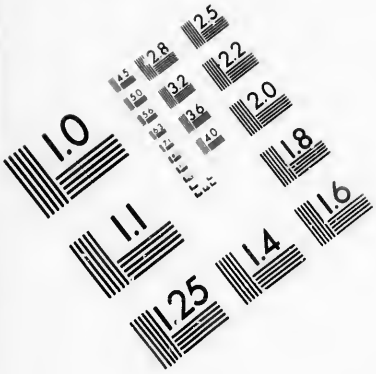

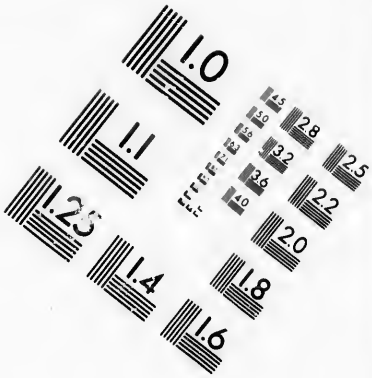

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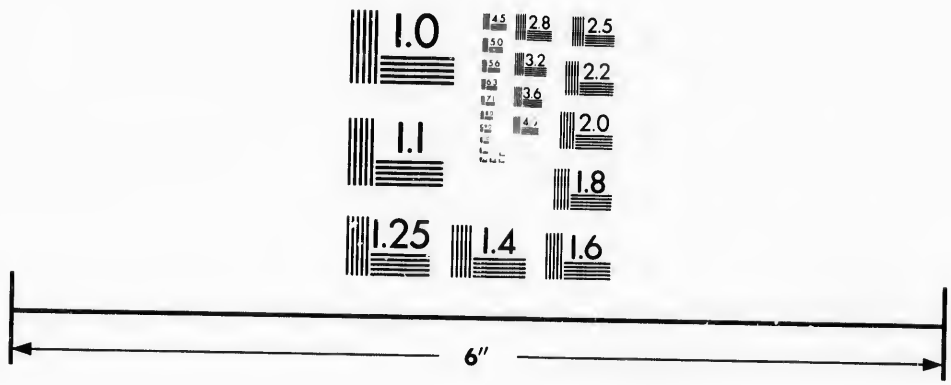

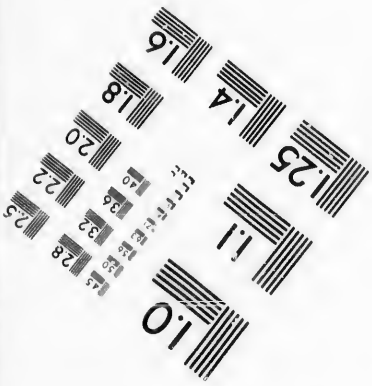

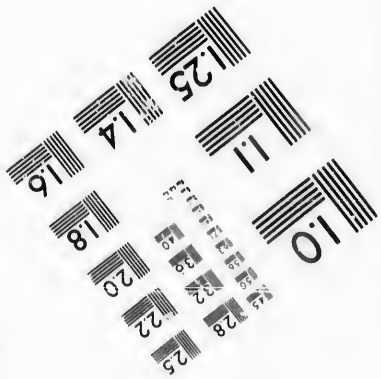

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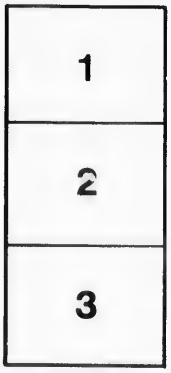

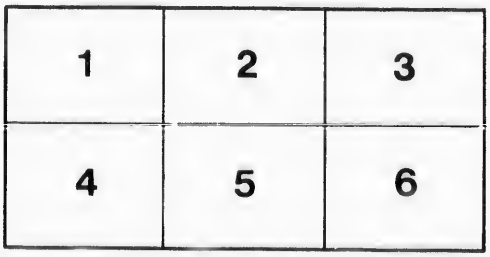

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NIMROD IN THE NORTH.

FREDERICK SCHWATKA.

NIMROD IN THE NORTH

OR

HUNTING AND FISHING ADVENTURES IN THE ARCTIC REGIONS.

BY

FREDERICK SCHWATKA.

Laureate of the Paris Geographical Society, and of the Imperial Geog'l Society of Russia, Honorary Member Bremen Geog'l Society, etc., etc. Commander of the Longest Sledge Journey in the World (3261 miles), 1878-79-80, and Commander of the Longest Raft Journey in the World (1305 miles), 1883.

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CONTENTS.

INTRODUCTION.

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In writing of Nimrod in the North, the author has confined himself almost exclusively to such scenes and adventures as came within his personal knowledge a few years since, in the region north of Hudson's Bay, and, more recently, in the interior of Alaska. He has sought at the same time, however, to describe in a general way the life of the sportsman in the Polar wastes,—his trials and his triumphs, his cares and his comforts, his camps and his sledges, his singular native allies and their ingenious weapons of the chase, and (above all) the animals he may pursue—or that may pursue him,—and in doing so has added a very few interesting hunting anecdotes from the Arctic works of others.

NIMROD IN THE NORTH.

CHAPTER I.

THE POLAR BEAR.

OUR first introduction to this boreal Bruin, "the tiger of the ice," as an Arctic writer has aptly termed him, occurred in the latter part of July, 1878, when we encountered the Eskimo of the Savage Islands, on the northern coast of Hudson's Strait, who had, among other kinds of Arctic merchandise, a number of polar bear skins to sell. These simple natives are certainly easily satisfied, or, more properly speaking, easily cheated; for half-a-tumblerful of shot secured four saddles of reindeer meat, while a fine polar bear robe was obtained for half-plug (one-twelfth of a pound of Navy six) of tobacco and a few charges of powder. Twenty-five caps were given for one fifth as many white fox skins, and many other things were paid for in the same proportion. I bought three dogs—all they had brought in their *oomien*, or seal-skin scow—for my party, and when I gave them something approximately near their true value (for I was not a little disgusted with the Shylock manner in which they had been treated), their astonishment knew no bounds, and one old fellow, with a huge smile breaking through an inch of dirt, so insisted on rubbing noses with me, that, although the ceremony was a pledge of eternal friendship, I almost repented of the act of justice which he mistook for generosity.

Polar bears are quite numerous along the shores of Hudson's Strait, and as they are extremely aquatic in their habits, being often found on cakes of ice or on icebergs many miles from land, it occasionally happens that American whalers *en route* through these straits to their whaling grounds in North Hudson's Bay, or the Hudson Bay Company's ships, in their annual visits to their trading posts, encounter Bruin here and have many interesting bouts with him. If he is found on isolated cakes or small floes of ice, his capture is almost certain when pursued in the well-manned small boats of the whalers, who have no trouble in overtaking him in a fair race in the water and then shooting him. But if the ice-cakes are numerous enough to force the rowers to take sinuous courses and make wide deviations, or are packed so tightly together as to obstruct the boats, Bruin generally manages to save his blanket. If the ice-pack is very dense, the only method is the one used by the Eskimo, of bringing him to bay by pursuing dogs, the same as if on land or on the shore ice. So great, indeed, is the polar bears' love for the salt water, that it is a very unusual thing to find them far from the sea-shore, and the only time I have ever known them to leave it any distance was when the salmon ran up the small streams opened by the perpetually shining sun of the short Arctic summer; for in the ripples and rapids of these cold creeks Bruin finds a most generous commissary department while it lasts, and at all such places he is liable to be found.

After the winter has set in and the ice has formed to a considerable depth along the coasts, the native sledging parties that are then following the shore ice from one village to another are the ones most likely to come in contact with this particular game. In fact, by far the greater number of robes are thus secured by them. When in the summer this solid sheet of ice is broken up and driven out to sea by the winds and currents and tides, the polar bear often follows his icy home to its new abode, and it is here and under these circumstances that he is most generally encountered, killed and studied by civilized man, and his habits and peculiarities noted. His love for the sea, in which he is so characteristically distinct from all others of his tribe, has determined his scientific name, *Ursus Maritimus*, although the assertions of some

POLAR BEAR ON ICEBERG BREAKING UP AT SEA.

that his habits are purely aquatic must be taken with a few grains of allowance. In the summer, as I have said, he occasionally goes inland in quest of salmon, and in winter, when there is but little difference between the land and the frozen ocean, both being covered with their common mantle of drifting snows, his inland excursions are not at all rare. The absence of encounters between polar bears and men in such places is due more to the rarity of visits by the latter than the former. It is undoubtedly the ease with which they obtain seals or the carcasses of "flensed" whales, or those which have had their blubber stripped from them by whalers, walrus and other sea-abiding animals, that attracts them so persistently to these abodes. The inland country would not furnish them enough to support their huge carcasses for even a few days, unless perchance they should fall in with the meat *caches* of the inland reindeer hunters, which, by the way, the Eskimo say they have been known to destroy a distance of two or three days' sledge-traveling from the main coast (probably thirty or forty miles), although it may be nearer some of the deep finger-like fiords characteristic of the Arctic coasts of some districts. As showing their maritime character and the great distance to which they will journey on fields and cakes of ice, let one pick up an atlas showing the geographical relations between Iceland and Greenland, the distance between which is about equal to that between New York City and Washington; yet these polar pirates often stray in this manner from the eastern coast of Greenland to Iceland in such numbers as to seriously frighten the inhabitants, being famished and desperate with hunger after their long ride and fast *en route*, and attacking every thing living they see, man not excepted. The natives, however, have an ingenious way of escaping their fury, if they can only spare some article of wearing apparel to amuse them or arouse their curiosity. A glove, they say, is sufficient for this purpose, for a bear will not stir further till he has turned every finger of it inside out, and as these animals are not very dexterous with their clumsy paws, this takes up enough time to allow the man to escape.

The winter camp of our little party for 1878-'79 was pitched near Depot Island, in the northernmost part of Hudson's Bay, amid a large

camp of mixed Iwillik, Igloolik and Netschilluk Eskimo. I employed four families of them, thirteen souls in all, to accompany me on my proposed spring sledge journey to the Arctic Sea. Around this winter camp the natives reported that bear were reasonably common, and quite a number of them had promised that we, the white men, should be indulged in some of this exciting sport before the winter should wear away, if we would accompany them on their sledge journeys along the coast. That winter, however, yielded us no sport in this line, although one of the native members of the party, Ik-quee-sik, a big, robust Netschilluk, fully six feet in height, killed one bear on or near Depot Island, while encamped there for walrus hunting to secure oil for my party's sledge journey, and this was the only bear, I believe, whose tracks were seen near our camp that winter, although such a scarcity was unusual. Bruin had evidently been attracted by the scent from the numerous walrus cairns, or little rock *caches* where meat is stored, that dotted Depot Island, and he came lumbering along, suspecting no danger, early one February morning. Now "early in the morning" depends upon the season, and in the Arctic February or thereabouts it means nearly eleven o'clock in the forenoon, and consequently our polar ursine friend found every body astir in order to take full advantage of the very short day. Ikqueesik's family were alone on the island, many of his associates of the village being absent at the whaleships wintering at Marble Island, some eighty or ninety miles to the southward. The consequence was that the bear got fairly into the village before he was discovered even by Ikqueesik's four or five runty, little, half-grown black dogs that looked more like wolverine kittens than the true Eskimo class of canines. They were, however, equal to the emergency, and Eskimo-like, Ikqueesik had to first come out of his snow hut unarmed to see the cause of the disturbance, when Bruin got a good long start of him, despite the persistent nippings of the pursuing puppies that delayed him considerably. It was a running chase for a good long distance, but the dogs, encouraged by Ikqueesik's approaching presence, worked like heroes to delay the bear, and finally succeeded to an extent that gave their master a long shot at the game with his smooth-bore musket that luckily planted itself in the foreshoulder and

brought Bruin effectively to bay. Loading leisurely at this distance he approached much nearer, and as a result he had one close shave from a daring charge of the ferocious beast over the hummocky ice; but our Netschilluk Nimrod soon dispatched him and brought his robe triumphantly into camp. He was an immense fellow, weighing undoubtedly over a thousand pounds, and would have been a bad customer at close quarters had not his shoulder been rendered worthless at the first fire. The size of the polar bear varies considerably even with those that may be considered full-grown specimens, and some naturalists class them as the largest of the genus *Ursus*, yet his famous western brother, the grizzly, (*Ursus Horribilis*), will certainly dispute the point closely with him. This one killed by Ikqueesik was pronounced by the Eskimo to be "au-a-yo-ad'-lo," or very large, and had he been weighed I would not have been surprised to see him show 1200 pounds; I certainly would have been surprised had he stopped short of 1000. Captain Lyon, a British Arctic explorer, mentions a polar bear which weighed 1500 pounds and measured eight feet and seven inches "from tip to tip." It is said that Barentz, in his expedition of 1596, killed two polar bears whose skins measured no less than twelve and thirteen feet in length, and which must have represented enormous animals, rivaling even the largest grizzly. They were secured on an island near Spitzbergen. Franz-Josef Land is pre-eminently the paradise of polar bears, the Austrian expedition of 1872–4 which discovered the island encountering and killing them by scores, yet the largest one they mentioned "was eight feet long, and therefore of unusual size." In Parry's Arctic voyage of 1819, his party succeeded in killing a bear which, although measuring eight feet and two inches in length, only weighed 900 pounds. "It will be seen," says a chronicler of that expedition, "that his weight is not at all in proportion to his dimensions, for he was a very large animal, as far as length and height went, but although six inches longer than the bear we killed in this country last summer, he was upward of two hundred pounds lighter."

During the fall of 1878 my hired native hunters, as well as many from the village that had clustered around, for which our tents served as a nucleus, started inland on their annual reindeer hunts to procure

the hides of that animal, which are used almost exclusively for their winter clothing and bedding. Joe (Ebierbing) attached himself to a young Iwillik Eskimo, Too-loo'-ah by name, who will appear many times in these accounts as my most valuable and intelligent hunter. Toolooah and Joe, as the autumn snows commenced falling, had pitched their sealskin tent on a precipitous hill overlooking a small fresh-water lake, where the reindeer, on their autumnal southward migrations, could be seen for many miles. When the weather became too cold to allow the tent to be warmed by their rude stone lamps, an igloo or snow-house was built and the hunt continued. One cold, gloomy, storm-boding day, when both our heroes were snugly ensconced in bed (which with the natives means stripped stark naked, lying between their dressed reindeer blankets), a terrible racket was heard near the lake, sufficient to excite their curiosity. Joe jumped up and, partially and hurriedly dressed, emerged into the open air. Toolooah, less excited, stretched out, back up, with his chin in both hands, eagerly awaiting developments. It turned out to be a big, shaggy polar bear, breaking the ice of the lake where it had an outlet into a small creek and trying to catch the fish that some instinct told him would be found there. As soon as Joe comprehended the situation, he seized a loaded musket, the only arm on the outside of the hut, and, taking deliberate aim at Bruin, who was about a hundred and fifty yards away, he let him have an ineffectual shot in the leg. This so astonished his bearship, who had perceived no danger, that he only looked at Joe in amazement, howling furiously at his slight wound. "Nannook! Nannook!" (a bear! a bear!) yelled Joe, just after he fired, and then dodged into the low entrance of the snow-house in order to get his Winchester carbine, his head meeting, with a good round thump, that of Toolooah, who, stark naked, was emerging, Winchester in hand. By the time that Toolooah had straightened up in front of the entrance, and recovered from his dizzy collision, the bear had commenced to appreciate that he was in an unhealthy neighborhood, with a high rate of mortality that could only be counteracted by a high rate of speed, and he had just swung his carcass around for a retreat when he got Toolooah's first fire in his hams. Then he started on the run, Toolooah giving him a

second as he disappeared over a crest about forty or fifty yards further on. He was not yet permanently disabled, although carrying three wounds more or less severe; and there was no time for our hunters to delay if the prey was to be secured. Despite his immodest appearance, and to the Eskimo mind the more deterring fact that the thermometer was below zero, Toolooah ran like a race-horse for about a hundred yards and got a long-range shot of about three hundred yards at the retreating polar, who was looking at him from his haunches on a second ridge. This shot gave him a fatal bullet in his neck. An Eskimo Nimrod, stark naked, standing half knee-deep in the snow, in the midst of an Arctic winter, gun in hand, over a fallen bear, would be a good picture to hang in one's room of hunting trophies, to contemplate in the summer time. The robe of this bear and that secured by Ikqueesik had fallen to me, but during my year's absence on the sledge journey from Hudson's Bay to the Arctic Sea, the retiring whaler who had been hired to bring us into Hudson's Bay from the United States appropriated them along with other trophies, for the polar bear robe has a market value in civilized marts.

In quaint old Purchas' "Pilgrimes" is a most interesting account of the ancient way "ye white beare" was hunted, and being short, I transcribe it. It was during Barentz's second Arctic expedition, chronicled by Gerard de Veer, the historian of the voyage, who says:—"The 6th of September some of our men went on shore, upon the firme land, (Nova Zembla) to seeke for stones, which are a kinde of diamond, whereof there are many also in the States' Island; and while they were seeking the stones, two of our men lying together in one place, a great leane white beare came suddenly stealing out, and caught one of them fast by the necke; who not knowing what it was that took him by the necke, cryed out and sayd, 'Who is it that pulls mee so by the necke?' Wherewith the other, that lay not farre from him, lifted up his head to see what it was; and, perceiving it to be a monstrous beare, cryed out and sayd, 'Oh, Mate! it is a beare,' and therewith presently rose up, and ranne away. The beare at the first falling upon the man, bit his head in sunder and sukt out his blood; wherewith the rest of the men that were on the land, being about twentie in number, ranne presently

thither, either to save the man, or else to drive the beare from the body; and having charged their pieces, and bent their pikes, set upon her that was still devouring the man, but, perceiving them to come towards her, fiercely and cruelly ranne at them, and got another of them out of the companie, which she tore in pieces, wherewith all the rest ranne away. We perceiving, out of our ship and pinnasse, that our men ranne to the

BARENTZ'S PARTY AND THE BEARS.

sea-side to save themselves, with all speed entred into our boates, and rowed as fast as wee could to the shoare to relieve our men. Where, being on land, wee beheld the cruel spectacle of our two dead men that had been so cruelly killed and torn in pieces by the beare. We, seeing that, encouraged our men to goe backe again with us, and with pieces, curtelaxes, and half-pikes to set upon the beare, but they would not all agree thereunto; some of them saying, our men are already dead, and

we shall get the beare well enough though we oppose not ourselves into so open danger; if wee might save our fellowes' lives then wee would make haste; but now wee need not make such speed, but to take her at an advantage, with most securitie for ourselves, for we have to doe with a cruell, fierce, and ravenous beast. Whereupon three of our men went forward, the beare still devouring her prey, not once fearing the number of our men, and yet they were thirtie at the least; the three that went forward were Cornelius Jacobson, Wilhelm Geysen and Hans Von Nutlen, Wilhelm Barentz's purser; and, after that the sayd master and pylot had shot three times, and mist, the purser, stepping somewhat further forward, and seeing the beare to be within the length of a shot, presently levelled his piece, and discharging it at the beare, shot her into the head, betweene the eyes, and yet shee held the man still fast by the necke, and lifted up her head with the man in her mouth; but she began somewhat to stagger, wherewith the purser and a Scottish man drew out their curtelaxes and strooke at her so hard that their curtelaxes burst, and yet shee would not leave the man; at last Wilhelm Geysen went to them, and with all his might strooke the beare upon the snout with his piece, at which time the beare fell to the ground, making a great noyse, and Wilhelm Geysen, leaping upon her, cut her throat."

Just how brave, ferocious, or dangerous the polar bear may be, it is extremely hard to say, owing to the variety of disposition and dissimilar traits it has exhibited in this respect, under the scrutiny of equally credible observers. One authority says:—"It is the largest, strongest, most powerful and, with a single exception, the most ferocious of bears," the exception evidently meaning the grizzly. Yet the many mutilated persons I have seen in the great west who have been intimate with the "cinnamon" bear of that region, and describe him as equal in ferocity with, and superior in activity to, the grizzly, would certainly not be willing to surrender his claims to those of the polar bear. Again, the testimony of those who have shot a helpless animal swimming in the sea from the deck of an exploring steamer, is of no more value than that of a menagerie keeper who has poisoned a caged Bengal tiger. I am inclined to place the polar bear below both the cinnamon and grizzly

in bravery, although the superior of either in activity. His long, lithe, snake-like form, compared with the bungling carcasses of the others, would show this without further argument or practical demonstration, yet it has received the latter without doubt. Those who speak of the ferocity produced by a carnivorous diet may think the polar should excel his omnivorous brethren of the south, as he is wholly of this type; yet, singularly enough, his system of dentition is exactly the same as that of the other bears. Still, as has been said, the polar bear has exhibited all degrees of bravery, from that of the most ferocious disregard of life to the most abject cowardice. The old Norsemen, than whom no braver men ever lived, came in contact with these glacial grizzlies when their most venturous explorers discovered Greenland, and Eric the Red, their bold leader, is said to have quarreled furiously with one of his best friends from sheer envy because the latter had killed a polar bear, and thus distinguished himself among those who valued bravery as highly as it has ever been held since, when his chief should have been given this honored opportunity. They certainly regarded him as a plucky adversary. "Killing a bear," says Chevalier Rink, once Danish inspector of Greenland, "has, in ancient as well as in modern times, been considered one of the most distinguishing feats of sportsmanship in Greenland." If the Eskimo of Greenland are the peers of their polar brethren on the main continent, they would certainly pick no mean opponent to be thus distinguished. All Arctic authorities seem to unite in the assertion that the mother is unsparing in her exhibition of bravery to protect her young, and hardly a boreal book exists that does not recount one or more of these instances of maternal affection; and yet I am compelled to narrate an incident that came under my own personal observation, that will shatter somewhat even this unanimity of opinion. My party of four white men and Toolooah's family were on their southward search along the western coast of King William's Land, in August, 1879, and had encamped inland about five or six miles from Erebus Bay, while crossing over the peninsula between it and Terror Bay, fifteen miles wide. While thus moving our effects, I had occasion to send Toolooah back to the former bay to get a large drift log that I had seen there and had split up to be

used for firewood. He took a number of the dogs, harnessed, and only a snow-knife, a two-edged one, about sixteen inches long in all, and which had had the wooden handle knocked off of the tang in order to crease one end of the logs so that the drag-rope would not pull off. Nearing the shore of the bay, he discovered a she-bear and a goodly sized cub trotting along the edge of the water, which the dogs, when slipped, soon brought to bay. Nothing daunted, Toolooah separated the dam from the cub by pelting the former vigorously with stones, and while she was employed growling at the snapping dogs a short distance off, he dispatched the cub with his decrepit knife; then, after running the mother out to sea on the ice-floe, he brought the carcass of the cub triumphantly into camp, tied on the spreading pieces of the split log. I told Toolooah a story of Captain Hall's, which he relates in his book, of having killed a polar cub while his native allies were in a fruitless chase after the separated dam, and their consequent fright and dismay when they saw it. They so feared the vengeance of the returning mother, that they made almost incredible exertions to avoid it, such as doubling upon their retreating track repeatedly and traveling nearly all night. I inquired of Toolooah if he was not afraid of the mother following his plainly marked trail to the tent and wreaking due vengeance. But he smiled as he answered that he hoped she would, as he felt very angry at himself for being caught in such a predicament without his gun, and if she would only come along again he would make due amends. He said he had known several instances wherein the cub of the polar bear had been killed, and where the mother had not been injured, but had never known any evil to result from the anger of the latter, unless it occurred right on the field of battle, where she often displays great energy in the defense of her young, though she certainly showed a lamentable absence of that trait in this particular instance. It would seem from this that either Captain Hall's allies were needlessly frightened, or that the disposition of the polar bear varies much with the locality. Joe, who was with Hall in all his Arctic travels and remembered this incident, says that both views are partially correct, and in fact, that the polar bear is very uncertain in his combativeness. Probably had a less active hunter than Toolooah, who was agility

personified, undertaken the assault, the result would have been different; but his rapidity evidently confused the animal, so that the whole tragedy was over before she really comprehended the situation.

As illustrating in an interesting adventure the extreme savageness of the polar bear, I take from good authority the following anecdote:—"Not many years ago, the crew of a boat belonging to a ship in the whale-fishery shot at a bear at a little distance, and wounded it. The animal set up a dreadful howl, and ran along the ice toward the boat. Before he reached it a second shot was fired, which hit him. This served but to increase his fury. He presently swam to the boat, and, in attempting to get on board, placed one of his fore feet upon the gunwale; but a sailor having a hatchet in his hand cut it off. The animal, however, still continued to swim after them till they arrived at the ship; and several shots were fired at him, which took effect; but on reaching the ship he immediately ascended the deck; and the crew having fled into the shrouds, he was pursuing them thither when a shot laid him dead on the deck." Mr. Hearne, an Arctic explorer, says that the males of this species are, at a certain time of the year, so much attached to their mates, that he has often seen one of them, when a female was killed, come and put his paws over her, and in this position suffer himself to be shot rather than quit her corpse.

About the middle of October, 1879, while Toolooah was in Terror Bay, he killed three polar bears in about half as many minutes. He had descried them from a distance, as he was driving his dogs and sledge over the eastern ridge of the bay, and managed to so direct his course among the hummocks of ice (the ice-hummocks are the immense cakes of ice as large as one and two-story buildings, that have not melted during the summer, and are frozen every winter in a thick mass) as to get within a couple of hundred yards of them before they noticed his presence, when he slipped the dogs from the sled, and although the open water along the shore ice, to which they always take when pursued, was but one or two hundred paces distant, they were so slow in getting under way, that one was brought to bay by the dogs before it could reach the water, which Toolooah dispatched with a single shot of his Winchester through its head, and so quickly that

when he gained the edge of the ice-floe the other two were not over forty or fifty yards away, swimming for dear life, although they did not manage to save themselves, as two well directed shots laid them out. Then Toolooah, extemporizing a raft from a small floating cake of ice, managed to get out to both of them, and, having taken the precaution to pay out his sledge-lashing from the shore as he went, pulled himself and prey back, and brought us the three robes to verify his powers. It is said that the Eskimo of Cumberland Sound fearlessly attack the polar bear in their frail *kayaks*, or light sealskin canoes, but are afraid of them on the ice or land. In October, 1877, an enormous female with two cubs paid an Eskimo encampment in this sound a visit. They swam over one of the fjörds, probably scenting a dead whale that was on the beach near the huts. The bears made a very lively time here, and a considerable outlay of ammunition and dogs was made before they were finally captured. There were about two hundred dogs and half as many natives, besides the crews of two whalers. All this motley crowd made war on the bears. One of the whaling captains, a little braver than the rest, got too close to the old bear, and she dealt him a blow that knocked his gun many feet into a snow bank; she then began to make away with him, but was prevented by the Eskimo and dogs. A young Eskimo was served in a similar manner, but sustained quite serious injuries. Great consternation and fear prevailed among the women and children, and that memorable night, when the *nannooks* besieged their quiet camp, was long a lively topic of conversation. During the season the common hair seal have their young, the bears begin to wander up the fjörds in search of them, and are at this time often found a considerable distance from the open water.

Toolooah killed a monstrous polar bear, that would probably turn 1300 or 1400 pounds, the day we reached the northernmost cape of King William's Land, July 3. Bruin came up the beach from the south, snuffing by the camp, when Toolooah and Frank were the only ones not absent, and while the dogs were yet harnessed to the unloaded sledge. But a good view of the situation sent him off on the sea ice at a smart lope, Toolooah and Frank following him with the light sledge over the terribly rough hummocks of Victoria Channel. The nineteen strong

DOGS BRINGING A POLAR BEAR TO BAY.

and excited dogs would have made a spectator think that the sledge was a piece of paste-board, so lightly did it carom from one hummock to another, leaving tracks only on the crests of the snow drifts as they flew after their enemy. It was a good five-mile chase before Toolooah got near enough to slip his team, and the dogs soon commenced nipping the bear's hamstrings so persistently that he had to sit down on them for protection, and commenced playing a sort of juggler's game with the bolder ones' heads. A shot through the neck so infuriated him that he plunged for Toolooah, who was only a few steps away, but the latter's activity with his Winchester carbine put another shot through the beast's backbone, and he lay spread out on the ice, a huge, helpless mass of howlings and hair. There were thus five bears killed on our sledge journey, which lasted from April 1, 1879, to March 20, 1880—nearly one year—Toolooah scoring them all.

This "mighty hunter" told me that he had seen the polar bear climb up the smooth, perpendicular walls of icebergs to escape from his pursuers, and that when the bergs were reasonably high he generally succeeded in eluding them, as it was very dangerous to attempt to ascend by cutting niches in the ice-wall for footholds, which is the method the natives adopt in pursuing bears under these circumstances. This seems almost incredible, and I have never seen it mentioned by previous Arctic travelers; but I consider Toolooah altogether too good an authority to lightly cast aside what he affirms. Lieutenant Parry, in 1818, after much severe labor, succeeded in getting on top of a flat iceberg in Baffin's Bay, and there found a white bear in quiet possession; who, discovering the party, jumped over the perpendicular side of the ice mountain, fifty-one feet into the sea, and swam to the nearest land, which was over twenty miles away—or at least disappeared in that direction.

It may surprise the reader to know that the Eskimo of Greenland edit and publish an irregularly issued newspaper in their own language, yet such is the fact, and it is a creditable fact despite the journal's name—Atavgagdlivtit Nalinginarmik Tvsaruminásassumik Univkât. In a country where the sun rises and sets but once a year, it may be hard to tell whether it is an annual or a daily publication. But whatever

its period of issue, some good hunting stories are told in it. One by Eskimo writers and one translated by Dr. Rink, regarding a bear hunt at Narsak, I will reproduce. "At this place, in Greenland," the story runs, "polar bears are very rare. A party of seal hunters, having put to sea, observed a very strange animal swimming. While we pursued it on its track toward an island it turned landward, whereupon we gave it a sign by calling out a halloo for bears. Once at our shout it turned to us, but on seeing us it turned back and instantly let its voice be heard. To people who are not accustomed to it, its frightful roaring and hissing are most extraordinary. At the same time it sounded just as if one more was approaching, but it only proved to be the echo from a small island in front. When gradually it came near to the shore without having yet been wounded, we spoke to each other of setting about it, and having backed our *kayaks* astern, we took out our guns; but on cocking mine, I observed that the percussion cap had dropped into the oakum. Whilst I was getting hold of another, Adam fired, and when I was aiming, Andreas also fired, and then I likewise gave a shot. It was really amusing to observe the animal, which I never thought would move so quickly. While the others were reloading I put my gun aside and pursued it, thinking my lance would now be better; but fearing to come too near, I kept a proper distance and threw my lance, but managed it awkwardly, hitting the beast on the nape of its neck. On being hit it stooped down without turning aside in the least, and the lance directly fell off. The second time I missed. When they had loaded anew, Andreas gave one shot more, after which it appeared quite stiff, and I supposed it to be dead, when suddenly it turned its head toward us and began to wheel round. Adam then gave it the last shot. Again it appeared stiff, but I still expected it would revive, and therefore gave it the finishing stroke with my lance, when it was done for and quite immovable. We had heard people say that the bears had a knack of feigning death, but having got its head so severely wounded it really was dead, and just as we had killed it a *kayaker* appeared from the north side, who even before we had fired had heard its loud roar, so awfully does it resound. The place to which we intended to tow our game was close by; we hauled it ashore and began to cut it up. To

people who have never seen such a beast, its fatness is really surprising; unto the very feet nothing but grease is to be seen. On dragging it up the beach, I measured it, and was just able to span its body completely. On being opened, its inward parts glistened as white as those of a full grown fat reindeer."

Upwards of fifty polar bears, says Dr. Rink, the same authority we have just quoted, and who was a Danish official in Greenland many years, are on an average shot yearly in this section of the country, of which more than one-half are shot in the environs of the northernmost settlement of the west coast, and of the remainder the greater part at the southernmost extremity of the country on the same coast, where they arrive with the drift ice around Cape Farewell. Throughout the whole intervening tract bears are scarce, but still they may be found everywhere, and solitary stragglers may even be met with unexpectedly in summer in the interior of the fjörds. In the north of Greenland, on the west coast, the bear is pursued upon the frozen sea with the aid of dogs. It often takes refuge on the top of an iceberg, where it is surrounded and held at bay by the dogs until it is shot, generally not without some of the latter being lost on the occasion. In the north the male bears at least seem to roam about in winter as far south as 68° north latitude, for wherever the carcass of a whale may be found, or a rich hunt of seals or white whales occurs in a certain place within these confines, there several bears are sure soon to make their appearance. In the south, where no dogs are to be had, for instance, the natives generally try to force the bear into the water and often kill it with harpoons from the *kayaks*. At the southernmost stations bears have often been shot close to the houses, being apparently attracted by the scent from the human dwelling places. Several years ago a bear had pushed the foremost part of his body into a house passage at night, but getting into a difficulty on account of finding it too narrow, was killed by the inhabitants, who, after having been warned by their dogs, fired at it through the doorway and from the window. At another time, a woman staying alone with her child in a house, observed a bear outside. Thinking it might be likely to give her a call, she placed the burning lamp at the window, keeping some straw at hand. The bear soon came

on, pushing its head through the intestine-formed curtain of the window, whereupon she threw the straw into the lamp, at the blaze of which the bear retreated. It then tried to scratch a hole through the wall from another side, but was killed by some passing travelers.

While camped on the northern side of Simpson's Strait, in the fall of '79, and waiting for them to freeze over, we all participated in an exciting foot-race of a couple of miles, after a large polar bear that had been started up some seven or eight miles inland. Bruin, however, placed Simpson's Strait between the pursuers and pursued, and thus saved his robe. Toolooah, never exhausted, waylaid a herd of reindeer that had remained stupid spectators of the bear chase, and by killing two and wounding two others, completed a score of nine in as many hours.

While living among the Netschilluk Eskimo, who inhabit the shores of Simpson's Strait, I remember their telling me a story of a very strange animal they had met at long intervals of many years, when upon their summer reindeer hunts with *kayaks* and spears. They described it as a black monster, as large and heavy as a musk ox, with a face like that of a man and feet like those of a bear. They report them to be very ferocious, making sad havoc among the Eskimo dogs that attempt to bring them to bay, and when thus irritated do not hesitate to attack the natives themselves. Joe (Ebierbing) tells me that the Kinnepetoo Eskimo of Chesterfield inlet, who are armed with guns obtained from the Hudson's Bay Company, have killed several of these beasts, so they report, but I have never been able to procure, or even to see, any of their robes. I think it can be no other than the grizzly bear of North America, which is thus shown to occasionally extend its limits as far north as the Arctic Ocean during the short summer of that region, and no doubt returns to the timber limit, many hundreds of miles to the southward, to hibernate.

Speaking of hibernating, there is probably no other subject of Arctic zoölogy on which there is such a variety of opinion and of which there is so little known, and so much interesting information yet to be gained, as pertains to the hibernation of the northern bear. The very first conclusion to which one would naturally jump is, that this species of all

others would be the very one to seek such a state as a protection from the intense and bitter cold of the polar winter; and I am much inclined

INTERIOR OF A BEAR HOLE.

to think that the published opinions of many writers have been based on such conclusions rather than on personal observation. Some authorities are found who deny that the polar bear hibernates at all, in the true sense of the word, and from what little I know of the subject, I

feel disposed to side with them. Dr. Richardson, the naturalist of several Arctic expeditions, and a most conscientious and voluminous writer on the natural history of the polar regions that he traversed, maintains that the hibernating of these animals is confined to the females during the time they are with cub; and yet I find by native testimony that they have slain them while in this condition, and I believe this can be relied on. Others think that the mothers remain secluded while the cubs are too weak to elude pursuit, but it is hardly worth while to deny this, so numerous are the cases furnished by civilized and savage observers who have secured the cubs when they could not have been much over a few days old. I am prone to believe that the polar bear never hibernates under any circumstances. The mother, for a few days on either side of the cubs' birth, may remain secluded in the den she has excavated in some deep snow bank, and is more shy then than at any other time; but beyond this, and the fact that bear holes are occasionally found, there is nothing upon which to base any theories in favor of hibernation, while the facts that polar bears of both sexes have been encountered and killed in every month of the year, and in all sorts of conditions, are the opposite statements in the case. The bear holes in the snow banks are very interesting little affairs, but the fact that they are only found after the cubbing season, and never during the coldest weather of winter, would show that they are not used permanently; unless it be argued the maker has too carefully secreted them to be discovered at this time. Lieutenant Payer, of the Austrian expedition, was fortunate enough to see them occupying these abodes, though even the Eskimo seldom, if ever, have the opportunity. He says:—"But almost immediately again the bear disappeared into the snow, and when we came to the place of his disappearance we discovered the winter retreat of a family of bears. It was cosily hollowed out of a mass of snow lying under a rocky wall. The bear had shown herself only once, but resisted all our efforts to seduce her to leave the shelter she had chosen. Nor had we any special desire to creep on all fours into the narrow, dark habitation. Sumbu (one of the dogs) only was bold enough to follow her; but he saw too many things which led him to return very quickly. From the snow which

had been thrown up at the entrance of this hole, we inferred that this had been the work of the bear in her efforts to close the approach to her abode. It was the first time we came upon a family of bears in their winter quarters, or had the chance of adding any thing to our scanty knowledge as to the winter sleep of those animals. Middendorff does not admit that they sleep during the winter. He considers the bear far too lean to be able to do so."

