since my return to England, having compared the engraving of her from a drawing by the late Lieutenant Hood with my recollection of her countenance, I am not surprised at the circumstance. It must have been at the time it was taken a very faithful representation; for although much older and care-worn, the resemblance appeared to me exceedingly striking. Notwithstanding her state of ill health and inferiority to the other females of the tribe in exterior embellishments, (her increasing family having reduced her to abject poverty,) she still remained by far the prettiest woman among them.

Our store was speedily filled with provisions;

when the Indians, having been informed that we did not require any further supply, took their departure, some for Fort Chipewyan, and others for the western extremity of the lake; Tsen-thirrey, with his wives and children, alone remaining.

CHAPTER XIV.

Early commencement of Winter.—Disagreeable Visitors.—Cunning displayed by the American Wolf.—Its Strength and Boldness.—Arrival of Mr. M'Leod and the Men to commemorate the New Year.—Departure of Mr. M'Leod and his Party.—Ermine Burrows.—A captive Ermine.—Whiskey-Jack—Its Familiarity and Habits.—Arrival of Letters from England.—Occupations at Fort Reliance.—Arrival of George Sinclair and other Men.—A Skunk killed by Sinclair in his passage.—Short account of that Animal.—Skunk-bird.—The Introduction of Rice into America.—An account of the Mink.—A Party despatched to ascertain the practicability of obtaining the Sea Boat.—Singular Island.—Discovery of a magnificent Waterfall.—A Summer Visitor.—Burrowing Owl.—“Prairie Dog Villages.”—Departure of Captain Back for England.—The Expedition consigned to my care.—Impracticability of obtaining the Sea Boat.—Preparations for Building a New Boat.—Pine-Martin, or Sable of the English Furriers.—Arrival of Men from the Fishery preparatory to the Departure of the Expedition for England.

By the latter end of November, just a month earlier than the previous year, the bay was frozen over in one solid mass as far as the

outer point to the south; which prevented the men from approaching the house beyond that spot in the boat from Tāl-thēl-lēh, and obliged us to transport across the ice the whole of the cargo, consisting of white-fish, tullibee, inconnu, and trout, to the number of five thousand. The main body of the lake was nevertheless sufficiently unencumbered with ice to render the return of the men to the fishing-house by open water tolerably certain.

The odour of the fish brought us a number of visitors of the wolf kind; which increasing in numbers and consequent boldness, were to be met with at all hours, either prowling about the doors of our establishment, or sneaking along the shade of the thick woods, seeking whom or what they might devour. It was expedient, therefore, to shut up the dogs during the night. With a view of reducing the number of the marauders, we set several traps and a spring-gun, and in a very short time succeeded in killing ten, almost all of them being instantly devoured by their more fortunate companions.

A sufficient number still remained to occasion us considerable annoyance: they tore up our nets, and, from an artful manner of decoying our dogs within their reach, kept us in a constant state of alarm for their safety. By making their appearance, either singly or in pairs, on the ice in front of the house, the dogs were induced to venture towards them; when if one more eager in the pursuit appeared separated from the rest, the wolves immediately attempted to cut off its retreat. After this manner our little terrier was singled out and deliberately carried away, though within a few paces of us: the wolf making off so speedily with its prey, that, notwithstanding the weight attached to its jaws exceeded ten pounds, a considerable time elapsed before two of the men, who had started in pursuit, succeeded in overtaking it. Our little pet was still alive, but died a few moments afterwards; the whole of one side having been sadly mutilated before it was rescued.

Many facts are on record with regard to the strength and rapacity of the wolf. At

Great Bear Lake, during Sir John Franklin's second expedition, a wolf was seen to catch an arctic fox, *vulpes lagopus*, within sight of the wintering-house; and although immediately pursued by hunters on snow-shoes, it bore off its victim in its mouth without any apparent diminution of speed. Captain Lyon observed a wolf carrying a dead Esquimaux dog in his mouth, clear of the ground, at a canter, notwithstanding the animal was of his own weight. They have been known, when impelled by hunger, to steal provisions from under a man's head at night, and to enter a winter encampment and carry off some of the sledge-dogs. During Dr. Richardson's residence at Cumberland House in 1820, a wolf which had been prowling about the fort being wounded by a musket-ball and driven off, returned after it became dark, whilst the blood was still flowing from its wound, and carried off a dog from amongst fifty others, that howled piteously, but had not courage to unite in an attack on their enemy.

However pressed by hunger, the American wolf rarely if ever attacks man when alive. I never heard of such a case during my pro-

gress through the country; and Captain Lyon remarks, "From all we observed, I have no reason to suppose that they would attack a single unarmed man, both English and Esquimaux frequently passing them without a stick in their hands." They will, however, readily attack a corpse, and soon devour it if unmolested; of which I had proof in the Indian woman who died of cold during my first winter at Fort Reliance, some of the bones of her head having been found by me near her grave the following spring.*

It is notwithstanding an extremely timid animal: the mere tying a handkerchief or blown bladder to the branch of a tree, so as to wave in the wind, is sufficient to keep herds of wolves at a distance. The wolves in the North of Europe, upon the authority of Regnard, are equally cautious. "To prevent the wolves from destroying the rein-deer, says that author, "the Laplanders tie them to some tree, and it seldom happens that they are attacked in that situation; for the wolf, being a suspicious animal, is afraid that there

* From the foot-prints in the snow it was known to be a wolf that had dismembered the body.

should be some snare laid for him, and that this is employed as a bait to draw him thither."

Mr. M'Leod and all the men except two, according to previous arrangement, arrived at the fort within two days of the close of December, for the purpose of conforming to a custom originating with the traders in the commemoration of the new year, by giving to the people forming the establishment as sumptuous an entertainment as the season and situation would permit. It is usual on the first dawn of that day to fire several discharges of musketry; which ceremony has been observed by the servants of the Company for many years; but it was dispensed with in our case, as we had no ammunition to squander. The men were regaled in the evening with a preparation of meat and fat fried in butter, and as much rum as they could well consume; for, in addition to what remained from our last year's stock, we received a further supply of eight gallons by the last remittance from York Factory. After dancing and singing until daylight of the

following morning, they retired to rest thoroughly happy;—so happy indeed, that their journey to Tāl-thēl-lěh was necessarily postponed until the 3rd of January, when they commenced their return and left us to our former solitude.

Having observed, in the vicinity of the fort, the same sort of burrows in the snow described by Captain Lyon, which were similar in form to those appearing on the lands of England infested by moles, I set a trap for the purpose of securing alive the *mustela erminea*, stoat, or ermine, that had formed them. I succeeded in catching a male individual; but, to my sorrow, it was dead; the little creature having, in its exertions to make its escape, broken its lower jaw and one of its shoulders. This fierceness was quite in character with the observations of Captain Lyon on one of the same species which he had taken captive. “He was a fierce little fellow,” says that lively writer, “and the instant that he obtained daylight in his new dwelling, he flew at the bars and shook them with the greatest fury, uttering a very shrill, passionate cry, and

emitting the strong musky smell* which I formerly noticed. No threats or teasing could induce him to retire to the sleeping-place; and whenever he did so of his own accord, the slightest rubbing on the bars was sufficient to bring him out to the attack of his tormentors. He soon took food from the hand, but not until he had first used every exertion to reach and bite the fingers which conveyed it. This boldness gave me great hopes of being able to keep my little captive alive through the winter; but he was killed by an accident."

In Newfoundland the stoat is said to be so bold as to commit its thefts in open view. In the time of Charlevoix, the white winter skins of the animal—in which state it is only properly called ermine—were exported from Canada, with other small furs, under the title of *menues pelleteries*. Although it is a common inhabitant of the North American continent, and everywhere extremely numerous, very few skins are imported to England by the Hudson's

* The trap-cage in which my animal was caught was strongly impregnated with the same odour.

Bay Company; for their value is so trifling as scarcely to repay the expense of collecting them. In Siberia and Norway, however, their skins are a considerable article of commerce; the animals being taken in the former country in traps baited with flesh, while in the latter they are either shot with blunt arrows, or taken as garden-mice are in England, by a flat stone propped by a baited stick, which falls down on the least touch and crushes them to death. The ermine, in winters of unusual severity, is said to migrate; but when within reach of a fur-post, it prefers domesticating itself in the habitations of the traders, where it may be heard the livelong night pursuing the *mus leucopus*, or white-footed mouse, on which it feeds.

All my attempts at trapping the smaller quadrupeds were frustrated by the thievish propensities of the *garrulus Canadensis*, or whiskey-jack, in carrying off the baits as soon as my back was turned. The whiskey-jack, which inhabits the woody districts to their limit north of Canada, hoards berries, pieces of meat and fish, in hollow trees, or between layers

of the bark of decaying birches, and is thus enabled not only to pass the winter in comfort, but to rear its young much earlier than any other bird in the fur-countries. I saw young ones full-grown on the 10th of April, differing from the plumage of the parent birds in not having the greyish-white marks about the head. Hearne states that the young take flight about the middle of May, and are quite black; but the birds I saw were of a blackish-grey, with the exception of the head and tip of the tail-feathers; the former being black, and the latter of a light grey. I strongly suspect that the *garrulus brachyrhynchus* of Swainson is merely the young of the whiskey-jack; and on that account I very much regret that a specimen which I had prepared was left by accident on the banks of the Slave River, when with others laid out to dry, after having been soaked with water by the breaking of the boat. "Chēēzäh," as this bird is termed by the Copper Indians, possesses neither symmetry of form nor beauty of plumage to endear it to man, as others of the feathered tribes; but its extreme familiarity compensates for

all. It was a constant attendant in our walks and encampments, uttering a plaintive squeaking note. No sooner was a fire lighted, than it made its appearance to feast upon the morsels of pemmican or fish that escaped either from the dogs or their masters, changing its voice at such times to a low chattering. Dr. Richardson, in giving a description of this bird, states that "there is nothing pleasing in the voice, plumage, form, or attitudes of the whiskey-jack; but it is the only inhabitant of those silent and pathless forests which, trusting in the generosity of man, fearlessly approaches him; and its visits were, therefore, always hailed by us with satisfaction. It is a constant attendant at the fur-posts and fishing stations, and becomes so tame in the winter as to eat from the hand; yet it is impatient of confinement, and soon pines away if deprived of liberty."

Our packet from England arrived without delay; which containing, in addition to our letters, files of periodicals and newspapers, afforded us at times amusement during the whole winter. An hour every night was devoted

to the instruction of the men, and Sunday held sacred as a day of rest, when divine service was read in the morning in English, and in the evening in French, for the benefit of those who did not comprehend the two languages. Every hour between six o'clock in the morning and midnight, the observatory was visited for the purpose of registering the state of the thermometer and position of the magnetic needle; and when the aurora was bright, we frequently sat up until two in the morning to watch its varying coruscations. The bartering with the Indians and arrangement of the men to their different duties—the writing our journals, taking the means of the temperatures, and other meteorological observations, fully employed our time; and very far from finding the winter tedious or dreary, I have frequently, amid these various occupations, exclaimed with the poet,

“ Oh ! there is sweetness in the mountain air,
And life, that bloated ease can never hope to share.”

Early in March, George Sinclair with two other men arrived from the fishery, in order to complete a party of six for the purpose of conducting Captain Back to Fort Chipewyan.

Sinclair, in his passage from the Athabasca to Great Slave Lake, succeeded in killing a large-sized skunk, *mephitis Americana*, var. *Hudsonica*; which, from the circumstance of its having been found beyond the 61st parallel, is extremely interesting, as the limit reached by that animal was supposed by Doctor Richardson not to exceed the latitude of 56 or 57 North. A considerable number of animals of the genus *mephitis* found in America, owing to a difference in the number and variety of their stripes, have been described by authors as so many distinct species; but Baron Cuvier is of opinion that, in the present state of our knowledge of these animals, we are not warranted in considering them otherwise than as varieties of a single species; and of these varieties he has enumerated fifteen.

The animal now under consideration, which possesses long black hair, with a broad white stripe along each side, and a bushy tail, according to Richardson comes nearest to the description of the *viverra mephitis* of Gmelin; the *chinche* of Buffon; by which latter name it is known in Peru. Owing to the defence with which nature has furnished the skunk, and

which has already been alluded to, some of the early French settlers most justly named it *l'enfant du diable*, others *bête puante*, and the Swedes *fiskatta*. The fluid which this animal has the power of ejaculating to a distance of several feet produces so stifling a stench, that those persons whose clothes have become tainted with it are denied the rights of hospitality even by their relatives and friends. Kalm is said to have been almost suffocated by the odour of one which was pursued into a house where he was staying; and other persons have been so affected by the vapour as to continue ill for several days. Indians have been known to lose their eyesight in consequence of inflammation produced by the fluid having been thrown into them by the animal. The brute creation have a like dread of its effluvia: cattle will roar with agony; and the tracking-dog, which hunts it eagerly at first, no sooner feels the effects of a single discharge of the nauseous liquor, than it retreats with the utmost precipitation, and by way of purification runs its nose into the ground.

One would naturally suppose, therefore, that the skunk would be the last animal selected by

man for his companion : but, far from this, I am given to understand that it is often tamed, and follows its master like a dog. It occasionally hibernates under the snow, but more frequently passes the winter in some of the Indian *caches* and feasts upon the industry of man. On removing the stones covering a hoard of provision, the animal, attracted by the noise, makes its appearance, when it may be readily killed by a sharp blow on the nose with a small stick. After this manner Mr. M'Leod informed me that he had killed several ; and on no occasion had they discharged the noisome fluid which they secrete. I was subsequently informed by the Indians, that the skunk, when suddenly killed, is incapable of using the powerful defence with which nature has endowed this otherwise harmless animal. When thus deprived of life, if the bag containing the fluid, which is situated at the root of the tail, is instantly taken out, the flesh of the animal is highly esteemed and the skins made into tobacco-pouches.

To that singular bird the *emberiza oryzivora*, which is known in the United States by the

provincial names of bob-link, rice-bird, and reed-bird, the Cree Indians have applied the term of skunk-bird, from the similarity it bears to that quadruped in its white markings. The rice-bird enters Georgia from the southward in May, and in the early part of June reaches the 55th parallel, which is its farthest limit north, as, beyond that latitude, the wild rice, on which it feeds, is not found. These birds, according to Pennant, inhabit in vast numbers the island of Cuba, where they commit great ravages among the early crops of rice, which precede those of Carolina. As soon as the rice of that province is to their palate, they quit Cuba and pass over the sea in numerous flights directly north, and are very often heard in their passage, by sailors frequenting that course. Their appearance there is in September, while the rice is yet milky; and at that time they are said to commit such devastation, that fifty acres of the grain have been totally ruined by them in a short time. Although lean on arriving there, they soon grow so fat as to fly with difficulty, and when shot often burst with the fall. It is remarkable that among the myriads

that pay their autumnal visit to the Carolinas, there is never found a single cock-bird. This has been verified by careful dissection; and it is Pennant's opinion, therefore, that the females alone of this species of *emberiza* are entitled to the term of rice-birds.

Rice, the periodical food of these birds, is a grain of India, and was introduced into Carolina by a mere accident. In 1696, the master of a vessel from Madagascar landed about half a bushel of an excellent kind; from which small beginning sprung an immense source of wealth to the southern provinces of America. Within little more than half a century from that time, 120,000 barrels of rice were in one year exported from South Carolina; 18,000 from Georgia; and all from the remnant of a sea-store left in the bottom of a sack.

The *mustela vison*, vison weasel, or mink, next to the skunk, exhales the most fetid smell of all the North American animals. Pennant states, upon the authority of an author who wrote before his time, that the term "*mænk*" was given to this animal by a Swede who emigrated to America. It is a smaller

animal than the pine-martin; although, from the greater length of its neck, it measures nearly as much from the nose to the tail. The tail exactly resembles that of an otter in form; which has very possibly given rise to the name of lesser-otter, by which some authors have designated it. Water is the favourite element of the vison, and both its form and the nature of its fur are admirably adapted to its aquatic habits. When pursued, it generally seeks that element for shelter; although on two occasions I saw it take refuge in the hole of a rock. Far from being a timid animal, it frequently approaches a canoe out of curiosity; in which particular it resembles the musk-rat, as well as in its mode of swimming. By imitating its call, not unlike the squeaking of a common mouse, it is readily drawn from its retreats, and falls an easy prey to the hunters. Easily tamed, it is capable of strong attachment; but, like a cat, soon offended, and will on a sudden provocation bite those who are most kind to it. Its fur, although fine, is not prized in England; but in some parts of Asia it is considered next in value to sable; and,

amid the endless changes of fashion, it may sooner or later be equally esteemed in our own island. It preys upon small fish, fish-spawn, and fresh-water muscles; in the pursuit of which it remains under water for a considerable time. In severe winters, when the rapids and falls have been unable to resist the inclemency of the weather, the mink hunts mice on land; and if in the neighbourhood of civilization, makes great havoc in the poultry-yards of the farmers, by biting off the heads of fowls and sucking their blood. Kalm mentions that in the vicinity of the Carolinas it lurks amid the docks and bridges, where it proves a useful enemy to rats. It is also said to be very destructive to the tortoise, by scraping its eggs out of the sand and devouring them.

Four of the most experienced men were now despatched to Anderson's Fall, to make a careful survey of the surrounding country, with a view, if possible, of finding a track sufficiently level to admit of our sledging the boat across land to the house. From their report, however, that plan was altogether impracticable, scarcely any snow having fallen in the course of

the winter: the same impediments therefore of mountain and valley still existed as in the month of October, when we left that spot. Nevertheless, it was hoped the valleys might yet be filled up by a heavy fall of snow, whereby our chance of drawing the boat over the portage would be rendered in some measure feasible.

The men had visited, according to my directions, a rocky mountain, from which spot several of our party at different times had fancied they saw a thick column of smoke rising. I was more particularly induced to notice this circumstance because the Indians had described the phenomenon of a smoking rock somewhere to the north of our establishment; and a little beyond Icy River, some islands were observed, that seemed to owe their origin to volcanic action. One in particular, situated in the very centre of a strong current, and in deep water, was exceedingly conspicuous, being formed of stones rounded by attrition, and piled one upon another in a conical form to a height of twenty or more feet, not at all incrustated with lichens; a circumstance that would lead us to suppose it

to be of recent formation. With this exception, we observed no volcanic appearances along the whole course of the Great Fish River; and it is probable that this singular island owed its eccentricity to some peculiarity in the current, aided by the pressure of the ice in the spring.*

The smoke was found to be nothing more than the spray rising from a magnificent waterfall, far surpassing, in the opinion of the men, anything they had yet seen; which induced Captain Back to visit it. Parry's Falls, as they were designated after the distinguished navigator of that name, so far exceeded Captain Back's most sanguine expectations, that he described them as forming the most imposing spectacle he had ever witnessed; neither Niagara, the Falls of Wilberforce, nor the Mountain Fall in the Kamenistiquoia River, were to be at all compared with them.

The first summer visitor I secured was the *strix brachyota*, or short-eared owl, which appeared sitting, after its accustomed manner, on the lowermost branch of a young pine, watching, like a cat, most assiduously for mice.

* Islands precisely similar were observed in the Mississippi River.

In thus seeking its food, this owl is peculiar to others of the same genus, which fly in search of their prey. Like the American hawk-owl (*strix funerea*), it flies in circles round the fires of the voyageurs, and is so bold as even to attack man; when it fights with such determination as to be frequently killed with sticks. When disturbed, it takes but a short flight, seeking refuge in the dense thickets, whence it is not easily driven; although it occasionally alights in a conspicuous situation, to reconnoitre its pursuer. According to some authors, unlike other birds of prey, it lays from ten to twelve eggs; and from a fact mentioned by Bewick, that twenty-eight individuals of this species have been counted together in a turnip-field, it is supposed to assemble in flocks prior to leaving its breeding-places.

Probably the short-eared owl builds its nest in the ground-like the *strix cunicularia*, or burrowing-owl, which, according to Lucien Bonaparte,* "is seen in small flocks in the neighbourhood of its holes." The burrowing-owl, instead of inhabiting venerable ruins, or tenant-

* Lucien Bonaparte's American Ornithology, vol. i. p. 68.

ing the sombre forests, delights to dwell on open plains, in company with animals remarkable for their social disposition, neatness, and order. Say informs us that it resides exclusively in the burrows of a species of marmot, the *arctomys Ludovicianus*, wistonwish, or prairie-dog; whose excavations are so commodious as to render it unnecessary that this bird should dig for itself. The spots selected by the marmot for its habitation are termed, to the westward of the Rocky Mountains, where they assemble in numbers, "prairie-dog villages." These villages, which are very numerous and variable in their extent, are composed of slightly elevated mounds, having the form of a truncated cone, about two feet in width at the base, and seldom rising as high as eighteen inches above the surface of the soil. The entrance is placed either at the top or on the side, and the whole mound is beaten down externally, especially at the summit, resembling a much-used foot-path. An obliquely descending passage leads to an apartment where this industrious marmot constructs a cell for its winter's sleep. It is composed of fine dry grass,

globular in form, with an opening at top capable of admitting the finger; and the whole is so firmly compacted, that it might without injury be rolled over the floor. Like others of the genus, on the approach of danger it sits erect to reconnoitre the movements of the enemy, but soon takes refuge in its subterranean chambers.

From the ruinous condition of the burrows tenanted by the *strix cunicularia*, compared with the neat and well-preserved mansion of the marmot, Say has inferred that this owl is either the unfriendly resident of the same habitation with the prairie-dog, or that it is the sole occupant of a burrow acquired by the right of conquest. As it begins its flight, it utters a note so strikingly similar to the cry of the marmot, that did not the burrowing-owls of the West Indies, where no marmots exist, utter the same sound, "it might be inferred that the marmot was the unintentional tutor to the young owl." *

The dogs and sledges being in perfect readiness by the 20th of March, Captain Back took

* Bonaparte

his departure from Fort Reliance, in a cariole drawn by three fine dogs, and accompanied by six men laden with provision. At the moment of separation I received the following orders :

“ Fort Reliance, March 20th, 1835.

“ SIR,

“ As it will be necessary for me to go by Canada in my way to England, I have to request that you will take the persons composing the expedition under your charge, and at the earliest opportunity convey to Fort Resolution, and make over to the Company's store, the two boats, and whatever surplus goods may remain belonging to it ; being careful to give in an account of what you deliver, and to obtain a receipt for the same, signed by the gentleman who may be at that establishment.

“ You will also have the goodness to inspect the account-book of Mr. M'Leod before you separate, so as to be able to explain anything that I may not comprehend ; and as that gentleman may require a passage with you through the country, you are to afford him one as far as you can do consistent with the conveyance of

the boxes, &c. &c. &c. appertaining to the expedition.

“From Fort Resolution you will take an adequate supply of our pemmican to last you to York Factory in Hudson’s Bay, at which depôt you will have no difficulty in procuring fair copies of the total accounts against the expedition, and which, together with all papers, notes, journals, or other documents, as well as specimens of whatever denomination made or collected during the expedition, will be directed to the Under Secretary of State for Colonies, with my name in the corner.

“If any of your crew should wish to remain at any particular post on the line of route between Fort Reliance and your ultimate destination, you are entirely at liberty to use your own discretion in permitting it or not, as may best suit your convenience; and with the remainder you will embark in the Company’s ship for England, and acquaint me with your arrival at the Geographical Society’s Rooms in Regent Street.

“It does not occur to me that I have any thing further to add, except the tender of my

thanks for the uniform attention that you have bestowed upon the health of the people, and the general manner in which you have made yourself useful throughout the whole of the service.

“ I am, Sir,

“ Your obedient servant,

“ GEORGE BACK,

“ Commander of the

“ Arctic Land Expedition.

“ Mr. R. King, Surgeon, &c. &c.

“ Arctic Land Expedition.”

Notwithstanding Captain Back was so thoroughly convinced of the impossibility of getting the boat to the fort as even to abstain from making the least mention of it in the orders he left me, I despatched M'Kay and Ross, two of the four men remaining at the house, to make a farther survey of the ground, leaving it to their discretion to absent themselves as long as should be requisite to determine the point. Of the two boats which I had directions to return into the Company's stores, one was situated at Tāl-thēl-lēh—the other in

the bay fronting the house, and enveloped in eight feet of ice : for, independently of its having been frozen up, from the impossibility of hauling it on the beach in the fall, notwithstanding our whole force, assisted by several Indians, was exerted to that effect, the A-hēldězză, on the 2nd of March, by overflowing its banks, covered the bay with water to a depth of several feet ; which becoming instantly frozen, hid the boat entirely from our view. The necessity of abandoning the craft did not require a moment's consideration ; for, by awaiting the breaking up of the lake, provided the boat could be repaired—which was extremely improbable, since it must of necessity have burst from the water that filled it expanding as it became frozen—I could not calculate upon reaching Fort Resolution before the first week in August, at least a month after the last of the Company's boats had passed. To embark then in one of the cumbrous bateaux of the country would have been useless, the men composing my party being too few in number to drag it over the portages ; of which the traders are so fully aware, that they always despatch two or more boats

together, that the powers of the united crews may overcome those difficulties.

On the return of the men it was found utterly impracticable to avail ourselves of the sea-boat: to remedy the evil, therefore, of passing another winter in the country, I determined upon burning her, to secure the necessary iron-work for building a new one, on the banks of the Slave River; convinced by such a procedure, that if I could but transport the property belonging to the expedition across the lake before the disruption of the western ice, I was pretty certain of effecting the main object of my orders. M'Kay and Ross were instantly despatched to Anderson's Fall for that purpose; and upon their return, no time was lost in forwarding the iron-work and three bags of pemmican to the carpenters at the fishery, with the necessary directions for their guidance.

A solitary pine-martin (*mustela martes*) was discovered by Ross near Parry's Falls; a great rarity in the neighbourhood of the barren grounds, the thickly-wooded districts being most congenial to its habits. In the pine-

forests it is found in such vast numbers, that upwards of one hundred thousand skins are annually imported by the Hudson's Bay Company. The fur of the martin, owing to its fineness, has always been an important article of commerce, being frequently sold for sable; and, when dyed, for other expensive furs. It is in the highest order in the winter time, when the lustre of the surface is considerable; but at the commencement of summer, the dark tips of the hair drop off, which alters its colour to a pale orange-brown with little lustre, and consequently, as the darkest skins are most prized, of but little value. These animals appear periodically in vast numbers; which the hunters regard as a forerunner of heavy falls of snow, and a season favourable to the chase.

The martin preys on mice, hares, small birds' eggs, and partridges; a head of the latter with the feathers being the best bait for the log-traps in which this animal is taken. When pursued and its retreat is cut off, it shows its teeth, sets up its hair, arches its back, and makes a hissing noise like a cat; and although

it may be soon sufficiently tamed to acquire an attachment to its master, it never becomes altogether docile. They burrow in the ground, carry their young about six weeks, and bring forth from four to seven in a litter, about the latter end of April.

According to my directions to Mr. M'Leod, all the men from the fishery arrived on the 12th of April; having, to my utter surprise, neither seen nor heard anything of M'Kay and the other man, forwarded with instructions to the carpenters. In the course of the evening, however, they returned. They had lost their way, until fortunately falling upon the track of the main party, they were enabled to retrace their steps to the fort. Louison, who had been labouring under severe illness ever since he left us at the commencement of spring of the previous year, accompanied the party for the sake of placing himself under my care. In his situation, as interpreter at Fort Resolution, Captain Back had left Thomas Hassel, with instructions to follow him to Fort Chipewyan on the first opening of Buffalo

146 HASSEL'S ROUTE TO FORT CHIPEWYAN.

Creek, by which there exists a short route to the Athabasca Lake; but, being impeded by a portage of seven miles, it is only practicable for the passage of canoes.

CHAPTER XV.

Departure for England.—Pine Bullfinch.—Formation of a Winter Encampment.—Arrival at Tāl-thēl-lēh.—An invalid Indian Woman.—An account of the North American Bears.—Their Ferocity very much overrated.—Their Fear of Man.—The Polar and Grisly Species easily rendered ferocious by provocation.—Instances recorded of the great power and tenacity of life displayed by these animals.—Incapability of the Adult Grisly Bears to climb Trees.—Fat Male and Pregnant Female Bears alone hibernate.—Situation of their Dens.—Migration of the Lean Bears.—Period of hibernation.—Bears feed indiscriminately upon Vegetable and Animal Matter.—An extraordinary circumstance regarding these animals.—The Polar Bear known to Naturalists at a very early period.

ON the 14th of April, having secured several pieces in the store, I left Fort Reliance, accompanied by the whole party, conveying a weight altogether with provision and baggage of two thousand pounds. We formed quite a procession on the lake, following one another in regular file, so as to benefit by the beaten path

of the foremost man and sledge; each taking his turn to lead the way, or beat the track, as it is termed; which duty, when the snow is deep, proves extremely laborious. At the encampment in the evening I killed a pine-bullfinch (*loxia enucleator*), from the summit of a lofty pine, where it was perched singing. A month later of the previous year I shot several at Fort Reliance; and an Indian brought me a specimen which he had procured at Artillery Lake. Dr. Richardson mentions the 60th parallel as its limit north; but since those obtained by me were in a much higher latitude, it probably extends to the farthest woods. This bird, which is the largest species of its family yet known, may be easily overlooked, from its habit of frequenting only the gloomiest recesses of the pine-forests, where it feeds on the seeds of the white spruce. The pine-bullfinch is an inhabitant of the northern parts of Europe, and frequents Siberia and the north of Russia in such numbers as to be sold in the market-places.

The formation of a winter encampment consists in clearing from snow a square piece of

ground sufficiently large to contain the party, and covering the space with pine-branches, over which the blankets are spread, and around the whole a fence composed of logs of wood about three feet high is built. A fire, formed of dried pine-sticks, placed lengthways, is so situated as to divide the square into two equal parts, on either side of which the party station themselves feet to feet, and by keeping a good fire, can thus sleep in warmth and comfort, with the heavens only for a canopy, although the thermometer may indicate a temperature many degrees below the freezing point of mercury. The dogs, as soon as the party have stowed themselves snugly under their blankets, creep in to claim a share of the woollen covering, and by that means both communicate and receive heat.

The arrival at a place of encampment affords immediate employment to the whole party, each being allotted a respective duty: some betake themselves to the woods to collect pine-branches for flooring the hut, and fuel for the night; whilst others are occupied in seeking blocks of ice to melt into water, or shovelling

away the snow with their snow-shoes. The dogs alone are idle during this scene of bustle, remaining harnessed to their burdens until the men find leisure to unload the sledges, and suspend to the branches of the nearest trees every kind of provision as far as possible out of their reach; for, independently of being but ill-fed, they are so wolfish in their propensities for thieving, that although the *voyageurs* frequently make a pillow of their food, these indefatigable marauders manage to purloin it. Nor are the men less cautious of their moccasins and sledge-traces, which the dogs, like their masters, have learned by dearly-bought experience to be capable of affording nutriment.

By the contraction of the ice at low temperatures, wide chasms are formed in the lake; and by the expansion of the ice again during the warmer weather, large blocks of that iron-ribbed substance are forced up so as to form walls sometimes twenty feet high, which frequently extended the whole breadth of the lake and obliged us to make several portages. We nevertheless reached the fishery at Tāl-thēl-lēh on the 19th of April, when a few of the men

were instantly sent back to Fort Reliance for the remainder of the baggage, while the others would proceed with me to Fort Resolution. My first care was to attend to an invalid Indian woman, whose spine was so severely injured by a blow inflicted by her inhuman husband as to render her incapable of walking. The recumbent position necessary for her recovery was, owing to the roving habits of her tribe, quite out of the question; and no provision being made by the Hudson's Bay Company for such unfortunate creatures, her case was of course utterly hopeless.

The snow had entirely disappeared from off the land at this part of the lake, and the black bear already sallied forth on its summer wanderings. Associated with this and other species, there are so many facts interesting, not only in themselves, but in comparing the habits of the North American Indians with those of the Laplanders, that I am sure I shall be pardoned for giving a more lengthened description of these animals than the limit of this work would allow me to give to others, perhaps scarcely inferior in interest.

So much doubt has arisen with regard to the different kinds of bears inhabiting the American continent, that further investigation is requisite before any just conclusions can be drawn as to what are species, and what are mere varieties. It is, however, the general opinion of late naturalists, that there are two or more species in the northern parts of the new world differing specifically from those of the old continent.

The *ursus Americanus*, or black bear, is not only the smallest, but it is the most timid, of the American species; for it will seldom face a man unless it is wounded, has its retreat cut off, or is urged by affection to defend its young. The female has been known to confront her enemy boldly until she had seen her cubs attain the upper branches of a tree in safety, but in fact leaving them an easy prey to the hunter. The Indians affirm that the mere tying of a gun-cover, neckcloth, or anything that has been long in the possession of man, round the body of the tree, is sufficient to hold captive for several days not only the young, but the more adult animals. On attempting to descend, they

no sooner come in contact with the simple barrier than they seek refuge again in the highest branches of the tree, renewing their attempts to escape from time to time until, worn out by fear and famine, they drop to the ground.

Notwithstanding the *ursus arctos*, or barren-ground bear of Richardson, is said to be so dreaded by the Indians, "that they carefully avoid burning bones in their hunting excursions lest the smell should attract it," it is evidently a very harmless animal, as all the individuals seen by Franklin's party fled at once. The grisly bear (*ursus ferox*), notwithstanding its specific name, and the *ursus maritimus*, or polar bear, of which such dreadful accounts have been given by the early writers, are likewise extremely inoffensive if not provoked. I assert this not only upon the credit of very many Indians with whom I conversed on the subject, but upon the testimony of Mr. Andrew Graham, one of Pennant's ablest correspondents, as well as other writers.

Mr. Drummond, the botanist attached to Sir John Franklin's second expedition, in his excur-

sions over the rocky mountains, frequently came suddenly upon one or more creatures of the grisly kind. On such occasions they reared on their hind legs, and made a loud noise like a person breathing quickly, but much harsher. He kept his ground without attempting to molest them, and they on their part whirled round and galloped off. Also, in a manuscript account of Hudson's Bay, written about the year 1786 by Mr. Graham, is the following anecdote: "One of the Company's servants who was tenting abroad to procure rabbits,* having occasion to come to the factory for a few necessaries, on his return to the tent passed through a narrow thicket of willows, and found himself close to a white bear lying asleep. As he had nothing wherewith to defend himself, he took the bag off his shoulder and held it before his breast, between the bear and him. The animal arose on seeing the man, stretched himself and rubbed his nose, and having satisfied his curiosity by smelling at the bag which contained a loaf of bread and a rundlet of strong beer,

* The fur-traders call the *lepus Americanus* or American hare, "rabbit."

walked quietly away, thereby relieving the man from his very disagreeable situation." *

When provoked or wounded, however, all bears, particularly the polar and grisly species, are extremely ferocious; and what renders them most dangerous assailants is their amazing strength, of which a just estimation may be formed from the fact that an individual of the latter kind has been known to drag to a considerable distance the carcass of a buffalo, weighing about a thousand pounds; and in Barentz's Third Voyage in search of a North-east Passage to China, a story is told of two polar bears coming to the carcass of a third one that had been shot, when one of them taking it by the throat, carried it to a considerable distance over the most rugged ice, where they both began to eat it.

Of the great power and tenacity of life displayed by the polar bear, the same navigator had proof during his second voyage on the island of Nova Zembla, which is thus mentioned in Churchill's Collection of Voyages :—" On the 6th of September 1594, some sailors landed

* Fauna Boreali, vol. i. p. 31.

to search for a certain sort of stone, a species of diamond. During this search, two of the seamen lay down to sleep by one another, and a white bear, very lean, approached softly and seized one of them by the nape of the neck. The poor man, not knowing what it was, cried out, 'Who has seized me thus behind?' on which his companion, raising his head, said, 'Holloa, mate, it is a bear!' and immediately ran away. The bear having dreadfully mangled the unfortunate man's head and sucked the blood, the rest of the persons who were on shore, to the number of twenty, immediately ran with their matchlocks and pikes, and found the bear devouring the body, which on seeing them ran upon them, and carrying another man away, tore him in pieces. This second misadventure so terrified them, that they all fled. They advanced again, however, with a reinforcement; and the two pilots having fired three times without killing the animal, the pursuer approached a little nearer and shot the bear in the head close to the eye. This did not cause him to quit his prey; for, holding the body which he was devouring always by

the neck, he carried it away as yet quite entire. Nevertheless they then perceived that he began himself to totter ; and the pursuer and another man going towards him, gave him several sabre-wounds, and cut him to pieces without his abandoning his prey."

Mr. Rowand, a factor of the Hudson's Bay Company, in charge of a post on the banks of the Saskatchewan, who has had more hair-breadth escapes from grisly bears than any single individual on record, related to me a case of one of that species attacking a party of *voyageurs* while bivouacking round a fire, and having carried off one of the company, fractured his arm and otherwise injured him before he was rescued. As the same tale has been described both by Doctor Richardson in his "Fauna Borealis," and Ross Cox in his work entitled "Adventures on the Columbia River," it would be needless to repeat it at length here. An Indian on the Saskatchewan was scalped by a single stroke of a grisly bear's paw, and rendered blind owing to the displaced skin being allowed to remain hanging on his cheeks until it ultimately adhered. Nevertheless the

unfortunate man was of opinion that his eyes were uninjured, and that a surgical operation would restore his sight. Among almost every tribe I visited there were a few that presented the effects of bear encounters, either in the loss of considerable portions of their flesh, or in the distortion of their legs and arms, which in some instances resembled the letter S.

It is fortunate that the grisly bear, the most formidable species that the inland Indians have to contend with, is incapable of climbing trees. Two instances are related by Lewis and Clarke, in their Journey up the Mississippi, where a hunter sought shelter in a tree in safety from its pursuit, although held a close prisoner for many hours by the infuriated animal; and Mr. Drummond, having mortally wounded a female in the season of love, was kept a prisoner for a short time by the enraged male, who reared against the trunk of the tree, but made no attempt to climb up. The Indians attribute this peculiarity to the form and length of its claws, in which it differs from other bears; and this is the more probable, since it is well known

that the young cubs can climb with a facility that a cat might envy.

The natives affirm that a bear never retires to its den until it has acquired a thick coat of fat; and that when it comes abroad in the spring it is equally fat, though in a few days thereafter it becomes very lean. They also assert that the fat male and pregnant female bears alone hibernate, which is confirmed by the statements of several writers. "In very severe winters," says Pennant, "great numbers of bears have been observed to enter the United States from the northward. On these occasions they were all lean, and almost all males: the few females which accompanied them were not with young." Fabricius states that polar bears are frequently seen in Greenland in great droves, where, attracted by the scent of the flesh of seals, they will surround the habitations of the natives and attempt to break in, but are soon driven away by the smell of burnt feathers. The Esquimaux of Melville Peninsula, we are further informed by Captain Parry, derive a considerable portion of their subsistence from

the male polar bears that they kill when roaming at large at all periods of the winter. In Hearne's account of the same animal, in which he is borne out by the observations of Graham, we are acquainted that the males leave the land in the winter time, and go out on the ice to the edge of the open water in search of seals, whilst the females burrow in deep snow-drifts from the end of December to the end of March, remaining without food and bringing forth their young during that period; that when they leave their dens in March, their young, which are generally two in number, are not larger than rabbits, and make a foot-mark in the snow not bigger than a crown-piece.

The polar bear, upon the authority of Graham, takes up its residence under the declivities of rocks, or at the foot of a bank where the snow-drifts are deep: a small hole for the admission of fresh air is constantly observed in the dome of its den. The black bear and its varieties, on the contrary, generally select a spot for their dens under a fallen tree, and having scratched away a portion of the soil, retire to them at the commencement of a snow-

storm, where the snow soon furnishes them with a close, warm covering. The breath of the animal makes a small opening in the den which betrays its retreat to the hunter ; but this is so situated as frequently to escape the lyncean eye of an experienced Indian hunter. In the more southern parts they occasionally retreat to the hollow of an ancient tree, in which situation one was found by Mr. Alexander Henry, one of the first Englishmen who penetrated into the fur countries after the reduction of Canada under the British arms.

“ In the course of the month of January, whilst on the banks of Lake Michigan,” says that gentleman, “ I happened to observe that the trunk of a very large pine-tree was much torn by the claws of a bear, made both in going up and down ; and on further examination I saw that there was a large opening in the upper part, near which the smaller branches were broken. From these marks, and from the additional circumstance that there were no tracks on the snow, there was every reason to believe that a bear lay concealed in the tree. On returning to the lodge I communicated my

discovery ; and it was agreed that all the family should go together, in the morning, to assist in cutting down the tree, the girth of which was not less than three fathoms. In the morning we surrounded the tree, both men and women, as many at a time as could conveniently work at it ; and there we toiled, like beavers, till the sun went down. This day's work carried us about half-way through the trunk ; and the next morning we renewed the attack, continuing it till about two o'clock in the afternoon, when the tree fell to the ground. For a few minutes everything remained quiet, and I feared that all our expectations were disappointed ; but as I advanced to the opening, there came out, to the great satisfaction of all our party, a bear of extraordinary size, which, before she had proceeded many yards, I shot.*

As the black bear retreats as soon as the snow begins to lie on the ground, and it does not go abroad again until the greater part of the snow has disappeared, the period of its hibernation will of course depend upon the length of the winter. In latitude 65 the

* Henry's Travels, p. 142.

winter repose lasts from the beginning of October to the first or second week of May ; but on the shores of Lake Huron the period is from two to three months shorter. The grisly and polar bears seem to be more hardy, for they wander abroad long after the ground is covered with snow, and make their appearance some time before it begins to melt. Graham mentions November as the period that the polar bear retires to its winter-quarters, and that it leaves its den in the month of March, when the cubs are as large as shepherds' dogs.

The total length of an adult black bear is about five feet, and the barren-ground bear seldom exceeds it by more than an inch. The grisly or polar bears, however, are of a much greater size ; for Lewis and Clarke mention an individual of the former species as measuring nine feet from the nose to the tail, affirming that they had seen a still larger one ; and De Witt Clinton, who was the first naturalist that pointed out the difference between that animal and the other American bears, received an account from an Indian trader of one fourteen feet long. Nine feet in length, and four

feet and a half in height, has been given as the size of the polar bear ; although a less dimension by a foot would possibly be more accurate, since in two specimens measured by Captains Lyon and Ross, the one gave eight feet seven and a half inches only as the total length, and the other but seven feet ten inches. The older *voyageurs* have enumerated individual cases of enormous size, but which has been supposed to originate from the skin having been measured after it was removed from the body, when it is known to be capable of stretching several feet. M'Kenzie mentions the foot-marks of a grisly bear as being nine inches long and proportionably wide ; and from the weight of the animal often causing the snow when encrusted by a partial thaw to crack and sink for a yard or more around it, the inexperienced have been led to regard it as the vestige of an enormously large quadruped. "Many reports," says Dr. Richardson, "of the existence of live mammoths in the rocky mountain range have, I doubt not, originated in this manner."

The American bears feed indiscriminately upon animal and vegetable matter ; the *ursus mari-*

timus preferring the former, and all the other species the latter. In the stomach of a black bear Dr. Richardson found the remains of a seal, a marmot, a large quantity of the sweet roots of some *astragali* and *hedysara*, together with some berries and a little grass.

The Indians and traders to a man affirm, that notwithstanding one thousand or more skins are annually procured from black bears destroyed in their winter retreats, a bear was never killed with young. The circumstance is mentioned in Pennant's Arctic Zoology,* upon the authority of both Lawson and Catesby; but it has been very improperly discredited or neglected by late writers. I have been informed that the young of the black bear have been found by the Indians not larger than a musk-rat; which, if the difference in size of the parent animals is taken into consideration, is confirmed by Hearne's account of the young of the polar bear. According to Richardson, the black bear brings forth early in January: admitting therefore the growth of these creatures for two months to be somewhat slower than other

* Vol. i. p. 60.

known animals, still there is good reason to believe that when first born they are extremely diminutive. As the Indians have invariably found a mass of disorganised matter, although they failed in tracing it to anything like a foetus, I would suggest, for further investigation, whether or not these animals produce their young in a state of embryo? Very many queries regarding this subject will readily occur to the mind of every one, but I think the majority will be answered by the fact, that in North America bears are not worried to death, but are despatched instantly. The hunter makes a noise at the entrance of the den until the stupid animal puts forth its head, when a mortal wound is implanted in its forehead.