Dr. Rae, a veteran Arctic explorer in a good deal of the same region

YOUNG BEAR CHAINED.

where my explorations were east, says that an anecdote was once told him by a credible native eye-witness of the scene, of a polar bear killing a walrus with a piece of ice, which he gives in his own words as follows:—"I and two or three other Innuits were attempting to approach some walrus, in winter, lying on the ice close to the water kept open by the strong current in Fox's Channel. As we were getting near we saw that a large white bear was before us. He had reached, in the most stealthy manner, a high ridge of ice, immediately above where the walrus were lying. He then seized a mass of ice in his paws, reared

himself on his hind legs, and threw the ice with great force on the head of a half-grown walrus and then sprang down upon it." The Eskimo then ran up, speared the bear, and found the walrus all but dead, thus securing both animals. Dr. Rae adds that the bear threw the ice as if he were "left-pawed."

While the Hansa of the second German expedition was beset in the ice on the east coast of Greenland, in September, 1869, a she-bear and her cub approached the vessel. The dam being killed, the young one

LASSOING A POLAR BEAR CUB, AUG. 8, 1880.

was captured. It got away, however, but was recaptured in the water, and to make sure of its staying, chained to a huge anchor. The men then built a snow house for it, the floor being covered with shavings for a bed; but it despised these luxuries and bedded in the snow. Some time after it disappeared with the huge chain, and from the weight of iron there is no doubt where it brought up when it attempted to swim away.

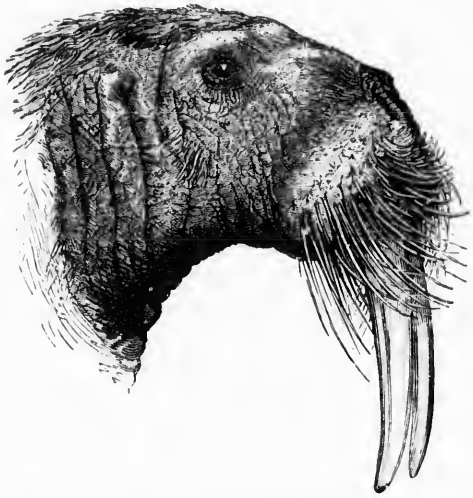
When our stay of two dreary years in the Arctic came to a close, we bade adieu to our Eskimo friends and boarded the whaler "George and Mary," of New Bedford, bound for home. The whaling season had not been good; one—only one—whale, a seventy-barrel fish—having been caught; so as we bent our course for Hudson's Strait, Captain Baker thought he would take a last hurried peep into Roe's Welcome, as we wended our way home, to see if a whale could not be raised. The 8th of August saw us entering its southern mouth. When squarely off Whale Point, the man in the crow's nest (the look-out place on the foremast to watch for whales) reported a couple of polar bears off our starboard beam. The ship was hove to, and the mate's boat lowered and sent in pursuit, with myself in the bow. It was a she-bear and a three-months' cub we had sighted, who, hearing us lowering the boat, immediately took to the water. The cub kept close to its mother and occasionally took a rest on her shoulders. As it became evident to the dam that in a fair race she could not escape, she crawled upon a large cake of ice, roaring furiously at us—not unlike the deep roar of a lion—and faced us for a fight. At about forty yards I put a bullet through her back, just behind the shoulders, which laid her *hors de combat*. Her efforts to back again into the water were ended by a shot from the mate through her swaying head. We were now left to face the little cub, which I was extremely anxious to capture alive. A lance-warp was procured, a running noose made, and the little fellow once lassoed was easily dragged into the water. From the ice-cake to the ship he rode upon the dead body of his mother. No sooner was he pulled up to the deck than we "triangled him" with three converging ropes, at which he bit with a spitefulness that kept us at a respectful distance. The captain disappointed us all by ordering him to be shot, as he considered him too dangerous a passenger to have on board in the event of a storm, as he might break loose and create an uncomfortable consternation, as had been done once before. It was doubtless just as well that the mate put a pistol to his head; for we never afterward saw a seal or walrus, and the sleek little rascal would probably have died of starvation on our hands.

The mate of the "George and Mary" had visited the Arctic regions

on a whaling cruise some years before, and returning homeward had captured a polar bear cub, the dam being killed. The robe was stripped from the mother and placed in the bottom of a large cask, and in this the cub was imprisoned, the staves being bored full of augur holes for ventilation, and the cask lashed to a convenient part of the decks. During a fearful storm it broke loose from its fastenings and brought up against something that broke in one of the heads, and the cub escaped on the deck. The sailors took to the rigging, the cook deserted the captain's "flap-jacks," and even the helmsman left the wheel to look after itself; and it was some time before Bruin, Jr., could be persuaded to relinquish command by a bullet through his brain.

CHAPTER II.

SHOOTING AMONG THE SEALS AND SEA-HORSES.



THE reader will remember that our winter camp was in the northern part of Hudson's Bay, among the Iwillik Eskimo. The name Iwillik is derived from the Eskimo word *Ive-wick* (walrus) and signifies walrus-eaters, the walrus being the principal source of food among these people. With these natives were a few Netschilluks (seal-eaters) whose original homes had been with the great body of their large tribe, on and near King William's Land, in the Arctic Ocean. Living thus among the seal-eaters and walrus-eaters, I had occasion to see and hear much concerning the habits of, and their hunting adventures with, these curious amphibious animals that supplied them with their daily sustenance.

The Walrus, or as he was formerly and is still sometimes called, the morse or sea-horse (the *Trichechus rosmarus*, Linn., of scientists) may be popularly described as an immense seal, with upper canine teeth prolonged into huge tusks. The weight of the walrus can be easily remembered as a ton, although that may be slightly in excess of the average. They attain a length of from fifteen to eighteen feet, and half as much around the fore-flippers. These fore-flippers are some two feet long and capable, when extended, of covering a considerable area, and

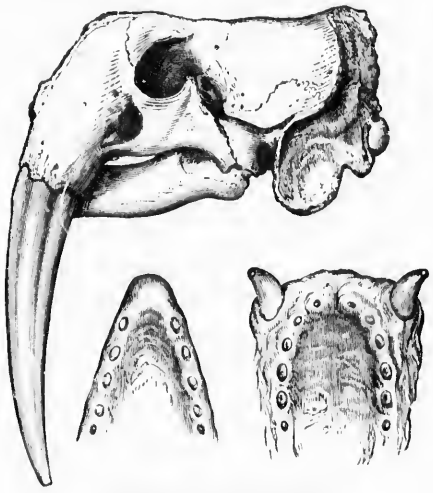
of foreing them rapidly through the water when propelled by the short, stout arms. They also use them to protect and carry their offspring or wounded comrades. The inside of these paws is covered by a horny cuticle, that would make one think they were hard workers, and evidently subserves the purpose of protecting their palms in scrambling around over the rough ice. Some writers have claimed that they possess the power of suction in these members, as the house-flies are supposed to possess it in their feet, and that it is by this means they so readily climb upon the huge ice-cakes, where they are so often seen, especially in the Arctic summer. It is a theory, however, which needs confirmation. The walrus flippers, when properly cooked, are considered a great delicacy by the Innuits, as the Eskimo call themselves, and I must say that those who have habituated themselves to this [illegible], in whole or in part, are not disposed to question their liking. They cook them by simmering all day in the half-boiling water contained in their rude, native stone-kettles, supported over their peculiar, native stone-lamps, and when thus prepared, leaving out a slight walrus flavor, they are not unlike a dish of pickled pigs' feet, served hot.

The form of government of the Iwilliks, if they can be said to have any, is largely Communistic; but to the slayer of a walrus is awarded the head, and one fore and one hind flipper, in addition to the regular share apportioned to any one who may come along and help kill the animal, or even to those lazy beings who only appear in time to help drag it to the village near by. Again, when it reaches the village, the carcass may undergo another sub-division, for the refusal corner of an Innuit's heart is rounded off with the most abounding charity.

The flavor of the walrus is almost identical with that of the coarser clams. This is not surprising, since in North Hudson's Bay he derives his main sustenance from these salty bivalves, for procuring which his villainous-looking tusks seem especially designed. I think I cannot better describe the walrus flavor and meat, than by citing the illustration of tough Texas beef, marbled with fat, and soaked in clam-juice. I think the two would be so near alike, that it would take an Eskimo to distinguish between them. To many this meat seems to be extremely repulsive; but much of this distaste lies in the imagination, and can be

overcome in the same way that is done by the frog-hater, who eats frogs as birds, and then imitates Oliver Twist.

The flesh of the walrus is protected by a thick blanket of fat, or blubber, which allows it to resist the cold water of the Arctic seas. This coating yields nearly a barrel of oil; and this, with its tusks and occasionally its hide, makes it a constant victim to the avarice of the human race. Its tusks are its distinguishing feature, their whiteness being conspicuous against its dark breast for a great distance. They are from one to two feet in length when full grown, and weigh nearly five



SKULL OF WALRUS.

pounds, bringing about twenty-five cents a pound in the ivory market, one side being often larger than the other. Whenever this is the case, the shorter is usually the stouter, thus equalizing the weight. I think this would indicate that the morse is not inclined to use the tusks equally in digging for clams, or any other continuous labor with them, being, so far as his tusks are concerned, right or left handed, so to speak. The tusks are used as weapons of defense and offense, and according to some, the walruses often take part in closely contested conflicts with polar bears above, and narwhals beneath, the water. I think the

polar bears often attack the smaller ones, and succeed in killing them by a powerful blow from their paws, or in stunning them in this manner and completing their destruction at their leisure afterward; for the bear is cunning enough to crawl right on top of and kill the common Arctic seal, the most wary animal in these regions, and he could therefore easily do so with the stupid sea-horse. Still, I think the larger ones, lying as close to the open water as they usually do, and weighing about twice as much as their opponents, ought to make a successful defense until they could dive beyond their reach. Some give Bruin the credit of being smart enough to take a large stone, or block of ice, between his paws, and (converting himself into a catapult) using it to crack his victim's thick skull by a blow from a distance, especially where he is favored by his position on a precipitous cliff, or the perpendicular wall of an iceberg.

The contents of the stomach of a walrus, consisting mostly of crushed clams, is one of the greatest delicacies of the Innuits, but I was never starved long enough to be tempted to partake of this natural clam-chowder while living in these regions, although enjoying those prepared at home. Captain Hall, when in this same country and on a walrus hunt, concluded, from the fact that rarely any part of a clam-shell larger than a dime is found in the sea-horse's stomach, and from finding at various times a single shell close by a walrus-hole (or aperture in the ice where the brute sticks its head through to blow or breathe), that the walrus digs but one clam at a time from the bottom of the sea, and then comes to the surface to blow and eject the shell. When I first heard of this clam diet of the walrus, I thought there would be no trouble in obtaining them on some of the sand beaches I had seen near camp, but I soon found that if I wanted clams I must take them second-hand, *à la Innuit*, from the walrus. The shore-ice in North Hudson's Bay forms to about six to eight feet in thickness, and there is an average rise and fall in the tide of about fifteen feet; so, for about twenty-five feet below high-water mark (where the clam is supposed to be happiest) the shore is frozen solidly some distance into the component earth or sand, and no clam with any regard for its personal comfort is to be found nearer than eight or ten feet of the surface of the lowest tides.

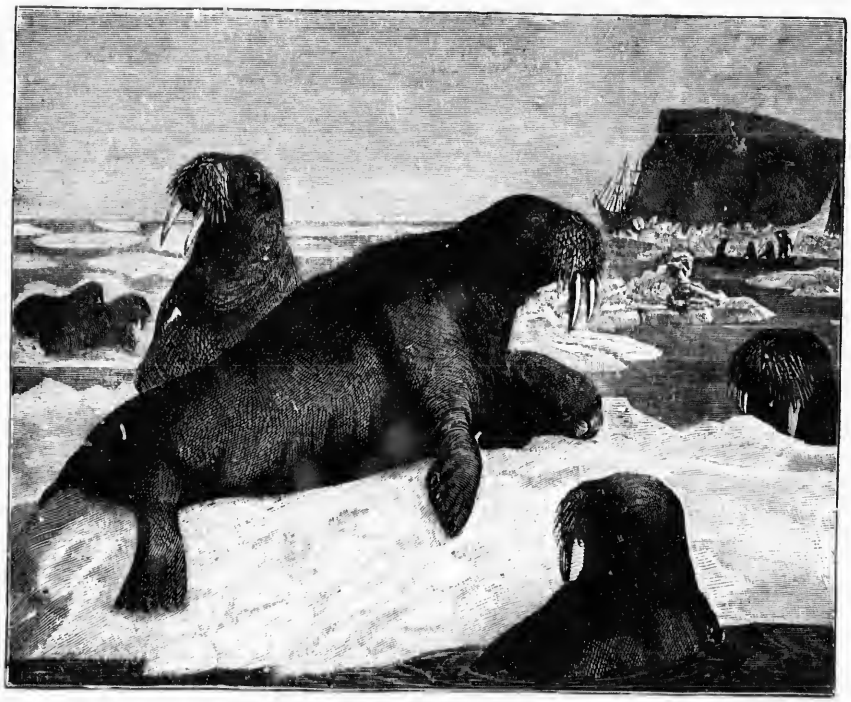
Most of the autumn of 1878 was occupied by my party in surveying the ill-charted northern shores of the bay. Colonel Gilder and the two men whiled away a portion of their time in short excursions with the shot-gun and rifle; but an accurate census of the fauna of the neighborhood, taken before and after these expeditions, would—like the continuously tempestuous weather of that season—have shown no change. Colonel Gilder was, however, a little more successful on the 16th of October, when he killed two walruses, on an island about twenty miles distant, and brought their tusks back as trophies. I therefore determined to try my luck at the same sport, and, combining business with pleasure, finishing my survey of the coast to the eastward, I started on the 19th with Frank and a boat-load of natives; but the day after proved squally and tempestuous, and on reaching the island where the natives were camped—about ten miles from the walrus island—it suddenly turned very cold, and my Eskimo hunters could not be induced to proceed further. Here we remained for three days and nights of bitter cold weather. Then my northern friends determined upon a homeward journey back to the mainland, in order to build their igloos or winter snow-houses, as the ice was forming rapidly and it was now altogether too cold in their *toopiks*, or sealskin tents, to remain there comfortably. I was fairly remunerated, however, by completing my survey in the vicinity, and on the 23d started homeward. The slushy ice that always forms on salt water just before it freezes, and closely resembles loose snow thrown into the water, retarded our progress considerably, whenever we neared the land, and warned us in unmistakable language that the long polar winter was at hand. Reaching the mainland, I had a fair shot at a huge walrus's head, whose owner had crawled upon a small granite tip of rock near the shore; but as the ball struck him in the upper jaw, he quickly bade us adieu, leaving a long streak of opalescent grease on the surface of the water to mark his subaqueous course. A walrus's carcass floated ashore, a few weeks later, not far from the scene of my bad shooting, and Toolooah and other Innuits believed it to be mine. I was not particular to claim it though, since it was worthless for any thing but dog-food. By the custom of the country, however, it belonged to the man who found it, limited by the

rights of possession already explained, and I did not even take the trouble to examine its jaw, especially when I heard of the prodigious number of wounded walrus that must have been swimming around in Hudson's Bay, just before this one appeared which was thrown up on the beach.

By the 1st of February, '79, the few Eskimo who had been clustered around my permanent camp on the mainland had moved over to Depot Island, three miles distant, that site being more available for walrus-hunting in the ice-floes, which season was then first commencing, and for the first time among these savage sons of Boreas, I was brought into contact with one of their superstitions that caused me no little annoyance. When the reindeer-hunting season is over, some time from December to February, depending upon the locality and season, and nearly all the meat resulting therefrom disposed of, the walrus and seal come into the Eskimo market and completely exclude the reindeer, which from that date becomes forbidden fruit. The Innuit who has relinquished reindeer meat tears down his old igloo or snow-hut and builds a new one, as he must not eat walrus or seal, or work on sealskin clothing, in an igloo where the flesh of the now discarded reindeer had been eaten, or clothing made from its hide. The contrary rule is also good, for all work on reindeer clothing must cease as soon as the new igloo is made their habitation.

So far is this superstition carried, that on one occasion, several years ago—so Ah'-mon, a trustworthy Iwillik Innuit, informed me—when about one-half of the natives then living in Iwillik Bay (the Repulse Bay of the white man) had commenced their reindeer Lent, the walrus and seal suddenly became very scarce, owing to severe, protracted northern winds holding the ice-floes off the shore. The other half of the natives still had a plentiful supply of reindeer flesh; but what was one man's meat was another man's poison, and the first half had nearly starved to death in devotion to their religion, alongside of the far more esteemed reindeer meat, when a lucky change of wind saved them from breaking this Innuit commandment, or perhaps from starvation. Shortly after their establishment at Depot Island, their walrus and seal hunting was amply rewarded with success, but I found it impossible to

secure any of the flesh for myself or for dog-food while I lived in my old igloo. If I would only build another, as they besought me to do, even if on the site of the old one, they would bring me an abundance. Natives came over daily, but brought no walrus meat, nor touched the reindeer meat of the few who remained. If we would take our dogs to Depot Island, they would be fed generously, and this plan



DISCOVERING A HERD OF WALRUS IN AN OPEN ICE-PACK.

was finally adopted, to the satisfaction of all parties, the natives doing all the work. This superstition is founded on the belief that there exist [illegible]ods, antagonistic to each other, one ruling the seas and all that [illegible]n is, and the other the land with its beasts and birds; and they s[illegible] to appease their respective divine jealousies by holding true

allegiance to only one at a time, disregarding the other completely for the while.

I will make an extract from Gerard de Vere, the chronicler of the celebrated voyages of Barentz, to give my readers an ancient account of the walrus:—"The sea-horse," he says, speaking of the walrus, "is a wonderful, strong monster of the sea, much bigger than an oxe, which keeps continually in the sea, having a skin like a sea-calfe or seale, with very short hayre, mouthed like a lion; and many times they lye upon the ice; they are hardly killed, unlesse you strike them upon the forehead; it hath four feete, but no eares, and commonly it hath two young ones at a time. And when the fishermen chance to finde them upon a flake of ice with their young ones, shee casteth her young ones before her into the water, and then takes them in her arms and so plungeth up and down with them; and when shee will revenge herself upon the boates, or make resistance against them, then she casts her young ones from her againe, and with all her force goeth toward the boat (whereby our men were once in no small danger, for that the sea-horse had almost stricken her teeth into the sterne of their boate), thinking to overthrow it, but by means of the great cries that the men made, she was afraide, and swomme away againe, and took her young ones againe in her armes. They have two teeth sticking out of their mouthes, on each side one, each being about half an ell long, and are esteemed to be as good as any ivorie or elephants' teeth."

The pursuit and capture of the walrus is generally undertaken with the spear and sealskin line, and very much resembles the killing of a whale as now practiced by our whaling ships. It must be remembered that the walrus is always found near the open water, simply crawling upon a cake of ice, or the edge of the shore-ice, and never going further from the water than is necessary to secure a comfortable spot to lie on; for the sea is its refuge in case of danger. He is a very clumsy animal on land or ice, and his defense there is not at all proportionate to his strength. He is nearly always near enough the ice edge, so that one good lurch of his huge carcass will throw him into the water.

The native hunter, when he has descried the large beast on the ice, first crawls slowly and noiselessly toward him, keeping out of sight as

much as possible, in which he is greatly aided by the rough hummocks of ice, and the fact that his lazy, lubberly prey is generally about half asleep, especially if it be a fine sunny day. When sufficiently close, which depends upon the nearness of the walrus to his refuge place—the open water—with a few lightning-like leaps the agile hunter is alongside, with the point of the walrus spear deeply bedded in his victim's tough side, ready to pay out the thirty-foot line he has wound

WALRUS NEAR THE EDGE OF AN ICE FLOE.

around his arm or neck, as the sea-horse slides into the open water in his attempt to escape. Now comes the tug of war! It requires the skillful and united strength of two active hunters to manage the line, or the walrus will pull it away from them, or cut it off clean over the sharp edge of some projecting ice hummock, before they have worried him out sufficiently to kill him with a lance. They pull in the line

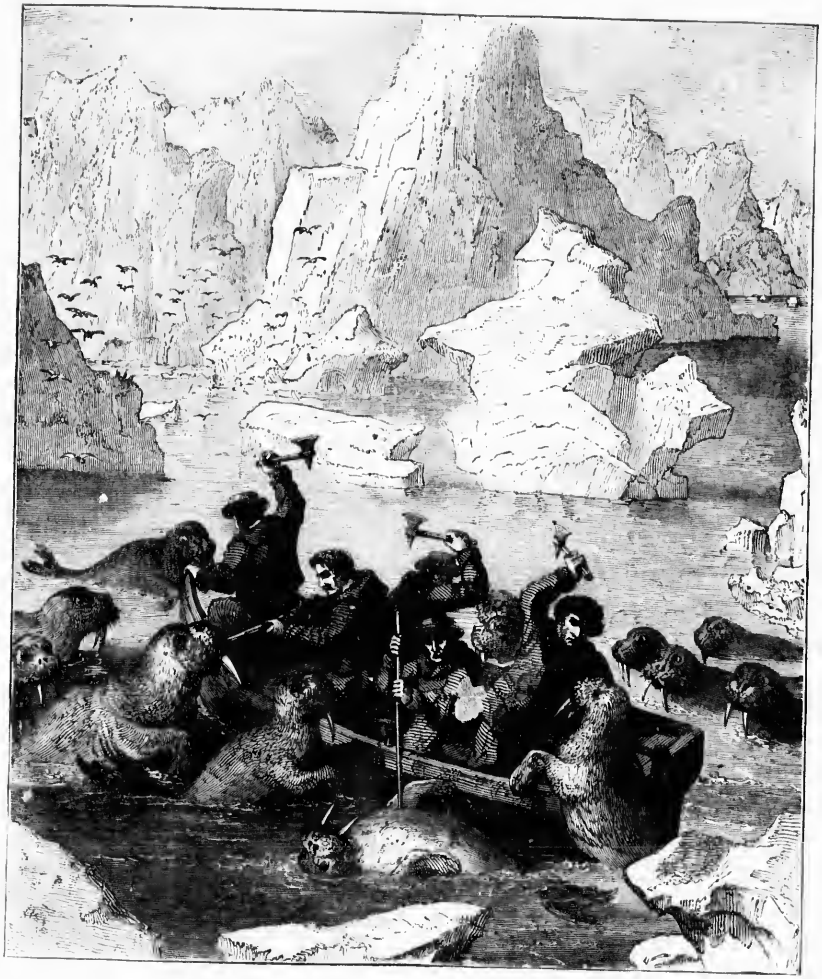
rapidly as it slackens or pay it out with a steadily increasing resistance as it becomes taut, until the beast is so exhausted that he may be pulled alongside and dispatched with a well-directed thrust of one of their sharp lances. The use of fire-arms, wherever the Eskimo have been able to obtain them, has much simplified the second act of this tragedy, as the hunter then has but little trouble in dispatching his game, immediately after he has fastened to him with the harpoon and line and while he is yet in his most desperate struggles to escape. Where walrus are not numerous, and consequently make such short excursions that almost the merest movement is sufficient to throw them into the water, the shot from a gun cannot be wholly relied upon; for, unless instantly fatal, which requires better aim than can usually be taken under such cold, uncomfortable circumstances, the huge monster rolls into the water and sinks to the bottom, where he dies and remains until the gases from putrefaction bring his carcass to the surface again.

Wherever the walruses congregate in immense herds, as in the Arctic seas, inside of Bering Strait, or as they used to be in the Spitzbergen seas before the whalers thinned them out, they can be shot like so many tame sheep on the great ice-cakes upon which they crawl to bask in the sun; for the first to creep out upon the ice are crowded back a considerable distance by the new comers, and so on, until they are forced a long way off from the water's edge, and there fall victims to the rapid rifles of man. The above explanation of a hunt supposes that the hunter has approached over the ice on foot, which is the case when the ice-floe is large enough, or when the walrus has perched upon the shore ice. When he is on an isolated cake of small dimensions, or a small island, he is approached by several persons in *kayaks*, (small skin canoes) and instead of holding on to the line, they attach a large, air-tight and inflated sealskin, about the size of a half-barrel, to its end and throw it over as soon as the harpoon is fast. At first, the strength of the walrus is sufficient to drag the float under the water for one or two minutes, but the intervals rapidly become shorter, and in less than a quarter of an hour he is towing it along the surface of the water, and the active hunter seizes the opportunity to pierce him with a lance or shoot him through the head or neck. Nearly all those killed in the

summer are obtained in this way. During July and August, 1880, while on Depot Island, many walruses were thus captured. At the highest point of the island, a convenient monument of stones was built, and over this my army signal telescope was placed. Hardly five minutes would elapse before some one, the small boys especially, would be looking through it, scanning the drifting ice-pack for five or six miles on either side. As soon as a walrus was discovered the alarm would be given through the village, and several natives would put off in their *kayaks;* and whenever the chase was near by, I took my position at the telescope and viewed its exciting incidents.

Great numbers of Arctic walruses, says an old authority, visit the Magdalene Islands, in the Gulf of St. Lawrence, every spring. Immediately on their arrival, they crawl up the sloping rocks of the coast in great numbers, and when the weather is fair, they frequently remain for many days; but on the first appearance of rain, they retreat to the water with a great precipitation. In the course of a few weeks they assemble in great numbers. Formerly, when undisturbed by the Americans, their herds have been known to amount to seven or eight thousand. These animals are killed by the inhabitants for the sake of their skin and fat. At a proper time the hunters, taking advantage of a sea-wind to prevent the animals from smelling them, endeavor in the night, with the assistance of their dogs, to separate the furthest advanced from those nearest the water, driving them in different ways. This is considered a dangerous method, as it is impossible to drive them in any particular direction, and sometimes difficult to avoid being attacked by them. In the darkness of the night, however, many of them lose their knowledge of the direction in which they lie with respect to the water, so that they stray about and are killed by the men at their leisure, those nearest the shore being their first victims. In this manner, fifteen or sixteen hundred have sometimes been killed at one time. They are then skinned, and the coat of fat that surrounds them is taken off and dissolved in oil. The skin is cut into slices, two or three inches wide, and exported to the United States for carriage-traces and to England for glue.

In the year 1766, some of the crew of a sloop which sailed to the



WALRUS SEEKING REVENGE.

northward to trade with the Eskimo, were attacked in their boat by a great number of these animals; and notwithstanding their utmost endeavors to keep them off, a small one, more daring than the rest, got in over the stern, and, after sitting and looking at the men for some time, again plunged into the water to his companions. At that instant, another of enormous size was getting in over the bow; and every other means proving ineffectual to prevent the approach of such an unwelcome visitor, the bow-man took up a gun loaded with goose-shot, put the muzzle into the animal's mouth and shot him dead. He immediately sank, and was followed by all his companions. The people then made the best of their way to the ship, and just arrived before the creatures were ready to make their second attack, which would probably have been much more disastrous than the first.

The hide of the walrus is from an inch to an inch and a half thick, and covered sparsely with short bristles. The young walruses are quite dark in color, but generally turn lighter with age, until the oldest are of a light, grizzly hue. The thick hide used to be taken by the walrus slayers to make a heavy, porous leather, but I think its usefulness has passed. By cooking it for a day or two in their perpetually simmering kettles, it becomes somewhat friable, and is so eaten by the natives, those of the northern coast of western Greenland being very fond of it. I did not find such a desire for it among the Innuits of Hudson's Bay. When eaten raw or uncooked it is simply equivalent to rubber belting of the same thickness, and it must be cut in small enough pieces to be swallowed at once, as the teeth will make no more impression on it than on the substance named. Added to this, the stout, bristly hairs make one imagine he is cutting up and eating a wire hair-brush. As the author had to live on it for five days, his observations were of a most practical character. It is never eaten even by the natives themselves in this manner, until they are driven to it, and only after the rare oil is consumed with which they could have cooked it. It is not a useless material, however, by any manner of means. Their dogs, to whom they owe more than any other race of people owe to their domestic animals, must be provided for, and in the walrus hide the native sledgman finds the most portable dog-food known in the Arctic regions.

These faithful animals are not fed oftener than every other day, even when food is at its maximum abundance. And when traveling on a long journey, when space and weight upon the sledge have to be economized, they are not fed oftener than every third or fourth day, if walrus hide (or *kow*, as they call it) is given. Thus provided, the Eskimo dog will stand a good journey, for a month or two, without suffering any visible loss of flesh or strength. He may pick up a little refuse here and there, but it will be a microscopical percentage of his entire diet. The *kow* is generally packed along in large pieces, about two by three feet, and when fed to the dogs is cut up into strips about one or two inches wide (this will make them square, as this is the thickness), and from a foot to sixteen inches long. These the dogs swallow, and the natives told me that it takes them two days to digest, which surprised me in regard to the power and rapidity of the digestive organs of these canines of the cold, for I thought nothing less than a quartz-mill or aqua-fortis bath could dissolve them in such short time.

Not long ago, I found floating around in the newspapers a small, uncredited article, stating that a certain Captain De Abortiz, of the Spanish bark Idulia, had a tame walrus which he captured thirteen years ago when it was a pup. When caught, it weighed nineteen pounds, but it now turns the scale at 411½ pounds, has two enormous tusks, measures six feet three inches at the girth, and is eight feet four inches long. In bright weather it sleeps in the sun on deck. During heavy blows it resorts to its kennel, but when the weather is calm it leaps overboard and sports about the ship for hours, catching and eating fish. When tired of swimming, it is hauled on board again in a great iron basket. On one occasion, off the Cape of Good Hope, a great shark attacked it, laying hold of one of its paws and biting off two of its toes; but the walrus dove, and coming up under the shark, killed and devoured him with cries of delight. So at least the story ran.

When in a boat far from land, it is dangerous to wound one of these animals, as instances are not wanting of their having retaliated effectually by tearing the boats to pieces with their huge swinging tusks. Many of the Iwilliks and kindred tribes wear mourning for departed ones, upset and drowned by angry wounded walruses. The mother

will fight strenuously in defense of her young, and the latter clings tenaciously to its maternal defender, so that success in obtaining one is always rewarded with the possession of the other. During very cold weather, the walrus only remains on the ice a short while at any time, before retiring to the water to warm its tough hide. And if a young one is captured alive, it is almost impossible to keep it so owing to the cold nights. The dangers in walrus hunting are much more numerous than one would imagine from such a clumsy animal, although the most conspicuous ones are indirect, such as being drowned after the *kayak* is upset, for the Eskimo in his world of ice is a stranger to the art of swimming. Another danger is being carried out to sea on the ice while

WALRUS STICKING THEIR HEADS THROUGH THIN ICE.

an unfavorable wind is blowing off shore, or a current is setting out. I know two ugly looking wounds made by direct contact with their tusks, and one case of death reported by a native which I believe.

About a month before we started from Hudson's Bay on our sledge journey, Ikqueesik, a first rate walrus hunter of mine, attempted to make up my deficit in oil with which the party was to start, and of course was untiring in his efforts to do so, without regard to weather. One day, while he was on the outer edge of the floe with another Innuit hunter and his brother, a mere boy, with a strong off-shore wind, the

piece on which they were watching broke off and floated away to the southward in the storm. They were prisoners on this cake of ice for three days, at the end of which time they were landed about fifteen miles away from the island, and made their way home on the sledge which they had had with them all the time. They had not suffered much material discomfort, having built themselves a warm snow-hut on the floe alongside of a high hummock; and they killed a walrus which happened along, giving them plenty of food for themselves and their dogs, while a lamp was made from the tough hide and wicking from a piece of cloth, and the *igloo* reasonably warmed. The large sledge was placed on end, resting against the wall of the *igloo*, and the top slat used as a perch for a look-out to watch for a change of wind and the land.

These driftings out to sea on the ice are not unusual, and nearly every vigorous hunter can tell you in his old age of a personal adventure or two of the kind during his life. They are not half as dangerous as one would infer, the most critical times being in the late spring, when the ice is getting rotten and a heavy storm is likely to break it to pieces. One Iwillik, in his younger days, while walrusing on the ice-floe near Whale Point, on the western side of Roe's Welcome, was carried far out to sea by a storm. Here he subsisted for fifteen days on what he captured, when the wind carried him to the large island just south of Southampton Island, and he found refuge among some strange natives, whose language he could hardly understand, and who owned no dogs or sledges, but who nevertheless took the kindest care of him, as is the universal Innuit custom. He had to remain among them until the next summer, when they took him to Repulse Bay in their *kayaks*, which were so frail that they would not attempt to cross the Welcome. Once among a branch of his own tribe, he made his way back to Whale Point, after an absence of nearly a year, all his friends having long since believed him dead.

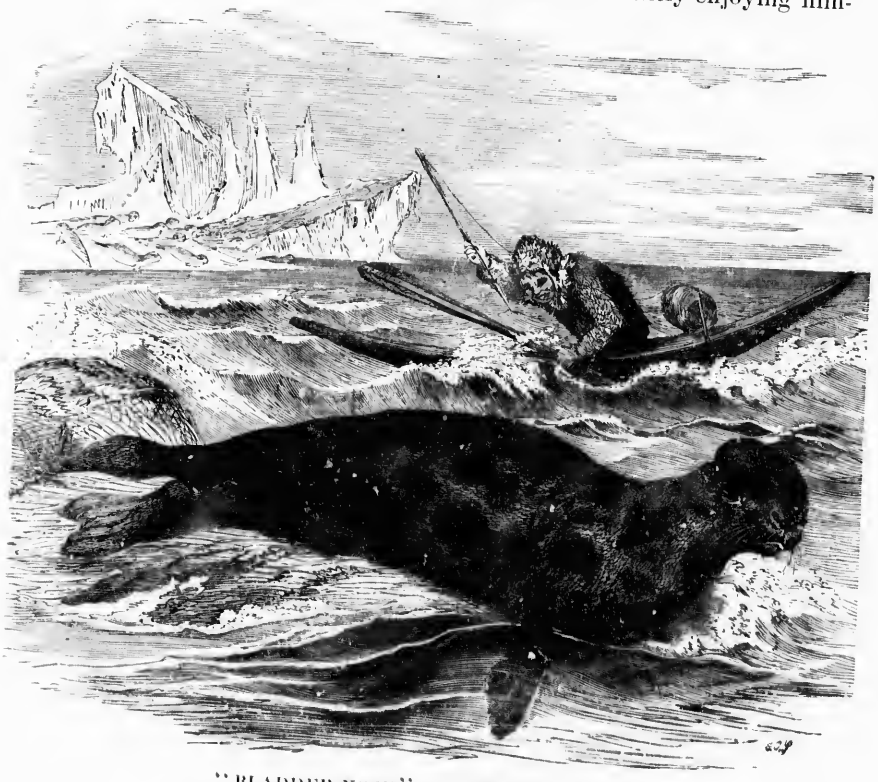
There are so many varieties of seals with different habits, that the hunting of these creatures differs considerably according to the kind. The *ook-jook*, or great seal, is an immense fellow, and weighs probably a third or half that of an average walrus, measuring often ten feet in

length. Their capture does not differ much from that of a walrus, although probably a greater proportion of them are captured by the *kayak* and float method (already described) than in any other way. Seals are not plentiful in any part of the Arctic seas, that is, they never congregate in herds or shoals, as is the wont of other species, but are always seen singly or in pairs. On the western coast of the Adelaide Peninsula, jutting out into the Arctic sea, is the country of the Ook-jook-liks, or great seal-eaters, and these seals are reported to be very common. The hide of this seal is of the utmost importance in the Innuit economy, its skin being the only kind considered fit for making the hunting lines already described, as used by *kayak* men and others in harpooning seals and walrus; for it may be truly said that their lives depend on this line, which is wound around the neck, running out easily, rapidly and without knots or entanglements, when pulled by the harpooned animal. By some natives it is called the "thong-seal." Its thick skin is always used to make the soles of the sealskin boots and slippers, and before it is sewed on it is rendered absolutely impervious to water by being chewed for two or three days by some of the old women of the tribe. It then looks like finely grained leather. "Very strange are these seal," says Dr. Kane, in recording his first killing of one in the polar seas. "A countenance between the dog and the wild African ape, an expression so like that of humanity that it makes gun-murderers hesitate. Have naturalists ever noticed the expression of this animal's phiz?" he asks, as he tells of the dying look given him by his first victim. "Curiosity, content-

OOK-JOOK SEALS.

ment, pain, reproach, despair—even resignation—I thought I saw on this seal's face."

On the 23d of July, in '78, while off the eastern entrance to Hudson's Straits, I had my first view of a "bladder-nose" seal, wallowing round on a small piece of ice about a mile away, and evidently enjoying him-

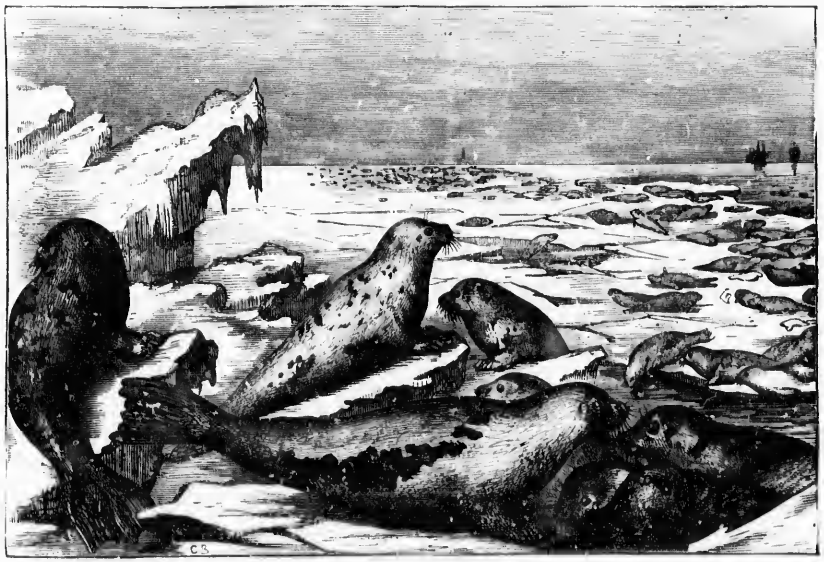


"BLADDER-NOSE" OR CRESTED SEAL.

self to the full extent of his limited habitation. He seemed to be about two-thirds the size of the ook-jook, or some seven or eight feet in length. His unshapely head, which he kept continually swaying to and fro in the air, looked not unlike that of a horse with a large nose-bag on. It is from this peculiarity that he derives his unpoetic name.

At a distance the inflation looks as if it were on his nose, but it is really on his forehead. His sealship fell a victim to the rifles of a neighboring whaler, waiting, as we were, for the ice-pack to open. The bladder-nose is the most pugnacious of all the seals (a really harmless species of animal), and when irritated by wounds or close pursuit, it will turn ferociously on its pursuer, splashing him with water and snapping at him spitefully. By some the hunting of the bladder-nose in a *kayak* is considered dangerous sport.

The "saddle-back" seal is the kind pursued by the sealing ships in



SADDLE-BACKS ON ICE.

the Spitzbergen and Newfoundland seas. Going in immense shoals, they are caught in great quantities by simply sending a party on the ice and knocking them over the head with clubs. Their skins are used principally in the making of kid gloves, about two-thirds of which are derived from this source, so I understand, the other third being supplied by the monkey skins of Brazil.

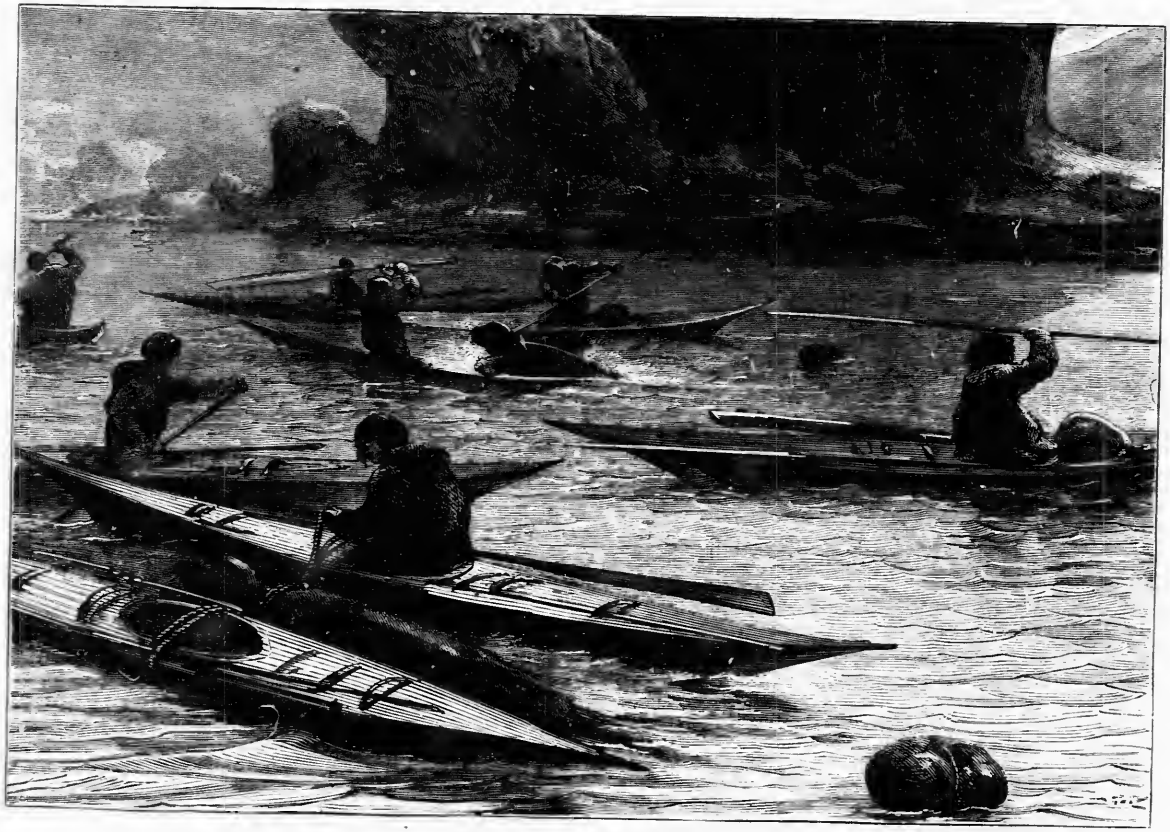
A writer in *Harper's Weekly* says that, although the male seals will fight manfully in defense of the females, when fairly cornered, the discharge of fire-arms, the barking of a dog, the tainting of the water around them with the blood of one of their number, or even the smell of lighted tobacco, is sometimes sufficient to drive them from their rookeries. And driving them away permanently means their extermination; for if they cannot come back to the waters where they were born, they cease to increase. An illustration of this truth is found in the story of sealing on Kerquelen Land, where seals were newly discovered some years ago. So abundant were they at first, that as many as 1,700,000 were killed in a single year by the crews of the vessels which flocked thither from all quarters. But in the space of three years they were practically exterminated, there not being enough left to make their pursuit remunerative. On the coast of Newfoundland, the decline of the seal fishery, which at one time ranked in importance almost with that of the herring and cod, has been a great misfortune. Formerly, however pitiable and destitute the poorer classes might be during the winter, after St. Valentine's day their fortune would take a sudden turn. The busy sound of axes and hammers would reverberate from the hillsides around the harbor, and not a rotten old schooner, brig or lugger which could float, or floating be insured, but was trimmed up and provisioned to take part in the fishing. From that day until the end of the month, the excitement of the men who were to sail on the momentous expedition constantly increased, and the grog-shops prospered in proportion to their enthusiasm. For many years this great fishing, or hunting expedition on the ocean fields of ice, as it might more properly be called, brought hundreds of thousands of dollars yearly into the exchequer of the community. Lucky was the man esteemed who had secured his berth in a ship to be sailed by some smart and experienced captain. For from three weeks to a month the first remark on awaking, the last before sleeping—the only observation hazarded in the streets—was the state of the wind and weather and its possible effect on the expedition. All had a stake in it: the merchant, in his ship stores and winter credits to the fishermen; the fishermen, to pay these debts in order—and in order solely—to obtain more credit for

the summer cod-fishery. The return of the fleet was an event of tremendous importance.

In April of the year 1880, there was a visitation of seals such as would have been deemed extraordinary even in the palmy days of the fishery. For many years the hardy fishers of the southern coasts have hardly hoped for a paying harvest, even after fitting out their rough boats and proceeding to the ice-fields of the North. On this occasion the seals came floating down on great sheets of ice, within easy reach of the hunters, and but for the loss of life that took place, it might have been regarded as a special providence to all concerned. It was during the first days of the month of April that the news began to spread that the seals were coming, and within a short time the hunters who had remained behind when the regular fleet left for the north, began to congratulate themselves on having done so. They were ready for the unanticipated harvest; and as the ice gathered around, squads of them might have been seen hurrying from the harbor of St. Johns out through the Narrows into the broad Atlantic. Far away to the north, the south and the east, extended the interminable ice-sheets, with here and there a watery breakage. From Signal Hill, which rises to 600 feet above the sea-level, an almost unbroken view might be obtained, extending nearly forty miles seaward. The rich spoils presented to the hunters excited them to recklessness. The women, too, who seem in this northern latitude to be in complete sympathy with the toils of their husbands and brothers, were affected by the general craze. It was not uncommon even for wind- and sun-browned damsels, daughters of the hardy fishermen, to gird on the seal-hunter's armor and enter the lists with their brothers in competition for the prizes of the oil fields. The distance traversed away from the land over the ice-sheets varied from one to eight miles, according to the position of the seal-patches or the good fortune of the hunter. One gang of men, more fortunate than another, would come upon a large colony of the doomed creatures within a mile or two of the shore, from which, without the aid of a telescope, all their operations were visible. Others, less lucky, would have to wander over rough and broken ice for twice or thrice the distance before reaching the objects of their search. Men came and went,

and no record of disaster reached the shore. Thousands of dollars worth of seals were captured daily. For three or four days the hunters had been at work, venturing further and further upon the ice, when suddenly the wind fell. The great masses, hitherto held in place by a strong north-easter, began to yield, and the "hunting grounds" to give way beneath the feet of the unhappy fishermen. So sudden was the change that it seemed almost instantaneous. At one moment the men seemed quietly at work; at the next, the panic had spread in every direction. The ice had moved from the shore, and except at a very few points of contact, the water began to flow between it and the mainland. Hundreds of men saw before them the prospect of being carried out to sea upon the melting mass. Those who were the most cool-headed ran for the ice-bridges yet remaining, and succeeded in reaching the shore. Others plunged into the water, and swimming across were hauled upon the crags by comrades waiting to receive them. Within the harbor, small boats also were sent to the rescue. It was at first reported that two hundred and fifty men were afloat on the ice, and the consternation on shore was terrible. Finally, however, it became apparent that the number of missing had been greatly exaggerated. Before night fell the joyful tidings reached St. Johns that a number of the men had gained the shore safely at some little village, where the ice, in careering out of St. Johns Bay, had for a brief time been jammed against the rocks. Later news was received that a sealing steamer had picked up some forty or fifty others, and a screw steam-tug, built especially to battle with the ice, was sent out by the government and returned bearing its quota of the lost. That so many escaped was really astonishing.

There are migratory seal visiting some parts of the Arctic, but not with sufficient certainty to depend on them for food and so forth, at all periods and all districts. The west coast of Greenland is the especially favored one. The Kassigiah (fresh-water, or spotted seals) are not very numerous, and are generally found at the mouths of rivers, and secured by shooting them with a rifle. They are beautifully spotted, the spots decreasing in size and intensity from the back around to the flanks. They are in prime condition in Hudson's Bay about August. Those of Hudson's Straits seem to be the finest in the Arctic. The Kassigiah skin is often seen in civilization made into shopping-bags, valises, etc.



ESKIMO SEAL HUNTERS.

The seal *par excellence*, in Innuit land, is the *nets-chuck* or common seal. Its skin is used for making boots and slippers, for summer clothing, for covering their *kayaks*, and for making their tents. It is one of the most reliable sources of food, and the oil forms the greater share of that used by the natives. Its pursuit varies with the season. During the winter time, and when the ice is at its thickest and covered with drifts of snow, the common seal works its way through the ice by a hole just large enough to admit its body, and then makes a dome in the snow, whose apex is cut through by an aperture about the size of a quarter of a dollar. This is called the "blow hole," and through this it breathes when it visits these places.

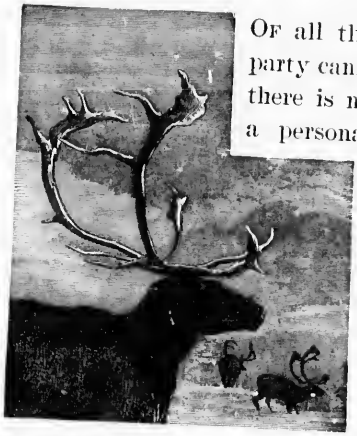
The snow dome with its little aperture is called the *oglo*, and even an Innuit hunter would be likely to pass one without noticing it, as nothing of it is visible on the surface of the snow. The native, however, has a powerful ally in detecting them. This is the keen scent of his dog's nose; and once found, he sits down by it with the point of his harpoon in the "blow hole" and waits till he hears pussy blowing, when he thrusts it through, impaling the seal upon its barb, and worrying it out and killing it as described with the walrus. The hunter may have to wait only an hour or so before one blows; but cases are on record when, in times of famine and great scarcity of seals, they have sat for two and three days, immovable at one hole.

Joe Ebierbing told me that after sitting at one of these holes all night he went to sleep and tumbled over backward off the block of snow he had cut for a seat. His fall did not awaken him, but when he did awaken, he was paralyzed with fright at beholding what he took to be a polar bear staring him in the face, but which closer inspection in the gloom revealed to be one of his own legs standing straight up, swathed in its huge hairy clothing. In the spring, the snow melts on the ice and the water drains off. The seals then come out on the ice to bask in the sun, and then the hunter crawls upon them until he gets close enough to shoot them through the head. Should the seal look up, the hunter remains motionless or imitates the actions of the seal itself. To kill a seal in this way is the best test of huntsmanship in the Arctic, as the animals are unusually wary. In the summer, the ice having broken up, they are pursued in the *kayak*, with harpoons.

Colonel Gilder, in the *New York Herald*, describes an episode of our seal-hunting, which I transcribe:—"We were at Marble Island. The weather was calm, so that seal heads were sprinkled plentifully upon the surface of the water. This inspired Lieutenant Schwatka to try his skill. So, fetching his rifle from the cabin and wiping his eye-glasses, he shot at a large head about a hundred yards from the vessel. The seal made a desperate effort to get down in a hurry, but it was evidently badly hurt, and showed a great deal of blood before it accomplished its descent. Presently it came up again, and a boat was lowered to pick it up; but it managed to escape capture, though it was evident that it would soon die. After breakfast the next morning, when we went on deck, the water was still quite smooth, and presently we were surprised to see what appeared to be a dead seal floating in on the tide. There was no doubt that this was the seal that Lieutenant Schwatka had killed the previous night, and again the boat was lowered to secure it. No precautions were deemed necessary to avoid making a noise, and when the boat came alongside, one of the men threw down his oar, rolled up his sleeves, and stooped down to lift the carcass on board. His surprise may be imagined when, after passing his arms around it and proceeding to lift it, he felt it suddenly begin to struggle and slip from his hold and dive below the surface, while a loud shout went up from the spectators. It was not Lieutenant Schwatka's seal at all, but one that was sound asleep when it felt the rude embrace of the sailor!"

CHAPTER III.

THE RIFLE AND THE REINDEER.



Of all the game animals with which my little party came in contact on my Arctic expedition, there is none with which I can claim so close a personal acquaintance as with the Arctic deer. Before we started on our long sledge journey, in the spring of 1879, that is, from the time we landed among the Innuits, my own party and the natives I had employed had killed between four and five hundred of this fine game. On the sledge trip we secured five hundred and twenty-two; and after our return to Hudson's Bay, we added many more to this enormous score. On our long journey, probably three-fourths if not more of our subsistence (for we took with us but one month's supply of civilized food) was derived from the reindeer, whose habits were taken advantage of as much as possible by following them to the north in the spring, and keeping with them on their southward migrations; for we returned over nearly the same course during the autumn and winter months.

Shortly after our arrival in North Hudson's Bay, in the early part of August, 1870, Colonel Gilder became our pioneer in inland hunting and camping. The lonesomeness of the place, after the Innuits had left the vicinity of our camp on their annual autumn reindeer hunts, and a desire to kill some of the many reindeer reported so thick north of our habitation, induced him to return in that direction with two young Innuit boys who had brought us some reindeer meat to sell, or

rather trade for powder, caps and balls. The little party started about noon on the 25th of August, and Colonel Gilder returned home late at night on the 1st of September, during a heavy storm of snow, very hungry and very tired. He had been living for the last three or four days on native diet—raw reindeer meat and wild berries—having injudiciously shared his civilized food too generously with his native companions, hoping that they, in the true spirit of a Nimrod, would give him an early opportunity to kill his coveted reindeer, when he could return in triumph to Arctic Rome. But alas for hopes based on Innuit generosity! A few scattered reindeer were seen, but it was a wild foot-race, with every man for himself—in which the unpracticed Caucasian stood a poor chance in the contest—over razor-edged rocks, hidden beneath wet, spongy moss, and other equally severe impediments.

The cold snap at the end of October began to bring in the scattered native hunters to erect their winter quarters of snow, and our little camp, so long nearly deserted, began to assume a very lively aspect. A summing-up of the autumn's hunting showed that between four hundred and five hundred reindeer had been killed by the natives who were to make their quarters with us that winter. So we felt relieved of all anxiety in regard to a winter's supply of the very best of Arctic meat, and a plentiful supply of reindeer skins for winter clothing and bedding. And these skins were of the finest quality, for the reindeer skins secured in the month of October are superior to those taken later in the year, the hair being less liable to come out, and not so heavy as to render the clothing unpliable. After January the reindeer-skins of this section of the country are worthless, owing to the readiness with which the hair comes out. These are thrown away by the native hunters, they having no use for the skins whatever, except so far as they hold a certain amount of fur on them. During this part of the winter they are fed to the dogs, should the latter be hungry enough to want them, and probably one in five or ten thousand is tanned of its hair and made into their *kee-low-liks*, or drums, for singing or religious ceremonies. This shedding, from January on, comes, I think, from the summer coat, as the loss of that of the winter coat does not commence until spring, but lasts nearly through the summer. In short, I think the reindeer sheds

twice annually, the length of both periods being much longer than in the temperate regions, the terms almost overlapping each other. About the middle of August, when all the winter hair has been shed, the short summer coat is in its prime. From this is made all the native underclothing, or that which is worn with the hair toward the body. From the middle of September until the first of October, the skins are valuable for outside clothing (worn with the hair outside) and for bedding. After this date they steadily deteriorate, but are still used to place beneath the bed until January, when the hair readily pulls out and they are no longer saved. At all times the skins of the does are preferable to those of the buck, and the late autumn fawn-skins are very highly prized, as they make exceedingly fine, soft suits of underclothing, especially for the children, to whom this people are fondly attached and who always receive the best at their disposal.

When the white man has become entirely at home in this furry clothing, and accustomed to life in the native *igloos*, the question of temperature alone, however low it may be, becomes of inferior importance. The *igloo*, or snow-hut, has been described so often by previous Arctic travelers, that it would be a superfluous burden on your time to describe it here. The utility of the *igloo* and reindeer clothing cannot be exaggerated. Habituated as my little party of four white men was, during our two winters in these desolate zones, to a constant life in these simple habitations and the many comforts accruing therefrom, I often marveled how white men could stand the distresses and oftentimes even dangers of a spring tent life, on the many expeditions wherein tents were used. I have read so often of their sufferings while living in this manner, and dressed in clothing made from the furs of the temperate zone, under circumstances that to my party would have been absolutely pleasure, and of their discomfort even when housed in ships, and of the perils they risked in short daily journeys from these abodes during such intensely low temperatures as —50°, —60° and —70° Fahrenheit, when, under the same temperature, my party was prosecuting a sledge journey, with no discomfort, four hundred to five hundred miles from its depot, with no provisions except such game as was killed from day to day, that the conviction becomes two-edged that the accessories of *igloos* and reindeer

clothing are essential to a well-managed Arctic sledge journey. With their help the subject of the intensity of cold, strange as it may seem, becomes of secondary if not entirely of minor importance, and if it were not for the long dark night which accompanies the season of these depressions of temperature, a winter sledge journey could be carried forward in almost any part of the Arctic region appropriate for it with no small chance of success.

REINDEER.

And now a word in regard to this Innuit reindeer clothing. The native has two suits of it, an outer one with the hair turned outward, and an inner one with the hair turned toward the body. This is true of the coat, trowsers and stockings. With the exception that the inner suit is generally of finer and softer fur, being made from fawn skins, there is no essential difference in the two suits; in fact by reversing

either, it may be used as a substitute for the other. In the latter part of December, I made a short sledge journey due north, about seventy or eighty miles, to see if I could get through the high hills known to be somewhere between Hudson's Bay and Wager River. I took only Toolooah's family and a Netschillik young man, Mitkolillik, and expected to be gone a couple of weeks, leaving on December 28 in a severe snowstorm which lasted for four days. We pushed on, however, on our sledge journey, January 1 being the first fine day we had—and a rare New Year's treat it was, after so much dreary, dismal weather. Hoping that the day was prophetic of the coming year, I kept on with a light heart; but after all we only succeeded in making some ten miles, owing to our having seen reindeer, for it is impossible to prevent an Innuit from attempting to kill them if he has once laid eyes on them. Thus an hour or two was lost, and when the day is but a couple of hours in length such a loss is important. Toolooah secured one reindeer, and we camped that night at one of his former *igloos* built while reindeer hunting and where he had *cached* some four or five carcasses of reindeer. The Innuit *cache*, or meat-cairn, is built of loose, heavy stones, before the snow becomes deep or solid by freezing, and of that material afterward, with the addition of plenty of water to form a protecting cover of ice to prevent the depredations of wolves and wolverines, bears and other animals, this preventing their scratching through, and also killing the scent which attracts them to the place.

On the eighth of January, having satisfied myself that I could find a practical route by this way to the Wager River, I started homeward; but I felt somewhat disappointed that I had seen no recent signs of musk-oxen, reported by the natives to be abundant in this locality. Their huge carcasses, compared with those of the reindeer, make them a more reliable source of food for a large canine force than are the reindeer, and this was an important item in my forthcoming sledge expedition. I reached home, or rather the place we called home, on the 13th, the coldest weather I experienced on the trip being on that day, when, about two hours before sunrise, the thermometer indicated *minus* 53°. That day I made a journey of twenty-five miles, and at no time during the day did I feel at all uncomfortable from the cold, the highest

the thermometer reached during the day being *minus* 50°. Indeed, I might say that I really enjoyed the whole trip, and I attribute this almost wholly to the Innuit reindeer clothing I wore, and constant living in an *igloo*, like the natives, where the temperature is never above the freezing point and generally from ten to fifteen degrees below it. I do not believe—and my opinion is confirmed by the written accounts of others—that any Arctic voyagers, housed in warm ships as their base, and clad in the usual Arctic suits of explorers, could stand such a journey without more or less material discomfort. Once only did I learn the lesson of caution. I took off my right mitten to get a shot at a passing reindeer, with the wind blowing stiffly in my face and the thermometer at *minus* 37°, and the persistent refusal of the frozen gun-lock to work perfectly kept my hand exposed so much longer than I intended, that when I attempted to use it again it seemed paralyzed, and looking at it, I noticed that the skin was white as marble. Too-looah, who was beside me, noticed it at the same time, and with an Innuit exclamation of surprise, hastily dropping both his mittens, grasped it between his warm hands, and then holding it against his warmer body, under his *coo-le-lah* or Innuit coat. It soon resumed its functions, and although I felt for some time as if I were holding a hornet's nest, I experienced no more serious results than a couple of ugly looking blisters, where the iron of the gun had come in contact with the bare hand. The reindeer escaped!

As the reindeer clothing is the warmest in the Arctic, so it makes the warmest bedding. Two large skins being made into a long, coffin-like bag or sack, the hairy side in, are sufficient protection in the coldest weather, if one sleeps in a properly constructed *igloo*. When the first severe cold came at North Hudson's Bay, I was sleeping under a blanket and two fine buffalo robes, which I had brought from the great plains, but I found them, as the thermometer sank below *minus* 30° to 40°, to be inadequate to secure comfort, until I procured a reindeer sleeping-bag, weighing not half as much, after which cold nights were no longer dreaded. The robe of the American bison seems, under the least provocation, to become damp, and then freezes as stiff as a piece of sole-leather. Once spoiled in this manner, it is difficult to dry it and

restore it to its former pliability in the low temperature of an *igloo*. The furs of the beaver and muskrat I found to be equally unsuitable to our mode of life, and I believe that all the other furs of the temperate zone would have proved as useless if tested in the same practical way.

We started on our main sledge journey of the expedition on the 1st of April, 1879. As early as the 4th of that month we had the cheering sight of a small herd of reindeer, although none were secured owing to the barking of the dogs; but the next day we were more fortunate, Toolooah killing two and Joe one out of a small band. All through the month of April our larder was constantly replenished with a fair supply of reindeer, and this allowed us to save our one month's supply of civilized provisions, and to give them a chance to disappear by slow arithmetical progression as the native diet was assumed, so that the latter would not be forced upon us as a repulsive novelty. Our breakfasts consisted mainly of boiled reindeer meat, some three or four pounds to each adult, followed by the heavy soup derived from the boiled meat, the liquid being thickened with a few crumbs of hard bread. The suppers were the same, being prefaced, however, with a generous supply of frozen reindeer meat, which we ate while we were waiting for the kettle to boil. This frozen meat was chopped off with a hatchet into chunks about the size of three fingers, and then generally mashed by the back of the hatchet to convert it into brashy threads before being chewed. The first effect upon taking this into the mouth is to chill one through and through, often to the extent of making the teeth chatter; but the reaction is rapid, and is followed by a genial warmth all over the body, especially if a generous supply of the frozen reindeer tallow (*loodnoo*) has been taken with it, and which is always the case if they have it. Freezing may indeed be said to be one method of cooking; and reindeer meat thus prepared tastes not unlike compressed corned beef, though without the saltish flavor of that article. No attempt was ever made by us to salt it, although we had that necessary condiment with us. One can soon accustom himself to do without salt when eating frozen meat, and reserve it for that cooked in the pot. Seal and walrus meat taste much saiter than the reindeer; besides the natives often cook the former in the salt sea water, in whole

REINDEER IN THE ARCTIC MOUNTAINS.

or in part, and in this manner get all the saltness that is necessary to their taste, which is much less than that desired by civilized cooks.

"The expedition," writes Lieutenant Beechey of that of Buchan to Spitzbergen in 1818, "was directed to proceed to Fair Haven (Spitzbergen), where it anchored on the 28th of June, between Vogel Sang and Cloven Cliff. All the islands about the anchorage are high and precipitous; but they are nevertheless covered with lichens and other rich pasturage for reindeer, a species of animal so abundant, upon Vogel Sang in particular, that that island alone supplied us with forty carcasses. They were at this time (June) in such high condition, that the fat upon the loins of some measured from four to six inches, and a carcass ready for being dressed weighed two hundred and eighty-five pounds. In August, however, they were so lean that it was rare to meet any with fat upon them."

In that part of the Arctic where my travels were cast, it was very seldom that we found reindeer in good condition by June, even the latter part of it, although the meat was noticeably better then than in March or April, when it is the poorest; while in the latter part of August and through September the reindeer were decidedly at their maximum of excellence, fulfilling completely Beechey's account of the June reindeer of Spitzbergen. Some of the very heaviest of the bucks of King William's Land would undoubtedly have "kicked the beam" at three hundred, and probably over, in these months. "From the wary disposition and the very keen scent of these animals," continues Beechey, "we found it extremely difficult to get within gunshot of them, especially from to windward, and were obliged either to separate into two or three parties and to harass them until they took to the water, where they were easily overtaken by the boats, or to secrete ourselves behind large stones, contignous to one of their walks, and there wait until they approached. They were, at this time, in pairs, and when one was shot the other would hang over it and occasionally lick it, apparently bemoaning its fate; and, if not immediately killed, would stand three or four shots rather than desert its fallen companion. This compassionate conduct, it is needless to say, doubled our chance

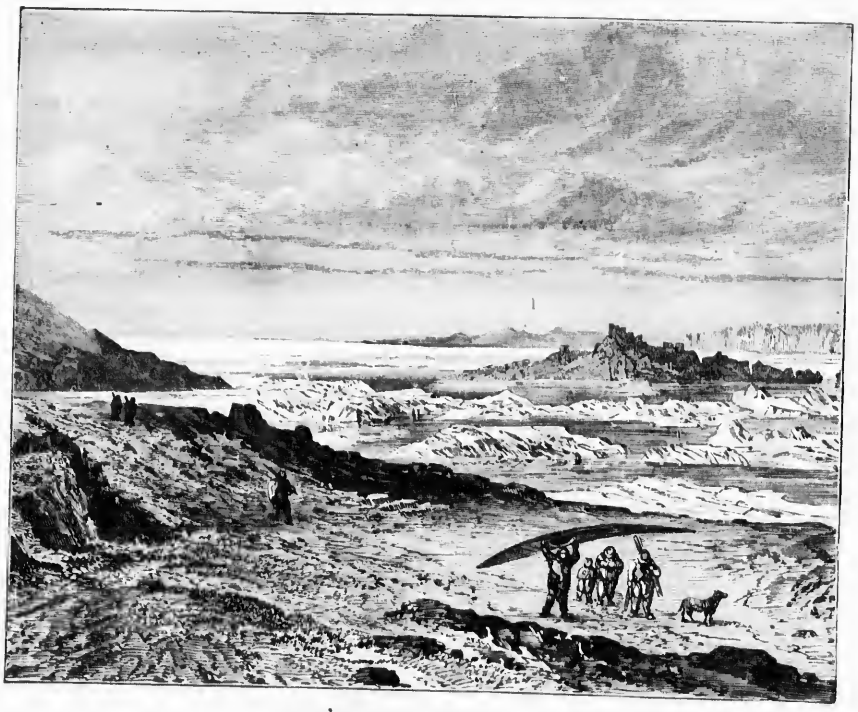
of success; though, I must confess, it was obtained in violation of our better feelings. Their sympathy must indeed have been very strong to have induced them to remain so long by their wounded; for if at other times our shots missed, the panic occasioned by the discharge of the guns was so great that they fled in all directions, and there was no chance of getting near them again. When pressed, they readily took to the water to swim to islands that were three or four miles distant. In this way we managed to get four mhurt on board the Trent, where we had recourse to every contrivance in our power to retain them alive; but they were so wild that they broke their limbs and inflicted other serious wounds, which obliged us to kill them in order to put an end to their sufferings."

On the 7th of May, our party killed ten reindeer out of a herd of fourteen. The scene was an exceedingly short one. The herd being descried about a mile distant, lying down on the side of a hill, all the Innuit hunters and Colonel Gilder started in pursuit, the sledges and dogs remaining on the spot. For about half way the hunters were hidden from sight by the hills, but nearly all the rest of the distance was made by crawling in Indian file, in full sight of the animals, until a near hill for a minute or two allowed them to get within about a hundred yards, when a volley of rifle shots greeted the astonished herd; and, although only one was wounded at the first fire, before the bewildered band could determine a safe direction to pursue, ten of their number were wounded or dead, all of which were secured, for it is seldom that a reindeer wounded at all severely is lost by a good hunter. Two of the remaining four, returning to look up their missing comrades, were secured by Toolooah the next morning. We were now in a country that had never before been trodden by white men or natives armed with their weapons; and as fire-arms had never been heard by the game of the locality, they acted with a stupidity plainly revealing this fact. Where the reindeer are accustomed to being hunted with fire-arms, they become shy enough to give one excellent sport in their capture. Like the antelope, they will circle around until they catch "the wind" before they start off, and this peculiarity, when a few magazine guns are in full blast, is suicidal. They also have

something of the curiosity of the antelope, but not developed to such an extent. Like all animals that congregate in droves, the false security resulting from numbers makes them much slower to pick out their line of retreat. In this manner they closely resemble in stupidity the American elks, and like them, when often hunted and in small bands, they are game worthy of any man's powder.

The next day, the 8th, we encountered a fresh musk-ox trail, and a herd of reindeer, killing seven of the latter. We also came upon old signs or marking stones for salmon *caches*, the handiwork of the natives. On the 13th, the weather was so bad we remained over. I noticed that the many reindeer signs kept Toolooah in a state of nervous excitement until he had sallied out in the tempestuous elements; and after an absence of a couple of hours, he returned to get the dogs and a sledge to bring in the carcasses of seven reindeer that he had killed, out of a herd of eight, with eight shots of his Winchester. On the way back with their carcasses, two others were secured. On the 14th we passed a herd of about two hundred reindeer, but our sledges were so loaded with meat that we allowed them to trot by within easy rifle range unscathed. They were singularly tame, and often, running toward us a few paces, would halt like a company of cavalry coming into line, and gaze at us with dilated eyes and distended nostrils, until a snort from some suspicious creature would send them off by the flank, with measured trot, like well-drilled troopers. We enjoyed the privilege of showing our humanity once more by not taking advantage of their confidence, and we willingly declared an armistice until our heavily laden sledges should become somewhat lighter. Signs of natives were daily growing fresher, and on the 15th of May we came upon a band of thirty souls, only two of whom, a couple of old men, had ever before seen any white men. We consequently attracted an unusual degree of their curiosity, and their staring eyes, riveted intently upon us, followed every motion that we made. If the white men had been curiosities to these simple-minded Eskimo, the action of their guns, as we showed them their use, was truly appalling. We had expected to meet natives upon or near the mouth of Back's Great Fish River, where it empties into the Arctic Ocean, and had depended to a certain extent upon procuring from them

dog-feed and oil, but now we found the tables turned. Instead of being beggars, we were philanthropists, and instead of being receivers, we were obliged to give, for we found our new Innuit friends in a state of semi-starvation. Their food in the summer and early winter is furnished by the numberless shoals of salmon that then ascend the creeks and smaller rivers, and are speared as they run the gauntlet of



BACK'S GREAT FISH RIVER.

the rapids. The flesh of the musk-ox, which they hunt with dogs and bows and arrows or spears, affords them a precarious subsistence during the remainder of the year. They kill barely enough reindeer in the summer to supply them with clothing, the noise of walking or crawling on the crisp snow of the fall and winter season making it impossible to

get sufficiently near to secure the game with bows and arrows. The twang of the bowstring traveling more rapidly than the arrow, the active deer has no difficulty in jumping out of the way, at any distance beyond twenty-five or thirty yards. But in the summer-time the wary natives sometimes succeed in crawling within these limits, or lying in wait on certain paths followed by the game, obtain a shot. Another plan followed by those natives throughout the Arctic not provided with fire-arms, is to establish a line of stone monuments at about fifty to a hundred yards' interval along the crest of some prominent ridge, often two or three miles in length, which runs obliquely toward and terminates at the water's edge of some large lake or wide river. A sharp lookout is kept from some available point, and if a herd of reindeer is found feeding or walking within the acute angle formed by the shore line and ridge bristling with stone cairns, the natives engaged in the chase deploy into a skirmish line sufficiently long to close the mouth of this angle and walk slowly toward the reindeer, their bows and arrows, or spears and light *kayaks*, being carried along or concealed in some convenient place near the water's edge. The herd, seeing the slow approach of their enemies, trot leisurely away until they come within sight of the rock monuments, which have been made to resemble the human form as nearly as possible, when, believing themselves to be surrounded on the land side, they take to the water as the only means of escape left them, and no sooner is the herd fairly in than the agile natives are in hot pursuit, plying through the water in their *kayaks* and rapidly overtaking the bewildered animals, which they dispatch with arrows and spears, and hauling them on shore to be butchered.

This sport is not without its dangers, as oftentimes a wounded animal or belligerent buck, seeing flight impossible, with swinging horns and plunging hoofs turns so swiftly on his pursuer that he succeeds in tearing the fragile *kayak* to pieces, and the wretched Innuit, unable to swim, drowns if he is not promptly rescued by some near neighbor, or manages to float on the wreck of his boat until help arrives. It is a singular fact, so the natives say, that a herd of reindeer will repeatedly graze right through this line of cairns, without any further notice than a few suspicious glances at them as they pass by;

but the moment moving figures force them against these stationary ones, their suspicion is raised to a pitch high enough to make them take to the water rather than trust them. Yet this is not very hard to comprehend, if one knows the almost half-amphibious nature of the Arctic deer. I have seen them, when taking up a line of march, wade and swim right through a deep lake that interposed itself in their direct course, rather than go around it, although this would not have exacted a marked detour, which fact, I imagined, must have been as patent to the deer as it was to myself. The Innuits tell me of even bolder exploits. When pursued and "cornered" on some of the long, narrow tongues of land projecting into Hudson's Bay, they have known the deer to take to the sea and swim directly outward, until they were lost to sight. Whether they were thereby drowned or not, they could not tell.

The Arctic deer seems to be almost as much more amphibious than his Southern fellow, as the polar bear is than his Southern brethren. "I think there is no evidence of an open polar sea," said Lieutenant Danenhower of our Navy, in an interview a short time ago. "All the facts tend to prove that the polar basin is interspersed with islands, like a series of stepping-stones. It is well known that the Siberian reindeer have been found on the island of Spitzbergen. These deer have brands and markings that are used in Siberia, and many people, including myself, think they reached Spitzbergen by way of a system of islands which form the stepping-stones I have mentioned. We have found deer on the island north of the Asiatic coast, and to get there they had to journey at least one hundred miles over the ice. The vast accumulations of ice that drift out of the polar basin each year must leave large water-spaces; but, as I said before, there is no evidence of an open polar sea. Again, the ice brings down large quantities of earth and stones, showing it has been in contact with land in many places."