Notwithstanding this animal came under the notice of naturalists at a very early period, there is much, in all probability, yet to be learned regarding its peculiarities. The polar bear became part of the royal menagerie as early as the reign of Henry III. There are two writs extant from that monarch, directing the sheriffs of London "to furnish sixpence

a day to support our white bear in our Tower of London; and to provide a muzzle and iron chain to hold him when out of the water, and a long and strong rope to hold him when he was fishing in the Thames."*

* Madox's Antiquities of the Exchequer, vol. i. p. 376.

CHAPTER XVI.

Anecdotes of the Indians with regard to Bears.—Extraordinary fatness of the Bear.—Gluttony ascribed to the Esquimaux in a certain degree accounted for.—The Manners and Customs of the North American Indians compared with the Laplanders and others.—Combats between the Polar Bear and the Walrus.—Departure from Tāl-thēl-lēh and Arrival at Fort Resolution.—Indian Gamesters.—Grey and Red Sucking-Carp, Methy, Denizen of the Northern Lakes, Tullibee, and Gold Eye.—The Okow and American Sandre proved to be the same species.—Arrival of Mr. M'Leod and his Family.—Important service rendered by Mr. Hutchinson.—Certain Indications of the advance of Spring.—Canada, Snow, and Laughing Geese.

THE chase of the bear is considered by the natives of North America as a matter of the highest importance; they frequently propitiate them by speeches and ceremonies, and if they succeed in slaying one, they treat it with the utmost respect, speak of it as of a relation, offer it a pipe to smoke, and generally make a speech in exculpation of the act of violence they have committed in slaying it. The women of the

Chipewyan and Dog-rib tribes will not touch a bear's skin, nor even step over it; so that one spread at the door of a tent is an effectual barrier against female intruders. Necklaces of the claws of a grisly bear are highly prized by the Indian warriors, as proofs of their prowess; and in their dances they frequently imitate the gestures and actions of that animal. The claws of a bear are used for gambling purposes, and when properly prepared it is extremely difficult to obtain them from the Indians, but upon what ground I was unable to learn. Mauffley after much entreaty presented me with a set, but previously exacted a promise that I would never part with them.

Mr. Alexander Henry mentions the case of some Indians, who being present at the death of a bear which he shot, "took its head in their hands, stroking and kissing it several times; begging a thousand pardons for taking away its life; calling it their relation and grandmother, and requesting it not to lay the fault upon them, since it was truly an Englishman that had put it to death. This ceremony was not of long duration; and if it was I that

killed their grandmother, they were not themselves behind in what remained to be performed. The skin taken off, we found the fat in several places six inches deep. This being divided into two parts, loaded two persons, and the flesh parts were as much as four persons could carry.* In all, the carcass must have exceeded five hundred weight. As soon as we reached the lodge, the bear's head was adorned with all the trinkets in the possession of the family,—such as silver armbands, and wristbands, and belts of wampum,—and then laid upon a scaffold set up for its reception within the lodge. Near the nose was placed a large quantity of tobacco.”

“The next morning no sooner appeared than preparations were made for a feast to the manes. The lodge was cleared and swept, and the head of the bear lifted up, and a new Stroud blanket, which had never been used before, spread under it. The pipes were now lit; and Wamatam” (an Indian Mr. Henry speaks of as his benefactor and friendly adviser) “blew tobacco-smoke into the nostrils of the bear. At

* Fifteen or sixteen gallons of pure oil have been melted from a single bear.—Bartram's Journey, E. Florida, p. 26.

length the feast being ready, Wamatam made a speech, resembling in many things his address to the manes of his relations and departed companions; and we then all eat heartily of the bear's flesh." *

Charlevoix states that the American Indians on killing a bear give a great entertainment, and make a point to leave nothing. The feast is dedicated to a certain genius, perhaps that of Gluttony, whose resentment they dread if they do not eat every morsel, and even sup up the very melted grease in which the meat was dressed. They sometimes eat till they burst, or bring on themselves some violent disorders. The first course is the greatest bear they have killed, without even taking out the entrails or taking off the skin, contenting themselves with singeing the skin, as is practised with hogs. The Esquimaux have been charged with excessive gluttony by Sir John Ross and others, and it is for their information that I have inserted the foregoing paragraph, because I think it more than probable that those people have been induced to consume the quantities of food

* Henry's Travels, p. 142.

attributed to them from some such cause. It must be admitted that before a traveller can draw anything like a conclusion as to the manners and habits of a nation, he should either comprehend their language or have the means of interpretation. With the exception perhaps of that information which has been gained by the missionaries, almost all our knowledge regarding the Esquimaux has been gathered by mere signs, assisted by a very slight vocabulary of words; and yet late travellers have been ungenerous enough to send forth to the world statements which I do not hesitate to pronounce as ill-digested, and I may even say unfounded, to the prejudice of a very intelligent people.

It is interesting to observe how similar is the feeling with regard to these creatures among tribes widely separated, but particularly with the Laplanders. According to Regnard, the chase of the bear is the most solemn action of the Laplander, and the successful hunter may be known by, and exults in, the number of tufts of bear's hair he wears in his bonnet. When the retreat of a bear is discovered, the ablest

sorcerer of the tribe is consulted as to the manner of attack. During the attack, the hunters join in a prescribed chorus, and beg earnestly of the bear that it will do them no mischief. When they have killed it, they put the body into a sledge to carry it home: the rein-deer which has been employed to draw it is exempted from labour during the rest of the year, and means are also taken to prevent it from approaching any female. A new hut is constructed expressly for the purpose of cooking the flesh; and the huntsmen, joined by their wives, begin with their songs of joy, and of thanks to the animal for permitting them to return in safety. We are further informed that the Laplanders term the bear the "dog of God," because they esteem it to have the strength of ten men and the sense of twelve. They never presume to call it by its proper name of *guouzhga*, lest it should revenge the insults on their flocks; but style it *mædda aigia*, or the "old man in the fur cloak."* They take great care never to bestow on their females a part of the rump of a bear; neither

* Arctic Zoology, vol. i. p. 65.

will they deliver to them the meat through the common entrance of the hut, but through a hole in another part. A similar custom prevails among some of the North American tribes with regard to the moose-deer. The Indians on approaching their camp pluck out the eyes of the animal and drag it into the tent from under the eaves, and not by the door. Penant acquaints us that the bear is the great master of the Kamskatkans in medicine, surgery, and the polite arts. They observe the herbs he has recourse to when ill or wounded, and acknowledge him as their dancing-master, mimicking his attitudes and graces with great aptness.

The polar bear is at constant enmity with the walrus, and frequently both the combatants perish. "On one occasion," says Captain Lyon on the credit of an Esquimaux, "a bear was seen to swim cautiously to a large rough piece of ice, on which two female walruses were lying asleep with their cubs. The wily animal crept up some hummocks behind the party, and with his fore-feet loosened a large block of ice: this, with the help of his nose and

paws, he rolled and carried until immediately over the heads of the sleepers, when he let it fall on one of the old animals, which was instantly killed. The other walrus with its cubs rolled into the water; but the younger one of the stricken female remained by its dam: on this helpless creature the bear now leaped down, and thus completed the destruction of two animals which it would not have ventured to attack openly."

"The stratagems practised in taking the large seal are not much less to be admired. These creatures are remarkably timid, and for that reason always lie to bask or sleep on the very edge of the pieces of floating ice, so that on the slightest alarm they can by one roll tumble themselves into their favourite element. They are extremely restless, constantly moving their head from side to side, and sleeping by very short naps. As with all wild creatures, they turn their attention to the direction of the wind, as if expecting danger from that quarter. The bear, on seeing his intended prey, gets quietly into the water, and swims until he is leeward of him, from whence by frequent short

dive he silently makes his approaches, and so arranges his distance, that at the last dive he comes up to the spot where the seal is lying. If the poor animal attempts to escape by rolling into the water, he falls into the bear's clutches : if, on the contrary, he lies still, his destroyer makes a powerful spring, kills him on the ice, and devours him at leisure." In the "Fauna Greenlandica" of Fabricius there are corresponding accounts.

I started on the morning of the 22nd with eight men and a weight of eight hundred pounds, comprising iron-work, tools, and provisions, determined not to be a drag on the Company's posts with regard to food if it could possibly be helped, and early on the 26th of April arrived at Fort Resolution. Three of the men were sent back on the following day to the fishery, to await the arrival of the men from Fort Reliance, when the whole party, accompanied by Mr. M'Leod and his family, were to return to me laden with a further supply of provision. Ross and Carron I retained to assist in making as large a collection of plants and specimens of natural history

as this barren spot would permit ; while the carpenters had directions to commence immediate preparations for building the boat.

An insatiable disposition for gambling exists even in the wilds of the northern regions ; for one of the hunters to Fort Resolution had just before my arrival lost the whole of his property at "platter," one of the most intricate games that is played by the North American Indians. The natives form a sort of dice of the claws of a bear, cut flat at their large end, into which a small quantity of lead is introduced ; lines are then traced thereon, and in playing, the manner in which they happen to alight on the barken dish or platter indicates the number of counters the player is to receive from his adversary, those that remain in an erect position reckoning the most. Whole nights are devoted by the hunters to this destructive sport ; nor will they refrain from staking their most valuable articles, even to the last grain of powder and shot they possess. The Stone and Black-feet Indians, from the facility with which they obtain food, having abundant leisure, are especially addicted to gambling ; and their

favourite "puckesann" is an amusement somewhat similar to the one just described. It consists in tossing on the ground, from a barken dish, several stones of a species of *prunus*, termed, from this circumstance, *puckesann-meena*; the difficulty of which lies in guessing the number.

An abundant supply of fish was daily brought to the fort from Buffalo Creek, chiefly consisting of *catostomus Hudsonius* and *Forsterianus*, grey and red sucking-carp. These species vary in weight from five to seven pounds, inhabit all the fresh waters of North America, frequenting the rivers, and even the land-locked marshes and ponds, but preferring shallow grassy lakes with muddy bottoms. As soon as the ice breaks up, they are to be seen in myriads, forcing their way up rocky streams and surmounting strong rapids, to arrive at their spawning-places in stony rivulets; when they may be readily speared or even taken by the hand in shallow rivers. Although they are soft and watery, and therefore little prized as food, they make a more gelatinous soup than any other of the northern fish, and, as I have mentioned elsewhere, form the best bait for

trout or pike. Like their congeners, they are singularly tenacious of life, and may be frozen and thawed again without being killed.

Of all the fish that are caught in the several districts of the fur-countries, the *lota maculosa*, or methy, is by far the most disagreeable; so much so indeed, that dogs, accustomed in that country to feed on the offal of every other kind of fish, will not touch any part thereof even when pressed by hunger. The methy, or loche, as it is designated by the Canadians, is extremely voracious, preying on all kinds of fish, which it takes chiefly in the night; and to such a degree do they fill themselves with a favourite food, a species of cray-fish, that the form of their bodies is at times quite distorted, the soft integuments of their bellies admitting of great dilatation. Its roe, however, is an exception to its nauseous flavour; for being composed of minute ova, if beaten up with a small quantity of flour, it makes most excellent bread, and when cooked alone, forms cakes that would be palatable even to an epicure.

We were fortunately not obliged to partake of such inferior food, as the season for taking

that denizen of all the northern lakes, the *salmo namaycush*, was not yet over. This magnificent trout is caught from March to May in great abundance by baited cod-hooks, set through holes in the ice in eight or nine fathoms water,—during the autumn in nets; and when it leaves its habitual residence, the deepest parts of the lakes, for the shallows to spawn, it is speared at night by torchlight. Very few are taken by the latter mode, since their stay for the purpose of depositing their ova rarely exceeds three weeks. This tyrant of the lakes (for no fish inhabiting the same waters can resist its voracity) far surpasses the common salmon in size, individuals having been captured weighing sixty pounds; and it is even said to attain one hundred and twenty, although none came under my own observation exceeding a weight of fifty pounds. When in good condition it yields much oil, the flesh appearing reddish or orange-coloured, but getting paler as it goes out of season: at all times, however, the stomach when boiled is a favourite morsel, especially with the Canadian *voyageurs*.

The *coregonus tullibee*, which very much

resembles the white fish not only in appearance but in its general habits, was not found so abundantly here as at Tāl-thēl-lēh and Gāh-hööä-tehēllēh ; although every day one or more individuals were brought to the fort. This fish was not previously supposed to exist so far north ; although now it may even be an occasional visitor at the mouth of the M'Kenzie, and, like the *coregonus quadrilateralis*, an inhabitant of both salt and fresh water.

A solitary specimen of that singular and beautiful little fish, the *hiodon chrysopsis*, nac-caysh or gold-eye, was hooked in the Slave River by an Indian, and brought by me to England ; a fact proving that the species takes a wider range than has hitherto been ascribed to it, the 53rd or 54th parallels having been mentioned by Richardson as its northern limit.

During my passage into the country I ascertained also another fact, extremely interesting both as regards the relative distribution of fish in the different lakes and their connecting streams intersecting the country, and as regards a doubt which has long existed, whether the *perca fluviatilis*, okow, or horn-fish of Richard-

son, is identical with the *luciperca Americana*, or American sandre. "Few of the *percoideæ*," says Dr. Richardson, "attain high latitudes; none of them go to the north of the 50th parallel; while the okow inhabits the rivers and lakes of the fur-countries up to the 58th parallel, and is, in all probability, the same species with *luciperca Americana*. Specimens that I prepared at Cumberland House in 1820 would have enabled me to decide the matter, but they have been accidentally destroyed." The okow, which is called *doré* by the Canadians, I found beyond Fort Lac la Ronge, where they were so numerous, that I caught thirty-two in about as many minutes, with a hook baited with a small piece of fat. The head and bronchia of one which I brought home has been designated by Dr. Richardson as *luciperca Americana* in the appendix to Captain Back's Narrative; a convincing proof of the identity of the species.

On the 10th of May, Mr. M'Leod arrived with his family, accompanied by the whole party, conveying altogether eight hundred pounds

weight of baggage and provision. From the very moment of Captain Back's departure up to the present period, the men had been actively employed in conveying the property of the expedition; yet, from the rotten state of the ice at this extremity of the lake, it was evident the whole of the baggage could not be transported before its disruption might be expected to take place. In this dilemma the assistance rendered to the expedition by Mr. Hutchinson, of the Company's service, was of the utmost importance. He at once undertook to give me a receipt for the boat and every article that had been in use, such as nets, iron-work, and the like, forming a large proportion of the returns mentioned in my instructions from Captain Back, on condition that I should send three Indians, at an expense of fifteen skins each, with directions to embark the whole on the opening of the lake, and then proceed without delay for the establishment. It only remained therefore to convey the other twenty-seven pieces; and as the ice was bare of snow, I ordered six runners to be made, and having

hired ten dogs in addition to those belonging to the expedition, so as to place four in each, the men forthwith departed.

It was not before this period that the return of the swans, geese, and ducks gave certain indications of the advance of spring, arriving according to their respective families : the *anser Canadensis* or Canada goose led the van, followed by the *anser hyperboreus et albifrons*, snow and laughing-goose. The Canada goose, called "ou-tarde" by the Canadians, and bustard by the Hudson's Bay settlers, is anxiously looked for by those traders and Indians who reside in the woody and swampy districts, as during the summer they depend principally upon it for subsistence. It makes its first appearance in flocks of twenty or thirty, which are readily decoyed within gun-shot by the hunters, who set up the first birds they procure, as stales to entice the others to alight, and imitate its call by shouting out at the pitch of their voices the word "wōō-hūck" frequently repeated. The silly birds instantly bend their course towards the sound of attraction, and whirling about the place, generally lose one or more of their num-

ber. Greater havoc is made by the more judicious plan, as soon as the wedge-formed flock is seen from afar, of concealing themselves among the long grass or thick brushwood, where they are enabled to call the birds from a very great distance, and so frequently kill several at a shot, that the usual price of a goose is a single charge of ammunition.

A Canada goose, which when fat weighs about nine pounds, is the daily ration for one of the Company's servants during the season, and is reckoned equivalent to three ducks, or eight pounds of buffalo or moose-meat. The geese in their migrations annually resort to certain passes and resting-places, some of which are frequented both in the spring and autumn, and others only in the spring. At those times flock after flock may be seen winging their way across the same neck of land, or through the same opening in the woods, each following the track of its predecessor. The Canada geese disperse in pairs throughout the country between the 50th and 57th parallels to breed, generally building their nests on the ground; although some few on the banks of the Saskatchewan

occasionally seek the trees for that purpose, depositing their eggs in the deserted nests of ravens or fishing-eagles.

The snow-goose, or wavey of the Hudson's Bay residents, is considerably smaller than the preceding species, and as superior to it in beauty as it is in deliciousness of flavour, in which latter quality it may with propriety be said to vie with all the others. The barren grounds appear to be the favourite breeding-places of these birds, for they have been found along the shores of the Arctic Sea to their limits east and west, generally arriving at those stations in the early part of June, when the elevated spots only are bare of snow. The laughing-goose, which owes its trivial name to the resemblance of its call to the laugh of a man, is said even to advance still farther north, it having been found breeding on the islands of the Arctic Sea; although from the large flocks abounding in the woody districts skirting the M'Kenzie to the north of the 67th parallel, as observed by Captain Franklin's party, that part of the country is assuredly one of its favourite places of resort. This bird more closely re-

sembles the wild original of our domestic goose than the other species, differing from the *anser hyperboreus* more particularly as regards the plumage, and from the *anser Canadensis* in the comparative length of the neck and form of the bill. The Indians have not yet succeeded in imitating the call of the wavey, though by patting their mouth with the hand, at the same time that they repeat the syllable wah, they are able to decoy the laughing-goose

CHAPTER XVII.

Successful termination of the Transport of Baggage across the Great Slave Lake.—Uncertainty of conveying a Boat over unknown Ground.—Conjectures concerning a North-west Passage in a commercial point of view.—The Author loses his way by following the Track of a Lynx.—A lost Man uniformly travels in circles.—Extraordinary facility with which an Indian penetrates a Forest—By adopting the same mode the Author recovers his way.—Arrival of Birds.—A favourite American Dish.—Cinereous-Owl.—Virginian Horned Owl.—Its startling Cry.—Golden-shafted Woodpecker.—Discovery of several new Species of Insects.—Important Discoveries regarding the Barren-ground Rein-deer.

ON the 20th of May the men returned, having experienced many unavoidable delays from open channels and decayed ice ; but, with the exception of a sledge of dogs and three men who, by falling in the water, had received a thorough wetting, no other accident occurred, and I had the satisfaction of finding the baggage in a very good state of preservation. It was to me indeed a happy moment ; for I was relieved

of an anxiety that had been weighing heavily upon my mind from the period when I first broke the seal of my instructions after Captain Back's departure up to that instant.

When it is considered that in the short space of six weeks a weight exceeding five thousand pounds had to be conveyed over ice and snow by a circuitous route of full seven hundred miles,—double the weight of baggage and more than treble the distance experienced in our trip from Fort Reliance to Musk-Ox Rapid,—it will be readily imagined that I had good reason to be apprehensive of the result. A sudden disruption of the ice, or even a rent of a few feet, would have effectually cut off my communication with Fort Resolution for a period so long as would have probably obliged me to winter in the country another season. As it was, the party could not reach the shore by nearly a mile, owing to a lane of open water in front of the establishment, rendering it necessary to despatch several small Indian canoes for their transport.

In estimating the successful termination of this undertaking, it must not be forgotten that

the surface for the whole distance was level, to which circumstance may be attributed the comparative ease with which so small a party had effected the object ; for notwithstanding, with the assistance of the Indians, we might have mustered a force greater by tenfold, it was considered unequal to the transport of our light sea-boat over scarcely twenty miles of ground, owing to the inequalities to be contended with. From that circumstance I should be far from sanguine as to the favourable termination of an attempt to cross anything half so cumbrous as a boat over unknown ground, however trifling the distance,—upon the reflection that a range of mountains, or a fault in the land of any magnitude, would be an effectual barrier to the progress of the party conducting the enterprise. On the contrary, over a plain covered with snow, a frozen lake or sea, I cannot conceive any obstacle so great which may not be surmounted by steady perseverance.

Were it necessary to transport merchandise along the shores of the Polar Sea, even from Regent's Inlet to Icy Cape, to either of which

extremes it has been satisfactorily proved that vessels can annually approach, it might be effected towards the close of winter, as about that period for the space of two months the ice may be always found in a fit state to admit of runners passing over it, and at which time three dogs are equal to drag five hundred weight at thirty-five miles a day ; two or three men only being sufficient to manage any number of laden runners not exceeding fifty.

I merely mention this with a view of demonstrating what might be done ; for, notwithstanding a different opinion is almost universally entertained throughout the country, I am strongly impressed with the idea that a passage sooner or later will be discovered practicable for commercial purposes. Hudson's Straits are scarcely open three months out of the twelve, and on several occasions they have been so blocked up with ice as to impede their navigation altogether ; yet a value in furs of between four and five hundred thousand pounds is, with very few exceptions, annually brought to England through those straits. It does not follow, because some half - dozen expeditions have

visited the different narrows of the Polar Sea and found them blocked up with ice, that they always remain so; for the navigation of those openings might have been impeded from accidental causes, in the same way as Hudson's Straits, of which we have proof in the voyages undertaken by Parry and Ross. The one officer, at the time of the wreck of the *Fury* in Regent's Inlet, found open water in every direction; while the other officer witnessed the same waters so blocked up with ice, that after having been frozen up for two winters, he was obliged to abandon his vessel, to save his own life and that of his party.

In one of my daily excursions I fell upon the foot-prints of the *felis Canadensis*, or Canada lynx, which, in verification of the name of *le loup cervier* given to it by the Canadians, was following the track of a solitary deer. Charlevoix and other authors state that the lynx drops from the trees on the moose and other deer, and fixing on the jugular vein, never quits its hold till the exhausted animal falls through loss of blood. It, however, only attacks the larger animals when rendered bold by hunger, and

very far from being so destructive to the larger quadrupeds as the early French writers on Canada supposed, it is represented by the Indians as being a timid animal, chiefly preying on the American hare, for the capture of which it is well adapted by nature. At the sight of a dog it runs up a tree, where it remains like a cat spitting and setting up its hair, until deprived of life by a blow on the back with a slender stick, which easily destroys it. Although not swift on land,—for its gait is by bounds,—it swims so well that it has been known to cross a piece of water two miles wide. From seven to nine thousand lynx-skins are annually procured by the Hudson's Bay Company; yet, from the solitary habits of the animal, it is seldom taken in any numbers at one place, and in all probability owes its value as an article of food to that cause.