We crossed over to King William's Land on June 11, and the greatest consolation on our first few days' journey was the large number of reindeer we here encountered, and which reports of the natives, who ought to have known, had led us to believe would not be found. It may be interesting to note that on June 20, 1879, the civilized provisions

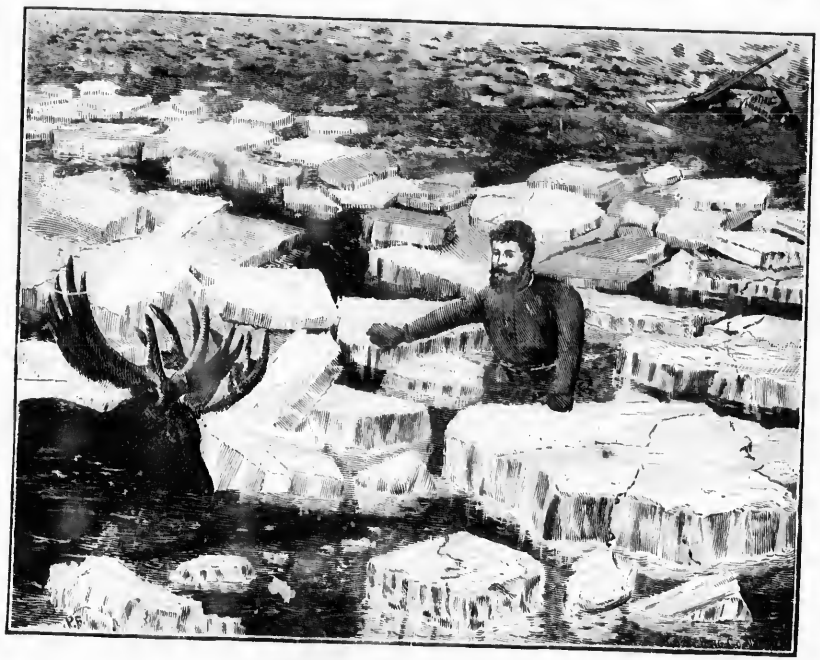
of the party were exhausted, previous to which time they had been greatly reduced in the reindeer country, and from that date until March 20, 1880, we lived solely on the same diet as our native allies, and, as I have already said, principally upon reindeer meat. On July 20, while we were in the southern part of Erebus Bay, we found ourselves completely out of meat, an occurrence which had seldom happened, owing to Toolooah's activity and good hunting. I now felt that we surely had a fast ahead of us, for the fog was one of the very thickest I had ever seen in my life, but despite all this, Toolooah secured three reindeer after being absent about four hours. The Innuits, when hunting reindeer during thick, heavy weather, generally go in pairs, accompanied by a good trained dog taken from their teams, and keep well to the lee side of the quarter suspected of containing game. The dog's nose soon tells them if their conjectures are right, and they follow him—his nose high in the wind on his aërial trail—until his frantic tugging at the harness line by which he is held (for the well-trained Innuit dog never barks in the presence of game) shows them to be near by. Then one of the party holds the dog and the other with his weapons crawls cautiously forward on his unseen victims. If the fog is very thick, they can often get within a few yards by hugging the ground closely while crawling. During the time snow is on the ground they may take several dogs, and, after being successful in the chase, utilize them to drag in the carcasses. This is only done, however, where the skins have become useless. Then the butchered deer is put into the hide and it is used as a sledge. The natives claim that a dog will scent a reindeer much further in a fog, if it be a drifting one, than under any other circumstances. It is not unreasonable to infer that the scent will not be so diffused in such a dense medium as an Arctic fog and therefore be more concentrated at greater distances, yet I have heard good hunters in our region claim that a fog completely kills a scent. A well-trained Innuit dog, with good keen scent, will often detect the presence of game at a couple of miles distant. The greatest trouble is to keep the dog off the scent of every rabbit or rabbit-trail that he encounters, and which he seems more prone to follow than that of the game desired.

On August 8, while encamped in Terror Bay, and prosecuting our

search for traces of Sir John Franklin's party, I killed a big buck under circumstances probably worth relating. While sitting down, resting from a fatiguing continuous walk of five or six miles over the boggy ground near the seashore, I noticed the reindeer grazing rapidly toward me, being then about six hundred yards away. I simply slipped down to a horizontal position behind the boulder on which I had been resting, and converted myself into an immovable Micawber. The reindeer came eating along, and when about two hundred yards away, evidently struck a patch of clover, figuratively speaking, for during the next half-hour he never left a little spot, where he kept grazing backward and forward, until my patience was exhausted. His skin was the exact color of the dun-colored moss against which he was thrown, and waiting until he was "end on," so that his white flanks outlined his figure, I took aim at his head, as he was grazing, fired, and hit him in the hind foot! The shock brought him down on his hams, and I thought I had made an effectual shot, until I got within about thirty yards, when he first perceived me, and with a wild snort, and an uncertain gait that defied any sort of aim, started for the sea-coast, about a mile away, your humble servant bringing up the rear as fast as possible. I ran him out on a long point of land, and thought surely I had him. On its west side the pack ice had been carried by the wind and was probably twenty or thirty yards wide, being held somewhat open by the outgoing tide. Seeing himself cut off from the land side, and my rapid approach, he struggled and plunged against the cakes of ice, with his broken foot swinging in the air, until he reached its boundary, when he took to the water. His progress over the disjointed pack was painfully slow, and by the time he had plunged into the water, I was on the land nearest him, and from there sent a bullet through his brain that laid him out floating.

Now, I was in a quandary! He was beyond my reach from the furthest outlying cake of ice, and the tide setting out was not improving matters. Yet meat was not plentiful in camp, and further, a large supply was needed, as Toolooah was soon to leave us for two weeks on a trip that I had ordered him to take; besides, the buck's coat looked like velvet, as the ripples of salt water broke over it. In short,

I did not want to lose that deer, and there was only one method of getting him, so I started about that at once. Stripping myself to my underclothing, I started to wade out through the tortuous "leads" between the ice-cakes, as I deemed this method less liable to produce cramps than jumping in from the furthest cake; besides, I did not know the depth, though it only seemed to be about five feet. Reader, science will tell you that ocean water is about two degrees colder



WADING FOR A DEAD DEER.

than fresh water when both are holding floating ice, or two degrees colder than the ice-water of your water-coolers and other water receptacles; in short, iced sea water is two degrees colder than freezing. The first few steps made me gasp for breath, and by the time I was up to my middle, my teeth had settled down to a regular drum-like rattle. I persevered, however, keeping my hands upon the nearest ice in case I

should be taken with cramps, and as I was nearing my prize and my breast commenced sinking in the cold fluid, I felt as if I had swallowed the North Pole. When I reached one of the deer's horns, I was up to my armpits in the sea. The whole transaction was done and I had my deer on land in less time than it has taken the reader to peruse this, and when reached I wrung out my dripping underclothing, the air feeling as warm as summer; and after giving myself a good chafing over the skin, I put on all my clothes again, worked like a butcher cutting up the deer, slung his fifty-pound hams over my shoulders, walked two miles into camp, swallowed a quart of hot reindeer soup that was awaiting me, turned into bed and dreamed I owned a hundred thousand reindeer, and each reindeer worth a thousand dollars!

"In the woody districts of Siberia," says one writer, "where springs, fire-arms and spring-guns can be applied, the natives resort to such for either the taking or killing of this harmless animal; but in open plains, where these contrivances would fail, many other means have been invented. Those adopted by the Samoyedes seem the most common. These people go out in parties for the purpose of killing reindeer, and when they perceive a herd, they station several tame reindeer which they bring with them on an elevated plain to windward. Then from this place to as near the savage herd as they can venture to come without alarming them, they put into the snow long sticks at small distances, and to each of them tie a goose's wing, which flutters about freely with the wind. This being done, they plant similar sticks and pinions on the other side, under the wind; and the reindeer being busy with their pasture beneath the snow, and being chiefly guided by their scent, generally observe nothing of these preparations. When every thing is ready, the hunters separate; some hide themselves behind their snowy intrenchments, while others lie with bows and other weapons in the open air to leeward; and others again go to a distance and drive, by a circuitous route, the game between the terrific pinions. Scared by these, the wild reindeer run directly to the tame ones, which are standing by the sledges; but here they are alarmed by the concealed hunters, who drive them toward their companions who are furnished with arms, and these immediately commit terrible slaughter among them. If it

happens that a savage herd are feeding near a mountain, the hunters hang up their clothes on sticks about the foot of the mountain, making also, with the same frightful pinions, a broad passage toward it, into which they drive the game. As soon as they come into this path, the women go with their sledges directly across the further end of it, shutting the reindeer in; these immediately run around the mountain, and at every turn are fired at by the hunters."

The reindeer of King William's Land, on their northern migrations, cross over Simpson's Straits from the south about June, or a month before the ice breaks up. About the middle of September, the winter's cold coming on drives them to the south again, and they congregate in its southern part before the straits have frozen over, which is often a week or ten days after their arrival. I have said that the reindeer will swim any thing that comes in his way, and the fact that he waits for the solid ice to form before crossing these straits would appear to refute it. But this is not so. When the first cold snap comes that tells them to go south, there forms on the salt water a kind of "mush ice," "slush ice" or "brash," as it is variously called, which is not unlike a foot or two of loose snow thrown into ice-water. It does not melt, and is sufficiently tenacious to impede the headway of a sailing ship. This hugs the shores and islands, drifting around in currents, winds and tides like a Siberian ice-pack. Should a reindeer trust himself to swim through it, he would be so impeded and harassed as to fall an easy prey to the Innuits who congregate thereabouts at that time. And this fact the reindeer know by some sort of instinct.

To this part of the island we came in order to lay in a supply of meat, clothing and bedding for our mid-winter return trip to Hudson's Bay and civilization. Our camp was pitched near a high hill, on whose top a look-out was constructed to watch for the animals. On the 24th of September a cold snap nearly completed the freezing over of Simpson's Straits, and the next day we moved camp about a mile, near a large fresh water lake, and there built our igloo of ice—being one month and five days earlier than the commencement of our igloo life in North Hudson's Bay. The hill was no longer needed as an outlook for reindeer, for these animals had become so numerous, as the cold weather settled

SIBERIAN ENCAMPMENT OF TAME REINDEER.

down upon us, that any desired number could be seen from any station whatever, the valleys almost as well as the top of the hills. On the last day of the month I felt sure that at least a thousand reindeer passed within as many yards of our little house of ice, and on the first and second days of the next month (October) the number was certainly no less. On the 3d the ice was just thick enough to bear them on the strait, and the first herd was seen to cross on that day, and by the 7th the vast swarms had departed southward, leaving only a very few straggling herds to bear us company. On the 30th the total score showed twenty-six killed, Toolooah scoring twelve, a number to which he limited himself only from the fact that it was the maximum he could butcher and otherwise dispose of in his stone *caches*, which were now making the neighborhood look like a populous but dilapidated cemetery. With this wholesale slaughter of the reindeer came all the known carnivorous scavengers of the Arctic—the foxes, the wolves, the wolverines and the Netschilluk Innuits, the last named being the most numerous and troublesome of the whole lot. We put them to work scraping reindeer skins and making our winter skin-clothing and bedding, and thus extracted some small compensation for the vast quantities of meat that disappeared down their capacious throats. The Netschilluks say that in about a week or ten days after the King William's Land reindeer have crossed over, another large batch of straggling herds put in their appearance on their southern migration, although this was not observed by us in the early winter of '79 while we were there. If so, it would show them to be the reindeer of Boothia and North Somerset, that have been thus detained by the later freezing of James Ross's Channel—a much wider strait than Simpson's, although these animals could have passed on to the mainland by the Boothia Isthmus. During the time these tortuous channels, separating the many islands of the Parry Archipelago, are frozen over, I know that the reindeer cross freely from one island to another; but I do not believe, reasoning from the well-known locality of their trails, that they ever cross unless the desired land be in full sight; that is they have no better instinct than their eyes. Even in returning they take the most round-about, as well as the most direct, ways to reach their northern grazing grounds, and it is not at all

THE REINDEER.

unlikely that a reindeer born in Boothia may graze during his second summer on King William Land, during his third on Baring Island, and so on. This is proven by the testimony of the natives of these regions, who say that there is a great disparity in the numbers that visit them in different years, and whose northward emigrations are determined, no doubt, by some protracted storm, either forcing them into, or driving them from, a locality according to its direction, force and duration. The Innuits told me that the reindeer graze with the wind in their traveling, but I have so often seen them feeding directly against it, as well as at angles in regard to it, that I am inclined to think that this cannot be put down as an invariable rule. I think it probable that when the seasons have determined their boreal or austral migrations, the wind has but little effect, except to deviate them through small angles, as already explained; but when these travelings have ceased, the wind, if uncomfortable from damp or chilliness, may influence their local migrations so as to make them obey this law—if it be one, as they claim.

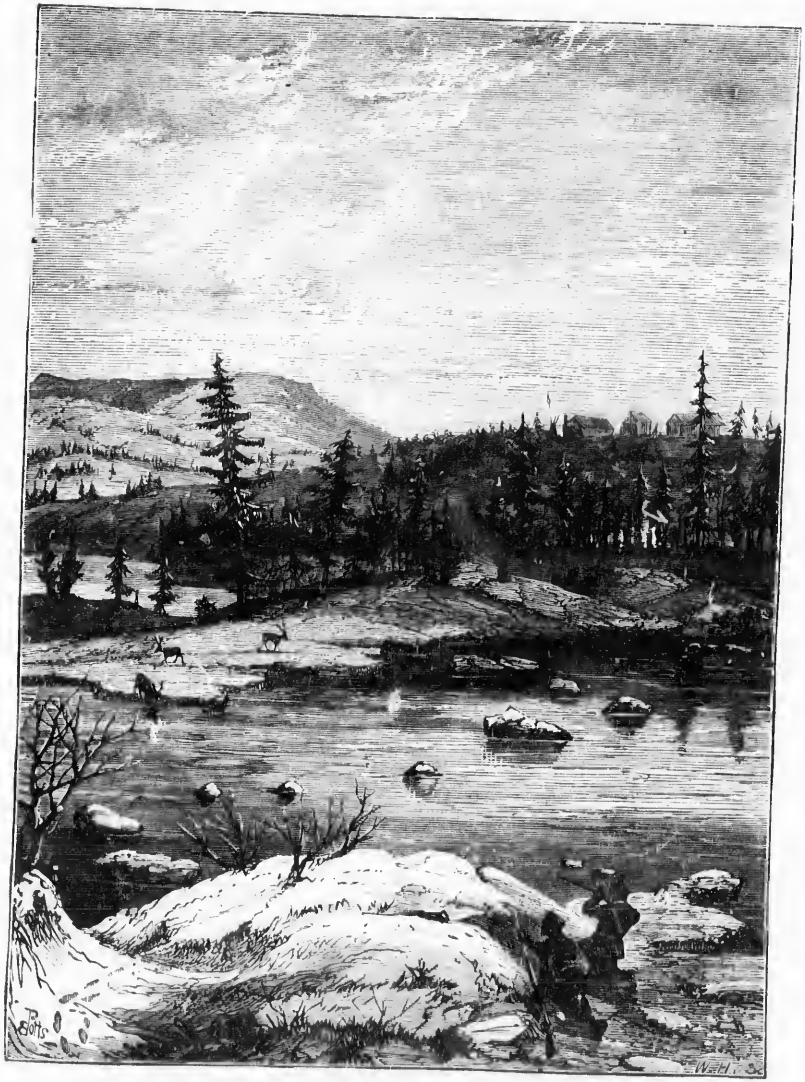
We started on our return journey on the 8th of November, and did not see any reindeer (we had not seen any since October 7) until the 12th of December, an interval of sixty-six days. Then we saw two that met their fate under such peculiar circumstances that I must record it. We had just left the Dangerous Rapids at the mouth of Back's Great Fish River, when the natives of the advance sledge of the three reported *tookloo* (reindeer) in sight, and we soon saw two animals about a mile away, trotting leisurely from us along the west bank of the river. Before us was a large island in the river, and as it was evident that their movements would soon bring them behind it, Toolooah ran like a race-horse to reach its further end to cut them off, hiding himself behind its sheltering banks opposite to the deer, some of the other hunters following directly on the trail and stringing themselves along the island. When the sledges reached the nearer end of the island, which was about a mile and a half in length, they were stopped to await the result. Hardly had they come to a halt when a shot was heard from Toolooah, and we all anxiously waited to hear the second or more, or see the other deer, and if it would run toward any of the

many hunters, for you may rest assured we were eager to get both, so long had we been without fresh venison; but nothing was seen of it, although it seemed impossible for it to get away without again coming in view. The whole matter was soon explained by Toolooah, who came in to get the dogs, and reported that he had killed both at one shot. This had been done twelve other times by Toolooah, and each time was voted strange enough; but when we had been absent from this kind of game for over two months to then stumble on a couple and annihilate them at a single discharge seemed almost too wonderful to believe. I have said that Toolooah had done this wonderful feat a number of times, and I do not wish to be misunderstood. I do not mean to say that he killed one and wounded another so that it was afterwards captured; but that these killings were direct, so that no further shooting was necessary. Once he killed three, and the number of times he had at one shot killed one and wounded another, so that it could afterwards be slain, was not recorded.

On January 2, with the thermometer at *minus* 68° F., Toolooah killed two reindeer, and the next day brought them into camp, the thermometer then showing *minus* 71°, the coldest weather recorded on the trip. I note this to show that American arms, properly cared for, will work at any temperature. At *minus* 71°—or 103 below the freezing point—every thing around becomes enveloped in a mist that will soon conceal them, if they stop to rest, from a person at a distance; but this very sign makes their whereabouts doubly certain. Herds of reindeer and musk-oxen can be distinguished by this means at a distance of five or six miles, and at very favorable heights at two or three times that distance. The native hunters claim that even at these extreme distances, they can tell the difference between the kinds of animals by some varying peculiarities of their vapors. Reindeer, chased by dogs in such a low temperature, look like so many puffing steam-engines. "Cormack, to whom we are indebted for the first reliable information of the habits of this deer" (meaning the woodland caribou of the interior of Newfoundland), says Judge Caton, in his very interesting and valuable book on the deer of America, "tells us that they migrate in search of food in single file, in herds of from

twenty to two hundred each, and so the whole country is cut up in every direction with their paths. We have no account that the northern species (the reindeer) travel in this order, and they assemble in bands of thousands." In my two years' almost daily contact with these animals in the Arctic, I seldom saw bands or herds of more than a hundred, although at very rare intervals probably twice that number may have been seen together. Twenty to thirty would make a good generous average for the year round. Time and time again I have seen reindeer following in single file and, when migrating under the influence of the seasons, it is very rare to see them going otherwise. "The Northern species," says the same authority, "are strictly migratory, traveling in their migrations some ten degrees of latitude, or more, from the Arctic Ocean, south, except where confined by physical barriers, as in Labrador."

This paragraph, and many others by different writers, seem to show that the reindeer migrate to the timber limit for safety in winter. This is not at all true. I doubt if any single reindeer travels much over three hundred miles in his migrations, and a large majority probably not so far. Could the reindeer limits of Arctic America be represented by a pond of very shallow water and given a sudden thrust to *the south*, the water at its maximum amount in that direction would represent the proportional amount of reindeer in the dead of an Arctic winter. My party found and killed reindeer in December near the Dangerous Rapids of Back's River, and they exist in fair-sized herds the whole winter through between Wager River and North Hudson's Bay, never getting within three or four hundred miles of the timber limit which so many authorities try to convince one that they all must cross before they stop in their southward migrations. "A large specimen may weigh one hundred and fifty pounds," says Judge Caton, in another part of his book, "but the average is much less. Ordinarily the hunter can easily throw it on his back, and carry it to camp." I respectfully beg to differ with this account of the size of the American Arctic reindeer. I have already quoted Beechey concerning the weight of one that was actually weighed, 285 pounds; and I believe that as near as one can approximate such weights by guesswork on the spot, that those of King William



IN THE LAND OF THE WOODLAND REINDEER.

Land would average as much as that. I have often seen a buck that it took considerable effort for two men to lift from the ground and place on the sledge. Of over a thousand reindeer that I have seen killed, I never saw one thrown upon the shoulder and brought into camp. I once "packed" the saddle of a buck I had killed for two or three miles, and I would not care to repeat the experiment often, and at that time I had been walking for five months before this occurred. In general, and in a rough, approximate way, I would say that the reindeer is slightly in excess of the black-tailed deer of the American plains, or mule deer, as Judge Caton more appropriately calls it; still, I would say in support of my estimate, that I believe very few men living have seen more of both kinds of these animals killed than I have. Without questioning the degree of accuracy that Dr. Richardson sought in giving his sketches of the antlers of the reindeer, as shown in Caton's book, I would say in general, in looking at these drawings, that they do not recall anything familiar to me regarding these animals, while the illustrations in another part, of the woodland caribou, appear to me quite natural as those of the reindeer. Another point regarding the reindeer, as spoken of in this book, and that is about their supreme stupidity as a game animal. Beechey has spoken of this trait in their disposition, and I believe I have touched upon it, and in doing so again, would reiterate my former statement that I consider them about the equal of our elk; that is, where seldom hunted, and congregating in large bands, they are sufficiently stupid to make their capture not very difficult, but this difficulty increases in about the same ratio in the two species as their hunting, especially with fire-arms, increases. It seems unfortunate that these errors—or what I believe to be errors—should have crept into a book whose every page has been got up with evidently so much conscientious endeavor to obtain only the truth; yet I feel that these aspersions on this glacial game should not be hastily passed, without some notice, especially when in such an authoritative volume.

The end of February saw us almost back. We had met a Kinnepetoo Innuit from Chesterfield Inlet, who told us that Depot Island was but three days' journey away if we took light sledges, and we accordingly left all our heavy stuff with him, in order to get through,

and purchased two-days' reindeer meat of him to complete the journey, for none could be found on the way, he said. Our three days lengthened into five, and a terribly stormy day on the fifth saw us not yet there, out of meat, and with no signs of reindeer in the country. Five hunters sallied forth in the storm, but soon returned, saying it was folly to hunt in such weather and with such prospects. At dark Toolooah came in. He had found the tracks of three deer, five or six miles south of our camp, and followed them in a circle which brought him due north of our igloos. He there overtook and killed them all. He had followed their trail the whole distance, some eighteen or twenty miles, at a fair run! Of such stuff was my best hunter made, who that day closed his total score for the sledge journey at 236 reindeer, out of a grand total of 522 killed by all the members of the expedition, which lasted nearly a year.

There was a time, in pre-historic years, when the reindeer was the principal game of savage man. So important, indeed, was he deemed, that one sub-division of that time was called "the reindeer period;" and where the grape and olive now grow he was hunted and killed by the rude weapons of ancient man, his bones being shaped into rude implements, and sometimes used, instead of modern drawing-paper, for the first artistic efforts of the world.

CHAPTER IV.

THE MUSK-OX.

MUSK-OX.

When I first arrived at my camp in Northern Hudson's Bay, in the fall of 1878, the sum total of my knowledge about these buffalo of the boreal zone was a little mixed, probably equal to that of the average sportsman of the temperate climes, who looks on them as a half-fabulous sort of animal that may have existed in the past when nature was producing saurians, mammoths and miscellaneous monsters, but that had long since become extinct, or been crowded into some odd corner of the earth, where lived so many wonderful things that to write about them at all was to throw doubt or uncertainty on one's trustworthiness.

All wavering doubts were dispelled that autumn when several of the robes were brought me to exchange for powder, caps and ball, by the numerous Eskimo who thronged around my camp. From them I learned that it was not many days' journey away, as they travel in winter with dogs and sledges, to where the musk-oxen were to be found, and you can rest assured I planned for myself a musk-ox hunt in the near future, and got my most trusty natives to approve the plan. The hardest work was not to get enough of the natives to go, but to pick out the best from the large throng who eagerly pressed for admission to the party when it was hinted that there was such an expedition in contemplation. Of all the savages I have ever seen depending on the chase for their daily food, the Eskimo get about as much true sportsman's pleasure

out of a hunt as any, and this is of course considerable, for many Indians go at hunting with no more enthusiasm than a butcher would feel in slaughtering a bullock. They may get more game by it, but they fail in the matter of sport. This is shown by the very fact of their going musk-ox hunting. The greater portion of them spend a certain part of their time in the winter in this giving vent to their feelings. The annual winter musk-ox chase with dogs and rifles is eagerly looked forward to, and is, for many weeks in advance of its taking place, the burden of their hunting conversations while housed in families in their little snow-huts. It must be wholly in the sport and excitement of this most animating and stirring hunt that they find their greatest reward and compensation, and not in the little meat secured, nor yet in the (to them) half worthless robes that are obtained from these beasts, as these skins are almost of no value, unless perchance they happen to be near some trading station (the Hudson's Bay Company have never established any station nearer to them than a month's travel), or whaling station, or whale-ship wintering in the ice. As to the meat, I have never seen them bring it back to camp in sufficient quantities to pay them for the time they were absent; nor do they seem to like it much when it is secured. In fact, when on a trip solely for musk-oxen, they take along ample reindeer meat for themselves and walrus meat for their dogs, the chances of finding musk-cattle, even in the so-called musk-ox country, being very uncertain.

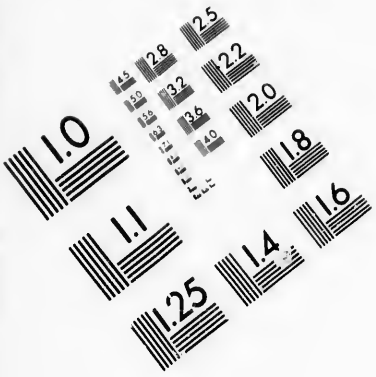
My proposed sledge-route to King William Land led us from the northermost waters of Hudson's Bay directly to the nearest available point on Back's Great Fish River, which empties into the Arctic Ocean just south of the large island called King William Land, where I was to carry on the main object of my expedition in trying to determine the sad fate of Sir John Franklin's party, which had perished in the neighborhood. This route lay directly across country. The bulk of authorities on Arctic sledging, both white and native, bore strongly against overland sledge-journeys—an opinion to which they often gave practical illustration by unnecessary detours to follow salt-water ice or simons water-courses. Our contemplated "cannon-ball" route, therefore, had never been traveled either by white men or natives, and the latter, who

formed an important element of the proposed expedition both in numbers and services expected, had no hesitation in advising against it, preferring a detour of some five or six hundred miles, which would enable them to keep on the ocean or bay ice. These nomads of the north, as I had occasion to find out, are loth to enter a totally unknown country. Their reasons were not of a foolishly superstitious nature, as I at first supposed, but for the more sensible excuse that they knew almost nothing of the game of the region, so they said. They argued

MUSK-OX.

that musk-oxen might possibly be found, as they were on the outskirts of their hunting-grounds, and if I would only prove to them in some way that they were plentiful, they were willing to undertake the journey, and some of the very best hunters among them generously and enthusiastically placed their services at my disposal in order to give the matter a test.

Accordingly, with this object in view, and the no less potent one



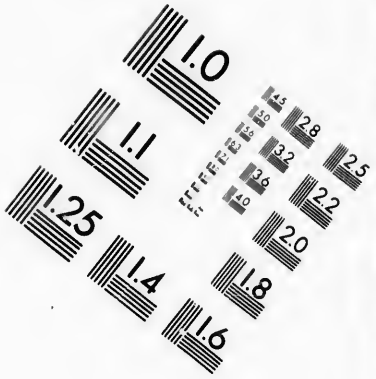
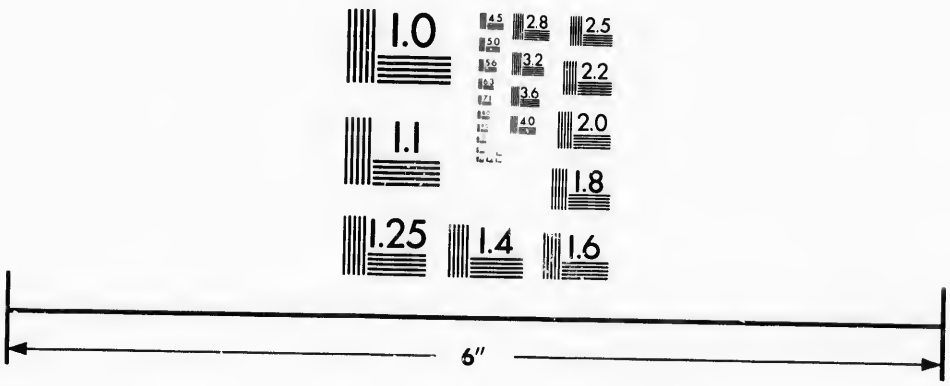
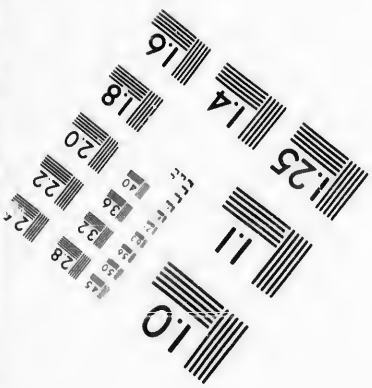
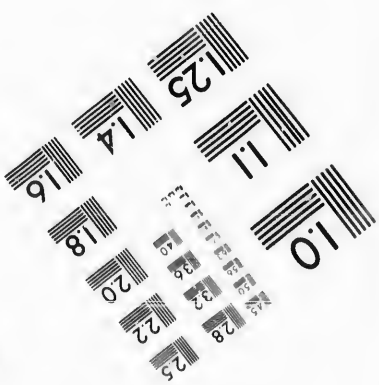


IMAGE EVALUATION TEST TARGET (MT-3)







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that I wanted to see the lay of the country on our proposed route, I started with Toolooah and his family to make a preliminary reconnaissance as far as Wager River, about a hundred miles to the northward, during December and January of 1878 and '79, and although no musk-oxen were actually seen and killed, we found most abundant traces of them. We could have killed numbers of them probably had we followed up any of the many trails we crossed, but we both thought that twenty or thirty miles of travel would be better expended in penetrating the country ahead of us than wasting it on a musk-ox chase; and this was one of the very few cases where the tracks of an animal served the purpose just as well as his presence. Toolooah also argued that the killing of any number over a wide area might drive them out of the country, and our present sport compromise our ulterior object; still, it was with some feeling of disappointment that I turned back, my very success giving rise to that feeling, and returned empty-handed to our camp on Hudson's Bay. The facts we had culled overcame the objections of the natives to such an extent that enough of them readily consented to accompany us to give me no uneasiness about native help. I have told in a former chapter the size of our sledging party to King William Land, its arms and ammunition, and the fact that we started on that expedition from North Hudson's Bay on the first day of April, 1879.

By the 8th of that month we were, according to our best informed natives, in what they termed the musk-ox country—the locality in which they had been accustomed to hunt these large monsters during winter trips from the sea-coast—where the natives I had with me live the greater part of the year, although the investigations of Toolooah and myself had extended far beyond this limit.

We were extremely anxious to get some of the long-haired brutes, for their huge carcasses, compared with those of the reindeer, and the ease with which a whole herd can be captured, made them a much more reliable source of dog-food for a large canine force, and this was an important factor to consider, with our three teams of forty-two dogs to be kept in good condition.

The next day, the 9th, while passing through a series of rocky-

topped ridges, we came upon a large trail of musk-cattle in one valley, probably a hundred yards in width, taking in the extreme tracks; for they seemed to be quietly grazing along. The tracks seemed tolerably ancient, some six or seven days old at least, but one of the peculiarities of these animals, said my native hunters, is that they will travel very slowly when undisturbed and in a good grazing country, and this same large herd, or some portion of it, so the Eskimo believed, was not over a day's sledge-journey away, if we should want to pursue them. They tried to persuade me, with all the vehemence of savage logic, to remain a day or two in the vicinity and hunt them, but the larder was still too full, and the prospects for more ahead too good, to warrant any such delay; so we pushed on, leaving the musk-ox trail and the Innuit's hopes buried in the same snow.

From time to time we kept seeing an occasional isolated track of stray wanderers from the main herds, but not enough even to arouse the natives from their apathy, until in the afternoon of the 13th of April we came upon the freshest trail we had yet seen of those cold-weather cattle, and the largest too, for all that, and I had the hardest work imaginable persuading the natives to take up our journey again without following it up. These Eskimo seem to have far more excitability in the presence of game, or its fresh sign, than any other race of people I have ever encountered, not even excepting the various Indian tribes of our great Western plains with whom my travels have brought me in frequent contact. A sportsman would take them to be the veriest amateurs if other considerations did not make him alter his opinions; and all this enthusiasm reaches its maximum limit in the chase of the musk-ox, as I have already hinted.

Before we had fairly got into camp on the evening of the 22d of the month—and by going into camp on an Arctic sledge journey is meant the building of the peculiarly constructed domes of snow or snow-houses, the unharnessing of the dogs, *et cetera*—a most furious north-west gale of wind and blinding snow arose, which raged so terribly for five days that even the natives themselves found it decidedly prudent and unquestionably comfortable not to stay out of the snow huts for any considerable length of time, while in the dense whirlpools

of flying snow, hunting was simply out of the question. This enforced idleness reduced our commissary to an alarming extent, especially for the dogs, the walrus-hide (or *kow*, in Eskimo parlance) with which we had loaded our sledges on leaving Hudson's Bay, and which is the very best of dog-feed on an extended journey, being now completely exhausted. We managed, however, to get under way by the 28th, although the fury of the storm had not yet completely abated, and after traveling nearly twenty miles in a north-north-west direction we went into a picturesque little camp nestling in the high hills, the weather being now much better, but the state of our larder considerably worse, and the prospect in no wise encouraging.

Shortly after halting and when the snow-houses were about half completed, Ikqueesik, my Netschillik Eskimo guide, who had absented himself over the hills with a spy-glass prospecting for game, leaving others to do his work on his snow-house, was soon seen tumbling down the high hills near by; and he came running excitedly into the village, the perspiration in huge beads streaming down his brown, dirty visage, and with my army signal-telescope, full drawn, under one arm. Amidst his spasmodic gasps for breath, we managed to make out from him that he had undoubtedly seen a herd of eight or ten *oó-ming-mung* (musk-oxen) from the top of the hill, about four or five miles to the northward, slowly grazing along to the westward on the rocky ridge tops as he watched them through the telescope, and as perfectly unaware of danger as they had a right to be, considering it was the first invasion that their country had ever had from any thing that could do them any harm. Every thing was put aside and dropped just where Ikqueesik's announcement found it, and then every Innuit man, woman and child was soon scrambling up to the highest pinnacle of the steep hill near by, while half a dozen dirty and eager faces were clamoring, in a way that would have frightened the game if it had been near, to get a look through the coveted telescope.

The presence of musk-oxen was established beyond all peradventure, and we were not long in coming to the decision that the next day should be devoted to securing as many as possible of the long-haired monsters, Ikqueesik's discovery of them having been made too late to risk an

attempt at an attack so near nightfall and while the dogs were so exhausted from their long day's journey. Our dogs, that had been loosened from their harnesses, were accordingly secured to the overturned sledges, boxes of ammunition, and every other piece of heavy material that was convenient, to prevent them scampering after the game (should they scent them in the night from a northern wind), as their ravenous appetites would undoubtedly prompt them to do. This done, around each animal's projecting snout was closely wound an extemporized muzzle of seal or walrus-line thongs, to prevent the usual concert of prolonged howls. There is nothing more aggravating than to find, just about the time the sledges are about half loaded in the morning and one begins to look around for the dogs to harness them up, that about half of them are on a fruitless chase after reindeer or some other game that will not come to bay; for they will not give up until they are thoroughly exhausted, and then come sneaking back to camp comparatively worthless for the rest of the day. Their howlings at night are no less unfortunate, and if it has been a clear, cold, moonlight one, when they so delight in these bayings, you can rest assured that no game will be seen the next morning until the sledge journey has extended beyond hearing of their loud howls. That evening, with every thing snug and secure around us, all the hunters—some eleven in number—gathered in my *igloo*, and until late at night adventures with musk-oxen alternated with sippings of coffee from the huge stone kettle over the little Innuit lamp, for the sights of that day had been ample to banish sleep until well after the accustomed hour.

Early the following morning a disagreeable, drifting fog threatened seriously to put an end to our expected sport, and lose us the more tangible object of our coveted meat. A council of the chase was briefly held, and it was decided that waiting any longer would probably do more harm than the risk of an encounter even in a fog, and we managed to get away soon after eight o'clock—having a formidable looking party of eleven rifles, and two Eskimo women with two light sledges and all the dogs, forty-two in number. As we were harnessing the dogs and attaching the traces to the sledges, the great, thick banks of clouds seemed to be lifting gradually, and our hopes of success ascended with

them. But no sooner had we started than the clouds settled down upon us again, seemingly damper and denser than before. When a heavy fog covers the ground, considerable reliance for assistance may be placed in the dogs' noses, if the wind is right and the game not far away; otherwise the tables may be turned, and the game escape by the same means, and it was our sole object now to regulate our course so as to avoid, if possible, the latter contingency.

After some two or three hours of wandering around in the drifting mist, guiding our winding movements as much as possible by the direction of the light wind, which we had previously determined before leaving camp, we suddenly came plump upon the tangled trail, apparently not over ten or fifteen minutes old, of some half-a-dozen of these animals, and great fears were entertained by our old musk-ox hunters, from its jumbled appearance, that the animals had heard, or scented our approach, and were now probably doing their level best to escape from the country. A few words of advice were hurriedly given in a low voice by those hunters who, from previous experience and success, were at once recognized as the natural leaders for the chase, and in following this advice the sledges were immediately brought up to the trail and stopped, and the dogs rapidly unhitched from them, from one to three and four even being given to each of the eleven men and boys who were present, who, taking the ends of the harness-traces in their left hands, or tying them in slip-nooses around their waists, started without delay upon the trail, leaving the two empty sledges and a few of the poorer dogs under the care of the Innuit women, who had come along with the party for that express purpose, and who had instructions to follow on the trail with the sledges and the dogs that had been left with them, as soon as firing was heard, or after a quarter of an hour to twenty minutes had elapsed without such sounds. To prevent the hungry canines left behind from following too soon, without the women's consent, the sledges were turned over and the two females sat down on the slats to add obstacles to such an attempt.

The dogs, many of them old musk-ox hunters, and seemingly conscious of the fact, and with appetites doubly sharpened by many days' hard work and a constantly diminishing ration, tugged and

jerked like mad at their long seal-skin harness-lines, as they half-buried their eager noses in the tumbled snow of the trail, and hurried their human companions along at a flying rate that threatened a broken limb or neck at each of the rough gorges and jutting precipices of the broken stony hill land, where the exciting chase was being run. The rapidity with which an agile native hunter can get over ground at a run when thus attached to two or three excited dogs is astonishing beyond measure, and fully equals the average between the man and the dog running separately, and seems double that gait to a spectator not used to it. Whenever a steep valley was encountered and had to be crossed, the Innuits would slide down on their feet, in a squatting posture, throwing the loose snow aside like dust from a rolling wagon wheel, until the bottom was reached and crossed, when quick as thought they would throw themselves at full length upon the snow of the ascending bank, and the wild, excited brutes would drag them up it to the top, where, regaining their feet in an athletic manner, impossible to any one not used to it, they would run on at a constantly accelerating gait, their guns in the meantime being held in the right hand or lashed upon their backs, so that they could readily get at them when the battle-field was reached. Not caring to be disemboweled on the razor-like edge of some slightly projecting stone, or leaving a knee-cap or a bunch of ribs on top of it, I took a slower and more civilized gait, and as I was getting on the other end of this polar procession from the musk-oxen, the dogs that had been unfortunate enough to be assigned to carry me into a slaughter of these animals, grew furious at the delay, and tugged and jumped and pulled at the harness traces by which I held them at my waist, until I thought they would convert me into a wasp, or at least give my waist a more fashionable contour than it had. You may rest assured that I was happy enough when the native hunters ahead commenced slipping their dogs, so that I could conscientiously do the same.