I soon lost the track of the lynx, and with it, I feared, the chance of retracing my steps to the fort; for, in the eagerness of pursuit, I had neglected to note the usual marks for my return. In this perplexity, it was fortunate that I had elicited from the natives their mode of pene-

trating the vast forests of their birth, which till now has been a source of astonishment to every sojourner in North America. The most scientific observer, when involved in an extensive and unknown wood, at a time when the sun is obscured, although he should be in possession of every mathematical instrument he could wish, is totally unable to worm his way, and soon getting bewildered and fatigued, falls a sacrifice either to cold or starvation. With what uniformity a lost man travels in circles, in place of making a direct course, was exemplified in two gentlemen of the Hudson's Bay Company but a short time ago. While their men were occupied in making a portage, they strolled into the woods, and after a time commenced their return. The period having elapsed that ought to have ended their walk, the cause was at once evident; yet they continued on until, reaching a fallen tree rather more remarkable than the rest, one of the two expressed an opinion that he had passed it but a few moments before; but, from want of unanimity, no further notice was then taken of the circumstance. A third time they reached the

tree, yet not thoroughly convinced of the fact ; so they engraved a mark, and a few moments more actually brought them to the very same spot again. Seating themselves on their old friend, they wisely fired off their guns ; the report of which soon brought some of the party to their relief.

The Indian, however, is not exposed to such accidents ; for he has learned by experience that that portion of every pine-tree which points to the northern horizon has fewer branches than that part which faces the opposite quarter, where, from exposure to the rays of the sun, germination is more productive. Under the terms of the rising and setting sun, the other principal points are known to the natives ; and they have doubtless terms for many of the intermediate ones. Thus has nature planted innumerable and never-failing compasses to guide through a trackless and interminable forest

“ Her sylvan tribes of children of the chase.”

Moreover, the inclination of the trees to the south are further guides ; and if a valley or any other spot should intervene where the sun has not exerted that influence, which is the case in

more exposed situations, they are directed by the position of the fallen trees. Judging from their appearance of the period when they were blown down, and tracing in their memory the direction whence the storm or hurricane then came, they are able to obtain tolerably correct bearings. To some persons this stretch of the mind may appear incredible; but to those who are acquainted with Indian character, it will not be a matter of the least astonishment.

It was by such means that I reached the fort, and relieved the minds of my friends from an anxiety which my prolonged absence had occasioned.

By the middle of May almost all the feathered tribes had arrived from the south, adding interest to the woods, either from the splendour of their plumage or the sweetness of their notes. That familiar and showy little bird, the *sylvicola æstiva*, or citron warbler, was to be seen in active motion during the whole day, seeking from bush to bush those caterpillars which harbour on willows; while the *fringilla leucophrys*, or white-crowned finch, and *merula*

migratoria, or red-breasted thrush, perched on the topmost branch of some lofty pine, poured forth their morning and evening melodies. The latter bird is also esteemed as an article of food in the United States, and sold abundantly in the markets under the title of robin; which sounds oddly to an Englishman, who has been accustomed to hold that name, when attached to a bird, in every way sacred.

When these wanderers had retired to rest, and the recesses of the woods became deeply shadowed by the decline of the sun, that imposing bird the *strix cinerea* or cinereous owl of Latham, its first describer, was to be seen in search of the American hare and various murine animals on which it preys. The Crees call it *atheeneetoo omeesew*, real or Indian owl, because it is the largest species that they are acquainted with; and they might add, because it is the largest known species of the genus *strix*. It is an inhabitant of all the woody districts of the fur-countries to the north of Lake Superior; and as it is common on the borders of Great Bear Lake, where it must of necessity pursue its prey during the summer months by day-

light, it does not appear that the glare of the sun is an inconvenience to this bird. Its usual length from the tip of the bill to the end of the tail is two feet, although individuals are frequently found differing in this respect: there are seldom, however, any variations of consequence in the colours or distributions of their markings. It flies low, yet seizes its prey with such force that it has been known to sink into the snow at least a foot deep, and then rising with the American hare alive in its talons, to fly away with perfect ease.

The *strix Virginiana*, or Virginian horned owl, which is also an inhabitant of the North American continent, not only preys upon the same food as the former species, but it adds the *sciurus Hudsonius*, or Hudson's Bay squirrel, to its list of dainties. This large night-bird is little inferior to the *strix cinerea* in size, but of much greater importance to the superstitious natives, who have such a dread of it, that they not only refrain from imitating its hooting, (for which with respect to most other birds they have a partiality,) but they are highly displeased at any one who does so. In this particular

they are not singular; for its nocturnal cry bears so great a resemblance to the human voice uttered in a hollow sepulchral tone, that it has been frequently productive of alarm to the traveller both in the southern and northern parts of America.

“A party of Scottish Highlanders in the service of the Hudson’s Bay Company,” says Dr. Richardson in the *Fauna Borealis*, “happened, in a winter journey, to encamp after nightfall in a dense clump of trees, whose dark tops and lofty stems, the growth of centuries, gave a solemnity to the scene that strongly tended to excite the superstitious feelings of the Highlanders. The effect was heightened by the discovery of a tomb, which, with a natural taste often exhibited by the Indians, had been placed in this secluded spot. Our travellers having finished their supper, were trimming their fire preparatory to retiring to rest, when the slow and dismal notes of the horned owl fell on their ears with a startling nearness. None of them being acquainted with the sound, they at once concluded that so unearthly a voice must be the moaning of the spirit of the

departed, whose repose they supposed they had disturbed by inadvertently making a fire of some of the wood of which his tomb had been constructed. They passed a tedious night of fear, and with the first dawn of day hastily quitted the ill-omened spot."

The *picus auratus*, or golden-shafted woodpecker, must either visit the fur-countries at a very early period of the summer, or rear its young prior to arriving there; for on the 24th of May I discovered, perched on the summit of a dead tree, four young ones, receiving food from the bills of the parent birds. I am inclined to believe that the former is the case, as on the 2nd of May 1834 I secured a specimen at Fort Reliance, long before the snow had disappeared from the ground. At that time its crop was full of ants, collected from between the loose bark and stem of decayed pines and birches. When the season is sufficiently advanced for the reappearance of the ants, this woodpecker leaves the depths of the forests to seek the open downs, where it employs itself in turning over the ant-hillocks in search of the larvæ on which it chiefly preys.

Although this beautifully-marked bird can use its bill very efficiently in excavating a hole for its nest, it prefers building in the natural cavities of trees. On the plains of the Saskatchewan, where it resorts in vast numbers, the male may be heard in the pairing season making a loud rapping on the branch of a tree with its bill, which has been considered by some writers to be a signal to its mate, it not having been observed at such times to be occupied in drilling holes. I am inclined to believe, however, that the noise is occasioned by its attempts to unbark the trees to obtain its food ; although it may be caused by striking its beak against the trunks or larger branches, for the purpose of discovering any hollows wherein to form its nest, — a sagacity which has been attributed to it by a late compiler.

From the stomach of this bird I obtained a worm, and an insect of the hymenopterous order ; and from its body a parasite. The former, in Mr. J. G. Children's opinion, to whom all my insects were forwarded, appears not unlike the *ascaris crenata* of Rudolphi ; but at present it remains a matter of doubt

whether it is or is not an undescribed species. The individual of the order hymenoptera having been forwarded to Mr. Shuckard, a friend of Mr. Children, was referred by him to *formica herculeana* of Linnæus, and returned with the following observation:—"The identity of Captain Back's species with the *f. herculeana* of Linnæus is interesting, from its being the first proof I am acquainted with of the same species of hymenopterous insect inhabiting both the European and American continents. These ants are, indeed, smaller than the European species; but climate is well known to affect developments."—The parasite so much resembled a species described by Schranke, and referred by him to *pediculus auritus* of Scopoli, that Mr. Children has thought it right to adopt that name, but without asserting their identity.

Attached to the *tetrao saliceti*, or willow-grouse, I found a totally new species, named *nirmus affinis*; and infesting that singular bird the *recurvirostra Americana*, or American avoet, two more unknown parasites, now designated *nirmus testudinarius et nirmus bi-*

seriatus.* A new species of *physostomum* was also detected; but to what bird it belongs is uncertain, from an omission on my part to make a note of it;—it has been named *p. marginatum* by Mr. Children: two other species, doubtfully referred to *docophorus platyrhynchus* et *physostomum sulphureum* of Nitzsch; in addition to three new species of the class arachnidæ, namely, *thomisus borealis*, *thomisus corona*, et *theridion Backii*; besides a spider doubtfully referred to *dysdera erythrina*, and a variety of the *tetragnatha extensa* of Walck;—making in all seven new species and five doubtful ones, of which it was my good fortune to be the discoverer. It is to Mr. Children, however, that naturalists must feel indebted; since it was from the suggestions of that gentleman that my attention was drawn to these tiny creatures, which, from being the companions and consequence of poverty and filth, have hitherto excited less attention than other more showy species. By a microscopic view, beauties both in form and structure are to be detected well de-

* In the Appendix to Captain Back's Narrative these insects are incorrectly stated to have been found on the curlew.

serving a place in the following admired address :

“ Rest, silver butterflies, your quivering wings ;
Alight, ye beetles, from your airy rings ;
Ye painted moths, your gold-eyed plumage furl,
Bow your wide horns, your spiral trunks uncurl ;
Glitter, ye glowworms, on your mossy beds ;
Descend, ye spiders, on your lengthened threads ;
Slide here, ye horned snails, with varnish'd shells ;
Ye bee-nymphs, listen in your waxen cells.”

The collections, in every branch of science, made during the progress of the expedition, are necessarily small, owing to the peculiar circumstances which attended it. Immediately on leaving La Chine, Captain Back delivered an order to the men prohibiting them to render the least assistance in those researches to which it was my particular province as naturalist to attend ; assigning as his reason for taking so decided a step, that on Sir John Franklin's expeditions the men had frequently pleaded as an excuse for an omission of duty, their having been in search of a strange bird or insect, and his determination to place it beyond the power of his party to make any such evasions. The necessity of proceeding to the sea with but one boat rendered it expedient to reduce our bag-

gage as much as possible, and among the articles laid aside by Captain Back as unnecessary was an insect-box which I had prepared expressly for the sea-coast voyage. Two nets also of a small mesh, kindly provided by Mr. M'Leod for taking fish in the waters of the Great Fish River and Polar Sea, were never used; the fear of an accident happening to the boat from unnecessary exposure having been urged as the cause. I was the more sorry for the latter circumstance, because every packet from England contained a letter from that talented and distinguished traveller, Dr. Richardson, expressive of his anxious solicitude for specimens of fish to enrich the third part of his *Fauna Borealis*, which he delayed publishing on that very account. The duties which devolved upon me at Fort Reliance prevented my absence for more than two hours; and as my occupations commenced at six o'clock in the morning and seldom ended before the following day had begun, not a moment could be afforded from the short period of sleep—

“ Young bloods look for a time of rest.”

It was only those birds and insects that might

almost be said to have come to me, that were obtained during two long winters; and as for fish, it will already have been seen that only those in a dried state reached our fort. Of all the fresh fish that were obtained I prepared specimens, and Dr. Richardson has very kindly acknowledged my attentions in his new work on ichthyology. It was not until after the expedition had been consigned to my charge, that the collection, of which lists are given in the Appendix to Captain Back's Narrative, was commenced. The restless activity which that responsibility occasioned, together with the necessity of complying with Captain Back's directions in taking a boat-load of pemmican from Fort Resolution, rendered it utterly impracticable to effect anything important in the way of collections. To obtain a few gleanings, among other personal sacrifices, instead of using a sledge of dogs which Mr. M'Leod had kindly forwarded for my transport along the whole course of the Great Slave Lake, I loaded them with skeletons, and a foetal barren-ground rein-deer, while I traversed the route on snow-shoes.

On landing in my native country, these trea-

tures, with others, were forwarded to the rooms of the Geographical Society in Regent-street; but what became of them afterwards, although innumerable inquiries were made, I have yet to learn. In the last letter which I received from the late Secretary, on whom the final arrangement of the affairs of the expedition devolved, he disclaimed all knowledge of them. Notwithstanding the fatigue and trouble I had been exposed to in bringing home these specimens, I should not have applied for them, but from an honest wish to record in these pages facts which must have established the *cervus tarandus*, var. *arctica*, not as a variety of the rein-deer, as it has been hitherto considered, but as a distinct species. It was not until the middle of the last winter that my attention was drawn towards the viscera of this beautiful and important* animal; and then, from the severity of the season, my examination was rendered very imperfect. I obtained a pregnant animal afterwards; but, instead of trusting to my own *ipse dixit*, I abstracted the liver and foetus, which were preserved in a cask of salt, for the purpose

* It is almost the only food on which the Copper Indians subsist.

of obtaining the highest authority regarding the subject on my arrival in London. But as this has been denied me, all I think it prudent at present to state is, that the barren-ground reindeer is peculiar, not only in the form of its liver, but in not possessing a receptacle for bile.

CHAPTER XVIII.

Completion of the Boat, and Departure from Fort Resolution.— Dangerous state of the Slave River. — Accident to the Boat.— Arrival at Fort Chipewyan. — Early Commencement of Spring. — A large assembly of Hooping Cranes. — Mr. M'Leod remains at Fort Chipewyan.—Departure from Fort Chipewyan, and Arrival at Portage la Loche.—The Boat conveyed over the Portage in safety. — Musquito Hawk. — The Journey resumed. — Determined Marauders of the Bird kind.—An Indian Guide engaged at Fort Isle à la Crosse.—Detention at the Rapid River Fort.—The Infant Colony on the Saskatchewan River. — Trouble. — Fatal effects of the Influenza.—Arrival at the Grand Rapid.—An account of the Passenger Pigeon.

By the 10th of June the boat was completed; and, although in every way larger than the one built for the sea-coast voyage, it was not sufficiently capacious to stow the whole of the baggage, and twenty-five bags of pemmican necessary as provision. I was under the necessity therefore of taking forward two half-sized canoes as tenders to Fort Chipewyan; in one

of which Mr. M'Leod's family embarked, while that gentleman and myself took possession of the other. In this manner we departed from Fort Resolution.

It was mortifying to find that from this time no further addition, consistent with Captain Back's instructions, could be made to my collection; and to learn, that an accommodation might have taken place with regard to the pemmican mutually advantageous to the Company and the expedition, but which could not now be remedied. The Slave River was unusually high, and the current necessarily very much increased; this, added to the numberless drifted trees which encumbered the river, rendered the navigation both difficult and dangerous, and, notwithstanding all our precaution, on the second day we stove the boat. A piece of wood, apparently the point of a pine-stick, with its root adhering to the bed of the river, had penetrated one of the lowermost planks, and so completely anchored the boat that it had to be chiselled away; when we succeeded in reaching the shore, but not until our little vessel had half filled with water, which satu-

rated both the specimens and pemmican. This accident, and the frequent portages that had to be made owing to an overwhelming current occasioned by the flooded state of the river, prevented our reaching Fort Chipewyan before the afternoon of the 22nd of June.

It appeared from the information I received here, that the winter had been milder than usual, as well as at Fort Vermilion on the Peace River, and Fort Norman on the M'Kenzie; the atmospheric registers kept in those districts giving similar results to the observations taken at Fort Reliance, where the lowest descent of the thermometer was 58° minus; while in the previous year, it will be recollected, a greater cold by twelve degrees was experienced by us. Even less snow had fallen at either place than in the neighbourhood of our establishment. As might be expected, therefore, the spring set in early, and vegetation made rapid progress, affording agreeable employment to the women of the fort in collecting as a substitute for sugar the sap of the birch,—a syrup to which they are exceedingly partial. The earth was teeming again with the fragrant off-

spring of the season; and it required no great stretch of the imagination to fancy oneself surrounded by the charms of an European garden, or amid the mild beauties of a southern climate,—gifts of Nature little valued until they have been for a time withdrawn. The martins had reoccupied their nests, which were stationed in numbers under the eaves of the different buildings; and a cow and calf, hitherto unseen at Chipewyan, appeared grazing in the vicinity.

During my stay at Fort Chipewyan, I witnessed, in company with Mr. M'Leod, an unusually large assembly of hooping-cranes (*grus Americana*), which, from the collective utterance of their peculiar cry, very much strengthened in my opinion Pennant's supposition that they were the birds seen by Captain Philip Amidas,* on his landing on the Isle of Wokou, off the coast of North Carolina; "when," says he, "such a flock of cranes (the most part white) arose under us, with such a cry, redoubled by many echoes, as if an armie of men had shouted all together." It migrates in flocks, per-

* The first Englishman who ever set foot on North America.

forming its journeys in the night, and at such an altitude that its passage is known only by the peculiar shrill screams which it utters; whence its specific name. As it flies low on first rising from the ground, it affords a fair mark to the sportsman; but, if not entirely disabled by the shot, fights with great determination, and can inflict very severe wounds with its formidable bill. Its flesh is well-tasted, but very inferior to that of the *grus Canadensis*, or brown crane, which resembles the swan (*cygnus buccinator*) in flavour. The wing-bones of both these birds are converted by the natives into a rude sort of flute.

Mr. M'Leod determined to await here the M'Kenzie River brigade: to take canoes any farther was out of the question; and notwithstanding the consumption of provision, the boat was still so lumbered as scarcely to afford room in the stern for one person. The carpenters, who had been actively employed in preparing wheels to form a carriage for conveying the boat over Portage la Loche, to which spot all my attention and anxiety were now directed,

having completed their work by the 27th, I took leave of my esteemed friend and embarked.

Taking the route of the Embarras, a small channel of the Athabasca,—by which a day at least was saved, owing to the current being less strong and the road rather more direct,—we arrived at the Portage la Loche on the 8th of July. The labour of carrying baggage across this formidable barrier has been already explained, but we had a task before us hitherto unequalled,—the conveyance of a cumbrous and weighty boat up a precipice towering above the level of the valley a thousand or more feet, consisting of a succession of eight hills almost perpendicular. Nevertheless I felt sanguine as to the result, every man being inured to hardship and fatigue—able and willing; and after twenty-four hours of incessant labour, I had the gratification of finding those expectations fully realised. The boat was then securely fixed to a carriage, and wheeled to the southern extremity of the portage.

The musquitoes were here in myriads, rendering this part of the voyage additionally irk-

some; and the only gratification we experienced was to witness the havoc made amongst them by the *caprimulgus Americanus*, on which account it has received the first portion of its name of musquito-hawk, the latter being more particularly affixed from the resemblance in its flight to some of the smaller falcons. It has also obtained the ridiculous name of goat-sucker, along with others of the same genus, from the very absurd idea that it sucked the teats of goats. Few birds are better known in the fur-countries than this, which ranges in summer even to the remotest arctic lands. At the period of incubation the male may be seen every evening keeping a most vigilant watch, by alternately mounting and lowering itself in the air, uttering at the same time a sharp sound resembling the dissyllable pēsqǔăw, which is its Cree name. On the approach of an enemy, the male, by a singular habit peculiar to him, suddenly precipitates himself head foremost, and with great rapidity, down sixty or more feet directly upon the intruder, passing within a foot or two of his head; then rising again and wheeling round to repeat the same

manœuvre until the danger is averted. At every descent a most extraordinary noise is heard; resembling, according to some, the sound produced by blowing into the bung-hole of an empty hogshead; and according to others, that which is effected by the vibration of a tense, thick cord in a violent gust of wind: the latter will perhaps convey some slight idea of the sound. There are two other species of the same family in America, whose trivial names are an attempt to imitate their call, — chūck-will's-widow and whīp-pöör-will; the former being found in the more southern districts, and the other principally in the northern parts of the New World.

The injuries which the boat had received on the portage having been repaired, we resumed the journey on the 14th of July. The *oriolus phæniceus*, (golden oriole, or maize-bird,) was now very abundant, but not in such vast flocks as are sometimes seen to the southward, where they are said to obscure the sky with their multitudes. These birds are called red-winged starlings by the North Americans; and by the Mexicans, comendadores, from a resemblance

in the golden patch on their wings to a badge worn by the commanders of a certain Spanish order. The golden oriole reaches the Saskatchewan in May, when it feeds on grubs; but as soon as the grain sown in the vicinity of the trading posts begins to germinate, it tears up and devours the sprouting plants. The orioles are one of the pests of the colonies, making most dreadful havoc among the maize and other grain, both when newly sown and when ripe. As neither the report of the gun nor the slaughter which it occasions among the flock will drive them away, the farmers sometimes attempt their destruction by steeping the maize in a decoction of white hellebore before they plant it. The birds almost immediately after eating the prepared corn are seized with a vertigo and fall down, which sometimes has the desired effect. This potion is particularly aimed against another pest, the *quiscalus versicolor*, or purple grackle, which consorts in myriads with the maize-birds in rendering fruitless the labours of the husbandman. A reward of three-pence a dozen was once awarded in New England for the extirpation of the jackdaws, as the

purple grakles are there termed; and the intent was almost effected to the cost of the inhabitants, who at length discovered that Providence had not formed even these seemingly destructive birds in vain. Notwithstanding they caused such havoc among the grain, they made ample recompence by clearing the ground of the noxious worms, particularly the caterpillar of the *bruchus pisi*, or pease-beetle, with which it abounds. As soon as the birds were destroyed, the worms had full leave to multiply, which was the cause of the total loss of the grass in 1749, when the colonists had to get their hay from Pennsylvania, and even from Great Britain. It is this bird which is so singular in building its nest among the loose sticks forming the base of the osprey's nest (*falco haliæetus*), apparently neither dreading, nor inconvenienced by, the bird of prey, which rears its young above them.

At Isle à la Crosse, where we arrived on the 19th of July, the Indian Tegasterkemo, under whose directions I had travelled in passing into the country, was again engaged as guide; for the route between this spot and Cumber-

land House is so intricate, that even those men who have traversed it several times are incapable of worming their way. At the Rapid River Fort I was detained three days for the purpose of administering relief to a band of Indians congregated there, labouring under influenza; and at Cumberland House, from the same cause, I met with a further detention. The inhabitants of the little colony on the banks of the Saskatchiwine River were also affected with a mild form of the disease; which, however, was not the only source of trouble to them: they had been threatened by the agents of the Hudson's Bay Company, with an order for their immediate removal, supposing the traffic they carried on with the Indians injurious to the trade at Cumberland House. I am, however, unwilling to believe the report; or if such an act of injustice should be put in practice, I do hope it will not be countenanced by the leading members of that company.

At the Grand Rapid we met the Athabasca brigade; and to such a deplorable condition had the influenza reduced the several crews,

that for eighteen days they were unable to proceed on their journey. The accounts they brought from Norway House were even more distressing, several having died from the disease; and according to letters from Oxford House and York Factory, it had been even more fatally severe, thirteen having died at the former post, and as many as seventeen at the latter.

Along the whole course of the Missinipi and Saskatchiwine rivers we met with small flocks of the *columba migratoria*, or passenger-pigeon, and here they were extremely numerous. A few hordes of Indians, frequenting the low-flooded tracks of land at the southern extremity of the lake, subsist principally on these pigeons during certain periods of the summer when the sturgeon-fishery is unproductive and the wild rice (*zizania aquatica*) has not yet ripened; but farther north these birds are too few in number to furnish a material article of diet. The passenger-pigeon attains the 62nd degree of latitude in the warmer central districts, but reaches the 58th parallel on the coast of Hudson's Bay in very fine

summers only, arriving about the latter end of May and departing in October.

The passenger-pigeon often appears in such vast numbers as can scarcely be credited. Wilson, the celebrated ornithologist, estimates a flock, which continued to fly over his head in an equal stream for the greater part of a day, to have been a mile in breadth, and two hundred and forty miles in length; comprehending, at three pigeons to a square yard, upwards of two thousand two hundred and thirty millions. He further informs us, that they repair every morning to certain places in the western forests in such countless multitudes, that their dung covers the ground to the depth of several inches; all the grass and underwood being destroyed, and the trees themselves killed over thousands of acres as completely as if girdled by an axe, this devastation not being repaired until a lapse of many years.

These spots are termed pigeon-roosts, and are probably fifty or sixty miles distant from the breeding-places, which are no less remarkable and still more extensive. One which Mr. Wilson visited in Kentucky was forty miles

long and several miles wide ; every tree loaded with nests, and the ground strewed with broken branches, eggs, and squab pigeons, which had fallen from above, and on which large herds of hogs were fattening. From twenty feet upwards to the tops of the trees, there was a perpetual tumult and fluttering of crowds of pigeons, their wings roaring like thunder ; while the birds of prey were sailing overhead in great numbers, and seizing the squabs at pleasure. There were often above a hundred nests on a single tree, each containing one young bird only ; and the frequent fall of large branches broken down by the multitudes which clung to them destroyed numbers of the birds, and rendered it dangerous for any one to walk beneath. It is not until after the passenger-pigeons have reared a brood at these breeding-places that they visit the fur-countries, where they again build and rear nestlings.

CHAPTER XIX.

A Storm encountered on Lake Winnipic.—The Author loses a pet Fox, but obtains two new treasures.—The Storm moderates.—The term “Winnipic” explained.—Death of Paul, an Iroquois Guide.—Arrival at Norway House.—Account of a new species of Marmot, now in the Zoological Gardens, Regent’s Park.—Departure from Norway House.—Ill-constructed Dam across the Echemarmis raised by the Hudson’s Bay Company.—An account of the Beaver, with further information regarding its manners and habits.—Painted Stone.—Holey Lake.—Hill and Steel Rivers.—Arrival at York Factory.—Hudson’s Bay Ship at anchor in the Bay.—Occupations at York Factory.—Embarkation on board the Prince Rupert.—Arrival in England.

IN traversing a bay of Lake Winnipic, we encountered a storm which by raising a fearful sea placed us in imminent danger; and as all our endeavours to reach a sandy cove for shelter proved unavailing, we were obliged to run to a lee-shore for protection against the impending danger. As we approached the land, the waves broke over the stern and

swamped the boat; but fortunately there was no great depth of water, which enabled us after much labour to recover our little vessel and cargo. The boxes containing the specimens of natural history had been rendered tolerably water-tight by calking between the divisions with oakum; but nevertheless I thought it right to inspect them, which it rejoiced me to find was an unnecessary undertaking. My only loss was a pet silver fox (*canis fulvus, var. argentatus*), which in the bustle made its escape; and all my endeavours to recover it were fruitless. I had only purchased it of the Indians a few days before, and although very tractable, it had not shown that familiarity towards me which had been the case with its former master, by following him about like a dog.

The black or silver fox is the most rare animal in the fur-countries, a greater number than four or five being seldom taken in a season at any one post, although the hunters no sooner find out the haunt of one than they use every art to catch it, because its skin fetches twice the price of any other fur-bearing animal in North America. It is more for their colour that the

cross, silver, and black foxes are prized, than for the fineness of their fur, which in the red or tawny variety is not in the least degree inferior: and this fact goes far to confirm the Indian accounts that the *vulpes fulvus*, or American red fox, occasionally produces at one birth all these varieties. Black individuals are more frequently found inhabiting the wooded districts about the Mackenzie River than any other parts of North America, where they hunt mice, lemmings, and small birds for food. La Hontan speaks of a black fox skin being in his time worth its weight in gold, and Pennant gives an account of one having been sold in Siberia for four hundred rubles; and even in England of late years they have brought a price varying between twenty and thirty guineas. Two specimens partaking both of the cross and silver varieties in the character of their fur, brought home by my friend Mr. Stuart, are now in the Zoological Gardens, beautifully clothed in their winter garb.

In searching after my little pet, I obtained two treasures, which in some measure compensated for my loss. The first was a *frin-*

gilla Ludoviciana, or rose-breasted grossbeak, equally beautiful and rare; for its favourite abode being in large forests, where it affects the densest and most gloomy retreats, it seldom meets the eye of man. This bird, which is of a species intermediate between the typical grossbeaks and bullfinches, has furnished Pennant with sufficient materials to form four species,—namely, the red-breasted grossbeak, red-breasted finch, dusky grossbeak, and spotted grossbeak; which very many subsequent writers have faithfully copied.

The variety of plumage assumed by the male according to its age has undoubtedly given rise to some of these inaccuracies; but how such an oversight could have been committed by a systematic writer, as to call the same bird by the term grossbeak in one page, and finch in another, cannot be so readily explained. The similarity of the young male to the female—and in extreme youth it is even paler—may have given rise to Pennant's specific appellation of dusky; and when a little farther advanced in age, the beautiful rose colour which begins then to make its appearance, principally in small

dots on the throat, has very probably given rise to the term spotted. Of the charming adult male a most accurate figure and faithful description have been given by Wilson ; and the Prince of Musignano has been equally happy with regard to the female.

The first specimen of the rose-breasted gross-beak which reached Europe was obtained from Louisiana, its then assumed habitat ; but subsequent observations rendered this doubtful, and led Wilson to believe that it was altogether an arctic bird, averse to the warmer climate of the southern states, and hardly ever appearing even in the more temperate ones. Recently, however, it has been discovered in Mexico ; and in July 1833 I saw one among some pines growing on the banks of Sturgeon River, to the north of Cumberland House : from which facts we may safely conclude that this bird migrates extensively according to the season, probably visiting in the summer the rich valleys of the Rocky Mountains, hitherto untrodden by civilised man, and, after breeding there, retiring on the approach of winter to a more congenial climate. It is said to sing during the solemn

stillness of night, uttering a clear and harmonious note ; in which peculiarity, if it be correct, it is like the *fringilla vespertina*, or evening grossbeak.

Vespertina, however, is even more rare than the species just described, for there are few collectors who can boast of having so inestimable a treasure in their possession. A specimen obtained at the Sault de Sainte Marie in 1823, from a flock which then visited that spot, but have not since appeared there, was presented by Mr. Schoolcraft to the Lyceum of New York, from which the species was established. Two others were subsequently shot in the neighbourhood of the Rocky Mountains, and preserved among the endless treasures of Mr. Leadbeater, from which the Prince of Musignano has given a beautifully-coloured plate in the second volume of his work. The evening grossbeaks retire during the day to those lands which are covered with a thick growth of various trees of the coniferous order, and only leave them in small parties at the approach of night ; when the mournful sound of their strange and peculiar cry strikes the traveller's ear, but the birds

themselves are seldom seen. This bird has not been honoured by a number of synonymes like *Ludoviciana*, and from a very evident cause—that there is scarcely any difference in the plumage of the sexes; the female perhaps being a little less in size and rather less brilliant.

The second treasure I did not obtain without much difficulty,—very different from what was experienced with regard to the rose-breasted grossbeak, which hopped from bough to bough so tamely and fearlessly, that my principal care was to withdraw from its society as far as possible that I might not greatly injure the specimen by planting into it too many shot pellets: a little further acquaintance with man will soon teach it better policy. The object of my search was the individual termed *charadrius melodus*, or piping plover, which led me a nervous dance twice round the sandy shores of a rather deep bay before I succeeded in approaching within gun-shot; but I was amply repaid by the possession of a creature that required all the talent and research of a Bonaparte to raise it from that obscurity in which it had been pre-

viously involved by Temminck and others. The Prince of Musignano has clearly pointed out the specific difference of this pretty plover from either *charadrius semipalmatus* or *hiaticula*, to both of which species it has been referred by existing authors, and has thus rescued from unjust censure the ever-to-be-lamented Wilson. That celebrated ornithologist figured this bird in his splendid work, but omitted to impose a name on his new species,—a void afterwards filled up by Mr. Ord calling it *charadrius melodus*, but doubted by others, who affirmed that it bore an exact resemblance to the *charadrius hiaticula*, or common ringed plover of Europe, which, very unfortunately for these censurers of Wilson, is not even found on the American continent. About the same time that Lucien Bonaparte was endeavouring to fix the species, Dr. Wagler was similarly employed, and named it *charadrius Okenii*; so that it now pipes to two names. As Richardson, Swainson, and Kirby's work was published antecedently to the appearance of the fourth volume of Bonaparte's American Ornithology, which contains these remarks, there is no account of this bird in the

Fauna Borealis; but Richardson has scientifically described the specimen I shot here in the Appendix to Captain Back's Narrative.

With the decline of the sun the storm abated, sufficiently moderating at midnight to admit of our resuming the journey; and after a cheerless sail of seven hours, we put ashore for refreshment on the very same spot where I had been detained in July 1833, by a somewhat similar raging of the elements.

The appellation of "Winnipic," or "muddy water," has been given to this lake, owing to the suspension of a large quantity of white clay; but to which the natives, in their more playful moments, ascribe another cause. A deity of considerable power and mischievous habits, whilst occupied in some attempt or other to the annoyance of the Indians, was taken captive by an elderly woman, and so besmeared with every kind of filth, in which punishment all the females of the tribe lent their assistance, that it required all the waters of the great lake to purify him. By way of retaliation, the deity, a sort of Robin Puck, has ever since employed himself in keeping up the discoloration occa-

sioned by that event; thus obscuring the sunken rocks and rendering the navigation to all intruders upon its waters extremely dangerous.

While crossing Play Green Lake I met a party of *voyageurs* in three canoes bound for Montreal, from whom I learned the death of the Iroquois Paul, a faithful servant to the Hudson's Bay Company for many years, and the guide to the expedition from La Chine to Norway House on its passage into the country. Returning from the house of a friend, where he had been drinking freely with others of his tribe, the poor fellow fell into a deep brook; and although he managed to gain the bank, he had only strength enough left to crawl under a fallen tree, where he was found wet and dead.

After an exchange of salutations with Mr. Simon M'Gillivray of the Company's service, who was destined for England like myself, although by another and more pleasant route, we entered Jack River, and at noon of the 11th of August reached Norway House.

My esteemed friend Mr. Charles Ross welcomed me here with the presentation of a very

rare and interesting animal, regretting at the same time that another of the same kind had made its escape on Portage la Loche. While bewailing this loss in the family tent of Mr. Dease, the gentleman who accompanied Sir John Franklin in his second expedition, his daughter, a very interesting metif child, retired for a moment, and returning with a little pet of the same species in her arms, at once put an end to my lamentations by the gift of an animal which until then I was perfectly ignorant she possessed. This was not only important as increasing my chance of conveying a live specimen to England, but as tending to throw some light upon the sex of these creatures, previously involved in much obscurity, and it is still a matter of doubt which of the two is the lord and master. These animals were subsequently presented to the Zoological Society, with an intimation that they were probably new to naturalists; and from no label being attached to them for some considerable time after they were received in the gardens, I concluded that some account would sooner or later be published in the Transactions of the society.

On visiting my little companions, however, the other day, I found them christened *arctomys empetra*, or Quebec marmot,—a distinction to which they were by no means entitled; and having mentioned the circumstance to Mr. Sabine, he at once removed the label, very kindly leaving it for me to determine the species.

The little strangers have some resemblance in the character of their fur to Pennant's description of a marmot preserved in the Leverian Museum, which in the second volume of his "History of Quadrupeds" is specified by the term "hoary;" but to suppose them to be identical with that species would be an unjust censure upon that author. Pennant's description is:—"Tip of the nose black: ears short and oval: cheeks whitish: crown dusky and tawny: hair unusually rude and long; that on the back, sides, and belly, cinereous at the root, black in the middle, whitish at the tip—so that the animal has a hoary appearance: legs black: claws dusky; four before, five behind: tail black, mixed with rust colour." Gmelin, in his systematic work, has quoted

Pennant's description thus : " *Arctomys pruinosa* capite auriculato ; rostro pedibusque nigris ; dorsi, laterum, et abdominis pilis duris, longis, basi cinereis, medio nigris, apice albidis." Mr. Sabine, in a paper on the North American marmots, read before the Linnean Society in January 1822, states, in allusion to *pruinosa*, that " our knowledge of this species is derived solely from the description, of Pennant, which he made from a specimen in the Leverean Museum, and of which no figure was taken. The specimen was supposed to have come from North America. I have in vain endeavoured to trace the specimen : it was probably sold when the Leverean Museum was dispersed by sale, but I have not been able to ascertain by whom it was purchased."

In the Zoological Journal for 1828, Dr. Richardson, among other arctic animals, made mention of this marmot in the following words : " Hoary marmot, with long coarse fur, particularly on the chest, where it is hoary ; hind parts dull yellowish brown ; tail blackish brown, bushy. Dimensions : length of head and body twenty-seven and a half inches ; of head

two and a half, of tail eight and a half inches." In the *Fauna Borealis*, published in 1831, Pennant's original description is quoted, with an additional account of an animal killed on the south branch of the M'Kenzie River by Mr. M'Pherson, and given in that gentleman's own words. "It was twenty-seven and a half inches long," says Mr. M'Pherson, "of which the head was two and a quarter, and the tail eight and a half inches. It is, I think, of the same genus with the Quebec marmot. In fore teeth, and shape of the head and body, it resembles a beaver. The hair, especially about the neck and shoulders, is rough and strong. The breast and shoulders, down to the middle of the body, is of a silver grey colour; the rest of the body and brush are of a dirty yellowish or brown. The head and legs are small and short in proportion to the body." The animals in the Zoological Gardens are, however, decidedly distinct, not only from this, but from every other described species of the genus *arctomys*, and I have therefore named them *arctomys Okanaganus*, or Okanagan marmot, the propriety of which will be evident in comparing the descriptions.



ARCTOMYS OKANAGANII — OKANAGAN MARMOT.

SPECIES ESTABLISHED OCTOBER 1836.

London, Published by Richard Bentley, Oct. 1836.



Okanagan marmot, with the head somewhat oval and flattened; nose short, obtuse, and covered with very minute hairs; incisor teeth slightly curved, upper ones anteriorally of a pale yellow, lower ones whitish; whiskers few, black, and of various lengths, but none exceeding two inches; ears semioval, shorter than the fur on the neck, but, from the arrangement of the hair covering the cheeks, perfectly distinct and thickly covered on both sides with short appressed hairs; extremities short and strong; fore feet shaped for grasping, having four toes well divided, and armed with strong claws, which are compressed, curved, and rather sharply pointed, well adapted for digging. Third toe is the longest, then the second, next the inner one, and lastly the outer one; in place of a thumb, there appears a rounded projection of the palm, having a small but well-defined claw; palm black and bare; five hind toes, of which the middle is the longest, the one on the right next, and afterwards that on the left, then the outer one, and lastly the inner one; claws resembling those of the fore feet; sole bare and black.

Fur around the nose and margins of the mouth grey ; crown inclined to black, with a few long and irregularly-scattered grey hairs ; tip of the nose brown ; from either side of the dorsal aspect of the head a blackish band extends in an arched form down to the fore shoulders, somewhat resembling a ram with his horns laid back, and a slight bar of the same colour is spread for about an inch along the hind part of the neck ; cheeks reddish brown, of a rather darker hue just beneath the eye ; shoulders and fore part of the back covered with long coarse hair, grey at the surface, and bluish grey at the roots ; fur of the hind parts shorter by at least one half, bluish grey at the roots, light grey in the middle, tipped with pale rusty brown, and frequently pointed with glossy black ; fore legs and feet well covered with short but dense hair, black, excepting just beyond the insertion of each claw, where a very conspicuous irregular spot of grey is seen ; hind legs and feet perfectly black ; claws rather lighter ; neck, chest, and whole ventral aspect of the body sparingly covered with a short fur of a buff colour, rather lighter towards the

sides; tail depressed, slightly convex on the upper surface, but quite flat beneath, narrowest at the root, gradually but slightly widening towards the end, where it appears rounded; colour above the same as the hind parts of the back, except at the tip, where it is dull black; beneath entirely dull black. Total length from the nose to the tip of the tail twenty-six inches, of which the head is three inches and three quarters, and the tail eight inches; palm, including middle fore toe and claw, two inches and a half, while the sole similarly measured is three inches and a quarter; height of ears posteriorly three quarters of an inch, and breadth between the eyes two inches.

The Okanagan marmot therefore is separated from Pennant's hoary marmot in not having a black nose, in the fur not being universally rude and long, and in not having on the back, sides, and belly any such arrangement of colour as cinereous at the root, black in the middle, and whitish at the tip. Richardson's description in the Zoological Journal, which savours of both Pennant's and M'Pherson's remarks, is too slight to afford anything like a satisfactory

comparison ; but there are sufficient discrepancies,—such as the long coarse fur on the chest,—twenty-seven and a half inches being given as the length of the head and body, and two and a half for that of the head,—to show that it is not synonymous with the Okanagan. Were it not for the difference in the size of the head, which is very great, the dimensions of M'Pherson's animal would correspond pretty accurately with those of the Okanagan marmot, for the slight variation of an inch from the tip of the nose to the end of the tail might be reconciled by supposing that the arched form of the back had been flattened by pressure. It is very far, however, from resembling the beaver in the shape of its body, as in M'Pherson's specimen, being if anything rather broader across the shoulders than about the hind parts.

The length of head ; the grey spot on the upper part of each of the fore toes, which strongly contrast with the black fur of the rest of the foot—the singularly-arched band extending from the back of the head to either shoulder, and the peculiarly short and scanty fur covering the front of the neck and whole ventral

aspect of the body—likewise the dull black of the under part of the tail, distinguish the Okanagan marmot as a new species.

In a small tract of country, on the borders of the Rocky Mountains, lying between the Columbia and Fraser's Rivers, these animals are found in abundance, supplying with food and clothing the Okanagan Indians, whose territory is bounded to the north by the Seechwhap Lake,* and to the south by the Spokane River, so named after the natives in whose country they are situated. In this corner of the world, the Indians who have afforded me a name for my marmots, live, as in the days of yore, in a state of purity and simplicity :

The free-born forest found and kept them free.

They are less under the power of the trader than any of the other tribes in North America, for their existence does not hang upon the supplies of ammunition and clothing they might receive from the fur-posts, as is the case with those who have laid aside the bow and arrow, and the use of snares, for that of the gun. In-

* It is written Schewhap on the charts, which does not convey the proper sound.

stead of the men being adorned in blue frock-coats, coloured neckcloths, and red stockings, trimmed with beads and gaudy ribands, and the women in shawls, printed calicoes, and other things very unsuitable to their mode of life,—for these showy articles are soon reduced to a very filthy condition from the native habit of greasing their face and hair,—the Okanagans live contented and happy, in a simple dress formed of the skins of their own marmot. That they have remained up to this period in a state of purity is attributable to necessity, for their lands do not afford any animals of value to the fur-company; rendering them therefore unable to purchase guns, or other iron instruments. From this cause they are considered by the traders as a very poor people, but in my opinion they are the richest of the rich; and if the other tribes in North America had possessed a country equally devoid of fur-bearing animals, they would not have been the declining people they now are.

The Okanagan marmots are taken with the bow and arrow, but more generally by snares set at the mouth of their holes; and are con-

sidered as delicious eating. They burrow obliquely, and extremely deep; live in villages like the prairie-dogs, and are very sociable. During the middle and sunny parts of the day they sport about the entrance of their holes, seldom going far from them, and on the sight of man retiring with a slow pace to their retreats again; when, sitting in an erect position, they give a shrill whistle to warn the rest of the community of the impending danger, and, after listening at the approach of their dwelling for a short time, seek protection in perfect security at the very bottom of their abode. They are difficult to tame, but, when attached, become playful and are fond of being handled, having all the amusement of the monkey without any of its unsightliness; neglect or long absence, however, soon renders them again wild and unmanageable. When confined and placed with others caught in distant parts, they grow instantly familiar, although strangers until that time; and besides manifesting this social disposition, and general love of their own species, they appear susceptible of individual attachment to the human race; an amiability of dis-

position very agreeable for others, but often becoming a serious disadvantage to its possessor, who has the credit of more sensibility than energy, more confidence than penetration, more simplicity than prudence, and hence stigmatised as stupid.

They feed upon roots, young shoots, and the leaves of trees, and become very fat just before they retire for their winter's sleep, which generally lasts from October to May; for nature has allotted to these animals, in a wild state, a long sleep and cessation from food, the result of plenitude previous to its commencement. Even when kept in a warm room during the winter season, they are half torpid, eat but seldom, and then with a seeming disgust. In a state of confinement they will feed upon cabbages, lettuces, apples, and many other fruits, show much partiality for bread and sugar, and drink milk greedily. The latter, however, is apparently considered by them as a luxury, for, if water be supplied them, they partake of it but sparingly, seemingly never affected with thirst.

The larger of the two animals, supposed to be the female, was observed by Mr. Charles Ross one autumn actively engaged in cutting hay, soon after which it disappeared. In the spring, however, it betrayed its retreat, situated beneath the flooring of the rooms, by thrusting its head through a division of the boards and startling the inmates with its whistle. It retreated almost immediately for another fortnight, when it reappeared for good, but had lost much of its gentleness of manner. In this case the hay was obtained solely for the purpose of forming its nest, and Mr. Ross is of opinion that it had not partaken of the least food during the period of its absence. Like the bear, it was equally fat as at the commencement of its hibernation, but soon became very lean. It would frequently growl and even bite at strangers, but it never attempted to injure Mr. Ross's children; and, although allowed to roam at large, it made no attempt to escape. It showed a great deal of instinct, was very inquisitive in prying into every thing it came near, answered to its name, and dis-

played an anxiety to possess a favourite food by standing like a dog in a begging attitude, and whistling until it obtained it.