We had hardly gone a mile across the break-neck country in this harum-scarum chase before it became evident to us that the musk-oxen were but a short distance ahead, on a keen run, and the foremost hunters began loosening their dogs to bring the cattle to bay as soon as possible, and then, for the first time in this exciting chase, these intelligent

creatures gave tongue in deep, long baying, as they shot forward like arrows from the bow, and disappeared over the crests of the broken hills amidst a perfect bewilderment of flying snow and fluttering harness-lines. It was now merely a matter of time when the flying band would be overtaken, and as we picked up one leg after the other from the deep snow, until they seemed to weigh a ton apiece, we hoped from the innermost corners of our hearts it would not be long. The discord of loud shouts and snappish barkings told us plainly enough that at least some of the animals had been brought to bay not very far distant to the front, and we soon afterward heard a rapid series of sharp reports from the breech-loaders and magazine guns of the advanced hunters, that took three-fourths of the weariness and heavy feeling out of our lower limbs.

We white men arrived on the battle-field just in time to see the grand final struggle before the last of the oxen sank to earth. They presented a most formidable looking appearance with their rumps firmly wedged together, forming an unbroken circle of swaying horns, presented viciously to the front, with great blood-shot eye-balls glaring like red-hot shot amidst the escaping steam from their panting nostrils, and pawing and plunging at the solid circle of furious dogs that encompassed them. The rapid blazing of magazine guns right in their frightened faces—so close, often, as to burn their long, shaggy hair—made up a vivid scene that would have impressed the most apathetic for life, if but once encountered, even as we saw it on that day. Woe to the excited, over-zealous dog that in his close attacks was unlucky enough to get his harness-line under the hoofs of a charging and infuriated musk-bull; for it would follow up a straight leash, made by the dog's pulling back, stretched along the hard snow, with a rapidity and certainty that would do credit to a tight-rope performer, and either paw the poor creature to death or fling him high in the air with his horns.

The immediate chase being practically over, we tired and panting white men rested where the bodies of the first victims fell, but Toolooah, my best native hunter—an agile, wiry young Iwillik Innuit of about twenty-six or seven, with the pluck and endurance of a blooded horse,—and half the flying dogs still pressed onward after the scattered rem-

nants of the broken herd, and succeeded in killing two more after a hard run of two or three miles; doubly hard, indeed, for the frightened beasts seem to think that their best chance for escape was in following the very roughest parts of the country they could find—a method pursued by many wild animals.

The last musk-ox Toolooah killed he would probably not have overtaken if the swiftest dog, Parseneuk by name, had not chased him to the edge of a high, steep précipice, evidently too formidable for the ox to make up his mind to leap from at once. Here half a second's vacillation of the shaggy brute gave the dog a chance to fasten on his heels, and in a very short interval of time the beast had exchanged ends and Parseneuk was making an involuntary aërial ascent, which was not much more than finished before Toolooah had put three shots from his Winchester carbine into the brute's neck and head; whereupon the two animals came to earth—or rather snow—together, Parseneuk on the soft snow-drift that had collected under the lee of the twenty-foot precipice, fortunately unhurt. Parseneuk was a trimly built animal, that I had secured with trading material from the Kinnepetoo Eskimo who inhabit the shores and contiguous country of Chesterfield Inlet, being one of the very few tribes of the great Innuit family, from nearly the Straits of Belle Isle to those of Northern Bering Sea and beyond, who live away from the sea-coasts and eat but sparingly of aquatic food. They subsist principally upon the flesh of the barren-ground reindeer, and their hunting dogs are adepts in securing these fleet animals, Parseneuk being particularly swift and intelligent as a hunter. He had been the undoubted favorite among the dogs in the Kinnepetoo family from whom he was purchased, and as a consequence I had to appease several members of the family with trifling presents as indirect damages to their affections, making Parseneuk cost me fully twice as much as the other dogs I purchased from this tribe. He had a beautiful head, with sleek muzzle and fox-like nose, while his pointed ears peered cunningly forth from the curly wool on top of his head in strange and striking contrast with those of the many other dogs that I have often met, whose broken and mutilated ears (usually restored in illustrations of Arctic scenes concerning canine matters) showed plainly the fights and

quarrels in which they had figured, being mostly combats over cold victuals. Parseneuk, as the family favorite, had been raised and fed in the *igloo*, or snow house, under the fostering protection of the old matron of the family, and being saved the disagreeable necessity of fighting for his daily bread he thus preserved his ears intact. Poor Parseneuk! before the long sledge journey was completed, his handsome ears had often served as cushions to prevent the teeth of larger dogs from rubbing too severely over each other, and were hanging in mournful attitude from his well built head. If he did not save his ears, he at least saved his life, being one of the lucky nineteen dogs that lived through the journey in which sixty in all had participated.

The chase being over, the scattered hunters and dogs gathered around the robes and bodies of their victims. The half-famished dogs received all they could eat—their first full feast in over three weeks—and after a good long rest, interspersed with more musk-ox adventure, we loaded the two sledges that had come up in the meantime with the remaining meat and a few of the finer robes as mementoes and trophies. We returned to our morning's camp, a distance of five or six miles, which we traveled slowly enough, our over-fed dogs, with ponderous paunches projecting from their lean sides, hardly noticing the most vigorous applications of the well directed whip. In fact, the next day's journey too was considerably curtailed by the lazy brutes, that had surfeited themselves until they were nearly worthless, and it was not until the second day after, that we commenced to be remunerated for our lavish supply of rations given them just after the hunt. This over-feeding of half-famished Eskimo dogs is always attended with these results, and is never resorted to except in cases like this particular hunt, where the food thus given them is so plentiful that it would have to be thrown away if not so disposed of, and as musk-ox meat ranked next to walrus, the best of all, this was not thought of for a moment.

The natives of the north, with whom my explorations brought me in contact in many hunting adventures, never seek the musk-oxen without a plentiful supply of well-trained dogs, unless it be for a single animal or two, while engaged in other objects that bring them together, for, with their help, the hunters are almost certain of securing the whole

herd, however large, unless the animals are accidentally apprised of their approach in some way, as they were in our encounter with them, on account of the dease fog, but which is seldom the case. Sometimes the large bands of Arctic wolves that so often follow a slowly-moving body of hunters, to secure the stray wounded game, and make a meal here and there off a poorly-constructed meat-cairn, or perchance a stray dog, will frighten musk-oxen out of the country if the hunters have seen them at night-fall and depended on the morrow for the chase, and this is especially the case if the cattle are burdened with young to protect, for at other times they seem to care but little for the attacks of wolves, except it be an aged or decrepid fellow too weak to keep up with the band, and that may fall a victim. Their peculiar mode of defense is proof against any number of wolves, if there be only a few of the oxen to form it. When the flying herd has been brought to bay and formed its circle of defense against the dogs, the Eskimo hunters approach within five or six feet, and make sure of every shot that is fired; for a wounded animal is far more dangerous at a distance, than an unwounded one even at such close range, however furious he may look to the uninitiated. Furthermore, a badly wounded animal, yet able to run, is extremely liable to stampede the whole herd, and a band of these brutes, when once stampeded, especially from this cause, are much harder to b[illegible]y the second time; moreover, when the second attempt is m[illegible]nters will not find so many dogs to aid them in it, for as so[illegible] two animals are killed in the first bout, a very large nu[illegible] dogs linger around this certainty rather than waste their energies[illegible] dubious fortunes of a second battle. It may be well to mention, however, that if the hunt is properly managed, such stampedes are extremely rare.

When the circle of cattle is first approached, the hunters watch their opportunities in some unusual commotion among the herd to dispatch first, and with unerring certainty, the active and aggressive bulls, conformably to a general hunting maxim followed by experienced huntsmen in all parts of the world and with all sorts of game. This rule does not depend so much on self-protection for the hunter, even with capital game, as it does on the desire to secure all "that is in sight." Un-

doubtedly animals look to their more aggressive neighbors for protection, and this confidence is not lost even in their death, their bodies being therefore so many anchors to hold them to the fatal spot until their own turn arrives. As their numbers fall one at a time, the musk-oxen resolutely persist in their curious and singular mode of defense, presenting their ugly-looking horns toward as many points of the compass as their remaining numbers will allow. When only two are left, these, with rumps together, and, facing from each other, will continue the unequal battle against the enemy, and even the last "forlorn hope" will back up against the largest pile of his dead and dying comrades, or against a large rock or snow-bank and defy his pursuers, dogs and hunters, until his death. While the little calves are too young and feeble to take their places in the front ranks—that is, until they are about eight or nine months old—they occupy the hollow square or interior space formed by their defensive parents; but when their elders have perished in their defense, with an instinct born of their species, they will form in the same circular order and show fight.

It is a curious thing that if a single musk-ox is encountered and bayed, he will never remain satisfied until he has backed up against something, however small, to protect him from a rear attack. They have almost as much confidence in this trick as the ostrich has in hiding its head in the sand, for a rock no larger than a man's head will suffice if nothing better is conveniently near. The most singular part is the way they will respect the same absurd defense, and my hunters emphasized the caution a half a dozen times before the chase took place not to attempt to run beyond some slightly projecting rock or snow bank, and dodge around it should the relations between myself and a musk-ox require such dodging. So many times did these faithful fellows, who would in no way give a piece of advice that might lead to dangerous results with any one, speak of this, that simple and even absurd as it appeared I was fully forced to believe it. I do not believe the advice would have been of much practical benefit to a white man, however, for considering the furious way they looked on that morning of the 29th of April, had one got after me I think no rock less than the size of the Washington Monument would have satisfied my intense desire for an intervening obstacle.

The calves of which I have spoken in the previous paragraph, are born about the month of May in this portion of the country, and have the same dirty, brown, awkward, ugly-looking appearance as the buffalo calves of the Great Western plains. They can be readily captured alive by the Eskimo dogs, if the hunters be near to prevent their being immediately torn to pieces by these ravenous animals, or they may be taken by any energetic hunter after the old ones have been killed in a herd, if he is at all willing to stand a few bouncing buttings from the little rams as he puts the sealskin thongs around them. In whatever way they may fall into one's hands in these inhospitable regions, it is impossible to furnish them with proper nourishment to sustain life until they can be safely transferred to a vessel; which, moreover, can only escape from these regions during the autumn months, when the ice has broken up; consequently there are no cases on record, I believe, where these most curious animals have been exhibited alive in the temperate zones. The natives told me that they had succeeded in keeping the calves alive for a few days by muzzling the dogs and taking other precautions, but they sank so rapidly that it was evident they would die very soon, and they killed them for food.

Before the Eskimo hunters were provided with the fire-arms of civilization, procured in trade with the Hudson's Bay Company, whose nearest port was a month's travel distant, or by American whalers who drove remunerative bargains with them in valuable Arctic furs while wintering in their country, they used the bow and arrow, or the long lance or spear, dashing fearlessly past the musk-oxen's swinging horns as they buried the sharpened bone lance-head deep in some vital part. The bows and arrows were much less reliable, unless they were peculiarly fortunate in directing the projectile so as to enter between two ribs, and even then not always effective, owing to the weakness of their bows, which will not compare favorably with those of the savages of temperate zones. They are made of musk-ox horn, spliced in the center with thongs and metal rivets, and even then so short that they have to be built out at the ends by long splices of reindeer horn; and so much building up is needed in this manner that a great welt of sinew strings as large as the little finger is placed along its back to give it strength

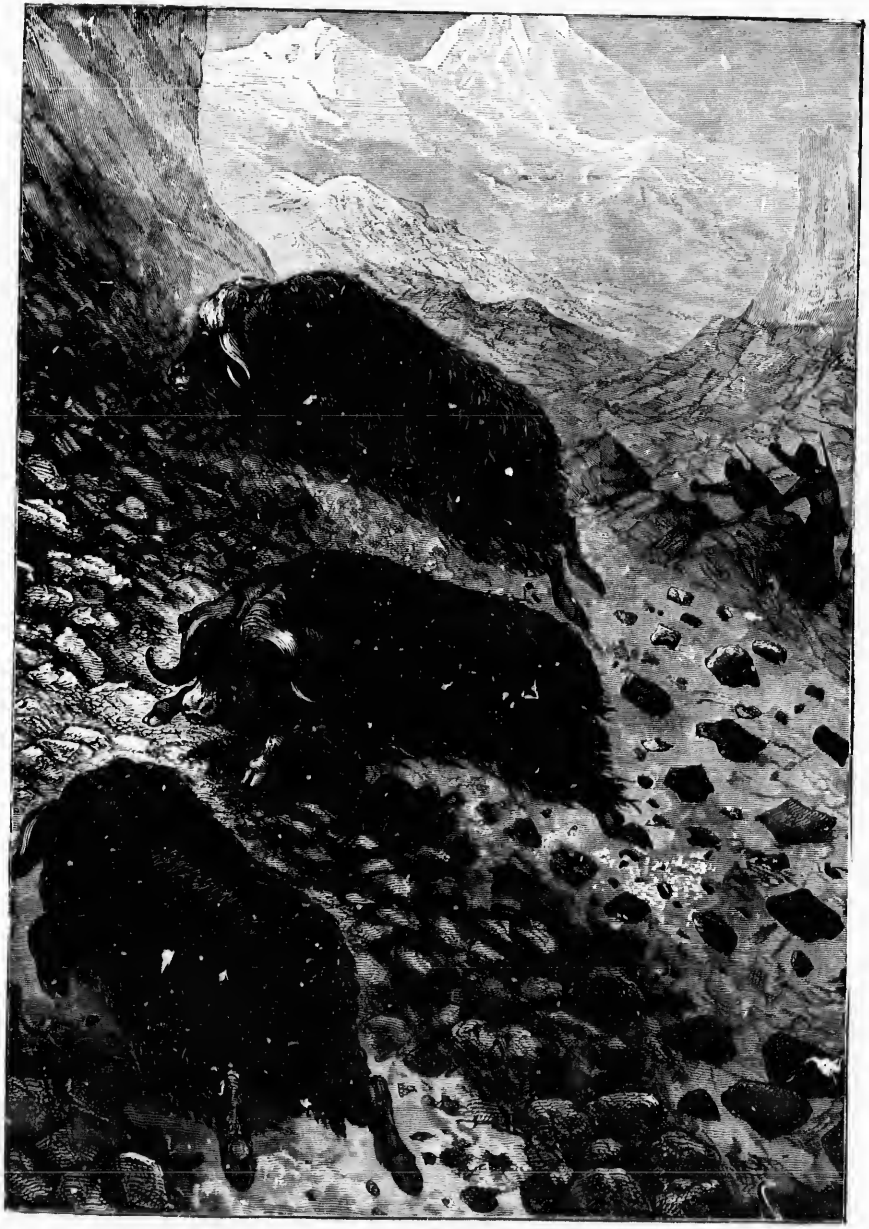
and power to propel the arrow. The arrows, too, are weaklings in that line; the small amount of driftwood thrown up on their shores, which is too brash for the bows, has hardly strength enough for arrow shafts, while the tips are generally made from the hard bone on the shin of the reindeer. Yet even with these rude weapons they did not hesitate to attack such large game. In the olden times, before fire-arms were known to them, one of their tests of manly courage was for a hunter to pass within the circle of animals and return, backward and forward, killing one or two of the oxen at each passage. Of such old-time feats the gray-haired men of the tribe still speak.

One old Iwillik Innuit—so I was told by his tribe, and they are not given to vain boasting—while traveling with a few dogs and a light sledge from one village to another on one of the visits so common among these wanderers of the north, came suddenly and unexpectedly upon a couple of musk-oxen that had strayed from their usual haunts in invading this part of the country. Stopping the sledge and unhitching his dogs from it, he turned them loose after the oxen, and following as fast as he could at a run, soon had the pleasure of seeing them brought to bay by the dogs. So little game was ever seen in this well-traveled route, that arms were considered a superfluous weight and he had none with him. His only weapon, if it could be called such, was a "snow-knife"—a kind of long, double-bladed butcher knife, which the natives use to cut and fit the blocks of snow with in constructing their winter houses of that material, and which they use for so many other purposes of cutting that an Innuit is seldom found without one in his hand. Nothing daunted, however, he courageously attacked them and in a few minutes had secured both, bringing their meat and robes into camp to display before his astonished listeners.

The danger to be apprehended from these formidable and ferocious-looking brutes is undoubtedly more apparent than real, judging from the accidents that occur, although a few sensational writers have tried to classify their killing as equal in sport to that of slaughtering a band of sheep, no doubt to satisfy an idea—of their own—that people will not believe them, but think it is due to an exuberance of bravery and heedless disregard of danger on their own parts. Their statements do

not agree with those of the Eskimo, that in cases where they are extremely anxious to secure the herd, they look on a white man in the party as a Jonah of Jumbo proportions. They are never able to get them closer than forty or fifty yards of the bayed game, and even at that distance they are so excited that not only are they liable to wound the game, with the results already hinted at, but they make it unsafe for the natives to approach to their usual distance when killing them, and as this happened with one of the identical writers spoken of, I think my theory is well based. Whenever a white man's thirst for musk-ox gore had to be appeased he was given a couple of slow dogs, the natives knowing that even the slowest would have hard work to hurry him up; and when the cattle were bayed, all were killed but a yearling, held to its place by the dogs, which the Caucassian could slaughter at his leisure. Probably more than any other species of game that can be dangerous in a fair showing, these horned hyperboreans are caught at such a disadvantage that their killing loses nearly all the spice of danger, and this is particularly so when caught near the coast, which they probably visit to procure salt, if salt-licks be scarce in the interior. A hunting party from a whaling ship cruising in Northern Hudson's Bay, found a good-sized herd of cattle straying around on a long, narrow spit of land projecting from Cape Jalabert, just below Chesterfield Inlet. They formed a skirmish line across the base of the finger-like peninsula, and advanced slowly toward the doomed band, and when within a hundred and fifty yards—so far away that a shot would not produce utter consternation amongst the cattle, their best marksmen opened fire from behind rocks and mounds with Sharp's and Winchester sporting rifles, and soon had them all down. It was a glorious bag, and gave them prospects of much fresh meat for the winter, but as far as sport goes, it savored too much of the slaughter-house. Such encounters near the coast are not infrequent, and especially so in the case of white men, who seldom penetrate into the interior, though it is there that the sport, as such, reaches as near perfection as possible.

The dogs are frequently killed by being tossed high in the air by their horns, so well shaped for that purpose, which generally inflict injuries that necessitate the dog's being shot; or they may paw them to



WHITE MEN HUNTING MUSK OXEN.

death, as already described. The musk-bulls can, however, be prevented from following up a dog's trailing harness line by attaching a toggle noose to it where the trace joins the harness at the root of the dog's tail, where the traces are separated from the dogs before they are slipped for the chase. This, as one would suppose, is the case when on a regular musk-ox hunt, and preparations have been made accordingly. Another sure way is to fold the trace into a "bundle noose," until it all rests on the dog's back, leaving no trailing line for the musk-oxen to follow. Since fire-arms have been introduced, and especially sporting rifles, an occasional luckless dog gets killed by a bullet passing clear through the enemy and lodging in his own carcass. The trained Eskimo dog never barks in the presence of game, until liberated from his master's hands.

The musk-ox of the Arctic is only about two-thirds the size of the bison or American buffalo, but in appearance he is nearly as large, owing to the immense heavy coat of long weeping-willow-like hair that covers him down below the knees, as if he were carrying a load of black brush. If a person be near when they are running by at their curious, choppy lope, this long hair rises and falls in waving billows like the wind running through ripened grain or tall grass in the open fields. As his generic name (*Ovibos moschatus*) imports, he seems to form a sort of connecting link between the ox and the sheep, and formerly was much spoken of as the musk-sheep. His peculiar covering makes him look like a huge, well-fleeced ram, of a blackish-brown color, to which his broad, spreading horns add not a little similarity. In fact this dense covering or coat seems to partake of the character of both wool and hair. First there is a heavy coat of very long blackish-brown hair, like that on the "hump," shoulders and forelegs of the bison, or American buffalo, which extends over the whole body of the musk-ox, and is, I believe (from Eskimo authority), never shed at any time of the year. Beneath this hair there is an undercoating of soft, light-brown wool or fleece, which is invisible through the first unless parted by the hands for that purpose, and which is shed annually at the usual time in the spring. This latter seems to be a true wool, and of the finest texture. A Mr. Pennant, an English gentleman, writing of the musk-ox, gives

an instance of an ingenious man of his, named Jeremy, having woven from this inner fleece taken from the musk-ox, a pair of stockings, which were as fine and durable as any of the best silken make. One can hardly help feeling a desire, impractical as it seems, that these boreal brutes might be domesticated, as they could be made to subserve so many practical purposes of food, transportation and clothing, in a country where every little help that can be got becomes so invaluable. During the short summer months, just after the inner fleece is shed, it is still found matted in the long, black hair, and is only prevented from falling to the ground by this inter-weaving process. This was especially noticeable on a number that we killed on the 29th of April. At a distance they were as much blotched by this wool as the American antelope or an Indian "calico" pony. We could readily comb it out with our fingers, and the whalers tell me that they have known the finest mattresses to be made from it where they could cull enough from the robes brought them for trade.

The short, curly hair on their low foreheads is very often found matted in little balls or small lumps with ordinary dirt and grass, showing unmistakably that they use their head and horns in tearing up the earth. This they have often been seen to do by hunters, when closely pressed and brought to bay by them; but as they are seldom hunted in their isolated grazing districts, this is hardly a fair theory to account for its constancy, and we may suppose that their head and horns are mostly used in this manner in removing the snow from the mossy and grassy patches where they graze in the winter time, or while the snow is covering the ground. Their curving horns, from their peculiar shape, would certainly make very effective snow shovels. Following a herd of grazing oxen, one sees everywhere black spots on the hill-side, and even in the valleys and the deepest snow, where they have pawed or "horned" down to the earth and gotten at the moss, the very richest beds of which they never fail to detect, probably by their power of scent through the porous snow.

The shape of these weapons of offense and defense is certainly most peculiar, and worth describing. Starting from the middle line of the forehead, in the bull, at which point the horns are joined base to base,

they present a thick, flat plate or shield, of corrugated horn, about a foot in width. As these wide, flat shields of horn circle around the eyes at a distance of about two or three inches, their outer edges are gradually incurvated downward until about four or five inches from the eye is reached, when a perfect horn is formed whose cross-section would be a circle or nearly one. From here it tapers gradually, like the common ox's horn, to its end, curling upward near its extremity with a jaunty curve worthy of a Limerick fish-hook, and looking wonderfully well placed for assisting a man up in the world!

To the natives of the north, within whose country these cattle roam, these horns afford many useful implements of the chase and household utensils, and they thoroughly comprehend the well-known principle of steaming and boiling the horn in order to render it soft and pliable while it is being worked and fashioned into these implements and utensils. The native bow I have spoken of already as being usually made of two or three sections of musk-ox horn, tipped with the shorter horn of the reindeer, the whole being firmly lashed with a braid made from the sinews on the superficial dorsal muscles of the reindeer, running the whole length of the back of the bow, to give it strength and elasticity. I found the Eskimo of King William Land and vicinity using copper stripped from Sir John Franklin's ships to rivet their bows together. Except as children's playthings of the chase, to shoot at ptarmigans, and a few other sports of that character, bows and arrows have entirely disappeared, wherever intercourse with the Hudson's Bay Company or American whalers has placed fire-arms and ammunition in the hands of the natives, and this includes the whole of the great Eskimo or Innuit family, except those stretched along the shores of the Arctic Ocean from about King William Land on the east to the furthest point reached by American whalers coming from the Pacific on the west.

Another implement largely used which is made from the splayed base of a musk-ox's horn is the Eskimo drinking cup or ladle, which holds from a pint to a couple of quarts. They also subserve a purpose more interesting than drinking cups, which I will briefly describe. One of these cups, holding about a pint, is tied or neatly lashed to the

end of a strong pole, from six to eight feet in length, so as to form a small scoop, and with a chisel similarly mounted, the two are used for digging through the thick ice of a lake or river to the water beneath. A camp is always picked near a lake or river which the Eskimo know by certain signs has not yet frozen to the bottom. This fact is readily ascertained by placing their flattened pug noses in close proximity to the upper surface, when the peculiar hues, which they perceive, indicate the presence or absence of water. While most of the party are building their huts of snow for the night's encampment, some one takes the ice scoop and chisel, wanders out on the frozen lake, and selects a place for his operations. He then digs a hole with the chisel about a foot or eighteen inches in diameter, and of nearly the same depth, by repeated vertical strokes, and when the chopped ice or débris thus formed commences choking this instrument, it is removed with the ice-scoop, and this alternation of cutting and removal with ice-chisel and ice-scoop is kept up until water is reached, at generally from six to seven feet, the deepest I ever saw being eight feet four inches. This digging requires far more dexterity and practice than one would at first sight imagine from the simple explanation. The beginner finds it almost impossible to keep the hole from rapidly tapering to a point long before the water is reached, or, in short, to prevent the intended cylinder from becoming a cone. Moreover, if the débris be too freely chopped, it becomes reduced to a sort of ice-dust which will pack so firmly toward the finishing of the water-hole that the edge of the scoop cannot be wedged under it, with its limited play of action. The children and old women of the village may draw many a meal of goodly-sized salmon through this avenue, and this necessitates that the hole should be of fair size throughout. One of the most annoying events of my sledge-journey was, after a long and unsuccessful attempt to catch something at one of these water-holes, to find myself suddenly at one end and a big salmon at the other end of a strong sinew fish-line, separated by an ice-hole through which neither of us could pass. Many other implements and utensils are ingeniously constructed from this horny matter furnished by the musk-ox.

The range of musk-cattle is quite extensive. They occupy the

extreme northern shores of Greenland, on both the east and the west coasts, as far as they have been explored; and these two ranges are probably connected around the northernmost point of this great polar continent. They occur on both sides of Smith Sound, and in general frequent Arctic America from latitude 60° to 79° north, and from longitude 67° 30′ west (Greenwich) almost to the Pacific coast, or at least as far as the lower waters of the Mackenzie, where a fine specimen was procured only last year (1884), and now ornaments a museum in civilization. It is, however, in the great stretch of hilly country lying between North Hudson's Bay and its estuaries on the south and east and the Arctic ocean, with its intricate channels on the north and west, that these animals are found in the largest herds and greatest numbers. Captain Hall, in his sledge-journey from Repulse Bay to King William Land, in 1869, killed seventy-nine musk-oxen, whose hides alone weighed 873 pounds. Dr. Rae, the Scotch explorer of this region of the Arctic, also secured large numbers of them. The musk-ox occurs fossilized at Eschoscholtz Bay on the north-west coast; and the fossil oxen found in different sections of the United States, and which closely resemble the musk-ox, have been described by Dr. Leidy of Philadelphia. These were clothed in a long fleece, and roamed through the Mississippi Valley, just before the great drift period. Fossil musk-oxen exist in Siberia and Northern Europe; but their living descendants, of which but one species is known, are now strictly confined to the Arctic and sub-Arctic region of the western continent.

The musk-ox derives its name from the peculiar odor which it emits, and which to a greater or less extent also pervades the meat of the animal. In the younger animals, however, it is much milder, and in the calves I have never been able to detect it at all. Much of this odor can be obviated by dressing the animal as soon as killed, especially if it is cold weather; and this rule may be said to be more or less general with all animals and birds having disagreeable odors peculiar to their kind.

I have said the robes are almost worthless to the natives except for purposes of traffic. They are sometimes used to spread on the snow-bed as the first layer of skins, in order to protect the snow from the heat of

the body; but even here they are not nearly so serviceable as the robe of the reindeer, owing to the facility with which the snow can be removed from the latter by a few strokes of a stick. The Eskimo of Hayes River, who are not armed and consequently can procure but a few reindeer (whose hide is the universal Arctic clothing), often make long boot-leggings and gloves of musk-ox fur; and this gives them a peculiarly wild and savage appearance, that contrasts strangely with other natives. The almost total absence of wood in their country, the little they get being obtained by barter with distant and more fortunate tribes, forces them to use the skin of the musk-ox for sledging. The ears and fore-legs of the skin being lashed almost together, a sledge-like front is obtained, and the articles to be transported are loaded on the trailing body behind, the hair being under. Over lakes, rivers and flat plains it is equal to a wooden sledge, but on very uneven ground its pliability makes it dangerous to fragile loads.

When closely pressed, the musk-oxen do not hesitate to throw themselves from the steepest and highest precipices, and the natives speak of occasions where they have secured them in this manner without wasting powder and lead, finding them dead at the foot of the descent. Sir James Clarke Ross had a personal experience of this kind in one of his Arctic expeditions.

McClintock once saw a cow on Melville Island, in the Parry Archipelago, which was of a pure white color, an albino sort of deviation that is known to occur among the buffaloes of the plains at rare intervals. She was, however, accompanied by a black calf. Melville Island is abundantly supplied with these oxen, not less than one hundred and fourteen having been shot within a year by the crews of two ships wintering there. When inhabiting islands, they do not seem to cross from one to another on the ice, as the reindeer constantly do, and even confine their annual migrations to very limited areas. Different writers disagree as to whether they can be called migratory at all in the strict sense of the word.

If white men are hunting them without dogs, they may station themselves about a herd, close in to seventy or eighty yards, and then, by picking off the restless ones first, so bewilder the remainder that with

fair luck they may secure them all. There are several instances of such methods being more or less successful.

I remember being one of a party of six—five Innuits besides myself—who followed on a fresh trail of a small herd of musk-oxen, from about nine o'clock in the morning until nightfall, which was four in the afternoon. We went at a gait which would be called a good round "dog-trot" for the whole time, except for one rest of a few minutes. This is much easier than one would imagine, with a couple of dogs harnessed to you to tow you along; yet I confess I was completely fagged out after this little run of about forty miles, and in a fine condition to believe many stories of endurance while hunting game which I had heard them tell. The thermometer at camp registered 65° below zero, yet there was no suffering from the still cold during such exercise, and, in fact, at times I felt uncomfortably warm.

One of their peculiarities which I have noticed is that, when slightly wounded, if they have been knocked over on their sides, they seem perfectly powerless to rise, either from fear or from the peculiar formation of their legs. Two of the animals we shot on the 29th of April received each a broken shoulder and were knocked on their sides in a way that would not have held a wounded buffalo down for a minute. The native men, women and boys promptly sat down upon their heaving sides, evidently enjoying the cruel sport; and all the white men joined them for a mere second, rather to please their savage allies than themselves, until I requested them to dispatch the brutes, which they did by a well-directed heart-thrust with a snow-knife. My natives spoke of this occurrence as a rather common incident of the musk-ox battle-field.

From all the above we can see that the musk-ox is a remnant of a once great race, a species that has seen its best days far in the past, and is slowly traveling the road to extinction.

CHAPTER V.

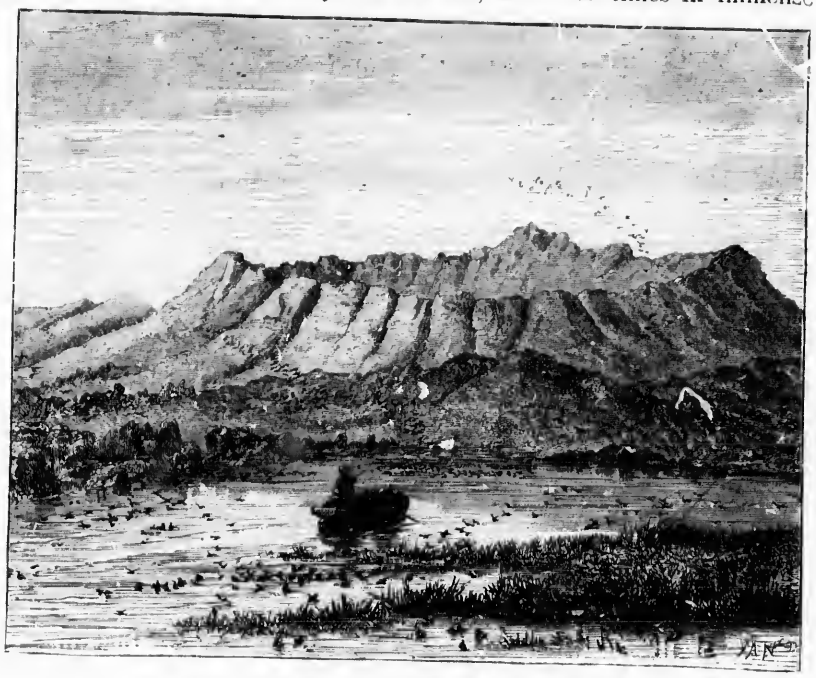
NIMROD WITH A SHOT-GUN.

BRANT GOOSE.

While in the winter time the Arctic region is an almost barren country for the sportsman in quest of any kind of small game, there is no place on this planet where it is more plentiful during the short summers, especially of the aquatic variety, and the lover of duck-shooting could certainly gain his fill in a short time.

While I was encamped in North Hudson's Bay it was considered no effort at all to take a shot-gun out to one of the many lakes in this vicinity and get a good mess for our little party. These lakes, which were nothing more than great impervious basins of granite, full of drainage water, were so numerous and oftentimes so large that I do not believe I exaggerate when I say their superficial measurement would be almost equal to that of one-third of the whole country thereabouts. Certainly

they were a most annoying impediment to inland traveling in the summer, and an equally fortunate boon in the winter, when we followed their level surfaces with dog-teams and sledges. Each pond or lake contained its little family or families of eider ducks, and if it was at all large, and especially if it was dotted with flat, grassy islands, which would give them protection while breeding, they would be in large bands over its surface. They only inhabit the ponds and lakes near the seashore until their young are large enough to fly. Then they congregate in the fiords, inlets and bays of the sea, and oftentimes in immense



AN ARCTIC LAKE.

numbers. The greatest trouble we had was to penetrate their iron-clad coating of feathers, a majority of those secured being shot in the head or neck. As small shot was equally effacious in this method of destruction, we adopted it, with the effect of increasing our scores.

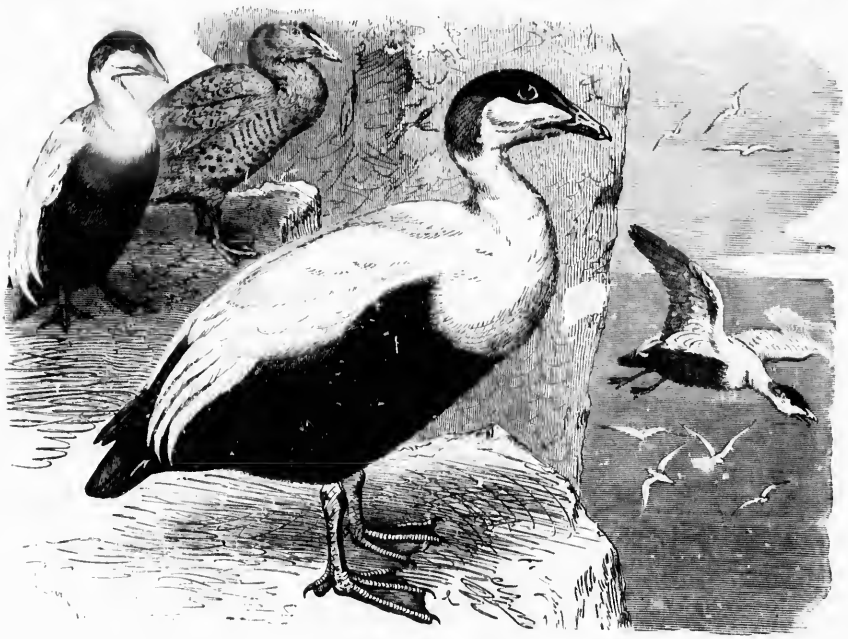
Our first efforts were often laughable. Colonel Gilder one day turned

a duck's feet into the air with a shot at about thirty yards distance, and when the wind had blown it nearly into shore, all the time kicking vigorously, the Colonel, desirous of facilitating its progress, commenced throwing large stones just beyond it. This, however, had the effect of bringing it right side up in a hurry. The duck looked around astonished, sneezed a couple of times, and when the next stone splashed alongside of it, disappeared in the water and came up over a hundred yards away, where it coolly proceeded to arrange its rumpled feathers after their last disturbance. Could any of the many dealers or manufacturers in shot-guns get a good record on the Arctic duck, I think they could rest perfectly satisfied with this practical test.