As it never appeared happy but in a situation where it could burrow, it was secured, for the greater part of the time that it was in my possession, by a narrow band of moose leather, to a small stake driven into the ground. From this native fetter it sometimes made its escape ; but always betrayed its situation by raising itself on its hind legs like a bear, and uttering its usual cry. At the sight of a dog it exhibited symptoms of alarm, by instantly commencing to burrow with its fore feet, turning round from time to time to intimidate its pursuer with a view of its formidable teeth, and, if irritated, by alternately separating and closing its lower incisor teeth. In feeding they sometimes use both their fore feet, and then sit erect ; but they more generally use only one, and in that case the other is not raised from the ground, but put very much on the stretch.

As they uniformly made a separate habitation for themselves while in my possession, it is probable that in a wild state each has its own

burrow, and that they only congregate at feeding times. The position they adopt when sleeping, and the wisdom displayed in the arrangement of their fur, render it unnecessary that they should huddle together, as rats, mice, and others, to increase their temperature. Resting on their hind parts, they coil themselves into a perfect ball, by bringing the nose even with the tail, and snugly stowing away their four feet in the centre. The back, therefore, is uppermost and exposed; but, to guard against this, Providence has supplied the animal with a long fur of a light colour, capable of protecting from cold not only the fleshy parts at its roots, but the whole ventral aspect of the body and soles of the feet, which, but for this beautiful arrangement, are too thinly clad to withstand the frosty regions of the north. They invariably coil themselves towards that spot where they apprehend danger or annoyance; and, if disturbed, reconnoitre the intruder with half-closed eyes, by raising their head from beneath their tail, which acts the part of a muff. These muffs have of late become very bare, not however from the moth,—that detested insect by

the ladies,—but from a habit the feeder indulges in of drawing them from their cage by that member. In their present abode they can afford but little amusement, to those who visit the gardens ; while, if a small area were allotted them, they would prove an acquisition ; and when they had once formed their burrow, which would scarcely employ them five minutes, no inducement would lead them far astray.

With my companions in my arms,—for there was then no occasion to hand them by the tail on changing their position, as is now the case,—I left Norway House on the 15th of August. Pursuing a north-easterly course, we reached a shallow piece of water, overgrown with bulrushes, and hence termed Hairy Lake, whose source of supply is the Echemarmis, a stream nourished by a morass, and so exceedingly narrow, that the willows growing on either bank meet near their tops. Scarcely sufficient room is therefore afforded to the *voyageurs* for plying their oars ; but a greater impediment arises from want of water, there never being too much, and frequently in the more dry seasons so little, that, instead of a

stream, a foot or two of thin mud only is exposed to view. Formerly, that very interesting animal, the beaver, kept back the waters by a dam, through which from time to time an opening was made by the *voyageurs* sufficiently large to admit the boats or canoes to pass ; the breach, in the course of the night, being invariably repaired by the industrious creature. This animal, however, owing to the value of its fur, is not now to be found here ; and instead of the beaver-dam through which Sir John Franklin passed in his first expedition, an artificial one has been constructed by the trading company ; but so inefficient in retaining the waters, and so inferior to the admirable works of this civil engineer among quadrupeds, as the beaver has been termed by a celebrated naturalist, that a portage has now to be made for nearly the whole course of this marshy stream.

There have been more extravagant statements with regard to the beaver than perhaps of any other animal in existence ; and it is partly to show the absurdity of these fabrications, for

“ By setting things in their right point of view
Knowledge at least is gained,”

and partly to relate some new matter regarding the habits of these very interesting creatures, that I have introduced here the following remarks.

There are some travellers who have assigned the beaver an elegant suite of apartments in its house, and two doors communicating respectively with the land and water ; and others who have affirmed that, in raising the dwelling, stakes are driven into the ground in rows, which are secured by matting them with twigs. The former construction, as relates to the doors or openings, is a libel upon the animal, as it would render his house neither useful to guard him against the extreme cold in winter, nor as a protection from his bipedal and quadrupedal enemies ; for both the otter and wolverine have the credit of being his destroyer, especially the latter animal, on which account it is called the beaver-eater. So far from driving stakes into the ground, the beaver places most of the wood crosswise, almost horizontally, and without any other order than that of leaving a hollow or cavity in the middle sufficiently capacious for his purpose. Should any unnecessary branches

project inward, they cut them off with their teeth, and throw them in among the rest, to prevent the mud from falling through the roof.

Neither is there such order observed as completing the wood-work before the plastering is commenced, which has been stated; for their houses and dams present, from the very foundation upward, only a rude mass of mud, wood, and stones. Part of these materials are procured from the bank, and part from the bottom of the creek or pond; but always as nearly as possible to the house. The wood they unquestionably drag with their teeth; but with regard to the mud and stones, a considerable doubt exists as to whether they carry it in their mouths, or, by scooping it up with their fore paws, and resting it under their chin, convey it after that fashion. From the contradictory accounts of the Indians with regard to this subject, I am inclined to believe that they at times do both, more generally perhaps adopting the former mode.

Relative to the suite of apartments, there cannot be a doubt but that almost every beaver-

house has many minor partitions ; but that they are intended, as Mr. Graham has informed Pennant, one to lodge in, another to eat in, and a third for other necessaries, is perfectly absurd. The sagacious beaver has formed these walls for no other purpose than to support the roof of his dwelling, which is evident from their appearing generally closed ; the only opening leads into the principal apartment from that side communicating with the water. Hearne, who must have been present at the taking of hundreds of beavers, states, " I have seen a large beaver-house built on a small island, that had near a dozen apartments under one roof ; and, two or three of them only excepted, none of them had any communication with each other but by water. As there were beavers enough to inhabit each apartment, it is more than probable that each family knew their own, and always entered at their own doors, without any further connexion with their neighbours than a friendly intercourse ; so that, in fact, they may be called double or treble houses, rather than different apartments of the same house." They never aim at any other convenience in their

buildings than to have one apartment sufficiently large to hold them, and so placed as to afford a dry place to lie on ; but how that is situated, as far as I have investigated the circumstance, seems altogether to have escaped the observation of Hearne and almost every other writer on the manners and habits of this very interesting animal.

I have been informed by the Indians and traders that the floor of a beaver-house uniformly presents an inclined plane towards the water, and thus prevents the possibility of the dwelling becoming inundated by a sudden rising of the stream, which would be the case if it were constructed after any other form. It appears, however, not merely intended to guard against such accidents that the beaver has thus arranged its habitation, but that it may enjoy at one and the same time both the land and the water, by resting its body on the floor of its house, while its tail hangs suspended in the latter element ; and, from the inclination given to its parlour, it can alter its position as the stream rises or falls, with the least possible inconvenience, for the purpose of effecting this

singular habit. For an account of this feature in the animal I have searched in vain ; which I am the more surprised at, since every trader and Indian with whom I conversed concerning the beaver,—the staple commodity of the former, and the standard of value in trafficking with the latter people,—were apparently well acquainted with this habit.

It is stated in a cheap publication of the present day, and in which I think I recognise the language of one of our most celebrated naturalists, that, unless the tail of the beaver is useful in plastering its house, it appears designed to effect no particular purpose. That the horizontally flattened tail of the beaver and laterally compressed tail of the musk-rat have been formed of scales, precisely similar to what is seen covering the greater proportion of the finny race, for no purpose,—and such is the construction that must be put upon that statement, for that the beaver uses his tail as a trowel is an absurdity,—no reasonable mind will admit, since it would be contrary to what is found in nature. These scaly tails must be destined to perform some very useful purpose in the

economy of the animal, and I believe that it is essential to the health and prolonged existence of both the beaver and musk-rat that those members should be generally immersed in water; and this supposition is confirmed by the native accounts that neither of those animals sleep in a state of nature in any other position. It would be well if the Zoological Society, should they obtain another beaver, were to direct their attention to the subject, by imitating, instead of an habitation resembling a castle partially surrounded by a moat, as is now exhibited in the gardens, a lake with a conical island in the centre, on the borders of which the dwelling should be so placed that the animal might enjoy this habit in a tame state.

That they use their tails as a trowel has in all probability originated from their habit, at the commencement of winter, of frequently walking over the domes of their houses to add mud to every breach, which they are aware will become speedily frozen at that time, and rendered too hard for the wolverine and other quadrupeds to penetrate. If dis-

turbed during that employment, they betray their fear by striking the habitation with their tails, precisely similar to what is observed on their plunging into the water ; and, being a very timid animal, from over-watchfulness this is frequently occurring. From the same cause the bear is constantly raising himself on his hind legs, wheeling round each time to scan the surrounding country for the approach of an enemy, and might therefore, with equal propriety, be charged with dancing for exercise.

Their houses are variously situated, being sometimes found in lakes, ponds, and rivers, as well as in those narrow creeks which connect the numerous lakes with each other ; but the two latter positions are generally preferred when the depth of water and other circumstances are suitable, not merely because they have the advantage of a current to convey wood and other necessaries to their habitations, but because in general they are more difficult to be taken in such situations than in the neighbourhood of standing water. They always choose those parts that have such a

depth of water as will resist the frost in winter, and prevent it from freezing to the bottom.

If the beaver has fixed upon a small river or creek, wherein to build his house, which is liable to be drained when its supplies are dried up by the early frost, by a wonderful instinct he provides against such an evil, in building a dam, at a convenient distance from his house, quite across the river. In rivers and creeks of but little motion it is built in a straight line; but when the current is more rapid, it is always made with a considerable curve, and convex towards the stream. The same materials are used as in the construction of their houses, but laid with more method; all the parts being made of equal strength, which by frequent reparation become at times so solid as to be capable of resisting almost any force of water and ice. In some cases the willow, poplar, and birch cuttings, which form a part of the dam, take root, and produce large-sized trees whereon birds have been known to build their nests.

From seven to ten inches in diameter is the

size of the trees usually cut down by the beaver; and, to effect this laborious undertaking, the animals, generally sitting on their hind quarters, continue gnawing round and round the stem until they bring it to the ground; the stump having a conical appearance, rather more cut away on that side which is most convenient for the animal's purpose, and usually towards the water's edge. A novice in tree-felling works round a tree in the same manner, except that he has not the ingenuity of the animal to so direct his operations that it may fall in the most convenient manner. The Indians and old *voyageurs* deride such young hands by terming them beaver-cutters.

A full-grown beaver will weigh about twenty-four pounds, and measure four feet. Its flesh is much esteemed by the Indians, especially when roasted in the skin after the hair is singed off, and is not unlike bear's flesh or pork: a beaver roasted after this manner is the principal dish at an Indian chief's feast.

The beaver in high latitudes is confined to

the wooded districts, and its southern range has been fixed by Pennant in latitude 30° ; between which parallels, in some parts of the country where the nature of the land is swampy and difficult of access, they are pretty numerous, but in most other situations they have been nearly extirpated. Pennant states that 26,750 beaver-skins were imported into London in 1743, and 127,080 into Rochelle; and in the *Fauna Borealis* it is stated, that in 1827 the importation of beaver skins into London, from more than four times the extent of fur country than that which was occupied in 1743, did not much exceed 50,000.

In commerce, beaver-skins, cut open, stretched to a hoop, and dried in the sun, are named beaver parchment, forming by far the greatest part of the importation: but when the beaver-skins have been made into dresses, and worn by the Indians, it is termed beaver-coat; and, though it may have been in use a whole season, it still brings a good price. Inferior-sized skins are named beaver-cub.

An incisor tooth of this animal, fixed in a

wooden handle, was once used by the northern Indians with great dexterity as a cutting instrument to fashion the horns of the rein-deer into spear-heads and fish-gigs; but these weapons are now generally replaced by iron, and the beaver tooth has been supplanted by an English file.

The fur of the beaver for the manufacture of hats first came into use in the reign of Charles the First; and by a proclamation in 1638 the manufacturers were prohibited from using any materials except beaver stuff, or beaver wool, and not allowed to make the hats called demi-castors, unless for exportation. It is probable, therefore, that the vulgar term "castor" for a hat is a very ancient term; for as demi-castors were evidently meant in the sixteenth century to express a spurious article, it may with propriety be inferred that castor was the name given to a genuine one. Prior to this period the Indians paid but little attention to the beaver; but, for its commercial value, it was soon sought after with such rigour, that the southern colonies in a very short time were unable to boast of having

so valuable an animal in their possession. It is in North America only that the beaver can now be found; where, during the summer, it is taken in nets and traps, but more generally in the winter, as the fur is then in prime order, by cutting holes in the ice. To meet with success by the latter mode, which is performed in the following manner, requires a person thoroughly acquainted with the manners and habits of the animal.

If the beaver-house is situated in a small river or creek, the Indians generally run a net across the stream to prevent them from passing into a larger expanse of water; after which they seek for any holes in the banks, excavated by these provident creatures as places of retreat in the event of their dwelling-houses being assailed. The Indian hunters, however, are so well acquainted with its habits, that the skill and experience displayed in the formation of these vaults rather tends to the destruction of the artificers than not. The Indians proceed in a party along the edge of the banks in the neighbourhood of a beaver-house, furnished with ice-chisels fixed to the

end of a pole of five feet in length; and by knocking it repeatedly against the ice, for the purpose of detecting a hollow noise, soon discover the animal's retreats. Having cut as many holes in the ice as there are vaults, sufficiently large to admit a full-grown beaver, they betake themselves to the houses, and commence their destruction. The animals, finding their habitations invaded, launch into the water, and being incapable of remaining long in that element, reluctantly seek the ruins of their dwellings, but more generally their hiding-places in the banks, when they are easily taken by the hand, or with a large hook made for that purpose. The Indians, in all their transactions with each other, are very systematic; but it is particularly evident in this mode of hunting: the individual who has discovered the beaver-house claims as his own all the animals that are caught there; and those which are taken in the holes or vaults become the property of the discoverer, who, as soon as he suspects anything by the sound of the ice, asserts his right of property by placing there the branch of a tree.

The bark of deciduous trees, particularly of the poplar, birch, and willow, is the chief food of the beaver ; and a supply of these, obtained during the summer, is deposited near the entrance of their houses as a winter hoard. They also seek the bottoms of lakes and rivers, during that season, for a favourite food, the root of the *nuphar luteum*.

The fur consists of a dense coat of somewhat waved, shining, smoke-grey down, concealed by a long coarse hair, which lies smooth, and, when in season, is of a shining chestnut-brown colour ; some of the winter specimens, however, have a very dark hue, approaching to blackish-brown, and in summer, the fur, previously to falling off, changes its colour to a pale yellowish-brown : spotted and albino varieties are of very rare occurrence ; and when the Indians find an individual of either kind, they convert the skin into a medicine-bag, being then very unwilling to dispose of it.

Leaving the ill-constructed dam raised by the trading company, we soon reached the source of the Echemarmis, and launched the boat over a low rock ten or twelve yards across,

which is remarkable for the marshy streams that arise on either side of it, taking different courses: the one we had just navigated, trending westerly, falls into Nelson River; while the watery course on the other side winds its way in an easterly direction for a short distance, and, after bending to the north-east, communicates with Hayes River, of which it may be considered as one of its minor sources. This small height of land has received the name of the Painted Stone, from a boulder once situated near its centre, whereon the Indians, as they passed and repassed the portage, annually traced rude figures, and deposited offerings; it has, however, been removed many years, and the spot has long since ceased to be held in veneration.

Through a chain of small lakes, connected by narrow grassy streams, we reached the White Fall, a foaming torrent sweeping the bases of rude and shapeless masses of rock piled indiscriminately one upon another, which, being faced with lichens and mosses, contrasted beautifully with the dark-green pines crowning their summits. As we advanced, the rocky land grew in

beauty and grandeur, until it terminated in a romantic defile, surrounded by the most wild and majestic scenery I ever remember to have beheld. On either side were rocky walls rising perpendicularly to the height of eighty or more feet, hemming in the stream for the distance of a mile into so narrow a space, that it was with difficulty the men could make use of the oars. With Hill Gates, as this defile is termed, Hawk Rapid of the Great Fish River may be to a certain degree compared. The former, however, has a far more imposing appearance, and seems to have been worn down by the gradual effects of the water; while the latter, from the uniform ruggedness of its sides, appears to have been suddenly rent asunder by some convulsion of nature.

The country beyond this spot becoming more level, gradually opened to our view, and we at length arrived at the Weepinapannis, a narrow grassy river, composed of several branches, which, by repeatedly separating and again uniting, intersects the country in a great variety of directions. This led us to Holey Lake, so named from a spot near the lower part where

no bottom has yet been found, close to which Oxford House is situated, formerly a post of some consequence to the Fur Company, but which has of late years become unimportant, owing to the migration of the Indians to the more rich plains of the Saskatchewan. The descent of the Trout River, which is very much impeded by portages and rapids, brought us to Knee Lake, which this body of water has been appropriately named from its singular shape, but more remarkable for a small rocky islet, situated near the bend or knee, being composed of magnetic iron ore, that affects the compass at a considerable distance from the spot where it is found.

We now commenced the descent of Hill River, which, after following a most rapid course, impeded by numerous portages, for an estimated distance of fifty-seven miles, receives a supply from the north-west, and is denominated Steel River. The banks of Hill River consist of low flat rocks with intervening swamps, while the surface-land of the interior is broken into a number of cone-shaped hills; amongst which one towering somewhat above

the rest has given a name to the river; and although its elevation does not exceed six hundred feet, thirty-six lakes are visible from its summit. A view of the hill from Morgan's Rocks and the surrounding scenery have been beautifully delineated in Franklin's Narrative, from the accurate pencil of the late Mr. Hood. At the commencement of this rapid stream the argillaceous cliffs are seen rising in some places one hundred feet above the water-level, capped with hills of at least twice that height; and at those parts of the stream where it is expanded to a breadth of several miles, innumerable islands appear stretching in long vistas, and well wooded, producing scenery of extreme beauty.

Steel River serpentines through a narrow well-wooded valley, presenting at every turn much beautiful scenery, but nothing to equal what is seen along the shores of the former stream. Its banks have less elevation than those of Hill River, and shelve more gradually down to the stream; which, by exposing a tolerably good towing-path, compensates in some degree for the shoals and rapids impeding its

navigation. At its confluence with the Shamatawa it is denominated Hayes River, which, after following a winding course for forty-eight miles, falls into the sea of Hudson's Bay, in lat. 57° N. and long. $92^{\circ} 26'$ W., where we arrived on the evening of the 26th, and took up our quarters at York Factory, the principal depôt of the Hudson's Bay Company.

I received a most cordial reception from Mr. Hargrave and other gentlemen at the fort, who vied with each other in administering to my comforts, and rendered my stay here extremely agreeable. The loading and unloading of the Hudson's Bay ship the Prince Rupert, which was safely anchored in the five-fathom hole on the 26th, so fully occupied their time, that I saw but little of them, with the exception of my friend and fellow-labourer at Guy's Hospital, Mr. Whiffin, who devoted to my amusement as much time as he could well spare from his professional duties.

This gentleman's humane attention to the poor Indians while labouring under influenza has endeared him to them in a manner that I venture to affirm will never be forgotten. He

is deeply interested in the welfare of the aborigines ; and it is but justice to state, that the traders generally are friendly towards them, and even form attachments to particular individuals, although they have an odd way of showing it. Where, however, I looked for an honest record of facts, a display of reciprocal kindness, a forcible appeal to the humane to aid the government in their inquiry for the relief of these unhappy people, it was not to be found. From the pen of an individual who owes his existence, and consequently his fame, to the aboriginal inhabitants of North America, I find the following remarks :—“ The desire to rescue our fellow-creatures from calamity or death, and still more the thirst of enterprise and the zeal of discovery, were notions far beyond the conception of these rude children of Nature, whose only desires are for food and raiment, and whose pity is a merely animal sympathy, which ceases with the presence of the object that excites it. It seems a harsh assertion, yet I have met with very few indications of what may be called pure benevolence among these people. Akaitcho himself may perhaps be an

exception ; but in general the motive, secret or avowed, of every action of a Northern Indian is, in my judgment, selfishness alone."

I will spare this individual the bitter cup of reproach, by refraining to repeat in his own words several statements directly opposed to this unjust and ungenerous attack, but rest satisfied with referring those who are interested in the subject to a former chapter, where many acts of benevolence on the part of these persecuted people are recorded.

In repacking the specimens and comparing my notes with the remarks of the more experienced *voyageurs*, many of whom are accurate observers of Nature, I detected much interesting matter, which, from the hurried manner of the march, had previously escaped me. In the *setophaga ruticilla*, or yellow-tailed gnat-catcher, I possessed the type of the genus, formed of a few species belonging entirely to the New World, and intimately connected with the fly-catchers of Australia. It is one of the most active of its tribe, being almost perpetually in motion ; and, as it skips among the branches, utters an incessant twittering, varying its

chants, however, too frequently to admit of their being imitated. The seclusions of the forest, the borders of swamps and meadows, thickly-wooded glens, and, in fact, wherever flying insects abound, there this little bird is to be seen, either in pursuit of a retreating party of flies from the tops of the tallest trees in an almost perpendicular direction to the ground, making at the same time a clicking noise with its bill, or alighted on an adjoining branch, traversing it lengthwise for a few moments, flirting at the same time its expanded tail from side to side, until, espying fresh game, which it can discover at a great distance, it suddenly shoots off to secure it. It is common in the United States, appearing, according to Wilson, in Pennsylvania in April, and departing again early in September for St. Domingo or some other of the West Indian islands, where it winters. The name redstart, derived, in the opinion of Wilson, from the German *rothsterts*, has been given to it from a supposed resemblance to the European bird which bears that name, but from which it differs not only in size and in the tints and disposition of the colours

of its plumage, but in characters that have established it as altogether of a new genus.

“Wilson’s remarks on the economy of the American redstart,” says Swainson, “illustrates most fully and most completely the station which this elegant bird holds in the scale of created beings. In the first place, it is an ambulatory fly-catcher,—that is, pursuing insects from one station to another,—and is therefore essentially distinct from the true fly-catchers, which sit still and watch for their prey. Secondly, although a true *setophaga*, it should nevertheless bear a very close resemblance to the *sylvicolæ*, or warblers, as united to them by close affinity; and we consequently find Wilson observing, ‘that several of our most respectable ornithologists have classed this bird with the warblers.’ Thirdly, it sometimes traverses the branches of trees lengthwise, and at others hides itself, as Dr. Richardson observes, like a creeper; both of which habits should belong to a group which passes into accentor by means of *seïurus aurocapillus* (golden-crowned accentor), since the latter bird has the first of these habits, while the former has the second.

Fourthly, it is frequently flirting its expanded tail from side to side ; thus preserving its analogy to the fan-tailed warblers of Australia, which *setophaga* in fact represents. Fifthly, marshy and watery places are its favourite haunts : this we should naturally expect in any group which typifies the *natatores*, or aquatic order, and the *fissirostres*, in its own circle. Lastly, this curious bird in the disposition of its colours so much resembles the redstart of Europe (*motacilla phænicura*), that it is called in America by that name. Now, it may be demonstrated by an analysis of the sub-family *philomelinæ*, or nightingale-warblers, that *setophaga* actually represents *phænicura*. We know not in what manner to expound these relations, so wonderfully minute, and yet so beautifully exact, but by supposing that, in this group at least, the true plan of Creative Wisdom has been discovered. To frame a system such as this, which explains affinities the most varied and analogies almost interminable, surpasses the utmost pitch of human ingenuity.”*

The *musicapa olivacea*, or red-eyed fly-catch-

* Fauna Borealis, ii. p. 224. Swainson.

er, which is interesting in another point of view, is a numerous species confined chiefly to the woods, and, like all the rest of its tribe that visit America, is a bird of passage. In the month of June it is the most distinguishable of all the other warblers of the forest; and even in August, long after the rest have become silent, this bird, according to Wilson, may be heard in Pennsylvania in full note. It winters in Jamaica, where Sloane informs us it is called whip-tom-kelly, from an imagined resemblance of its notes to these words; but I could detect no such sound.

The red-eyed fly-catcher is one of the adopted nurses of the *emberiza pecoris*, or cow-bunting, showing all the symptoms of affection for the fondling, and as much solicitude for its safety as if it were its own. Although centuries have elapsed since the *cuculus canorus*, or common cuckoo, was known to drop her eggs in the nest of an alien, instead of hatching and building for herself, and thus entirely abandoning her progeny to the care and mercy of strangers, it is only lately that the same uniform habit has been found to exist in the cow-

bunting. What reason Nature may have for this extraordinary deviation from the general practice is involved in mystery, for there is nothing singular to be observed in the anatomical structure of the bird that would serve to prevent or render it incapable of incubation. Very many conjectures have been formed as to the probable cause, but they have been gradually laid aside as unsatisfactory and inconsistent; and until some light is thrown upon the subject, the result of future and more numerous observations, we must rest satisfied with the reality of the fact.

From the interesting memoirs in the American Ornithology, we may further conclude that the cow-bunting is altogether devoid of sexual attachment. "When other birds are separated into pairs," says Wilson, "and occupied in the endearing office of providing a receptacle for their offspring, the cow-pen finches are seen feeding in odd as well as even numbers, from one to twenty, and discovering no more disposition towards perpetuating their species than birds of any other species at other seasons, excepting a promiscuous concubinage,

which pervades the whole tribe. When the female separates from the company, her departure is not noticed ; no gallant partner accompanies nor manifests any solicitude in her absence, nor is her return greeted by that gratulatory tenderness that so eminently characterizes the males of other birds. The male proffers the same civilities to any female indiscriminately ; and they are reciprocated, accordingly, without exciting either resentment or jealousy in any of the party. This want of sexual attachment is not inconsistent with the general economy of this singular bird ; for, as they are neither their own architect, nor nurse of their own young, the degree of attachment that governs others would be superfluous." The well-known practice of the young cuckoo in turning out all the eggs and young which it feels around it, almost as soon as it is hatched, has been detailed in a very satisfactory and amusing manner by Dr. Jenner, and published in the *Philosophical Transactions* for 1788.

Although no such habit has been actually observed in the cow-bunting, yet no sooner is the foundling hatched than the nurse's own eggs

disappear, but what becomes of them has not yet been ascertained. As the young of this bird is uniformly hatched before the rest, the parent is obliged frequently to leave her nest to provide it with sustenance; by which means the business of incubation is necessarily interrupted, and as nature has now given a new direction to the zeal of the parent, the disposition to continue it abates. What wisdom is here displayed! for if the egg of the cow-bunting required a day or two more, instead of so much less, to hatch it than those among which it has been dropped, the young in every instance would undoubtedly perish, and, of course, in a few years the species would be extinct.

The reappearance of this migratory bird is looked for with anxiety in those parts of America where the horned cattle happen to be diseased; which the farmers ascribe to worms, and judge of the necessity of administering medicine to the quantity of these creatures which are found in the crops of the cow-bunting, procured from the excrementitious matter deposited by the cattle; whence the specific appellation of *pecoris*.

Latham has introduced this bird under different specific names in three several genera, namely, *sturmus junceti*, *oriolus minor*, et *fringilla precoris*; and in the *scolecophagus ferrugineus*, or rusty maggot-eater, I possessed a bird which is described by Pennant no less than five different times, under the terms of black oriole, rusty oriole, New York thrush, Hudsonian thrush, and Labrador thrush. The rusty maggot-eaters, like the rose-breasted grossbeaks, are constantly varying the colours of their plumage, and at different seasons or different ages assume new and very different appearances; rendering it almost impossible to judge from a mere examination of their stuffed or dried skins as to what family they belong. Even the size is by no means a safe criterion; for in this bird the difference between the male and female, and even between those of the same sex, is very great.

According to the Prince of Musignano, they arrive from Pennsylvania from the north early in October, when they associate with the red-wings and cow-buntings in frequenting the corn-fields to feed upon the maize, which forms

at that season their principal food. At the expiration of a month they proceed southerly, and in January are found in Carolina, hopping about the hog-pens to purloin the Indian corn upon which those animals are fed. A flock of about thirty of these birds in 1833 remained at Fort Reliance until December, feeding on the intestines of the white fish and trout which were thrown aside by the men ; but the same night that the bay was frozen over they departed, and did not return the following summer. They are said to sing with a fine note till the time of incubation, when they have only a chuckling noise ; but as soon as the young take their flight, they resume their song. During the months of November and December, however, although I had hourly opportunities of watching the habits of these birds, they merely uttered a chattering note, and then only on the appearance of food, or when they were at variance with each other.

Another bird, which was very abundant at Fort Reliance in the spring of 1834, has been equally misrepresented in this respect by the name of chatterer (*bombycilla garrula*), than which there are perhaps few less noisy. Some

authors have designated it by the more appropriate name of wax-wing, from the curious small flat oblong appendages, resembling in colour red sealing-wax, found at the tips of the secondaries in the adult, which are merely the coloured corneous prolongation of the shafts beyond the webs of the feathers. By the appearance of this bird at the eastern extremity of Great Slave Lake, in its full size and perfection, exactly similar to the European individuals of its species, we have proof of the absurdity of Buffon's theory, that European animals degenerate or become more or less changed in other climates. The appearance of this mysterious wanderer in that hitherto unexplored portion of the globe is of greater importance, as tending to throw some light on its place of abode. Whence it comes at the long and irregular periods of its migrations, or whither it retires to pass its existence and give birth to its progeny, is still involved in darkness.

“It has been stated, and with much appearance of probability,” the Prince of Musignano remarks, “that these birds retire during summer within the arctic circle: but the fact is

otherwise; naturalists who have explored those regions asserting that they are rarer and more accidental there than in temperate climates." Although the *Fauna Borealis* was published prior to the Prince of Musignano's work, it does not appear that he was aware of large flocks of these birds having been found at Great Bear Lake by Dr. Richardson, where, as at the eastern extremity of Great Slave Lake, after staying for a few days they departed, but in what direction could not be ascertained.

They made their appearance at Fort Reliance singly or in pairs, perched on the topmost branch of a dead pine, and were very difficult of approach; but as soon as they had collected in numbers, they sought those spots where the common juniper grew abundantly, and employed themselves during the day either in stuffing their crops with the berries, or traversing the low brushwood in silence and secrecy. When disturbed, they alighted in flocks on the dead trees, seemingly unconscious of danger, and were then easily shot. According to the Prince of Musignano, they feed upon all sorts of fruits, and even upon insects; but the crops of those I

opened were filled solely with juniper-berries, although there were many other fruits growing around them.

Being great and irregular wanderers, these birds were recorded in the ages of darkness as the precursors of war, pestilence, and other public calamities. We are informed that flocks of hundreds were seen flying about the north of Italy in February 1530, marking the epoch when Charles V. caused himself to be crowned at Bologna; and that a similar visit had taken place in 1551, when it was remarked, that though they spread in numbers through the Modanese, the Plaisantine, and other parts of Italy, they carefully avoided entering the Ferrarese, as if to escape the dreadful earthquake that was felt soon after, causing the very birds to turn their flight.*

The Prince of Musignano's figure of this bird, prepared from a specimen obtained together with others from the north-west range of the Rocky Mountains, is well engraved, but sadly coloured. It does not convey to the eye the fine and silky texture for which this bird is

* Vlyssis Aldrouandi Ornithologiæ. Lib. xii. p. 801.

remarkable, and the corneous appendages are not sufficiently bright.

A lark which I obtained at Fort Reliance in May 1834 so much resembles the European rock-lark (*anthus aquaticus* of Bechstein), that there are considerable doubts as to its identity. Dr. Richardson has considered it as identical with that species, not only in the Fauna Borealis, but lately in the Appendix to Captain Back's Narrative; and Audubon has done the same in his Biography. The Prince of Musignano was once of the same opinion; but in his observations on Wilson's nomenclature he saw reason to change his opinion, and, after comparing several arctic specimens with those of Europe, he was convinced they were not of the same species, and named the American bird *anthus Ludovicianus*, or Louisiana lark.

The breeding-place of this bird is not known, nor had it been found previously to this expedition beyond the Saskatchewan River, where it was observed in the spring of 1827 by Dr. Richardson, feeding on the larvæ of small insects, particularly of a species of ant, whose habitations are constructed with small twigs and

loose straw. Wilson states that, on its arrival at Pennsylvania from the north in October, it is to be seen running rapidly over flat, newly-ploughed fields, commons, and such like situations; and that, on opening numbers of them at that time, they appeared to have been feeding on various small seeds, with a large quantity of gravel. At Fort Reliance, where they were very numerous in May 1834, their favourite abode was the sandy shores of the A-hëll-dězză, and their crops were uniformly filled with grass-seeds and gravel, both of which they could obtain there in abundance.

On the 20th of September I embarked with eight men on board the Prince Rupert; but, from adverse winds, the anchor was not weighed until the 24th, and before we bade adieu to Cape Farewell the morning of the 11th of October had well dawned. From this time, however, the wind was so favourable, that in sixteen days we had the pleasure of making the land off Hastings, and on the morning of the 28th of October I reached London.

CHAPTER XX.

Facts and Arguments in favour of a new Expedition.

HAVING learned from Captain Back himself, before his return to this country, that he did not intend to make another attempt by land at surveying the northern coast of North America, I took an early opportunity, after my arrival in England, to propose for the consideration of the Government an Arctic expedition under my own conduct, upon a different plan from that pursued by Captains Franklin and Back, and at an expense not exceeding a thousand pounds. Before, however, sufficient time had elapsed to obtain an answer, the distressed state of the whalers beset in the ice of Baffin's Bay excited the sympathy of Captain James Clarke Ross, and induced that distinguished officer to volunteer his services

for their aid and rescue. The Government had no sooner decided upon accepting Captain Ross's offer, than I sought of the Board of Admiralty the appointment of surgeon to the expedition, and solicited their early and favourable attention to my first proposition; as upon the return of the vessel sent in aid of the ice-bound whalers, by diverging a little to the westward, I might have been landed at Port Nelson in Hudson's Bay, whence I could have prosecuted my intended journey to the north with the same probability of success as if I had proceeded by way of Montreal. In answer I was informed, that the Admiralty "could not interfere in the appointment of surgeon, the selection of officers being left altogether to Captain Ross;" and relative to my other offer, the Lords Commissioners of the Admiralty, in expressing their thanks, informed me that "a memorandum would be made of it." Hearing that Captain Ross was at Hull actively engaged in fitting out the "Cove" for his benevolent mission, I lost not a moment in writing to him; and, in answer, received his thanks for what he very kindly termed

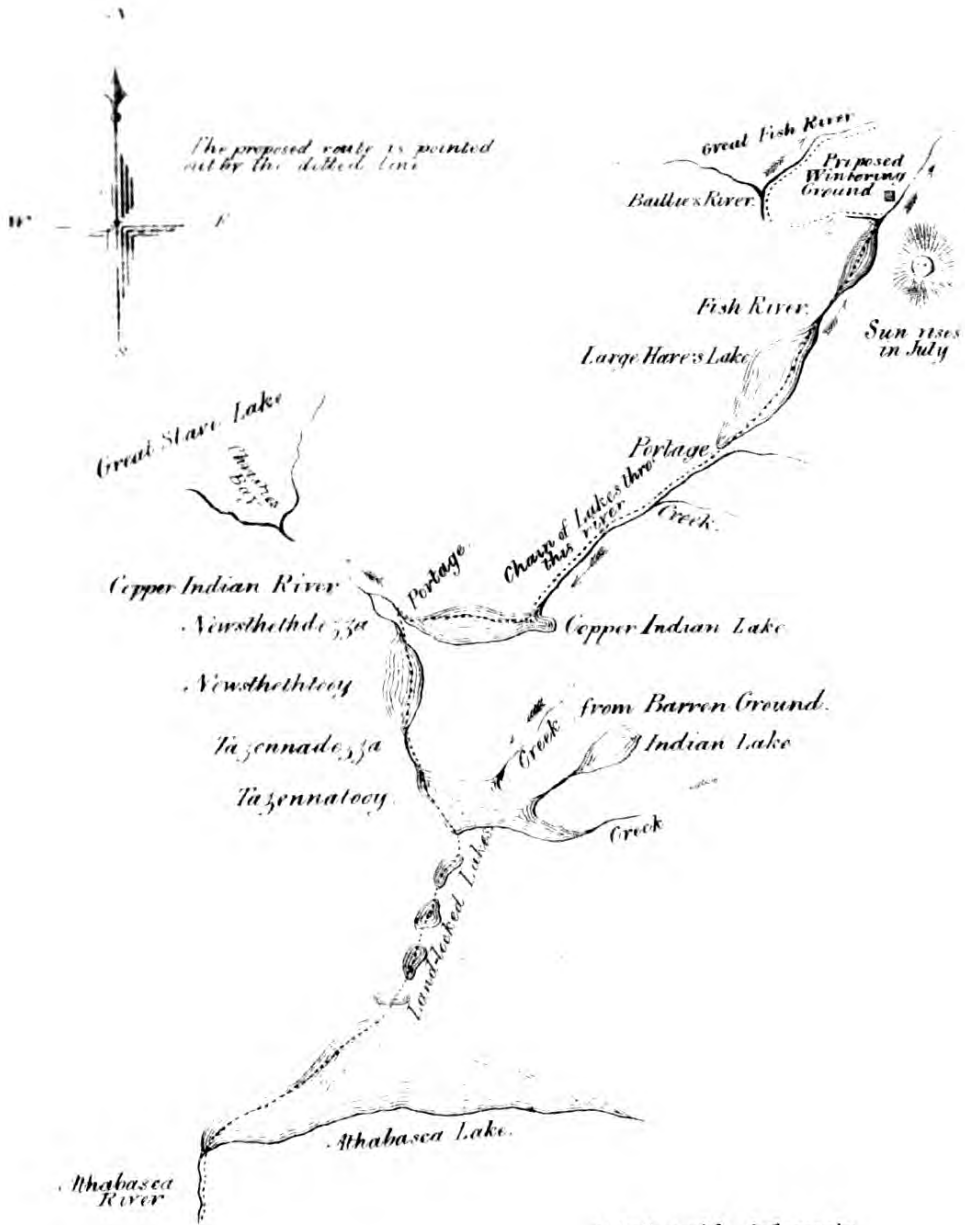
“ my prompt and zealous offer of services as surgeon of the expedition under his command ; but regretting that he could not avail himself of the offer, all the appointments being already filled up by naval medical officers.”

About this time Sir George Grey granted me the honour of an interview, the particulars of which were to be communicated to Lord Glenelg ; and, with a view of obtaining the support and co-operation of the Royal Geographical Society, I had the pleasure of describing my route by chart to its president, Sir John Barrow. His Majesty's Ministers, however, although at first favourable to my proposition, ultimately declared it was not their intention to prosecute further discoveries in the North. Having intimated, therefore, to the leading members of the Government my determination of still prosecuting if possible my design, I published a prospectus, detailing the route of my anticipated journey, with a view to raise by public subscription the necessary funds. Messrs. Williams, Labouchere, and Deacon, 20, Birchin-lane ; Messrs. Praed and Co. 187, Fleet-street ; and Messrs. Cocks and Biddulph, 43, Charing-

Cross, kindly undertook to receive subscriptions, and their books are still open to those who are desirous of encouraging this enterprise.

The expedition I propose to consist of an officer and six men; the men to be hired at Montreal in Lower Canada, not merely because their travelling expenses and pay up to the period of my leaving that city for the interior would be saved,—amounting, at the lowest computation, to between three and four hundred pounds,—but because I know by experience that one man accustomed to the toils and hardships of the country (and the Canadian *voyageurs* are well acquainted with the service) will perform the duty of three inexperienced men, however willing and able they may be. Were I to consult my own feelings, and could command the necessary fund, I should embrace the offer of five of my late companions now in England, who have volunteered to accompany me: this, however, cannot be.

After completing my crew and embarking the necessary outfit, I propose proceeding to Lake Winnipic, and, having secured eight bags of pemmican necessary for the sea-coast,



C. Hullmandel's Lithography

voyage, making directly for the Athabasca Lake. Here would begin a new survey, for the purpose of reaching the Great Fish River by a less circuitous route than that of the Slave, Artillery, Clinton-Colden, and Aylmer Lakes; which track is well known to both the Chipewyan and Copper Indians. I propose, after engaging a native guide, to pass from a bay of the Athabasca Lake, (as will be demonstrated by the chart, copied from one in my possession drawn by the Camarade de Mandeville, whose name will already have become familiar to those who have perused the present narrative,) by a chain of four lakes, impeded by five short portages, to the Tazennatooy, into which two rivers empty themselves. The discharge of the Tazennatooy forms the Tazennadezza, which widening, forms the Newshethtooy, and again contracting, is called the Newshethdezza, falling into Slave Lake. The Indians do not pass far down the latter stream, but make a portage to a lake that is tributary to it; and after following the course of a river, or rather a chain of lakes with narrows, for some distance, by crossing a short portage they reach Large

Hares Lake, whence a noble stream takes its rise.

This is the Fish River, so frequently mentioned in the preceding pages, near the source of which a tributary to the Great Fish River is situated, separated by a portage of a few paces only. This supply falls into the main stream, sufficiently low down to avoid all the shallows and many of the rapid parts; and, in the opinion of several aged Indians who witnessed the Camarade sketching the accompanying outline, it is Baillie's River of the chart.

On the banks of the Thlewŷ-dězză, or Fish River, I should winter; as here I should secure several advantages, the importance of which will be at once evident. In the first place, the vicinity is resorted to by the moose-deer, an animal that migrates less than the rein-deer; consequently, there is the greater probability of supplying myself and party with meat, provided we should fail in obtaining fish, as was the case at the eastern extremity of Great Slave Lake during the last expedition. Secondly, it is a favourite hunting-ground during the winter with a few parties

of the Chipewyans, who, by not congregating in considerable numbers, as the Copper and other Indians, seldom fall a sacrifice to starvation, so common to those tribes who acknowledge a chief and keep in one body, and who are consequently in time of need more likely to assist a party of strangers. Thirdly, it would enable me to take advantage of the first breaking up of the Great Fish River, an advantage which I could not secure in any situation like Fort Reliance, our late wintering-house, where lakes were before us; and it being a well-ascertained fact that the rivers uniformly break up from a month to six weeks earlier than the lakes, I must necessarily gain that time for the survey of the coast.

As early as possible the following spring, I propose to follow the course of the Great Fish River to the sea, and having ascended the inlet to the farthest point made by us, in latitude $68^{\circ} 13' 57''$ N. and longitude $94^{\circ} 58' 1''$ W., make direct for Point Turnagain, and afterwards to the eastward, to clear up the point now at issue respecting the isthmus of Boothia Felix. Also, if the season should not

be too far advanced, instead of returning by the same route, I propose to seek out the mouth of the Fish River, for the purpose of surveying it to its source.

My project was no sooner made public, than I was congratulated on the certainty of so small a sum being immediately provided by an enlightened and liberal nation; but far from this, notwithstanding that several influential papers strongly advocated my cause—in particular the Sun, Atlas, Naval and Military Gazette, and Leeds Mercury—and that circulars were most extensively distributed throughout the country, from some cause, still to be interpreted, the amount received falls very short of that required.

As no notice had been taken of my application to the Geographical Society, Dr. Hodgkin, as a member of that body, kindly undertook to address its committee on my behalf. The following is a copy of his letter:—

“Although I have no pretensions to personal acquaintance with the objects and difficulties to be considered in connexion with

arctic expeditions, yet I am induced by a lively interest in the subject, and after careful attention to a variety of facts which have come to my knowledge, to offer a few remarks for the consideration of the committee of the Geographical Society, and to solicit their attention to the sketch of an enterprise of this description which has been drawn up by one who has had ample experience in connexion with this subject.

“The importance of these expeditions, whether we look at them in a commercial, a nautical, a purely geographical, or in a more generally scientific point of view, or as intimately connected with our national reputation, is too well and too generally understood to require a syllable from me.

“The researches of our countrymen have already greatly reduced the extent of the northern coast of America respecting which doubt or ignorance exists. The investigation of this remaining portion may be undertaken either by sea or by land. With respect to the mode of conducting by the former, I feel that it would be an impertinence in me to

offer any suggestions to the experienced officers who compose the committee which I am now addressing; but when I call to mind how large a portion of the arctic voyages of discovery have been either unsuccessful, or attended with prodigious loss or risk—how great an expense they unavoidably incur compared with the amount of real advantage to be expected, it does seem well worthy of the consideration of the Geographical Society, whether it be right to recommend to the government the equipment of a fresh expedition of this kind, until one or more points have been settled by the more economical as well as the more promising agency of overland expeditions.