The compass is a sluggish, unreliable instrument in the northern part of this bay, and it became necessary to establish a good long north and south line while conducting my survey, and, for reasons unnecessary to explain, I fixed upon the expedient of doing so by the culmination of Jupiter. My north point was fixed near camp, and the south one approximately about a mile away across a lake, and one night I sent Henry Klutschak there to fix it as accurately as possible by this method. I gave him a small torch to define his position, and then expected to put him on the meridian by signals at the instant of the culmination, which I knew. My shot-gun case contained a duck-call, and I fixed upon this as a good instrument to be heard a long distance, and told Henry that one quack would mean the right, while two would mean the left. The night came and when Henry took his place, I could see that he would be out of the way by a quarter of an hour ahead. I accordingly gave a "quack" that sent him nearly as far out of the way on the other side. "Quack, quack!" was sent to him, and he had just gone about half-way back, and got nearly where I wanted him, when there came floating over the lake another "quack, quack!" that dragged him away out again. A single signal from my call to rectify this was answered by about half a dozen single and double calls from all over the lake, and I soon found that I had stirred up about a hundred ducks, all of them fully educated in the art of surveying, and most strenuous rivals in superintending this particular job. I at once gave up the "quack" method and returned to the standard rules of the regular

school; but I expended a bag of shot on that lake next day, and we lived for a week on "Jupiter birds," as Henry called them.

One writer says that the mother will lead her young ones to the water almost as soon as they creep from the eggs. Going before them to the shore they trip after, and when she reaches the edge she take them on her back, and swims a few yards with them, when she dives, and the little ones are left floating on the surface and are obliged to take care of themselves. After being once initiated to the water, I think they never return to land. From these birds comes the soft down



EIDER DUCKS.

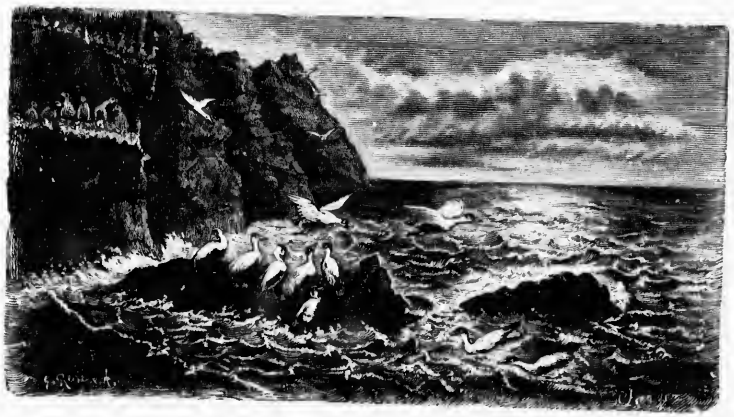
so well known in civilized countries, and which the female plucks from her breast to line her nest with. In the sub-Arctic regions people regularly rob them of this, and it forms an important item of commerce. If robbed, the female bird makes another nest in the same way, and the third time she is compelled to call on the master of the household for a

supply of down from his breast. Each female yields, it is said, about four ounces of this material, and so soft and light is it that it has to be mixed with moss, roots and gravel by the old bird to prevent the wind from scattering it. When first gathered, therefore, it weighs two or three times as much as it does when it reaches the shops. On King William Land my party of four in one day saw about forty of these nests, visited by a shower of young ducklings. In some parts of the Arctic, slippers made from the breast of the eider are used instead of the inside reindeer stockings, but they do not wear so long, and are ruined by dampness.

I have said that the eider favors the little islands in the large lakes, or those along the sea-shore, for protection while breeding, the Arctic fox being the most inveterate egg-sucker I have ever met, and consequently their worst enemy. One method they have of circumventing this pest in Spitzbergen is too curious to pass by. If driven off their nests, they hastily draw the down of the nest over the eggs, and glue it with a copious supply of yellow fluid, which not only retains the warmth of the eggs for a long time, but is of so extremely offensive a nature that the foxes will not touch the eggs tainted with it. The eider ducks of Hudson's Bay are mostly the common variety, all of those of King William Land being the crested or king-eider. Yet, an indifferent observer would believe that there were two distinct varieties, so widely different is the plumage of the sexes, and the fact that when in large bands they are nearly always separate. The male is crested with a fleshy topknot of the most vivid yellow, and his whole make-up is the most conspicuous contrast of complementary colors, all of the liveliest hues, while the female is a mass of rusty, brownish-black, almost the exact color of the half-dead moss in which she makes her nest, and where she will never be seen until, with a whirr like a ruffed grouse, she springs up right under your feet. Sitting in a line on the edge of a large ice-cake, the males look like a regiment of hussars, or a squadron of dashing dragoons in full uniform, while the females resemble a procession of Carthusian monks in their somber garb.

We almost lived on their eggs for a short time while in King William Land, and the suddenness with which they became addled was

wonderful. One day nine eggs were obtained, all of them good, as had been the previous ones, but the next day (the dates I have always regretted not recording) twelve out of thirteen were addled, so they had to be thrown away, and after that not one good one could be found, although we kept testing them for three or four days, until we were convinced that further efforts would only result in an unwarranted destruction of small ducks. The manner in which the young ones appeared about three weeks later was almost on a par, and it seemed as if we had suddenly been visited by a shower of them.



HOME OF THE EIDER DUCKS.

One day, in the early part of September, I walked along the eastern shore of Terror Bay, and here I saw the eiders marshaling for their southern migrations. This shore is seven or eight miles long, and from its very southern cape until I reached its head, I was passed by straggling bands, reaching half a mile to a mile from shore, the outlying members of each little party being sufficiently mixed to say the whole was one vast band of eider ducks. Those nearest the shore, as I approached, kept flying out a couple of hundred yards, and this kept a black semi-circle of about that radius constantly on my left as I walked along.

But of all the Arctic ducks that will force themselves upon your

notice there is none like the noisy *tauk-sok* of the Innuits—the "old wife" or "old squaw" of the winter in temperate zones (*Heralda*

EIDER DUCKS PREPARING TO GO SOUTH.

glacialis). I have never seen them in large flocks in the north, but they make up in noise and variety of sounds all they lack in numbers. This

garrulous bird, known to have three or four different calls in the temperate zones, seems to multiply them as it visits the North to

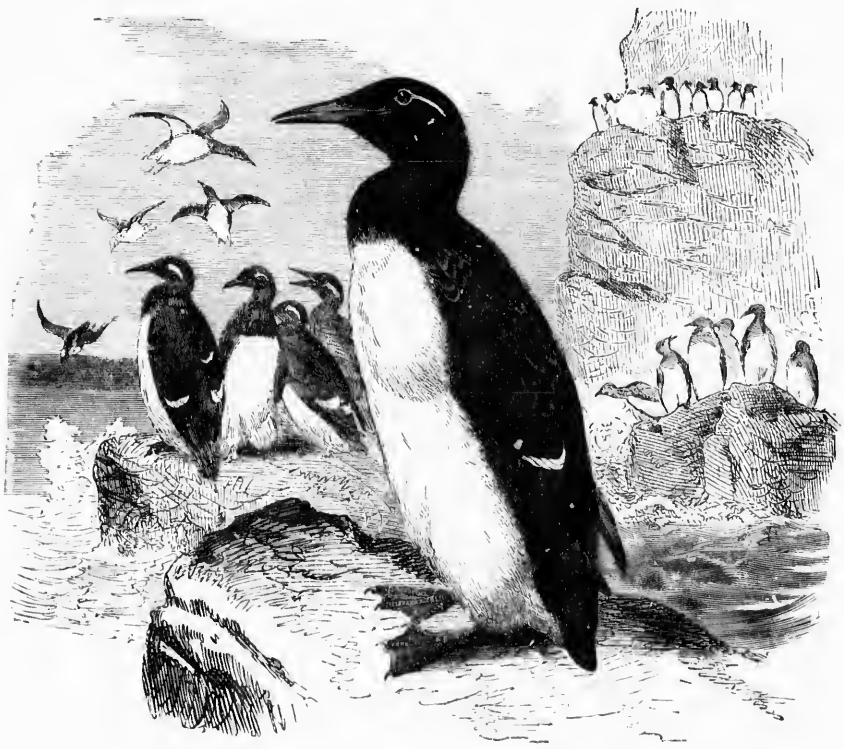
ASSEMBLY OF PUFFINS, ETC.

breed. And, whenever we asked any questions of our Innuit comrades

regarding the numerous, weird, unearthly and variegated sounds that we constantly heard, the stereotyped answer was, "*tauk sok! tauk sok!*" until we accredited every thing to this mocking bird of the North—the ventriloquist, as Colonel Gilder called him, for he seemed to unite this accomplishment with his many others. This duck loves the North, and sticks to the dismal regions long after other species have left, or as long as he can find the least bit of open water. As long as a few remain in a lake near by, the Arctic does not seem in the least deserted. I have no desire to speak further of the many kinds of ducks familiar to both zones, and with which the sportsman comes in contact every shooting season at his own home.

In no place in the world is aquatic life so abundant as in the polar regions during the summer. The instance I have given of the eiders in Terror Bay is but one in many constantly encountered in polar literature. The little auks or rotges, says a writer who has been in Spitzbergen, are so numerous that he has frequently seen an uninterrupted line of them extending to a distance of more than three miles, and so close together that thirty have fallen at one shot. This living column might be about six yards broad and as many deep, so that, allowing sixteen birds to the cubic yard, there would be four million of these little creatures on the wing at one time. This number may appear greatly exaggerated, but when we are told that these auks congregate in such swarms as to darken the air like a passing cloud, and that their chorus is heard distinctly at a distance of four or five miles, these numbers do not appear so great. The dovekies are the most numerous of the summer ducks in the northern part of the bay, and they are especially thick about Depot Island, whose Innuit name is *Pikkeulik*, meaning the island of birds' nests, and where the dovekies deposit their greenish, blotched eggs in innumerable quantities. They seem to make no nest whatever, but crawl in under the broken granite boulders, and lay in such concealed places that a white man will look over a large tract and find none, and a few Innuit children will follow and fill their pockets and hands. The first year—'78—we were too late for their eggs, which are here collected in countless scores in July; but that same year, on the 5th of September, we visited Depot Island, and some

of the Innuits we had with us collected and gave to us about fifty of the squabs they caught in the rocks, which were then old enough to eat. Colonel Gilder and I attempted to kill a few of the older ones with our shot-guns, but with less success, as they soon scampered some two or

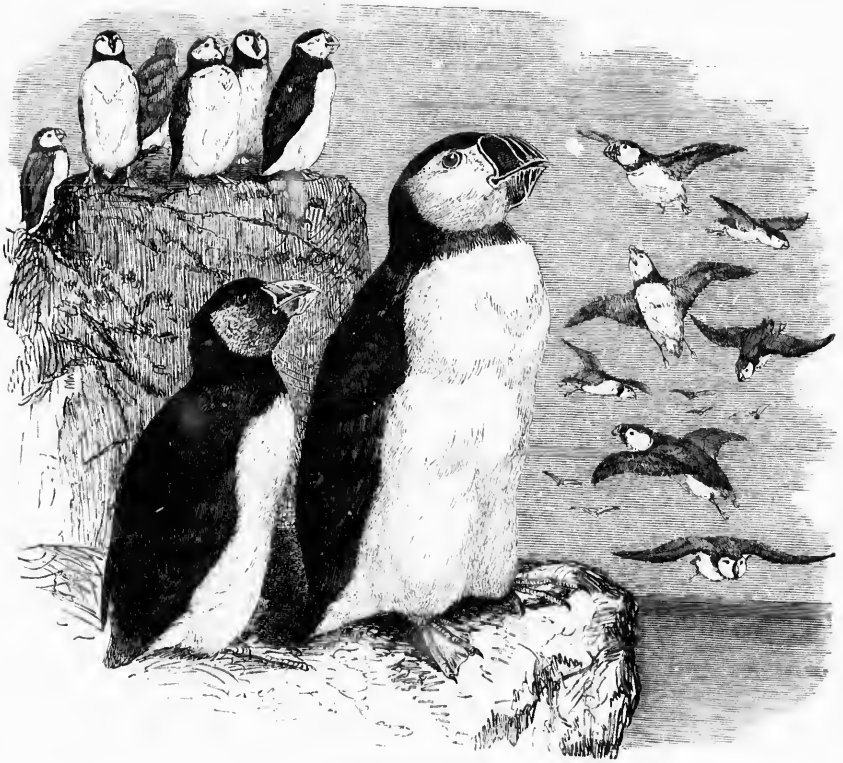


DOVEKIE OR COMMON GUILLEMOT.

three hundred yards out to sea, where they resolutely persisted in remaining while we were on the island.

While on the Polaris Expedition, Joe, who had been out hunting in February, reported seeing three dovekies in the open water, saying they were the young of last year and that it was well known among the

Innuits that this species of bird spent their first winter in the Arctic regions. Joe spoke to me of this also, and added that when they remain they turn almost white like the ptarmigan. I have never seen dovekies in winter, but my journeys have been such that they could



ARCTIC PUFFIN.

easily have escaped my observation. The skin of their feet and legs is of a beautiful bright red, and quite conspicuous when they are sitting on the rocks near the shore. The native women take their feet, as well as those of other web-footed birds, remove the bones from them, inflate them and allow them to remain so until dry, when they are filled with

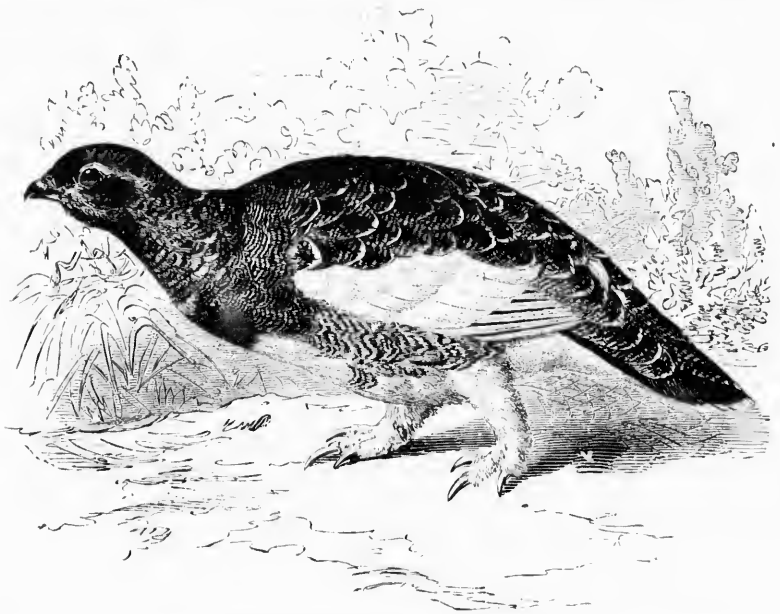
reindeer tallow (*toodnoo*), which is then dealt out to the children as candy.

The Innuits take great pleasure in hunting small game with a shot-gun, and it must be the true spirit of the Nimrod that prompts them, for the return in pounds of food can in no way remunerate them for the time lost and cost of powder and shot. I have several times known Innuits to have the preference of shot or bullets, in exchange for some article they desired to trade, and they would invariably choose the former, with which they probably would not secure a dozen ducks, while with the latter they would certainly secure as many reindeer, walrus or musk-oxen. Toolooah enjoyed a good duck-hunting tour with all the eagerness of an amateur in the art. We will not speak of the phalaropes, the dabchicks, the grebes, the sandpipers, the gulls, the snipe and numberless other of the water-loving varieties of birds, for we only saw them here and there without adding any knowledge of their habits, and seldom added any of them to our "bags." The Innuits of some localities that I visited separate the year into moons instead of months (that is, about thirteen months), and each one is named for some event conspicuous at that time, as the arrival or departure of some of the migratory birds, the goose month, the dovekie month, and so forth.

To the sportsman who finds pleasure in pursuing the partridge, the pheasant, the prairie chicken, or the grouse, the Arctic grouse or ptarmigan would probably be his first game with the shot-gun, as soon as they put in an appearance, for they seem to be exceedingly hard to find in the summer. At this season of the year the ptarmigan's plumage is of a pale brown color, mottled with small bars and dusky spots. The head and neck are marked with broad bars of black, rust color and white, the wings and breast being of the latter color. I noticed, while on our sledge-journey, that it was particularly the stormy weather that brought us in contact with the many bands of ptarmigan that seem to enjoy this sort of bluster; and they cheered the dreary waste of winter when nearly all other life had taken up its journey for the more congenial South. With his brother of the black coat, the Arctic raven, he is the only living winged thing that remains on land to cheer the Arctic

winter. Long after the great flocks of dovekies, the noisy loons and stately-flying burgomaster gulls have departed from the north, the ptarmigan may be found diligently searching the barren, rugged hill-tops for his daily food.

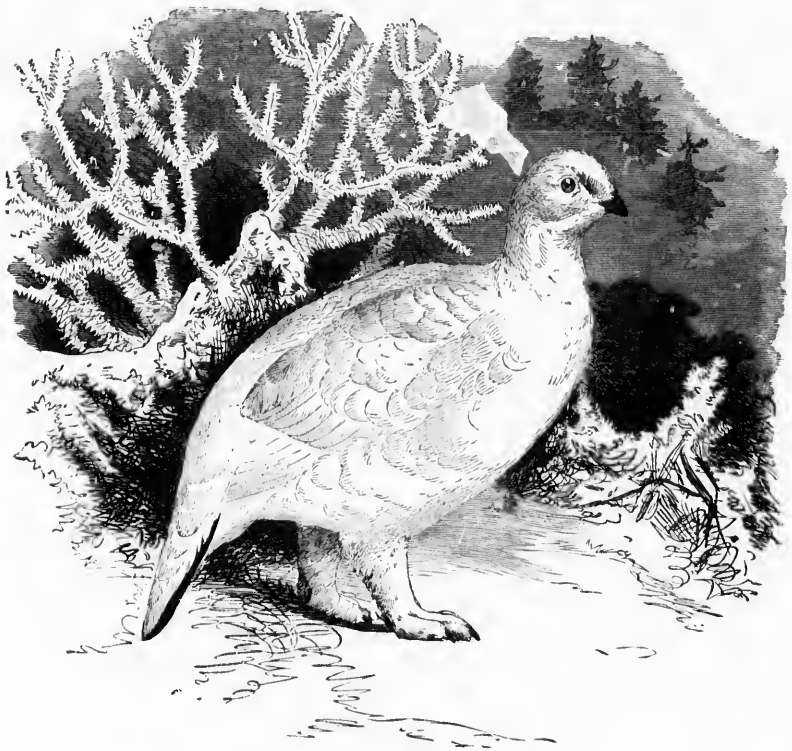
In the summer time, or breeding season, they are rarely seen, and then have plumage so much like that prevailing color of the mossy plains as to afford them splendid protection. They are then only seen



THE PTARMIGAN IN SUMMER.

singly, or at most in pairs, but, as winter-time approaches, they flock together, often in bands of hundreds. Their plumage is then of a pure white, and they are so heavy that they waddle about like over-fed farm ducks. The sportsman at this time seldom has much trouble in securing ten or fifteen out of a flock, for when frightened they fly but a short distance, and for five or six times after firing they will allow him to approach very close, but when they have been hunted a great deal with

firearms they become as shy as any of the grouse family in warmer climes. They are seldom hunted by the Innuits unless the opportunities are brought directly before them while in other pursuits. I have often seen the small boys using them for a target, when practicing with bows and arrows, and they were occasionally successful in securing one



THE PTARMIGAN IN WINTER.

in this way, driving them along the ground like so many chickens in the poultry yard. It is said that the Greenland natives hold the idea that ptarmigan, in order to provide for their winter food, garner in a supply of berries into the hollows of the rocks, and during very severe

cold they form retreats under the snow and bunch together to keep warm. This would hardly coincide with the fact that I have seen them seeking their food at all months of the year, and at all temperatures during the winter, unless their habits vary in the two countries. They are excellent food and taste very much like the representatives of their species in the lower zones. I have never heard them utter any cry beyond a coarse chucking when waddling along on the ground in front of a person, and my queries among the natives failed to extend my information. I have noted this simply because it has been represented that this bird has a most singular and extraordinary voice, which it exerts only in the night time, and instances are given where superstitious people have been frightened beyond measure by hearing it.

So white is the plumage of these northern grouse, that when they are squatting in the snow a person searching for them may get within two or three yards before he sees them, if he be not apprised of their position even then by the rapid, woodcock-like "whir" of their retreat. Especially is this the case in the cold, blustering, snowy weather.

But bird-life is not the only kind of game in the frigid zone that furnishes food and fun for the double-barreled smooth-bore. There are the Arctic hare, the fox, the lemming and a few other four-footed but small fellows, which are valuable for palate or peltry and generally the most sagacious of all. Every now and then, when on our sledge journey, the dogs, half asleep as they toiled away in their traces, would suddenly prick up their ears, and, if the sledge was light, dash forward after some unknown object which would finally resolve itself into some insignificant rabbit trail, and as this boreal bunny is somewhat predisposed to the stormiest of weather, like the ptarmigan, he will often lead a team of dogs a merry run if the driver does not stop them, imagining they are on the scent of reindeer, as they often are. I always found the rabbits living in the crevices of the boulders heaped over each other, the covering snow forming a little *igloo*, which, with their immense coat of hair, is sufficient to protect them in the coldest weather. I have seen them in all months of the year, and if they store up a winter's supply of food (which I do not believe they do) they certainly keep very busy in the winter, maintaining it by accessions

from other quarters. While probably a trifle smaller than the jack-rabbit of the American plains, in regard to quantity of meat, he is his peer in size, if not larger, in the winter, when he looks like a great bundle of white feathers. He is not eaten so much by the natives as by the wild animals—the foxes, wolves and wolverines.

The Arctic fox is much smaller than the common variety we are used

BLUE ARCTIC FOX.

to seeing, and equally sagacious. I have seen several, but in some way I never managed to outwit one so far as to procure his pelt. He was either too far to reach with the scattering argument of a shot-gun, or too agile for a rifle in any body's hands less active than those of Dr. Carver. It is not often that the natives get one by shooting, but they manage to trap large quantities for their skins, which they trade to the

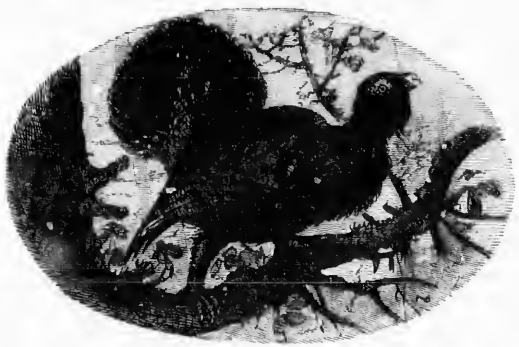
Arctic whalemen; but even their meat is not rejected if the larder is short. Some Arctic explorers have pronounced their meat worthy of the table, and probably it may be by comparison when long isolated from all sorts of fresh meat. The traps of the natives are simply slabs of ice, with the common figure-4 spring, and when they visit the traps at rare intervals the slab falls on the top of a small rectangular pen of ice, thus inclosing reynard alive, as otherwise when crushed and

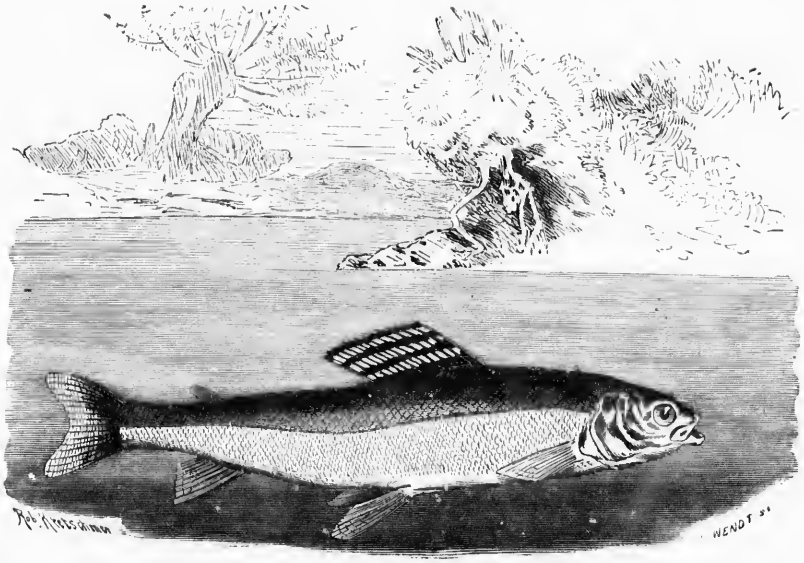
THE WOLVERINE.

allowed to lie, the skin in a few hours becomes worthless and the fur pulls out. These ice-traps were often seen about Hudson's Bay. On King William Land the Netschillniks built pens of the slabs of sandstone, and then set the trap in winter by covering it with the usual slab of ice. Having no means of trading off the skins, they use them in making clothes for their children. Reynard's sagacity extends beyond

mere defense, as illustrated in his procuring subsistence. When fishing, he approaches the shore, and splashing in the water with his fore-feet, allures the fish near him—near enough to spring upon them with effectiveness, says Crantz. In Northern Hudson's Bay, their fishing is similar to that of the Eskimo dogs, the wolves, the polar bear, and even the wolverines, I believe. In this bay the rise and fall of the tide is great, and where the rising tide pours into a lake-like inlet with a rocky mouth, the water in falling is drained through great piles of kelp, held by the rocky bar, and this entangles all the fish that have been unlucky enough to enter this trap. Wherever such an inlet is found on an island well out at sea, there the Innuits store their dogs for the summer, and here they grow very fat; and where such fish-traps exist along the main shore, there the wild, fish-eating animals may be found when the ice has not covered the bay. The fish usually caught is a sort of pout, most repulsive in appearance, and called by the whalers kelp-fish. When Ross was on his Franklin search expedition and wintering in the ice, having heard nothing of Franklin's whereabouts, he trapped a great number of Arctic foxes, put brass collars around their necks, having stamped in them the position of his ships, and turned them loose, thinking and hoping that one might reach Franklin's ships or crews, and assist them in their retreat or movements by such timely information.

The ermine, the lemming and the true fur-bearing small game of the Arctic, savor so much of the shop, so much of the market reports alone, that I doubt if their cold-blooded pursuit for mere gain would be interesting to the reader.





GRAYLING.

CHAPTER VI.

NIMROD WITH A FISH-ROD.

To the devotees of Isaak Walton, the sly old trout, fanning himself with his fin under the deep shadow of an overhanging willow or low bush on a hot summer day, winking and blinking at the feathered hook with a sort of I've-been-there-before expression on his face; the grayling, with his voracious endeavors to swallow hook, line, pole and fisherman; the bass, the pike, the pickerel and all the gamy gladiators of the genial climes are wanting in the frigid zones, yet there is some grand old sport, excitement spiced with danger, that sauce of man's noblest essays, in many of the fishings of the frigid zones, from the large whale, cleaving the clipper-built boat of his pursuers into fragments

with one stroke of his gigantic tail, to the smallest finny fellow that scratches its head on the under side of the treacherous ice.

Ever since Captains Edge and Poole, on the 12th of June, 1611, struck and captured the first whale, and the amphibious sailors of the Dutch, English and Scotch have developed this rare sport, it has been a wonder that so many sportsmen in search of gladiatorial game—game that could give as well as receive death—have never crossed weapons with these tigers of the sea. Perhaps their pursuit prones to profit and loss, but so does the buffalo in the hands of hirelings. Perhaps his haunts are too remote to be invaded cheaply. But who ever heard the true sportsman stand on such ground when we consider the great expense of excursions to such lands as Africa and elsewhere to kill the lion, tiger and leopard. Whatever may be the reason, the noblest game of the sea is left to the hands of those who kill him only for the coin he will bring in the markets. I can imagine nothing more exciting than a good whale chase, and I think it would send any sportsman's blood up to fever heat. I had been promised a royal old chance to participate in such a chase by the mate of the "Eothen"—the whaler that bore us to Hudson's Bay—should they ever "lower" for one before my little party was set ashore to prosecute its Arctic explorations, but no such chance ever came, although no one probably watched the man in the crow's nest at the masthead for "There she blows!" more eagerly than I, not even those to whom their pocket was a paramount consideration.

The Innuits catch great numbers of whale, and trade their bone and oil to the whaling-ships, and this fact creates considerable rivalry between the different vessels to reach whaling grounds first, in order to barter with these native fishermen who have been plying their vocation for a month before the ships get in. The ancient Innuit or purely native method of killing a whale was to pursue him with the harpoons and bladders we have described in the walrus and seal-hunting, by a large number of natives in their *kayaks*, or skin canoes, and literally fill him so full of these that when exhausted, after a long chase, he was unable to sink beneath the surface, and fell an easy prey to their sharp lances made of wood and tipped with walrus ivory. Many of the old

Iwillik Innuits told me of their ancient whale-hunts, the flesh of these monsters keeping a fair-sized village in dog meat for the winter, while the skin—about an inch thick—they used themselves. The whalebone, cut into strips, was used to lash their *kayak* frames together, while the bone proper from the jaw was sawed into long batten-like strips twelve

THE NORTHERN WHALE.

or fifteen feet in length, three or four inches wide, and an inch thick. With this they shod their sledges to give them a broad running and bearing surface. This, with the oil and blubber for light and food, made the whale the most useful game the natives could pursue.

Now the Eskimo hunt them like the whalers, oftentimes in boats supplied by American or European captains, or obtained from wrecked whaling ships, and sell the proceeds for almost insignificant profits, the baneful results of the contact of civilization with savagery. The Innuits also form, whenever they can be obtained, a fair portion of the crew of these vessels, for nowhere can be found more hardy harpooners or braver boatmen than these natural fishermen in their seas of ice and storms. The skin of the whale is considered the best part for eating. It is as black as the ace of spades, and when boiled in the trying-pots its taste is not unlike that of tripe. It is an excellent article of diet, in that it assists to keep away that bane of the sailor, the scurvy. Before their contact with white men, the natives would not "try out" the whale blubber in such wholesale quantities as is now done for their benefit, believing, and probably with reason, that the smell of the rendered oil would drive away the reindeer and musk-oxen, especially if there were an inshore wind. Game once frightened away in this manner, they know too well, is very slow to return. If the natives are whaling from a station on the coast, the *angekos*, or medicine men on shore, assisted by those who have remained behind, beseech their God of the Seas to give the whalemen luck by their vociferous *angekoling*, a system of gymnastic devotion more fatiguing than the pursuit of the whale.

The use of the whalebone to which the natives put it, and one case of it that came under my personal observation, I must not allow to pass unnoticed. Whenever wolves have been unusually hungry—have destroyed a favorite dog or two, or dug up a *cache* of reindeer meat just when it was needed, or in any other way have roused the ire of the Innuit hunter—he takes a strip of whalebone about the size of those used in corsets, wraps it up in a compact helical mass like a watch-spring, having previously sharpened both ends, then ties it together with reindeer sinew, and plasters it with a compound of blood and grease, which is allowed to freeze and forms a binding cement sufficiently strong to cut the sinew string at every second or third turn. This, with a lot of similar looking baits of meat and blubber, is thrown upon the snow or ground, and the hungry wolf devours it along with the others, and when it is thawed out by the warmth of his

stomach it elongates and has the well-known effect of whalebone on the system; but having the military advantage of interior lines, its effects are more rapid, killing the poor wolf in the most horrible agony in about two days.

The narwhal—or, as it is sometimes called, the sea-unicorn—gives the natives of the north much sport in its capture. Like the whale, it is taken with harpoons and bladders—a method which has never been improved upon, even by the ingenious Yankee whalemen; for their

NARWHALS.

whaleboat is nothing more than the inflated float, and their harpoon looks wonderfully as if it had been borrowed from the Innuits, with civilized workmanship in its detail. The natives in Hudson's Strait brought us some to barter, but I have never seen any in the bay, and the Innuits there know of no such fish as the narwhal. Its peculiar twisted ivory tusk, from five to eight feet in length, is its weapon of defense, and it is not altogether a bad one, if it can once be gotten through the frail covering of the native skin-canoe; but accidents from

it are rare. The pursuit of the narwhal is not, however, a common sport, even in the waters where it could most easily be indulged in. The flesh is considered very fine by the Innuits, and as the fish is from fifteen to twenty feet in length, exclusive of the horn, it seems singular that they are not pursued more when they obtain so much meat in one animal. Probably the tusk, or rather its active use, mostly influences their practical minds. The fish themselves use it to transfix fish which they pursue, to break the thin ice so they may breathe and blow, and as a weapon of defense. It has been known to bury it in the wood of ships, in the sides of whales, and even run it through the copper of ships; in truth, it is the hardest ivory known, being worth double that of the best elephant ivory.

As we were entering the eastern entrance of Hudson's Strait, we managed to while away a few hours pleasantly in shooting with our revolvers at the grampus whales that came sporting alongside of our ship with a familiarity that was hardly warranted by our relations with them. It is needless to remark that we bagged none of them, for a pistol-shot would have no more effect on their black, swarthy backs that protruded from the water, than upon a Creedmoor butt. In fact, they really seemed to enjoy it, for their sporting became livelier and their familiarity greater in direct ratio to the number of shots we fired. It is probably their liking for seal-meat that attracts them into sub-Arctic regions. Some of the sailors believe that they dislodge the seals with their tail or back fin from the edge of the ice or rocks upon which they have crawled to bask in the sun.

When the Arctic sky is deeply overcast, and the sea has taken on the same dark hue, there is nothing more beautiful than the sight of a school of white whales passing by, their ivory skin contrasting vividly with the dark green fluid in which they swim, or when the sun is shining brightly on their backs, which, as they roll gracefully along, shine like so many mirrors, so brilliant is their polish. They are seen in Hudson's Bay early in the spring, traveling along the coast as soon as the shore ice breaks up, generally toward the east at Depot Island, and then again become numerous in the fall, just before the new ice forms, going in the opposite direction. The natives are eager in their pursuit,

which is an agreeable change from the summer walrus hunt, and yields them nearly as much blubber and meat. One thing I could not help noticing in their movements while we were encamped on Depot Island, watching them as they passed, and that was the almost simultaneous manner in which the whole shoal, however widely dispersed, would appear at the surface of the water. It almost seemed as if they were figures joined by immovable rods, and raised and lowered by machinery. Even when the island split the school in two this phenomenon was still observed, and on one occasion I noticed it when there were but two whales thus separated. These well-drilled dragoons of the deep seem to be in the highest state of discipline in their fall manœuvers, when they appear to have more leisure, their spring action being more the method of a mob scurrying along in a hurry to their feeding grounds.

The porpoise is sometimes seen and caught in the Arctic, but it is, in general, very scarce there and not at all to be depended upon.* Those piscatorial pirates, the sharks, often invade the Arctic, no doubt tempted by the carcasses of the whales or seals or walruses, left to rot by white men engaged in their pursuit. Natives, angling from their skin canoes in deep water, occasionally catch a sluggish shark that has ingulfed the bait, but there is no use pulling against such a mountain of flesh and relying upon sheer strength to bring him up; and this the Innuit Isaak Walton fully knows, and overcomes his strength by sagacity. At every brisk pull of the shark, showing him to be irritated, the line is lowered to appease him, but cautiously hauled in again almost immediately, the shark slowly rising to this strategic manipulation, until, "like a finny fool" he rests upon the surface of the water merely by the aid of the weakest fishing-line, when with a long knife the fisherman dexterously dispatches him by a well-directed thrust through the spinal cord. From their well-known voracity in warmer climes, it seems singular indeed that they do not often attack the native fishermen in their little skin canoes, but there is not a recorded or known instance of such an attack, even on the west shore of Greenland where sharks are most numerous, and where the native

* I know that in a strictly scientific sense, the whale, the narwhal and the porpoise are mammals and not properly fish at all. But I am treating the subject popularly and not scientifically.

catch large numbers of them—from ten to twenty thousand a year, according to Dr. Rink, Danish inspector of this coast for a long period of time. The usual method of catching these fish can hardly be called fishing at all. Near a hole in the ice a lighted torch is placed, and two natives stand on opposite sides of the hole, armed with sharp hand-hooks, like the deck-hands at a shute waiting for merchandise, until the shark sticks his nose out, when he is treated in about the same business-like manner, as he is hauled on top of the ice, where their carcasses often accumulate by hundreds; for once commenced, their pursuit—if such it may be called—is generally carried on through the whole winter. The cartilaginous bones are the favorite parts for food, as the raw, frozen flesh seems to have a depressing effect when eaten for a long time. To this unwholesome meat the dog disease is attributed, which every few years carries off so many valuable dogs.

Codfish of several varieties abound in various parts of the Arctic regions, no less than a quarter of a million of them being caught annually in Greenland alone. There are the large ones similar to those on the banks of Newfoundland and elsewhere to the south; but these are only caught in the Arctic seas during the summer with hook and line. The smaller cod—the *oowak* of the Innuits—seems to be a more Arctic fish. My first personal contact with this variety was when I met the Netschilluks of King William Land, in a little cove on the Adelaide Peninsula. A short distance out on the ice of this cove there were a number of holes dug through the ice, some fifteen or twenty, and at nearly every hole was a woman or a child hauling out these herring-like cod as fast as they could put in their lines and pull them out again. Their lines were made of the sinew stripped from the superficial dorsal muscles of the reindeer, their hooks simply being twisted bits of metal, barbless, and depending upon the rapid hauling in of the line to retain the fish—a dexterity which they acquire to such a degree that they lose but few. Still, our barbed hooks so excited their curiosity that they were fain to give us almost anything for them, but we were glad enough to exchange them for their rough ones of copper that had been crudely hammered from the sheeting stripped from the bottom of Sir John Franklin's ships. Whenever the wind would blow very strong, the

fishers would build a high snow wall on that side, to protect them, and this could be shifted in a moment or so to meet every changing gust of wind. Even the many dogs in sneaking around would make out to steal a good meal of fish in the course of the day.

One thought could not but impress itself upon me very forcibly. Very near this place was the spot where the last survivors of Sir John Franklin's ill-fated expedition perished from cold, hunger and scurvy. They had landed, some ten or fifteen in number, in the summer months, when the cold was by no means unbearable, and edible fish were swimming in countless numbers under the very keel of their boat. A good supply of fresh fish would have satisfied their hunger and kept the scurvy at bay. "Man's life hangs upon a thread," says the old proverb; it certainly hung on a fish-line in this instance. The old women of the village passed around us with their hands full of curious little pearly buttons that came from the head of the *oowak*, wishing to trade them for needles and such material.

There is also a large and small kind of halibut in the Arctic seas, caught by whites and natives. The large halibut often weigh a hundred pounds, and a few years ago some American ships went into the business of catching them for a commercial speculation, but I think it has failed. The little halibut is much fatter and sweeter, and is angled for in the ice-fiords of Greenland at depths of from two to three hundred fathoms of water. In somewhat shallower water of the same places, at from one hundred and fifty to two hundred fathoms, the same anglers often obtain the "red-fish" whose flesh is rich in oil and agreeable to the palate. The *nepisak*—a fat little finny fellow—runs in shore during the spring to spawn, and then those natives lucky enough to be in the course of their run can live off them for a couple of weeks or more.

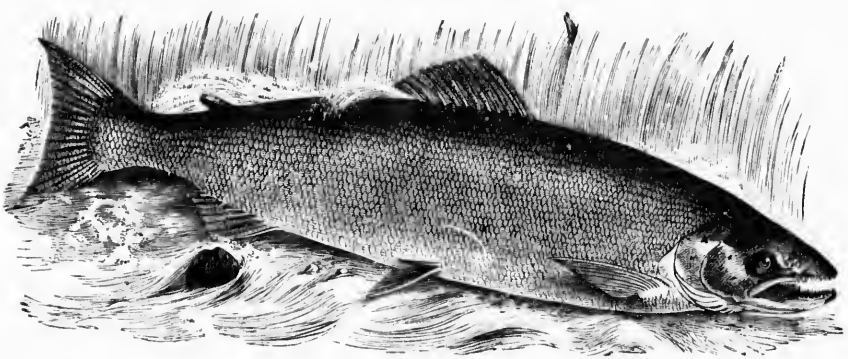
The northern capelin is a fish that warms the soul of the native from its great abundance when it does come, "and may in a dried state, in winter time," says Dr. Rink, "frequently be said to have constituted the daily bread of the natives." They are actually shoveled on shore for a month during the running season in the spring, by the help of nets and seines, and strewn over the rocks of the beach like manure over a field. The natives of Greenland do not catch much less than a thousand tons per year, especially if the season be successful.

There is one tribe of Innuits, and only one that my journeys brought me in contact with, which may be said to live upon fish, or at least, it is the principal article of diet. I refer to the Oo-quee-sik Sa-lik Innuits, who live on the largest branch of Back's Great Fish River—the Koog-ni-yook—at about forty miles from its month, and at the Dangerous Rapids, at the mouth of Back's River. At the former place, on the Koog-ui-yook, there is a long series of rapids in the river, and when the ice breaks up and is clear of the river, about July, the salmon commence to ascend, and they are speared by the hundred by the fishermen, who boldly wade through the rushing torrent till good standing places are found.

The fishing spears used here are about ten or twelve feet long and an inch and a half thick, and at the lower end is placed a sharpened spike about four inches in length, generally made of copper. Two flaring pieces of horn are bound to the shaft, and at the free extremity of each of these is a metal spike bent back like a barb. The points of the three spikes, which nearly touch each other, form a triangle whose sides are of almost equal length. When thrust over a salmon in the water, the central spike pierces his back, the two outer ones flaring over his sides until they are pulled up, when the elasticity of the musk-ox horn prongs drives them into his sides, and he is "triangled" on three spits that hold him with deadly certainty until he is thrown upon the land. The women clean the fishes, and they are placed to dry on double rows of reindeer-sinew strings drawn from one rock to another and back. When dried they are packed in sealskin bags for winter use, and even as late as May, when we visited them, they had a tolerable supply of *pipsee*, as they call it.

The Ookqueesik Saliks, of the Dangerous Rapids, catch not only the salmon but a herring-like fish which they call *cowwesillik*. As it comes later in the year they have no time to dry it, so they pile it away in pens of rock looking like huge granite bee-hives, and often standing as high as they can reach. Late as they are caught, the *cowwesillik* have plenty of time to acquire the taint so characteristic of stale fish; and so much is this killed by freezing and so generously is it liberated again by thawing, that the raw, frozen fish are decidedly a luxury as a diet

compared with those cooked. This is true of all tainted meats—vast quantities of which are devoured by the natives throughout these regions. Taken in large quantities sickness supervenes, accompanied by a practical nausea, and cases often occur of death from this cause when driven to it by necessity, or indulging in it too freely under other circumstances. Out of 4,770 deaths among the Innuits of Greenland, thirty-six were poisoned by putrified meat, sixteen died of putrid fever probably brought on by that cause, and seventy-three of complaints of the stomach, thirty-three of vomiting, of which over half would be of this cause if my experience among the Innuits would hold in that country. Colonel Gilder would insist on comparing tainted walrus meat to Limburger cheese, and certainly when meats so perfectly marbled

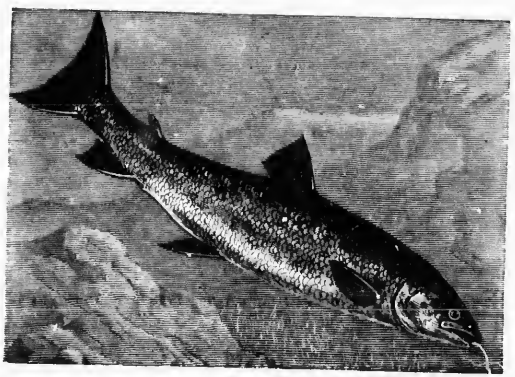


SALMON.

with interstitial fat as that of the walrus are tainted, it is more that of the rancidity of old cheese than a true putrefaction; but no such claims rest with any of the true fishes, even in the Arctic, although we managed to accustom ourselves to this diet in homœopathic doses. In small, shallow streams, these natives select a ripple and build a dam obliquely across, open for about a yard on either end, and inclining to the axis of the stream at as an acute an angle as the length of the ripples will allow, so as to keep the dam within them. After the *cow-wesilliks* have passed up the stream the upper opening is closed, and a

large number of natives, getting on the up-stream side of the shoal of fish, frighten them into returning down the stream, where they must pass through the lower opening of the wing-dam. This dam is continued along the bank for some distance, if there be one, or the water is directed into a basin if there is none; in either case the fish are penned into a place where they are so thick they are raked out with a large, wooden rake on the bank, and thence transferred to the large cairns, already described, and used through the winter for food.

But the prince of the polar fishes is the salmon, although the ice makes it impossible to get as much fun out of him here as can be had in the temperate zones, and bars such sport for the greater portion of the year. They are caught by means of holes cut through the ice, and the satisfaction derived is about equal to that of pike or pickerel fishing under the same circumstances. Whenever the native traveler goes into camp and the water-hole is dug, he always makes allowance for fishing by making the hole large enough to draw through this icy avenue the largest salmon that may perchance be swimming in the lake. He sometimes gets deceived in these calculations. I once found myself on the upper surface of seven or eight feet of ice, with a twelve-inch broad salmon on the under side, separated from me by the edges of a ten-inch hole, though connected with me by the strongest kind of a sinew line and a stout Limerick fish-hook. Our efforts to get together were finally rendered successful by one of the natives, who enlarged the hole in the ice with his chisel.



CHAPTER VII.

DOGS AND DOG-SLEDGING.

ESKIMO DOG.

I DOUBT very much if there is a domestic animal in the wide world that is so absolutely essential to the welfare and comfort of a savage people as an Eskimo dog is to the natives of the north, and especially those of the American Arctic, where it is used the most. It is their horse, ox and reindeer for drawing vehicles; their mule and camel for packing their effects when the snow is off the ground; their hunting dog for the chase—and by the chase alone do they reap a sustenance from a niggardly nature; and in case of great extremity, when every thing else has failed, the last bitter morsel by which they avert starvation for a while to tide them over the famine.

"How large are the Eskimo dogs?" is a question I have been asked more than a dozen times for every Eskimo dog I have ever seen. A fitting answer would be, "About the size of a rock." There seems to be an indefinite impression among the people of the temperate zones that these northern dogs are a distinct breed, and that a description of any one of them taken miscellaneously here or there would, with very slight manipulation, serve for any other—as a description of a setter, a terrier or a greyhound would answer, the world over, for any animal of the same species. The Eskimo dogs, as I found them on my sledge-journeys, are about as distinct a breed as the cur in civilized countries, although a far more useful and intelligent animal in every respect, yet concerning those I found in Alaska I would call my readers' attention to

ESKIMO DOGS.

the references to this subject which will be found in the chapter on Alaskan hunting. There is a sort of general similarity in their pointed, wolfish ears—if they have not had them broken and disfigured in wrangles over cold victuals, as a large proportion of those that I have seen in North Hudson's Bay seem to have had, and in their shaggy coats of warm hair. But, after all, I have seen them when full grown, of all sizes, from a small pointer to a small Newfoundland, and with coats as shaggy and beautiful as the latter and again as coarse and straight as the veriest mongrel; while one may have a muzzle as sleek and clean as a fox's and another in the same team a massive mug like a bull dog's, although the latter is rare, and a medium between the two very common. A dog painter visiting the Arctic, or at least that part I visited, would have to take with him every color he had used in painting the various breeds at home, while one who trains the animals would find enough variety of disposition to exercise the brains of a genius. So different are their sizes that the native dog-driver generally has a harness for each, and he always knows its assignment when the dogs are hitched up in the morning for the day's journey or work, as the collar of one that would pull the ears as it was put on, might be almost too large for the shoulders of some little runt that had been dwarfed in his puppyhood by too good or bad treatment.

The big, aggressive dogs lord it over the smaller and weaker ones in a thousand disagreeable ways, although their pugnacious and overbearing insolence does not always reward them with the best to be had, and in a few creditable instances really prevents their getting it. If in the way of food the morsels be made very small—that is, the meat cut into bits that can be swallowed at one gulp—the active little fellows will be almost sure to get the greater part of it; for the very first reception of anything eatable among a number of them, is a terrible tussle between the big belligerents in which the little ones reap the harvest. There is nothing more comical than to see the big brutes rolling over each other in a wrangle while the little ones devour the dainties, and then note the foolish expression on the combatants' faces as they wander around over the clean snow wondering what they were fighting for after all, while the smaller fry keep at a respectful distance and lick their chops in the

most aggravating way. All this the native dog-driver knows, and as his partiality always leans towards those who do the most work for him—that is, the big fellows—such distributions are not very common. Another constant source of common annoyance to the little dogs, and to their masters, is felt when the snow-house is completed and its long passageway of snow blocks has been built, and the little ones crawl into it for the night's rest. In this they are usually not disturbed by the larger dogs unless a storm comes up during the night, when they are almost sure to want their protected berth and walk in to take it on the general principle that "might makes right." A fight of course ensues, for even the smaller dogs, knowing the inevitable result, feel that they can hardly give up such a nice warm berth without making some struggle for their rights. The result generally is that the large snow-block closing the *igloo* door, or snow door, if it can be called such, is nearly always knocked in and probably broken, and the exasperated inmates, or some one of them, gets up, stick or sledge-slat in hand, and with vigorous blows right and left, up and down, clears the passage of all the dogs, without regard to age, size or color. This operation is repeated at frequent intervals throughout the night, if it continues stormy and disagreeable.

I believe I have said in a former chapter that the well-trained Eskimo dog never barks in the presence of game, and, in fact, seldom barks at all; but it must not be inferred thereby that they are not a noisy race. Their half-starved condition at most seasons of the year keeps them in a chronic state of loud belligerency, growling and fighting over every thing that bears even a resemblance to food. During the night—especially those cold, moonlight nights so common in the Arctic winter—they will frequently favor you with a concert of prolonged howls, that makes sleep almost an impossibility. The native dog-driver, awakened by the fearful din, may attempt to suppress it by sharply shouting "*yager! yager!*" at the very top of his stentorian voice. This, in the small, closed *igloo*, sounds not unlike a 15-inch gun in an iron turret, and one feels like the boy who would rather have the chills than take the cholagogue. The dogs are particularly given to these midnight revels when tied up, as they usually are in the early autumn to prevent

them scampering away after the reindeer that may be grazing near by and driving them away. At this time they are muzzled with sealskin thongs tied around their noses, so that their howlings may not frighten the game; and unless a very energetic one paws his muzzle off and liberates his jaws, the sleepy man may have comparative quiet.

Every time they are harnessed to the sledge the first crack of the whip to start is a signal for what might be called in frontier parlance "a free fight." The first dog struck with the tip of the lash makes a belligerent spring for his nearest neighbor, who in turn retaliates on the next, and so on, until—like the proverbial row of upright bricks when one has started to fall—they are all down in a tangle of hair, harness and howls, which the native driver at once proceeds to unravel with the butt end of his whip. Having taken their preliminary "bitters," so to speak, they are then ready for a serious start, and trot or walk along the rest of the day's journey in a manner worthy of Barnum's happy family.

They are generally, outside of their work, a most unbearable nuisance. From two or three to a half dozen heads can always be seen closing the little *igloo* door, ready to steal any thing eatable that may be left unwatched for a moment or two, and should they capture it, there then ensues a noisy wrangling over the article, which generally terminates in some big aggressive dog who, by the way, has not risked getting his head broken at the *igloo* entrance, walking off as a victor with the spoils, unless speedily recaptured by the inmates, which in case of eatables—unless it be frozen hard as a stone and of unusual size, too large at least to swallow until torn to pieces—is very rare. While traveling, the Innuits make quite small *igloos*, just large enough to hold everybody when properly "spooned," and store all the harness, meat, etc., in as small an *igloo* as possible alongside. When everybody has retired, the dogs commence their engineering to get at the contents of the storehouse, scratching away as if for dear life, until a panther-like yell from some one of the male inmates frightens them away temporarily; but they will be very lucky indeed if they are not compelled to get up once or twice during the night and repair some damages the dogs have done. This can be easily forestalled by pouring or

ESKIMO SLEDGE AND TEAM.

sprinkling water on the snow blocks of the store *igloo*, and so protecting it with a thick crust of ice; but with the careless indifference so characteristic of the Eskimo, they seldom do this until the dogs have demolished several small store *igloos* and stolen their edible contents. When we reflect that these animals are fed only every other day, even when there is plenty of food for them, and oftentimes only every third or fourth day, if the canine larder is not very full, their voracious ferocity is easily understood.

On King William Land at one time, the dogs of Henry Klutschak's party, returning from Terror Bay to Gladman Point, were seven days without food, doing work all the time; the men themselves, meanwhile, being nearly three days without any thing to eat. I have known them to eat sole-leather, pistol-holsters—kindly leaving the pistol—canvas gun-covers, oilcloth clothes, tarred rope and cloth saturated with grease; and on our way to Back's River, they tore to pieces and partially devoured a pair of India-rubber overshoes that I was depending upon for summer wear. We had been fortunate in securing a few reindeer while returning homewards along Back's Great Fish River, most of which we found well inland from the river, and it was also this fact, added to many other reasons not of a sporting character, that induced my natives to ask me to leave its barren bed. This scanty supply of reindeer meat, with the rapidly disappearing fish that we had bought of the Eskimo at the mouth of the great river, gave the poor dogs but few scanty meals, which, coupled with the razor-edged weather in the depth of an Arctic winter, told terribly upon them, and before we had left the river in the latter part of December, we had lost one fine dog, and so drained the vitality of the rest that we increased the mortality to twenty-six out of forty-five before we reached Hudson's Bay, on the fourth of the next March. It was pitiable indeed to be compelled to notice the silent sufferings of these faithful companions as they slowly fell by the wayside, with a seeming devotion, as if the sacrifice were self-imposed to aid us as much as possible on our uncomfortable journeyings.

Ravenous as they were, tearing to pieces every thing not made of wood or iron, or raiding fearlessly into the *igloos* in quest of food, they

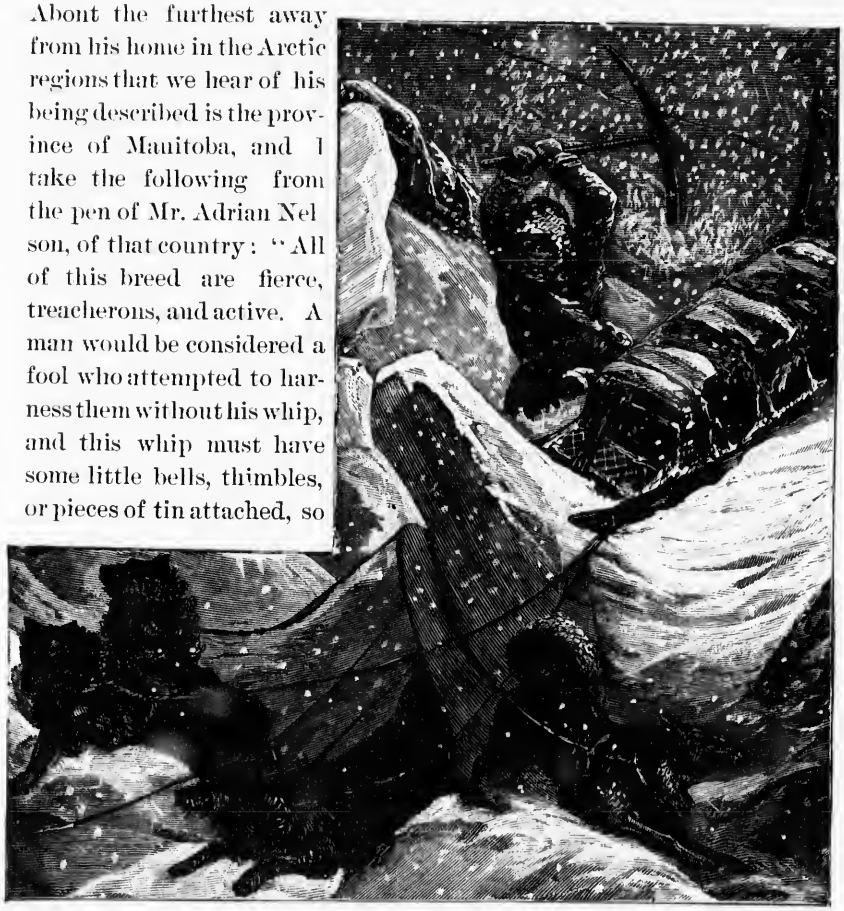
were faithful respecters of their human companions, not even once attempting to harm the little children who wander innocently among them, pelting them with toy whips, though half an hour afterward they would be savagely tearing a dead, starved companion limb from limb to secure the hide, which was nearly all that was left of him. Every time one of the party entered an *igloo* by creeping through the narrow entrance on his hands and feet, they wedged themselves in along with him so tightly that it was almost impossible to move, hoping thereby to steal some stray morsel of meat or blubber. When a person was out of doors among them, every motion he made was intently watched, and if it bore a resemblance to giving them any thing eatable, they would make a rush that would pile the pack around him in a most alarming-looking but harmless way, until something else drew their attention in another direction. These facts may have sometimes led persons to believe that "assault with intent to do bodily harm" was the motive actuating the fierce-looking gang under these circumstances, but my experience with Eskimo dogs has been that when starving, if they desired to make a meal off their human allies, it would take more effective means to prevent it than those recorded where the imagination of the writers conceived that their lives were in danger. The Eskimo of my acquaintance, whom I questioned concerning this matter, knew of no such cases.

The endurance of the Eskimo dog is his most conspicuous point of superiority to his southern fellows, which he no more resembles in feebleness of flesh than the Indian squaw of the West, carrying her two-bushel basket of potatoes strapped over her head to the agency building, two miles away, resembles a society belle with just enough strength to roll her eyes at the mention of the last French novel. I have more than hinted at this already in the previous paragraphs, but have not given the most conspicuous cases by any manner of means. On the 14th of November, 1879, one sledge of my party, with nineteen dogs, found themselves at the head of the Kingmiktook Inlet, journeying toward the Dangerous Rapids at the mouth of Back's River, over a hundred miles away, and across a perfectly unknown country. That day we fed our dogs a tolerable meal only, for not a reindeer had been seen

since early October, when the forming ice in Simpson's Straits had allowed them to cross on their southward migrations, and our supply of venison was getting very low. One of those detestable storms, so common to the Arctic, that knows no meteorological law except that of persistency, now set in, and continued in its varying moods until the 7th of December, during which time we of course made very slow progress. Eight days after—on the 22d—we again fed them lightly (having fed them four or five days before the 14th of November), for we were in a hilly country and hardly knowing when we would reach the rapids. Seven days after, on the 29th, we gave them a tolerable feed, as we now for the first time saw our way clear to our desired point. Again, on the 5th of December, six days after the last feeding, we reached the rapids, tore down a native cairn of fish, and, as the natives were absent, put a knife and a few trinkets in the debris of the rock as payment, according to the custom of the country, and gave our poor animals a most regal feed. Not one had fallen by the wayside, although the nineteen of them were so thin and gaunt that I doubt if the whole lot were equal in strength to any half-dozen of them before we left the head of the Kingmiktook Inlet, when they were in the best condition on my trip of nearly a year in length. I doubt if there are a dozen dogs in the temperate zones that would have lived half-way through that ordeal of three weeks in the depth of an Arctic winter.

The range of the Eskimo dog (*king-mik*, *kimak*, or *kigmik*, in Innuit parlance), is co-extensive with that race of the human family from which he derives his distinctive name, and in many places overleaps these boundaries, and is found among the contiguous Indian tribes, who fully appreciate his value as a draft animal. White men, especially those engaged in the fur industries, have helped to extend his wanderings until the Eskimo dog, or those that are called such, have even crossed the boundaries of the United States in their legitimate duty of sledging. There is also a tendency to call all sledging dogs of the far north Eskimo, some of which might be more properly spoken of as Indian dogs, trained to this valuable canine accomplishment, and even among the Eskimo themselves, as I have more than hinted, can be found dogs of wide variety, as in North Hudson's Bay, while in other

districts, such as Alaska, for instance, the type seems well settled. From all these confusing data it is hard to settle his exact limits. About the furthest away from his home in the Arctic regions that we hear of his being described is the province of Manitoba, and I take the following from the pen of Mr. Adrian Nelson, of that country: "All of this breed are fierce, treacherous, and active. A man would be considered a fool who attempted to harness them without his whip, and this whip must have some little bells, thimbles, or pieces of tin attached, so as to jingle. It would be the essence of folly to touch one of these dogs when out of the harness, except with the whip. Approaching the dog, the driver throws the lash, which is about ten feet long, round the dog's



IN THE ICE-HUMMOCKS.

neck, twists it till it almost chokes him, and then drags him to his collar by main strength, grasps his head between his thighs, and then slips the collar, which is very tight, over the head. From that instant the dog is quiet and submissive enough."

A team of dogs means any number from a couple up to as many as can be hitched to a sledge, a seal, a piece of walrus, or a carcass of a musk-ox, polar bear or reindeer, according to whatever is to be dragged; for on the hard, compact, marble-like snows of the Arctic winter, any animal with its hair on makes a good enough sledge of its own body, when dragged along head foremost, to dispense with a vehicle except for long distances. I have already written of their bringing in the carcasses of reindeer to the sledge in this way when these animals are killed *en route*. The manner of hitching these teams to their loads varies considerably with the country. In Siberia, the Hudson's Bay Company's country, and some other places, they are placed one after the the other, in double or single files, as shown in Figs. 1 and 2. In North


FIG. 1.

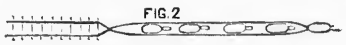


FIG. 2

Hudson's Bay, and the Arctic Ocean around King William Land, where most of my Arctic travels lay, I found the dogs hitched with traces of unequal length so as to look like a letter V, the point forward, as shown in Fig. 3, the angle also being filled with dogs. In Greenland,

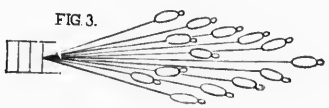


FIG. 3.

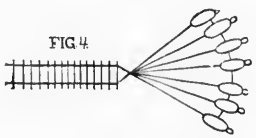


FIG. 4.

I was told by Eskimo Joe, my interpreter, the harness traces are of equal length, and the team therefore spread out in the shape of a fan, as shown in Fig. 4. The dog at the point of the V (Fig. 3) is called the leader or chief (*ishoomuttik*, in Innuit), and is generally the most intelligent of the team, although not necessarily the strongest or the best. It is only necessary that he or she should understand the tones of the voice of the driver as to when he wants to go to the right or to

the left, to halt, to go ahead, or to go faster or slower, as all the other dogs are regulated by the movements of the leader, and he or she is solely regulated by the driver's voice, sometimes assisted by gently striking the snow to the right or left with the tip of the whip-lash to emphasize certain commands.

These vocal commands of the Eskimo dog-drivers of Northern Hudson's Bay are the most fearful gibberish and tongue-twisting articulations I have ever heard, and although some Arctic writers have essayed to imitate them by phonetic spelling in English, I should as soon think of trying to imitate the sound of thunder, a hen's cackling, or the racket made by a wagon on a corduroy road. I have never seen a white man who could imitate them even so well that the Eskimo dogs would understand it, and therefore hardly think it possible to do it so that my readers could. One or two of them are simple enough, however. For instance, our "whoa-a-a-ah!" long drawn out means "steady, as you are," or a kind of vocal encouragement, and it seems strange enough when you first hear it, to see the dogs go right on as if nothing had been said at all. In ordinary tradings, a leader is considered to be worth two common dogs, and if he or she be of unusual intelligence, three.

I have already spoken of the food used in the Arctic for the dogs, in describing walrus-hide (*kow*), and kelp-fish that are caught in the natural fish traps by the rise and fall of the tide. Should the carcass of a flensed whale—which is one that has had its blubber stripped from it by the whalers—be cast ashore near their village, the dogs will be lucky indeed; for if it be only of fair size, there will always be enough dog-food to keep them comfortable for several months. The natives say that when pressed with hunger in the summer months, the dogs will devour large quantities of mud from the shores of fresh water lakes, and thus manage to prevent starvation until something eatable turns up. Early in the Arctic spring—that is, early for spring in their climate, say June, when the young reindeer fawns are not strong enough for a long run—it is not an uncommon occurrence for a hunting dog to disappear from a camp in a thickly supplied reindeer country and to be gone for several days, during which he subsists on the young fawns.

Parseneuk—a fine, swift hunting dog belonging to Toolooah's team that has already figured extensively in my previous hunting anecdotes—disappeared from us at one time just before we crossed the Strait to King William Land, but came back on the fourth day, looking as if he had swallowed a keg, and was worthless for a day or two afterward on account of his heavy meal. The natives always dislike to give dogs a hearty meal just before a day's work is expected of them, for then they are the very laziest creatures on the earth and require double the usual amount of whipping to get any work out of them.

The whip is made just the length of the longest harness trace, so as to just touch the leader, although I should add that he is whipped less than any other dog in the team. The whip is a single, long, supple lash of tanned seal-skin—the skin of the great seal, *ook-jook*,—with a very short handle, like that of the western "black-snake" whip. The drivers who use it are the best trained men with a whip I have ever seen, and can single out a solitary dog in a rapidly moving compact mass of them, and cut him with the tip of the lash on either ear with unfailing dexterity. From their early infancy to childhood and thence to manhood they are constantly using this instrument and thereby acquire a versatility with it that no white man can ever equal. Of the Manitoba whips it is said that they "are of plaited cariboo hide, with from 2 oz. to 8 oz. of small shot woven into them to give them weight." In some parts of the Arctic the whip is unknown, and the dogs are driven by a small, stout stick, which is held in the hands when not used, and hurled when necessary at any refractory or lazy dog in the team. As the sledge goes by, the active driver recovers it, to repeat the operation when needed.

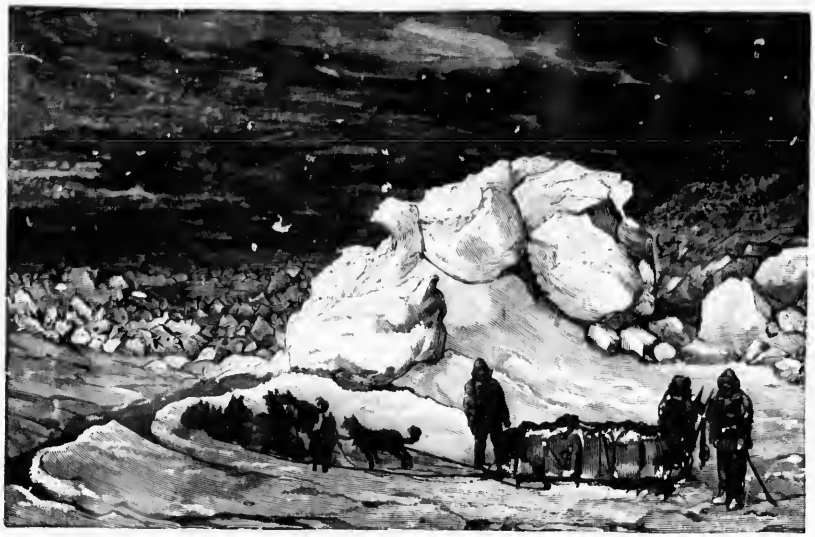
It would be an almost endless task to describe the many varieties of sledges to be found in the Arctic regions, for they vary with nearly every tribe, so I shall confine myself to those that came under my personal observation. The most primitive and simple sledge of all is one hewn directly out of the ice—bed and runners. One would think such a vehicle must be extremely fragile and liable to go to pieces at any moment, and it is not as strong as a wooden one, but so long as the driver keeps along the level shore ice, its extreme "corpulence" and

strong construction render it a very serviceable conveyance; besides, it has the advantage of always having ice on the bottom of its runners, a most necessary adjunct to the sledges of this region of the world. Sometimes these bulky runners are strengthened by freezing in them the bodies of salmon and other fish, which are eaten when the journey is completed. A sledge with thin ice spread evenly and smoothly over the bone-shoe of its runners can be hauled over the hard snow-drifts with from one-third to one-half as many dogs as it would otherwise take, and nothing in the world makes the native sledge-man so angry as to strike his runner against a half-concealed stone, and strip the beautiful ice-shoe from his sledge.

And now let me describe this "icing" of the runners of a sledge and speak of its great benefits. When a sledge is being built, the last thing to do, if the builder has the material, is to shoe it with a batten-like strip of bone taken from the jaw of a whale, which shoe, being a little wider than the runner, projects over on both sides—as shown in cross-section

in figure A. Lashings of whalebone, or large wooden screws, enable them to be fastened securely, and this bone shoe is generally rounded on its bearing surface, or under side. To "ice" the sledge, it is turned bottom side up, and the first coat put on. This consists of pieces of snow about as big as one's double fist, dipped in water to render it slushy and soft. These the native, with the open palm of his hand, applies to the runner, rubbing them backward and forward until they form a level, smooth and solidly frozen surface about two feet along the runner, and crimp over and bind on the projecting flanges of the bone shoe, as shown in the upright shading in cross-section in fig. B. This course is continued the whole length of the runner. This frozen snow is opaque and looks like a mass of ground glass, and when solidly frozen—as it will be even while the man is rubbing it—the runner is ready for the second coat, or finishing touches, so to speak. The native now takes his mouth as full of water as it will hold, and sends a gentle spray over

the frozen snow on the runners, and this freezes almost as fast as it strikes, the sledge-man at the same time rapidly running the palm of his hand backward and forward over the surface to give it a perfect polish. Sometimes he uses a piece of polar bear skin for a little while, to save his hand the severe friction, but the last few strokes are always with the open palm of the hand.



AN ARCTIC SLEDGE PARTY.

This process finished, the sledge-runners are as slippery as one can imagine, and I do not think I exaggerate the comparison when I say it is as much easier to pull a sledge, nicely and properly iced, than one that is not, as it would be for a horse to pull a truck with the wheels on than one that had them taken off. My longest sledge was so heavy that it was hard work for any one of the party to turn it over so that Tooloah could ice it, and it would have taken a couple and probably three to budge it if the runners had not been iced; yet when the icing process had been completed, I could take my little finger (and have often done it), hooked on the cross lashings, and work this ponderous

vehicle backward and forward as far as I could move my arm. Several times, without noticing that the snow crust was unusually sloping, we have turned the ice-sledge over gently to prevent fracturing the glacial shoe, and have been surprised to see it start down the grade by its own weight. It was almost as prone to do this as a wheeled vehicle on rails.

Of course such a valuable but fragile adjunct to their most important means of transportation, must be the cause of the liveliest solicitude and care to the native sledge-man, to see that it is not injured in any way so as to compromise its utility. In no place does the superiority of a sledge-man show to such good advantage as in his ability to conduct his sledge through a low, rocky portage connecting two lakes, or over the top of a ridge where nearly all the snow has been blown away, without stripping the ice from his sledge-runners on the many stones that are peeping through the snow in every direction. I have seen my best sledge-driver, Tooloah, take his twenty-foot sledge through a place for a couple of hundred yards where it would seem impossible to spread one's coat without covering a stone, and yet come out unscathed; but it required the work of a Hercules, bobbing the front of the sledge from one side to the other, and watching the rear to see that it was not thrown against or over a rock. So important is it to keep the icing on the sledge-runner bottoms, that if it is ripped off by any accident the Eskimo will stop at the first lake or river where they can get water to wet the snow and give it a second coating, though they may have to dig through seven or eight feet of ice to get it.

When one reflects upon the value of this simple accessory to Arctic sledging, and upon the importance of sledging to an expedition that desires to accomplish any thing in these regions, and also that this art is solely monopolized by these people, it at once shows the great advantage of having them as allies, and the comparative folly of sledge journeys in rough Arctic countries without them. If a rough, stony place interposes itself where the projecting rocks are so numerous that it really becomes impossible to get through, all the persons in the party will take off their reindeer coats and spread them, hairy side up, over the stones that the iced runners would strike in passing by. Late in the spring,

when the temperature commences approaching freezing from a much lower point, the ice will not retain its hold so well on the bone shoes, and when it begins to melt, extra precautions have to be taken to prevent it. Halting to rest on a warm, sunny day, the sledge is swung around so that one runner is protected by its shadow, while the other has a number of reindeer clothes or blankets, or any thing of that nature spread along over it to keep the sun off. The least little bump, at these temperatures, is very liable to knock off a foot or two of the ice, and then the rest is easily scaled off. When it becomes so warm that the ice will no longer retain its hold, the snow on which the sledge runs becomes of a soft consistency that allows the bare bone shoes of the runners to glide over it with comparative ease, and every body now wants to ride on the sledge, as when walking they are sinking up to the ankles or knees in the half-slushy mass.

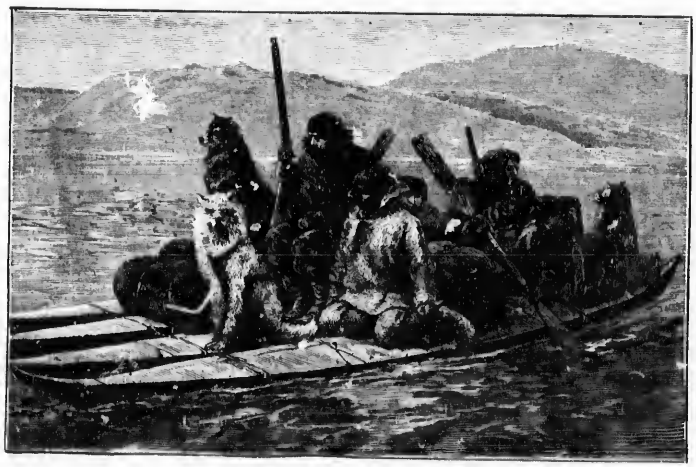
The worst experience I ever had in sledging was on Back's River, in December, 1879. This stream is full of rapids, which keep open the whole winter, and the rising steam from them (for they look like huge boiling cauldrons in the intense cold of winter) freezes into a fine, gritty, sand-like mass of snow that covers the true snow-drifts with a coating as of resin powder. This sticks to the sledge-runners in any temperature below 50° F., and I think the thermometer averaged lower than that while we were on the river. But even this was not the worst obstacle to travel, for all the snow that had lodged on the river ice lay along the cracks in the ice, nearly all of which seemed to be perpendicular to the axis of the stream. We thus had snow and ice alternately at every few yards, and often every few feet. The ice of the river would strip the icy runner coatings from the sledge, and when the snow was reached the dogs would require the aid of all the members of the party to drag it over. Either ice or snow alone would have allowed us to proceed at a good round gait, but their alternation made it the most annoying and laborious work I have ever experienced, and we always felt lucky if the *igloos* in the morning's camp were out of sight around some bend of the river when we picked out our camp for the evening. At the very first favorable opportunity I abandoned the river, and found the hilly country between it and Hudson's Bay much better adapted to sledging than even its level bed.

While on the Hayes River, a branch of the Great Fish River, during the spring of the year, so late that the ice would not stay on the runners, we found a great deal of snow on the river ice was mixed with sand blown from the banks during the prevalence of high winds, and this acted like sandpaper on the bare bone shoes, so that by the time we left it we had ground those shoes to about half their usual thickness, and we felt a little uneasy lest they should break under hard knocks. So indeed they did several times, but never badly enough to put us to serious inconvenience.