“ Although overland expeditions towards the northern coast of North America may be regarded as less expensive and less dangerous than an arctic voyage, and at the present moment more likely to obtain accessions to science and commerce, they may greatly vary amongst themselves in all these respects, according to the mode in which they

may be undertaken. They may, however, be all comprised in two classes.

“ To the first class belong small companies, travelling with the least possible encumbrance, and strictly adopting the mode of proceeding and the means of subsistence in use amongst the natives of the country and the traders who visit them. Individuals uniting physical ability, both for doing and suffering, necessary to meet the dangers and fatigues of this mode of travelling, with talents and acquirements necessary to render their journey availing for the purpose of science, have already effected much at a very trifling outlay. Hearne and Mackenzie prove the truth of this assertion.

“ The second class consists of those expeditions which possess a more organised and systematic form, being composed of a company of men and officers accustomed to military or naval service, seldom or never amounting to a smaller number than two or three officers and eighteen or twenty men, and consequently requiring a considerable amount of baggage. For the conveyance of these men

and their stores the small canoes of the country, which are readily made, repaired, and transported, are quite inadequate. Boats of larger dimensions are therefore had recourse to, which are easily damaged, are with difficulty repaired, and are too cumbrous to be conveyed across the portages when the distance is great or the ground uneven. These evils are not theoretical; they have been proved by fearful experience, and have been the cause of immense difficulty or failure. Companies of the size now under consideration, though they form but a small military troop, are too large to travel with advantage through a country in which the means of subsistence are very scanty and still more precarious. The difficulties which they have to encounter are infinitely increased when the individuals comprising the company are not practically acquainted with the mode of travelling through the district to be crossed, and consequently cannot be separated from each other without the greatest danger of fatally losing their way; on which account they cannot seek game and other sources of subsistence. From want of

experience they are unable either to bear the burdens or travel the distance which a Canadian or an Indian would disregard. Time, the most important element in northern expeditions, is inevitably lost, and neither the energy nor the genius of the commanding officer can retrieve the error when the season is advanced upon them.

“It has been justly remarked in one of the communications presented to the Royal Geographical Society, that the state of the aborigines of the country, which it is the object of these expeditions to explore, has a strong claim upon our commiseration and assistance. Every philanthropist must cordially unite with this sentiment when he considers how rapidly Europeans and their descendants have effected, and are effecting, the degradation and extermination of interesting tribes once numerous and important. But have these larger land expeditions in any degree contributed to retard this melancholy process? Quite the reverse. Whole tribes are dwindling under the influence of diseases which these expeditions have introduced amongst

them, and many families have perished with hunger whilst attending upon a party of whites for the purpose of supplying them with food.

“ It is impossible not to admire the zeal and spirit of those officers who, having repeatedly braved the rigours of a northern winter, and again and again led or accompanied expeditions to the arctic regions both by sea and land, have not only favoured their geographical brethren with the result of their experience, and with various suggestions to facilitate renewed research, but have, after the lapse of several years, made the offer of their services, and are ready again to expose themselves to the inclemency of the North. Their countrymen should be animated by their example to encourage and support any reasonable attempt in that direction; but surely they cannot deny a consent that those veterans, arrived at an age much better suited to receive honour than to endure hardships, should not expose themselves to fresh dangers and privations, when there are the young, the enterprising, and competent, anxious to take

their turn. *Non tali auxilio non defensoribus istis tempus egit.*

“ Let me now solicit your attention to the well-digested and very feasible plan of an individual who is well and practically acquainted with the region to be explored,—with its difficulties and its resources, and with the modes in which it may be traversed ;—of an individual who unites the physical, the scientific, and the moral requisites for conducting such an enterprise, whether we regard geographical or natural historical research, or the welfare of the aborigines. The individual to whom I allude does not, it is true, enjoy those necessary advantages of patronage and interest which a military or naval officer would doubtless readily obtain ; but he is one of a profession which has already produced travellers remarkable for their enterprise or their talents,—of a profession which has produced, a Park, a Humboldt, a Clapperton, an Oudenay, and a Richardson ;—of a profession the resources of which are peculiarly necessary to those who, in their arduous journey, must be eminently exposed to accident and disease.

“ The expedition of which my friend Richard King has sketched the accompanying outline,—for which he has already made many necessary preparations, and in which an adequate number of his former companions are anxious to accompany him,—falls under the first or small class of overland expeditions to which I have alluded. The expense which it would probably incur is small, compared with that of any expedition of the second class;—so small indeed, that its adequacy has been called in question. It must, however, be recollected, that the expedition has to pass through a country in which money is of no avail; that, with the exception of articles to be used in barter with the Indians, the skill and experience of the leader, and the strength and prowess of his companions, are the only availing resources. In such an expedition the experience and ability of the leader is the desideratum of the first importance; and it is scarcely to be measured or represented by money. This desideratum, Richard King, the companion of Captain Back,—the joint, and, for a considerable time, the sole conductor of his company,—is not only ready to offer, but he is also

generously willing to bear a considerable part of the pecuniary expense. Can the Geographical Society disregard, or much less discourage such enthusiasm? Can we suffer such a stigma upon us to be inscribed in indelible characters in the annals of arctic research?

“ T. HODGKIN, M.D.”

The following is the sketch of the proposed expedition, sent to the Committee of the Geographical Society, mentioned in Dr. Hodgkin's letter.

“ Having maturely considered the best means to be adopted in undertaking a further survey of the northern coast of America, I have come to the following conclusions:—A party consisting of an officer and six men should proceed in a north-canoe, a vessel best adapted for the service, passing from Montreal in Lower Canada, by the rivers Hudson and Grand Uttawa, Lakes Huron, Superior, and Winnipic, to the Athabasca; and having taken an Indian as a guide, pass due north, by a route well known to the Chipewyans, to a river to the eastward of Fort Reliance. On its banks the party should winter; as, upon Indian authority, not far from

its source a tributary to the Great Fish River takes its rise, which is said to disembogue somewhere below the Musk-Ox Rapid, and most probably may turn out to be Baillie's River.

“ Early in the spring the party should proceed by that stream down the Great Fish River to its mouth, and having ascended the inlet to Cape Hay, coast along until the Isthmus of Boothia be either met with or proved not to exist. It must be apparent to all persons that the Isthmus of Boothia cannot be approached more readily than by the projected route; as the difficulties to be contended with are known, with the exception only of two or three days' march beyond the limit in our last expedition. If the land of North Somerset is found to be continuous with the land forming Repulse Bay, it may then be advisable to fit out a sea expedition, to try for a passage about the broken land around Melville Island. While, however, the passage by Regent's Inlet remains in doubt, I consider it would be highly impolitic to send out an expedition on a large and expensive scale; more especially since public opinion,

from repeated failures, seems indifferent about further attempts in the North.

“ The success of the land expeditions has very satisfactorily shown that to such a service only England will in all probability be indebted for the survey of the coast now unexplored, and for the knowledge of any passage about Regent's Inlet. If this be admitted, the question which next arises is, what number should compose the party? since all future arrangements must depend upon its solution. The only reason that can be adduced in favour of a large number of persons, is protection against native ferocity. Experience has, however, shown that little or no danger is likely to arise on that head; for during all the land services, one tribe only presented a formidable appearance, namely, the Esquimaux at the mouth of the M'Kenzie. If, as the different tribes along the whole course of that stream seem to agree in stating, the Russians have a factory between Franklin Extreme and Whale Island,—and the quantity of knives, apparently of Russian manufacture, seen amongst them by Sir

John Franklin, would indicate that they must have a free communication with that people,—the attack upon Franklin's party may be readily accounted for ; since it has been proved that the North American Indians, when they have once attached themselves to a party of traders, are very jealous of any inroad made upon them by others. The contest between the North-west and Hudson's Bay Companies, if investigated, would afford fearful proof of this assertion.

“ The precedents in favour of a small party will be found to be many. Sir Alexander M'Kenzie, of the North-west Company, made all his discoveries in a north-canoe, the smallest vessel used by the traders ; and Hearne discovered the mouth of the Copper-Mine River without even a single white attendant.* Park and Lander, who succeeded when alone, failed and lost their lives when accompanied by a party ; and Captain Burnes is acknowledged to have made his journey in the most judicious man-

* These adventurous journeys will ever form an epoch in the annals of northern discovery ; for the one incontestably proved a practicable passage for boats bisecting the continent from Hudson's Bay to the North Pacific Ocean, and the other gave the first authentic information of a sea bounding America to the northward.

ner, by so conducting himself that he in general made friends of those races who have invariably been hostile to all strangers. When appointed to missions, in which most people would have required the protection of escorts, Captain Burnes always declined that species of defence, and relied upon his own prudence; and not only that, but proved by the event, that in the management of rude nations it is far more safe, and even more easy, to win their favour by mildness of manner, than to subdue them by force."

The plan which I have sketched was conceived and matured whilst I was in the Indian country; and the most able of my companions are anxious to aid me in carrying it into execution. I may also quote in support of it the following letter from an experienced North American traveller:—

“Edinburgh, 31st December 1835.

“MY DEAR SIR,

“I am extremely glad to find that there is every probability of your being appointed to complete the survey of the remaining un-

explored part of the American coast; and I rejoice that it has fallen into the hands of a persevering gentleman in my opinion so well qualified to ensure success. I will not say that I myself am the person best calculated to effect it; but I have had some experience, am known to be one who would not undertake that which I could not perform, and am so much convinced of its practicability, and of my own powers while I had strength remaining, that feeling it was a disgrace to my country, while the Russians were making daily advances, to have left so long undone that which was so easy in itself if people but knew how to set about it, I had so far back as 1829 tendered my own services to the Hudson's Bay Company, of which you know me to be a factor, to explore the whole of the coast from Churchill to the Russian settlements in Kotzebue's Sound: and as an earnest of my conviction that by adhering to the proposed plan you mentioned to me, you will be able ultimately to accomplish what I was willing to undertake, in a manner that will be equally creditable to yourself and the country, I beg that if the

necessary funds are to be raised by subscription, you will do me the favour to put down my name for twenty pounds. Much will depend on perseverance, when every retrograde motion is attended with difficulties; and I can with truth say, that in the whole of my own travels I invariably found it to be more dangerous to return, than it was to persevere in proceeding.

“ I have only further to say, that if the present state of my health continues, I shall return to London in January, when I hope to hear of a favourable termination to your labours.

“ I am, my dear sir,

“ Yours faithfully,

“ JOHN STEWART.”

“ Richard King, Esq.”

My reasons at this time for urging the country to prosecute further discoveries in the North are not merely owing to my firm conviction of the possibility of tracing out the whole line of undiscovered coast, but because, by a recent discovery, even subsequent to that

of the Great Fish River, it is in the power of Russia to effect that object. The Indians of the M'Kenzie River having informed Mr. John M'Leod, one of the agents of the Hudson's Bay Company, in charge of Fort Simpson, that in their hunting excursions up the Liard, or Mountain River, they had fallen upon the source of a large stream flowing to the westward, that gentleman lost no time in tracing it to its source, a distance of three hundred and eleven miles south-westward of the Rocky Mountains. After making a portage of twelve miles he succeeded in finding the river, which, from the western extremity of the portage, appeared taking a southerly course towards the Pacific Ocean, and very likely falls into the sea at Observatory Inlet. On the height of land there were situated some Nahanies, who trade with coast Indians, and who, in Mr. M'Leod's opinion, from some articles of English manufacture found amongst them, were in the habit of receiving their supplies from one of the most northern establishments of the Hudson's Bay Company. A moment's inspection of the chart will be sufficient to show

how much more readily the coast-line between Point Turnagain and Ross's Farthest might be attempted by that route, than by the long and difficult navigation of the course hitherto pursued.

The question has been asked, how I can anticipate success in an undertaking which has baffled a Parry, a Franklin, and a Back? I will state in reply, that if I were to pursue the plan adopted by the latter officers, of fixing upon a wintering ground so situated as to oblige me to drag boat and baggage over some two hundred miles of ice, to reach that stream which is to carry me to the scene of discovery, and, when there, to embark in a vessel that I knew my whole force to be incapable of carrying, very far from expecting to achieve more than those officers have done, I very much question if I could effect so much.

On looking back upon what has been accomplished, I am so thoroughly convinced that the success in a great measure depended upon a concurrence of favourable circumstances, that the chances would be very much against the performance of the same duties in the same

time again. During the late expedition, when the boat was on the eve of being launched into the waters of the Great Fish River, not a single individual composing our party ever expected to reach the sea at all ; for, according to the statements of the Indians, we had every reason to expect very many portages, and being well aware of the inadequacy of the crew to carry the boat, one alone would have been sufficient to arrest the progress of the expedition. The river was fortunately, however, by no means so formidable as it had been represented ; although, had we been capable of conveying our vessel over land, instead of incurring the risk of running many dangerous rapids and lowering down others, we should doubtlessly have made several portages. It was nevertheless absolutely necessary to make one carrying-place ; and at that particular spot a friendly tribe of natives was most fortunately situated, who assisted us in effecting that which by ourselves we were perfectly incompetent to perform.

A small field of ice, however, ultimately stopped us ; and being deprived of the aid of the Esquimaux owing to the sad conflict that took

place between them and three of our party, the honour of completing the undiscovered coast, otherwise most decidedly in our power, was wrested from us, and we had consequently but to add another failure to the list of unsuccessful attempts at surveying the shores of the Polar Sea.

It is neither my intention to multiply nor magnify the dangers and difficulties to be contended with in prosecuting arctic discoveries for the purpose of adding to the interest of my narrative, nor to dress in Esquimaux attire for the sake of effect, nor to figure in a panoramic view; but if my plan is carefully dissected, I trust it will be seen that my object is to accomplish as much as possible for the benefit of science at the lowest rate of labour and expense. In selecting my wintering ground, I have not only borne in remembrance the appalling calamities which befel the natives at Fort Reliance, occasioned by the presence of our large party, but I have had in mind the long and laborious duty of crossing the boat and baggage from that establishment to Musk-Ox Rapid. Neither was it likely I should forget

the transport of the baggage across the Great Slave Lake, and of the boat over Portage la Loche; not merely because those undertakings were conceived and accomplished after Captain Back had consigned the expedition to my charge, but because I believe them to have been hitherto unequalled. Sir Edward Parry's attempt to reach the Pole over the ice was somewhat similar to the former, although far inferior to it in extent of manual labour; and the boat which Sir John Franklin conveyed over Portage la Loche, though less in size than mine, was accomplished by twenty-seven men, whereas my whole force did not exceed twelve.

In the selection of my vessel I have taken care to provide myself with one that two men are sufficient to convey over any obstacle that the previous expeditions have hitherto had to contend with,—one that is in use among the natives, and one in which the fur-traders, from long experience, have found to be most adequate in traversing unknown ground. It was in a canoe that Sir Alexander M'Kenzie made all his discoveries; and by its assistance Hearne passed those streams which crossed his path, while in

search of the Polar Sea. In such a vessel Sir John Franklin surveyed the Copper-Mine River, and traced the coast-line to Point Turnagain; which spot, since more unwieldy vessels have been used, has not been again reached, although two expeditions have sailed from England for that purpose, the one at an expense of about forty thousand pounds, and the other at seven thousand. Also in the formation of my crew and selection of my baggage I have endeavoured to be equally considerate; but as the advantages of encumbering myself with as few men and as little baggage as possible has been so well explained in Dr. Hodgkin's letter to the Royal Geographical Society, there needs not a syllable from me on that head.

By the plan I propose, time as well as manual labour will be saved; those obstacles which have arrested the progress of former expeditions, such as falls, fissures, mountains and masses of ice, no longer present insurmountable barriers against arctic research. It is by avoiding those errors into which former commanders have fallen, and taking advantage of suggestions dictated by experience, that

I hope to effect more than my predecessors have done : and it is seldom that by any other course great objects can be achieved.

An objection has been raised that the sum required is far too small for such an enterprise. This would have been answered, had the Arctic Land Committee rendered an account of the expenses incurred in Captain Back's expedition : but as this has not been done, it is necessary for me to allude to them at sufficient length to meet the objection ; and in doing so, I beg to be understood that it is not meant to cast any reflection upon Captain Back. It will be unnecessary for me to state the expenditure of my projected expedition ; because by comparing the number composing my party with that of the last expedition, and the sums required for their completion, it will be at once evident that, instead of asking too little, I have reserved a small sum for defraying those expenses which depend upon accidental causes.

On the late expedition nineteen persons were receiving pay and provisions ; and for the purpose of manning Captain Back's light canoe both in and out of the country, six men were

additionally hired for a period of twelve months. To defray this a sum of six thousand pounds was subscribed; but of which, I believe I am accurate in stating, not more than five has been expended, the rest still remaining in the hands of the Arctic Land Committee. As it is proposed that my party shall consist of six persons only, it will be at once apparent that one third of the sum is all that can be required; and if the pay and expenses of Captain Back's light canoe men be deducted, and that of three men taken from England, in addition to the expenses of Captain Back and myself, which I estimate at nine hundred pounds, it will be seen that a thousand pounds is more than sufficient to effect my object.

Were this not the case, I might make a further deduction of the passage-money of one officer and eight men across the Atlantic on their return to England; besides many other items,—such as defraying the expense of the despatch announcing the safety of Captain Ross and his party, and the payment of those Indians that transported our pemmican from Fort Reliance to Musk-Ox Rapid.

Although Dr. Hodgkin's letter has remained unnoticed by the committee to whom it was addressed, a short comment on my sketch which accompanied it has been penned by one of its members, in which the principal, if not the only objection raised against it, is that of the proposed route being founded upon information obtained from the Indians. As far as my own experience goes, that knowledge of the country which is gained from the natives stands next in importance to an accurate survey, and is decidedly of more value than the statements either of the fur-traders or their servants. It was from Indian report of a copper-mine existing in the vicinity of a "stinking lake," or sea, that led to the discovery of the Arctic Ocean. The Fury and Hecla Strait was delineated by an Esquimaux prior to its discovery ; and so thoroughly convinced were Doctor Richardson and Captain Back of the accuracy of the Indians in sketching an outline of those parts of the country visited by them, that upon the authority of Blackmeat they formed a plan for the rescue of Captain Ross and his party.

This will be made evident upon referring to the Penny Magazine for the 31st of December 1832, which contains the report of a paper read before the Royal Geographical Society a month previously by Captain Back. That officer, after giving his reasons for expecting to find Captain Ross or some of his party at the wreck of the Fury on the western shore of Regent's Inlet, makes the following statement:—

“ By a reference to the map, then, it will be seen that Regent's Inlet trends towards a portion of the main coast lying between the 90th and 100th meridians; and, in all probability, it fortunately happens that the Thlooe-choh,* or Great Fish River, *must fall into* the Arctic Sea within the same limits; being, from *the unanimous report of the Indians*, not only a larger stream than the Copper-Mine and more navigable for boats, but flowing through a better wooded country, frequented by vast herds of deer. It is, in fact, to its banks that the Indians of Slave Lake resort for their

* Here is another synonyme for the Thlěwŷ-cho-dězză to perplex the reader.

principal supplies of provisions ; and Hearne, who crossed it near its source, says, ‘ We were here joined by upwards of two hundred Indians from different quarters ;’ and ‘ the deer were so plentiful that our party killed great numbers, merely for their fat, marrow, and tongues.’ The access to its banks from Great Slave Lake is likewise easy by a chain of lakes and portages : and from *the general agreement of the maps drawn by the Indians* with one long ago obtained from the Esquimaux who visit Fort Churchill, we may further conclude that the Great Fish River falls into an extensive bay, whose west side is bounded by a promontory running far to the north and separating this recess from Coronation Gulf, and its east side by Melville Peninsula. The Indians also describe three islands as lying off the mouth of the river ; and its Indian name implies that its estuary is frequented by whales.” Again, “ If an opinion which I have been led to entertain from an inspection of *the maps traced by the Indians*, of the mouth of the river being between the 68th and 69th parallels of latitude, be correct, we shall then

be less than three hundred miles distant from the wreck of the *Fury*, and, under favourable circumstances, little or no doubt can be entertained of our being able to reach it."

By referring to the present narrative, it will be seen how singularly correct the Indians were. The river fell into the Polar Sea within a few minutes of the 68th parallel of latitude, and 95th meridian of longitude. It was a larger stream than the Copper-Mine, and frequented by vast herds of deer. The Indians of Slave Lake, to obtain their chief supply of provisions, resort to its banks; and the approach to them is also by a chain of lakes and portages. Moreover, it falls into an extensive bay; and, since the Indians have been so far correct, it is probable that the western shore of that bay is formed of broken land, or, in other words, of three islands, described by the natives as lying off its mouth, which I have all along suspected to be the case. The same article contains Captain Back's speculations both as to the time of his reaching Great Slave Lake, and his line of route beyond the limit marked out in the Indian charts; which, I am sorry to say, will bear

no comparison in point of correctness with the "speculations" of the natives, as their information has been termed.

If, then, Doctor Richardson and Captain Back could put such implicit confidence in the natives as to propose for the consideration of the Government, upon their sole authority, an expedition over so considerable an extent of undiscovered country, surely I may be permitted to form a project wherein, comparatively speaking, it is in contemplation to traverse only a small area of new ground.

"Why not have ascertained the correctness of the Isthmus of Boothia?" has again been asked; "since, although prevented by floating ice from proceeding westerly, an open sea was exposed to view in an easterly direction, and the distance not more than one hundred and sixteen miles,—one days' sail or two days' labour only." This, I beg leave to state, is Captain Back's affair: but I may remark, that his orders were contradictory to such a course; and the impropriety of restricting an officer to this or that line of route, or this or that period of time for leaving the coast, of which the Government can

know little or nothing, is made evident by the equipment of an expedition as lately as July last, at an expense of certainly not less than twenty thousand pounds, to ascertain a fact which might have been determined in a few hours, had the commander of the late expedition been in possession of discretionary orders. The blame, however, does not rest altogether with the Government ; for in such services the officer undertaking the enterprise generally dictates his own orders ;—at least, such was the case with Captain Back.

The last and most ungenerous objection that has been raised against this project, is that of incompetency on my part,—an objection which it would ill become me to attempt to meet.

THE END.

LONDON :
PRINTED BY SAMUEL BENTLEY,
Dorset Street, Fleet Street.