In a great many parts of the Arctic it is impossible to procure the bone from a whale for sledge-shoes, and then the wet snow is applied directly to the bottom of the runners, and before its application is mixed with boggy mud, full of root stocks and grass stems to keep it together. A favorite mixture, when it can be obtained, is the undigested mass taken from the stomach of a reindeer. Among the Netschilliks, who confine their sledging to the level coasts of the Arctic Ocean, where it is of the best character, and who kill no whales to furnish them with bone, we found the runners shod with pure ice. Trenches the length of the sledge are dug in the ice, and into these the runners are lowered some two or three inches, yet not touching the bottom of the trench by fully the same distance. Water is then poured in and allowed to freeze, and when the sledge is lifted out it is shod with shoes of perfectly pure and transparent ice. So transparent is this ice, that when the sledge is in rapid motion, it sometimes produces a peculiar optical illusion, one imagining that the sledge is some three or four inches from the ground, swinging out behind like a kite's tail in its rapid flight. When not even wood can be procured, the ice-sledge already explained is adopted, or the skin of a polar bear or musk-ox may be used, if it be dragged with the hair pointing backward.

The ratio of width to length in their sledges varies with the different tribes. The Hudson Bay Eskimo observe about the proportions usually seen in boys' sledges used for coasting, although on a scale five or six times as large. The Kinnepetoos of Chesterfield Inlet, on the contrary, often have sledges of from twenty-five to thirty feet in length and only a foot or a foot and a half in width, claiming that these go over rough ground much easier than those of the common kind.

"How fast can a sledge go?" and "How far can you travel in a day with them?" are indefinite questions, asked nearly as often as the equally unanswerable one about the size of the Eskimo dogs, and the reply is about as satisfactory—namely—"They can travel nearly as fast and fully as far as a horse." If the sledge has a maximum load (say 150 to 200 pounds per dog, on salt water ice, or half that in inland sledging), the party can make from ten to twenty miles a day and keep it up about the same as a light expedition of troops. With a splendid team of from ten to fifteen dogs, drawing only a driver and light sledge, seventy-five or even a hundred miles can be made in a day—for one or two trips—especially along the coast. While in the heavy, hummocky ice of Victoria Channel, I only made ten miles, with a fair load, in fourteen hours' hard work; yet I have been told of a reliable incident, when life and death hung upon the rapidity of action, and forty-five dogs were hitched to a light sledge, with two of the ablest native drivers working on the team from each side, where twelve or thirteen miles were made in almost double as many minutes, to rescue a lost sailor from the whaling ships in Repulse Bay.



CHAPTER VIII.

HUNTING AND FISHING IN FAR-OFF ALASKA.

WHENEVER the moose, the noblest game of the deer tribe, is the central figure in a hunting story, the sportsman's mind naturally wanders to Maine and the adjacent Canadian provinces, as if that region were his only habitat. And probably it is, in a sportsman's sense, but nevertheless he extends his wanderings even into that part of the earth bounded by the Arctic Circle, by following the valley of the Yukon River—the grandest stream in our Alaskan possessions, and which dips for a short distance into that frigid zone. The author, with a party of seven whites and over half a hundred Indians, "packed" their effects on their backs across the glacier-clad Alaskan Alps to the lakes at the head of the Yukon, and building there a large raft, floated upon it over 1,300 miles down the stream. Nearly 150 miles of lakes were sailed and "tracked" across, many rapids and cascades were "shot," over half a thousand miles of totally unexplored country was mapped, and as much more, previously known only to the half-civilized *voyageurs* and Indian traders of that region, made familiar to students of geography. To narrate the hunting and fishing adventures of this party, and describe the game of the localities they traversed and the native methods employed in securing it, is the object of this chapter.

The sportsman subject to sea-sickness may thank his stars that

Alaska, although reached by no railroad, is on a route that agrees well with tender stomachs. For a distance of over a thousand miles he travels upon the ocean, and yet, even in the most tempestuous weather, his ship steams along almost as smoothly as if on a mill-pond. Off the coast of Washington Territory, British Columbia and south-eastern Alaska are nnmberless islands, protecting a channel near the mainland called the "inland passage," which is practically a long, salt-water river. In fact it would be mistaken for a river, so unvarying is its width and so calm its waters, if now and then an opening in the natural break-water did not allow the sea to roll in, in long, heavy swells, that disturb the ship for a brief hour or two. Through this "inland passage" we steamed for a week in the latter part of May, 1883, imagining sometimes that we were on the Hudson, alongside of the highlands, the Delaware at the Water Gap, or the Columbia at the Cascades.

The 29th of May we crossed Dixon Entrance, the dividing channel between British Columbia and Alaska, and the same day entered Boca de Quadra Inlet to leave some freight for a new salmon cannery that was being put up by a Mr. Ward. This gentleman was something of a practical sportsman himself, and a few days before had been up the narrow mountainous valley of the little stream that emptied near his prospective cannery with an Indian guide, and had seen eight black bears, securing two of them—whose robes he showed with much satisfaction. One had been secnred by himself with a double-barreled shot-gun, and the other by his Indian companion with a flint-lock smooth-bore musket, loaded with heavy shot. Our steamer brought him a rifle which he had ordered, and with which he proposed speedily to raise his bear score a little higher than twenty-five per cent. of the whole number seen. These black bears are very numerous in the south-eastern part of Alaska, in the high Alpine country bordering on the "inland passage," and the Indians kill numbers of them, both for their glossy, jet-black robes, and their meat, which is considered a great delicacy. Their hunting is simple, and consists in treeing them with dogs and then shooting them out of the branches like squirrels.

Through this part of Alaska the grizzly also roams, if we are to trust the nomenclature of some of the white residents, although I believe

what they call the grizzly is only the large brown bear or "barren-ground bear" of this part of the country. I saw none of their robes, and Mr. Ward told me that very few people disturb these animals in wearing them. They have a violent antipathy to having their skins offered for sale, and the Indians especially have great respect for this feeling. It seems as if even the little black bears avoid these big brown brothers, according to the same informant, and wherever the hunter finds one, he is sure the other does not inhabit the same district. The districts can all be jumbled up like squares on a checker board, but the Indians and the black bears take considerable pains not to intrude on the parts pre-empted by the brown ones.

The wholesome fear of the brown bear by the natives I found everywhere on my travels in Alaska and the British Northwest Territory; but the other theory regarding the coolness existing between the two kinds of bears is, I think, slightly misunderstood. At least I found it to be so on one or two occasions, of which I will speak in due time. One thing is universal, and that is the poor quality of the flesh of all the larger kinds of bear, and as the robe of the brown bear of Alaska is practically worthless as a fur, there is not much inducement for the natives or any one else to risk encounters with them just for the fun of it.

The sides of the steep hills are heavily covered both with upright and fallen timber, over the latter being a thick carpeting of moss, thoroughly saturated with water from the melting snows and glaciers on the mountain tops. It is almost impossible to describe a walk in this jungle, and about impossible to penetrate some parts of it so that it can be described. Once successful in climbing near to the tops of the hills, however, a few openings may there be found in which the climber may possibly see a black-tailed deer, a mountain goat, or perchance a bear, but I think that any lover of game who had ever made one ascent, and still longed for a venison steak or a bear chop, would be found looking around the market stalls for it the second time.

From Boca de Quadra Inlet we sailed for Wrangell, the most dilapidated, tumble-down little village I ever saw. It is on an island not far from the mouth of the Stickeen River, the largest stream of this part

of Alaska. Up this river some distance are the Cassiar gold-mines of British Columbia, and as they "pan out," to use a western mining expression, so fluctuates Wrangell, its base of supplies. At the time of my visit it was at very low ebb of tide. The hunting and fishing in this locality is the same as that of the whole length of this narrow strip of Alaska, sometimes called the "tide-water strip." Amongst the curiosities offered for sale by the Stickeen Indians, we found carved halibut hooks, spoons carved fantastically from the horns of the mountain goats and sheep, and other objects, which showed that the Stickeens do occasionally go hunting and fishing. Through all this "tide-water strip," we saw Indians with their faces blackened until they resembled negro minstrels much more closely than the proud red men, as they are painted. This coating of black helps to prevent their faces blistering when they are fishing on the still waters in a blazing sun.

Chilkat Inlet, the northernmost waters of the "inland passage," was reached June 2, and we disembarked for our overland journey to the headwaters of the Yukon River. In this section of the country live the Chilkat Indians—the greatest hunters of the great Tlinkit nation—which extends from the mouth of Copper River to Dixon Entrance, and of which the Stickeens are a clan. Several passes in the Alaskan coast range of mountains in their country give them unusual facilities for trading with the Indians of the interior, and their excursions inland afford them many hunting adventures. Black bear robes are numerous amongst them, and on their Alpine trips they see many wild mountain goats, which they secure, and their hair is woven into the most beautiful blankets of odd and artistic designs, really wonderful for savage displays of textile industry. They are constantly spoken of as "blankets," but are really shawls, being woven and worn as such. They have long since ceased to exist as wearing apparel among them, and are kept and sold only as curiosities, for which they find a most ready market, or as dancing robes for state occasions.

Shortly after our arrival we were spectators of a bear hunt on the most approved theatrical scale. High up on the steep mountain sides, in the little clearings about midway between the fingers of the glaciers on the summits and the dense timber at the base, there can nearly every

evening be seen a bear or two if the weather be clear, coming out to feed on the roots and berries that there abound. Several times we took our glasses and watched Bruin, for many minutes at a time, browsing some two thousand feet above our heads. One beautiful, quiet evening, an unusually large black fellow, with glossy coat, waddled out into an open field and nosed around for quite a while, looking down at us now and then, as a man standing on the Washington Monument might view the people looking like little ants promenading in Pennsylvania Avenue. An Indian with more energy than you usually find in a whole tribe, actuated by the large number of spectators he would have for a display of his prowess, and the prospects of a bear robe to trade for tea and tobacco, loaded up his musket, flung it over his shoulder carelessly, looked up at the position of the bear, yawned, and then commenced the ascent with a *nonchalant* air, as if he had done the very same thing two or three times a day ever since he was a boy. The minute he entered the dense timber he was effectually hidden from sight, and there was nothing to do but to watch the bear.

Nearly two weary hours had elapsed; many of the audience had gone out several times and returned to their private boxes, which they turned up on end and resumed their sitting, when the Indian emerged in the clearing just below the bear. A score of field glasses and telescopes were pointed upward as the man was seen to creep toward the doomed animal. When apparently but thirty or forty yards away he peeped over a bush, with extended neck, and then sank cautiously behind it, and ran backwards as fast as his legs would carry him, into the heavy brush. We hardly knew what to think, but the bear was more fortunate in his mental evolution, and simply turned tail—the bear has a short tail and a quick turn—and left the place at about the same rate as the Indian, their combined speed in diametrically opposite directions soon placing each of them beyond danger from the other. The Indian came down a few hours afterward and reported that he had seen nothing of the bear—although he had acted in our presence as if he had seen a thousand!

So greatly do the Chilkats revere the great brown bear of their land, that in their social sub-divisions, named after animals and

fishes, the brown or "Cinnamon" bear clan are the "high caste." The Crows are aristocratic but inferior, and both look down on the plebeian Whales and Wolves and other zoological divisions. The "cinnamon" bear's head is the highest symbol worshiped, and most of those they face are made of copper and wood—the genuine article inspiring an awe that insures a presentation of the back!

Their fishing consists mostly of that character which, while interesting, hardly comes under the head of sporting. The principal fish they catch is the salmon, immense quantities of which they store away for winter use. It is caught in traps near the rapids and cascades of the rivers, near which they build their villages. In the large space in front of their dwellings are great networks of trellises, heavily laden with drying salmon.

Numbers of them are used in making oil, which they use as a sort of gravy with dried salmon or berries. A canoe, for want of a larger vessel, is sunk half way to the top in a hole in the ground, and a little water is put inside of it. Into this the natives throw the salmon, especially the fat ones, until they are three or four fish deep for nearly the length of the canoe. Then large stones, that have been heated as hot as possible in a rude stone furnace, are thrown in and the water is kept boiling and steaming till nearly all the oil is "rendered out" and skimmed from the top. The fishes are then trampled upon, to squeeze out what is left. September is the great salmon month, and after the season is over the natives indulge in many festivities, including dancing, singing, and—better than all—plenty of eating.

Trout are also caught, even in the winter time, by cutting holes in the ice and sprinkling in salmon eggs, and then spearing the fishes when they congregate to eat the eggs. Salmon eggs preserved in salmon oil make a villainous sort of caviare.

Here they also catch the Arctic smelt, or "candle-fish," as they are sometimes called, being so fat that when dried and set fire to at one end they burn up slowly until consumed, and can therefore be used as candles. Their oil (of lard-like consistency) is also used as food. Millions of small fish are secured by simply driving nails through a board, about as far apart as the width of the fish, and then using it

somewhat like a paddle as a canoe is propelled through the dense swarms. Every stroke of the board impales three or four fishes, and it does not take many hours to load an ordinary canoe. The boat meanwhile is kept in motion by a couple of paddles plied vigorously at the stern, the man in the bow beating the water with his board. Trenches are dug in the gravelly beaches down into the water, and into these are thrown the fish, the women and children cleaning them at their leisure, as they live a long time in the water. They are then dried, after being strung on sticks and mounted in trellises.

Ducks of all kinds are numerous enough, as one would imagine from the large number of inlets and channels into which this part of Alaska is cut up; and considering the usually hard work a sportsman would have with the land game, the aquatic varieties are the only kind I can recommend for real sport to a visitor with hunting proclivities. The Indians do not hunt them much, as there is so little meat to be got in proportion to the labor expended. Seals are occasionally caught, but they are not so fat as those in the Arctic waters further north, and as their flesh looks much darker I fancy it is not so good. Grouse fill the woods, and several varieties are known, some of them semi-Arctic in character. While at Chilkat, in the early part of June, we could hear them hooting in the woods. However tempting they may be to a sportsman, he should remember what I have said about the impracticability of the Alaska woods.

My Indians were engaged as packers, each adult carrying about a hundred pounds on his back, and we got away June 7 for the lake at the head of the Yukon, said to be about forty or fifty miles away.

I could not but notice the very peculiar manner of expressing surprise used by the Chilkat Indians. Whenever one sets up a prolonged shout of "ya-a-a-a-ah!" at any thing that attracts his notice, such as the mishap of a companion in slipping into the water or falling from a log, every one within hearing, from 2 to 200, instantly joins in, and a great prolonged chorus goes up that would astonish any one not used to it. This may be repeated a half a dozen times in a minute, and the suddenness with which it commences (the originator can hardly be picked out) and stops, reminds one of a gang of coyotes around a camp

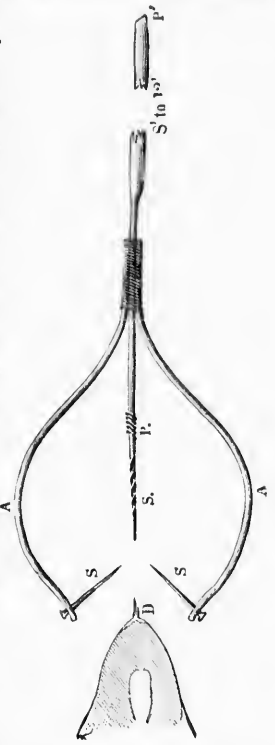
on the plains, or the howlings of Indian or Eskimo dogs on clear, cold moonlight nights, from which I think they must have borrowed it.

On the little Dayay River, outside of all signs or hearing of civilization, with our journey fully commenced, we expected to enjoy some hunting and fishing. In the valley we found a number of "Sticks," as the Tahk-heesh or inland Indians are called, and they told us they were hunting for black bears, which are unusually plentiful in this valley. Strolling away from the two or three camps we made on the river, as we ascended its valley, we often found bear tracks of various ages, and one day we saw something more palpable, in the shape of a big black bear, perched on a granite ridge of the mountain side, possibly five-hundred yards away. A fire was opened with a magazine gun, but before the second shot could be fired, the bear became so nervous and impatient that he leaped and rolled over the ridge into the chaparral of timber beneath and disappeared from sight.

The whole length of the Dayay was fished with bait and with fly, but neither a bite nor a "rise" rewarded the fishermen, although the Indians catch trout in it in their fish-weirs, or at least so assured us when they offered some for sale. Like all streams fed by glaciers grinding over calcareous beds, its ice-cold waters are very white and chalky. Our champion disciple of Isaak Walton, the Doctor, accounted for the aversion of the Dayay trout to our most fascinating "flies" on the theory that the stream being now full of salmon spawn, they had no inclination to take such risks while they had such a sure thing.

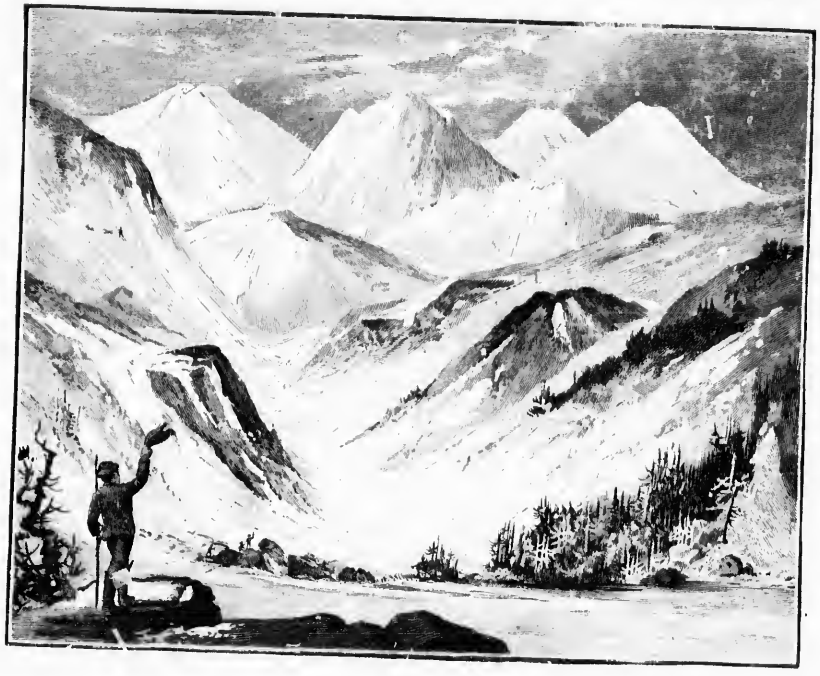
Near the head of the Dayay, after an early camp from a short march, nearly all the Indians turned out cutting spruce poles from a thicket near by, where grew a dense mass of them as straight as curtain-poles, and varying but little more in diameter from end to end, and which made them very desirable for fishing poles. A fire had swept through the woods a year or two before and these poles were already seasoned for use. On their ends they place a double-barbed spear, so common among all the Arctic and sub-Arctic fishing tribes that I will describe them. The pole (P. P.) is from eight to twelve feet long, and similar to an ordinary spear-handle. (It was these that the Chilkats were cutting in the brush for their future salmon hunting after they returned from

packing my effects across the mountains to the Yukon's head.) The bent arms (A. A.) are made of elastic wood or horn, and readily spring outward to any ordinary force applied. The spikes (S. S. S.) are of iron, copper or ivory, and are very sharp at their points. F. is a fish, with dorsal fin at D., showing the manner of applying the instrument in spearing a fish. The next day we had a long, severe day's journey of ten or twelve miles, fully equal to any forty or fifty on ordinary roads. In the dense woods we could hear the constant twittering of small birds, and the hooting and drumming of the larger ones, and this combined with the hard work of struggling over fallen trees and through marshy bogs made us imagine that we were nearer the equator than the Arctic Circle. We reached camp that evening about seven o'clock, having been twelve hours on the way, and having rested about two-thirds of the time, the trail being plenty rough enough to warrant it. We camped at a pleasant place called the "stone-houses"—being only a jumbled mass of huge boulders—under which the Indians crawl for protection whenever the snow covers the ground. It was still around us, but we could find enough places to sleep without getting under the large rocks.



Just after camping, a large mountain goat was seen nearly at the top of the western ridge, looming probably three thousand feet above us. I was just able to make him out with the aid of my field-glass, but the Indians knew him at once with their eagle eyes, although his skin was as white as snow, and snow and glaciers surrounded him on all sides. To add difficulties to his detection, he was as motionless as a statue, but once in a while would exchange ends with a military promptness suggestive of an old veteran on guard. It was at one of these

"about face" movements that I detected his presence. The terrible ten-mile trip we had just made had wearied every one, and I thought that the goat was as safe as if he had been on top of Mount St. Elias until a "Stick" Indian, who had carried about a hundred and twenty-five pounds over the trail, picked up his flint-lock rifle and started after him. He disappeared across the valley, but was soon seen against the steep snow on the other side, up which he crawled until he seemed



CHASING MOUNTAIN GOAT IN THE KOTUSK MOUNTAINS.

like an ant on a white wall, the goat still remaining in his old position on a beetling ridge near the mountain top. Before long the "Stick" was seen to ascend above the goat, and when near his position a miserable little dog that every Indian seems to keep around him to frustrate his hunting, in trying to follow his master, frightened the goat,

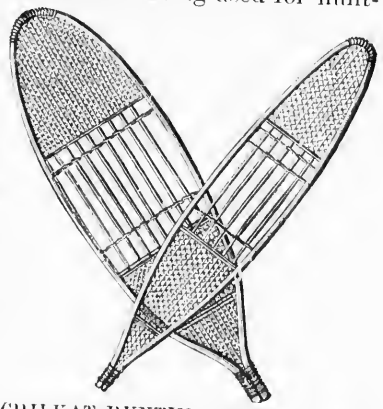
and he started down the mountain side, the Indian and his dog following in close pursuit. The game edged off from the direction of our camp as he descended, until by the time he was on a level with it, he was nearly a half a mile away, when, to every one's astonishment, he turned and made for us at a gait that might make one think he was th ordinary suburban goat, and that we were small boys crossing a plank bridge or other disadvantageous place in his favorite locality.

Then there was consternation in the camp. One Indian seized a Springfield carbine that was near and a belt of pistol cartridges, and started off for a place to intercept the goat. Another followed him with a double-barreled shot-gun, trying to jam in Creedmoor rifle cartridges as he ran, while the least that any one could do was to get on top of the "stone-houses" to see the exciting chase, and yell at the hunters with all his might. A shot from some one turned the animal up the eastern slope, and away he went, climbing for dear life, with no one ahead of the indefatigable "Stick" in the chase—except the goat. Finally he disappeared in the Alpine mists hanging over the summit glaciers of the eastern ridge, fully as high as the western, and the Indians returned to camp, this little incident having evidently refreshed them after their toiling over the trail with a hundred pounds apiece on their backs.

The next day—the 11th—we climbed the Snowy pass, 4,100 feet above sea-level. Even here in the drifting mists numbers of small birds were encountered to enliven the otherwise desolate scene.

I noticed that day that my Indians in following a trail on snow, whether up hill or on a level, or even on a slight descent, always followed in each other's tracks, so that any large body made a trail that looked as if only five or six had passed over it; but when going down a steep descent, each one made his own trail, and they scattered out over many yards. That day's mountainous climbing and descending of fifteen miles, over a third of the distance being on the snow, brought us late in the evening to a beautiful Alpine lake, some ten miles long, where our "packers" were to leave us to build a raft and float down the river we proposed to explore. Imagine my surprise when numbers of the Indians came to me that evening and asked for immediate pay-

ment, on the ground that they wished to return immediately, some of them claiming that they would "double camps" before they stopped. Nearly all of them had brought snow-shoes, yet none were used in ascending the pass, and only a few used them when they got on to the comparatively level snow beyond. They have two kinds, of different width, but otherwise the same, the narrower kind being used for hunting and where swift running is required, and the broad ones are employed in this packing through the mountain passes, or anywhere with heavy loads. The only game we had seen in crossing the mountains was a solitary black bear cub anxiously looking for something, which, from the distant way in which it treated us, was evidently not our party. Its mother would have suited us better.



CHILKAT HUNTING AND PACKING SNOW-SHOES.
(The usual thongs are used to fasten them to the feet, but are not shown in the illustration.)

Near our camp on this lake came in a mountain creek entirely too swift and powerful to wade with safety and over which a green willow tree was supposed to do duty as a foot-log. Now my weight is two hundred and fifty-one pounds, and my first attempt to pass over this log, with some pounds more tied around me in various places, brought its two ends together with a rapidity that was not diminished when it came in contact with the swift water, and the further proceedings were more interesting to the spectators than myself.

A ramble among the woods next day, to inspect for raft timber, revealed the tracks of bears, caribou and other game, but not the animals themselves. A few gulls and graceful terns were seen on the lake, and a small flock of pretty harlequin ducks gave us a long but unsuccessful shot. The interior lakes yielded Roth, the cook, a couple of green-winged teal—duck and drake—as a reward for a late evening stroll. So near as we were to the Arctic regions it is never absolutely dark at this season, and even at midnight coarse print could be read without artificial light.

Two of the Tahk-heesh or "Stick" Indians, who had come with us, had stored away in this vicinity a couple of the most dilapidated looking craft that ever were seen, and a traveler called upon to stretch his conscience and call "canoes." The only thing that ever kept them afloat was the possible reason of the Irishman, "that for every hole where the water might come in there were half a dozen where it could run out." These canoes are made from a sort of poplar, and as the trees are not very large, the material "runs out," so to speak, along the waist, where a greater amount is required to reach around. This deficiency is made good by substituting strips tacked or sewed on as gunwales, the crevices being amply chinked with gum. At bow and stern a rude attempt is made to warp them into canoe "lines," and this causes a number of cracks, all of which are duly smeared with gum. The thin bottom is a perfect gridiron of slits, all closed with gum, and the proportion of the gum increases with the canoe's age. Upon looking at them as a means of navigation my previous intentions of building a raft were confirmed, and they were accordingly carried out.

On the 14th of June the raft was completed, and on the next day was swung into the current of the stream and floated out into the lake. As the rude sail, made from a wall tent, was spread, the primitive craft commenced a journey that measured over 1,300 miles. We sailed across the first lake that day in a storm. On the next, we shot a mile of rapids through the connecting river. A couple of days were then spent in remodeling our vessel on a larger scale—16x42 feet, with two decks to carry our load. One of the delights of raft making was standing a greater part of the day in ice-water just from the glaciers on the mountain tops, and in strange contrast with this annoyance were the musquitoes buzzing around the head while the feet were freezing.

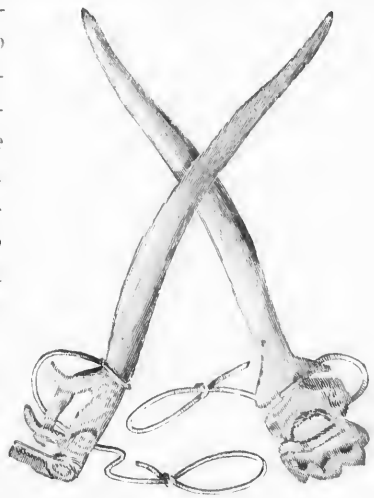
Three days were consumed in sailing across the next lake, nearly thirty miles in length; but on the afternoon of the 21st, the northern end or outlet of the lake was reached. As we entered a river 100 to 200 yards wide, and started forward at a speed of three or four miles an hour, but which seemed ten times as fast as lake traveling, since we were so much nearer the shore, where we could see our relative motion much plainer—our spirits ascended, and the whole brilliant prospect of

getting wholly rid of the lakes was joyously discussed and not ended when we grounded and ran up on a mud flat that took us two hours of hard work, standing waist deep in ice water, to get off.

This two-mile stretch of river between the lakes is called by the natives "the place where the caribou cross," and at certain seasons of the year these animals—the woodland reindeer—pass over in large numbers in migrating to their different feeding grounds. Unfortunately for us, it was not at this time of the year, although a dejected Tahkheesh camp, not far away, of two families, had an archæological ham of reindeer, which we did not care to buy, hanging in front of their brush tent. The numerous tracks confirmed the Indian stories, however, and as I looked at our skeleton score and munched on the government bacon, I wished sincerely that June was one of their months of migration, and the 21st or 22d about the time of their greatest number. The very few Indians living in this part of the country—the "Sticks"—subsist a great deal on these animals as well as on mountain goats, and even an occasional moose wandering into their district, while black bear form no immaterial part of their commissary. One would expect to find such followers of the chase the very hardiest of all Indians, conformable to the general rule in all countries, that places the hunter above the fisherman, but this does not seem to be true along this great river, where it appears that the further down the Yukon the Indian resides—that is, the more largely he subsists on fish—the hardier, the more robust, the more exacting and impudent he becomes.

The country was now more open, and it was evident that we were getting out of the mountains. Pretty wild roses in blossom were found along the banks of the beach, while many wild onions were pulled, with which we stuffed the tough grouse that we killed, and experienced a general change for the better. There were even a number of rheumatic grasshoppers that feebly jumped along in the cold alpine air, as if to tempt us to go fishing; and in fact, every thing we needed, for that form of recreation was to be had, except the fish. A number of lines put out over night rewarded us, however, with a large salmon trout. This was the first fish we had caught on the trip, although our piscatorial efforts had been unceasing.

Baffling winds delayed us for a while, and gave us occasional chances for rambling around the country. Every where we found the grouse of these regions, all of them with broods; and while the little chicks went scurrying through the tall grass to find a hiding-place, the old ones walked along in front of the intruders, often but a few feet, seemingly devoid of fear, probably never having heard a shot fired. The temptation to kill them was great after having been so long without fresh meat, which the appetite loudly demands in the rough out-of-door life of an explorer. A mess of them ruthlessly destroyed by our Indians, who had no fears of a game-law, nor sportsman's qualms of conscience, or compassion of any sort, lowered our desire to zero, for the birds were tougher than whit-leather and as tasteless as shavings, and thereafter we were willing to allow them all the rights guaranteed by the game-laws of more civilized lands.



CARVED PINS FOR FASTENING MARMOT SNARES.

Quite a number of marmots were seen by our Indians, and their holes and hummocks dotted the hillsides. The Indians catch them for fur and food (in fact every thing living is used for the latter purpose) by means of running nooses slipped over their holes which choke the little animals as they try to make an exit from their homes. A finely-split crow-quill, running the whole length of the rib of the feather, is used for the noose proper, and the instant this is sprung it closes by its own flexibility. The rest is a sinew spring tied to a bush near the hole, or if there is no bush at hand, a stick driven into the ground serves the purpose of an anchor. Some times these pins are fantastically carved—especially by the Chilkats, who are adepts in this art—and then they are generally made of bone, some superstitious idea of luck, probably, being associated with them. Nearly all the blankets of this tribe of

Indians are made from these skins, and they are very light for their warmth.

The few Tahk-heesh or "Sticks" who had been near us at Caribou Crossing suddenly disappeared the night after we camped on the little lake, and as the gummed canoe which we had towed along the raft in case of emergencies faded from view at the same time, we were forced to connect the two events together, and chronicle these fellows as inclined to appropriation. It was a very fortunate circumstance that we were not in need of one afterward until we could purchase a substitute, although we hardly thought such a thing possible at the time, so much had we used the one that ran away with our friends. These canoes are very scarce, there being probably not over ten or twelve the whole length of the river to old Fort Selkirk. Many of their journeys up the stream are performed by the natives on foot, carrying their limited necessaries on their backs. Returning they use a small raft, of two to six or eight logs, on which they float down with the current in the streams and pole and sail across the lakes. We saw the logs of many such rafts, some of them closely resembling the telegraph poles of civilization, and this comparison gives one a good idea of the size of the best timber usually found in this country. At one place our Indians found a swamped canoe, and one of them bailed it out in a manner as novel as it was effectual. Grasping it on one side and near the center, a rocking motion fore and aft, was kept up; and this being repeated, the canoe was gradually lifted until it stood at the man's waist, with not enough water in it to sink an oyster can, and this in a space of time not much greater than it has taken to relate it.

This was in front of the only permanent house in the Tahk-heesh country. It was deserted at the time, but evidently only for awhile, as the spoils of the chase and the fisheries were still hanging inside the rafters. There were also a great number of dried salmon in the house—one of the staples then beginning to appear on this part of the river, nearly two thousand miles from its mouth. This salmon, when dried before putrefaction sets in, is quite bearable, ranking somewhere between Limburger cheese and walrus hide. Collecting some of it occasionally as we floated by, we used it as a lunch, in homœopathic quantities, until some of us got so we really imagined we liked it.

CHAPTER IX.

HUNTING AND FISHING IN FAR-OFF ALASKA.—[Continued.]

In floating down the river, whenever we came near any of the low points we were at once visited by myriads of small, black gnats, whose pressing questions were very pointed, and which formed a handsome addition to the musquitoes that did not diminish in number as we descended the river. The only protection from them was in being well out from land with a good wind blowing. When forced to camp on shore, a heavy smoke would generally drive them away. The greatest comfort in pitching the tent—and it was not every camping place that afforded us this privilege—was the thought that it would enable us to keep out the musquitoes, for then we could spread our bars with some show of success. The constantly recurring light rains made us often regret that we had *bivouacked*, not so much on account of the slight wetting we got but because of the constant fear that it was going to be much worse than it ever proved to be. I defy any one to sleep out, with only a blanket or two over him, and not feel, when a great cloud sprinkles a drop or two in his face, that the deluge is coming next. I have tried it for ten or twelve years, and have not got over the feeling yet.

On one lake about thirty miles long, which I named after Professor Marsh, of Yale College, I noticed on its eastern slopes pretty open prairies, covered with the dried yellow grass of the previous year, the new growth having evidently not yet forced its way through the dense mass, and more than one was struck by their resemblance—irregular as they seemed—with the stubble fields of oats or wheat in lower climes. I doubt not they furnish good grazing to mountain goats, caribou and moose, and would be sufficient for cattle, could the latter keep on friendly terms with the musquitoes. According to the general terms of

the survival of the fittest, and the growth of the most used muscles to the detriment of others, a herd of cattle in this district in the far future would be all tail and no body, or the present status of musquitoes would have to cease.

At Lake Marsh, a few miserable "Stick" Indians put in an appearance, while a few scraggy, half-starved dogs nearly completed the outfit. A dirty group of assorted sizes of children finished the picture of one of the most dejected races of people on the face of the earth. They visited the fish-lines at the mouth of the incoming Yukon at the head of the lake, and caught enough to keep body and soul together after a fashion.

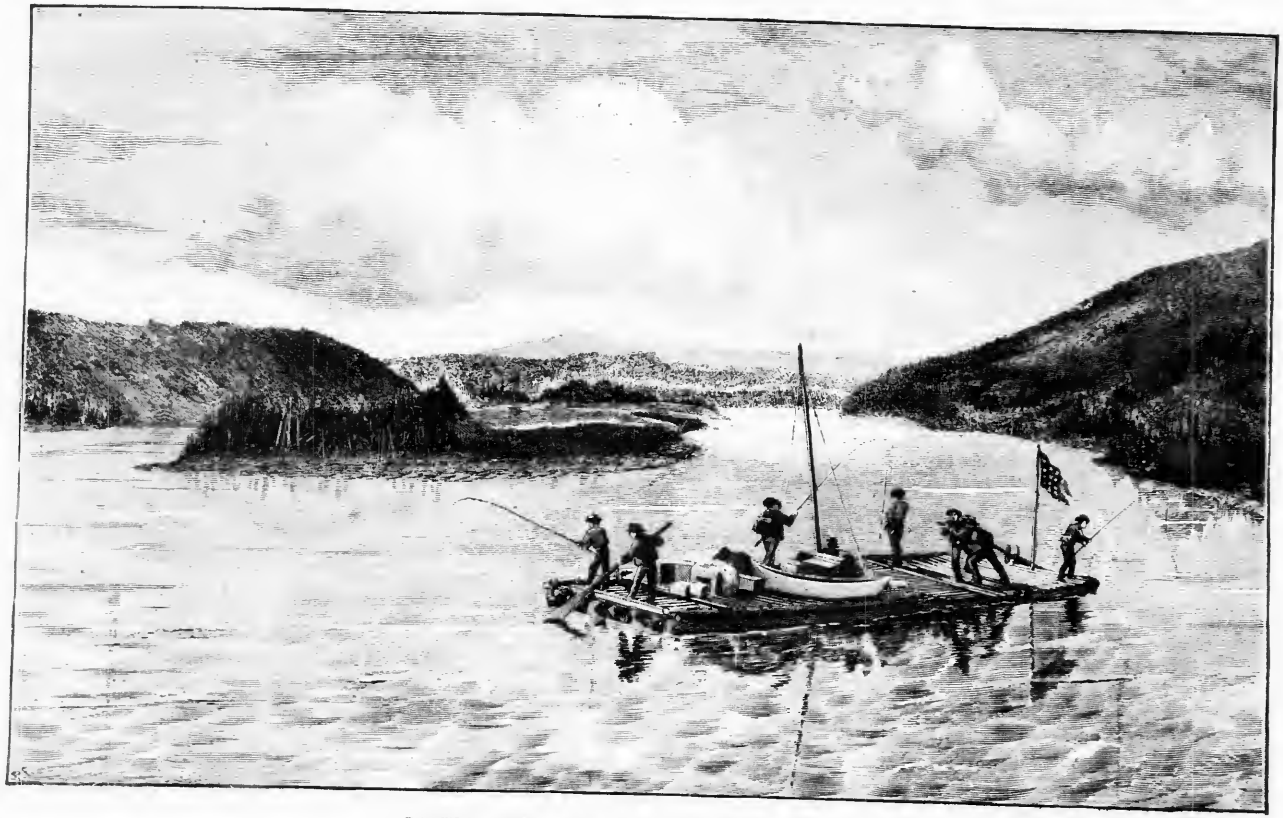
This manner of fishing of theirs is quite common in this part of the country, and at the mouth of a number of streams, or where the main stream debouches into a lake, their long willow poles, driven into the mud far enough to prevent washing away, are often seen sticking up, swinging backward and forward in the current. On closer examination a sinew line is seen to be tied to them about the water line or a little above it. These poles occasionally did us good service as buoys, indicating the mud-flats which we could thereby avoid; but we never saw many fish taken off them. The greatest number are usually secured by means of the double pronged fish-spear, which is common among nearly all the nations of sub-Arctic America, and even further north and south, and which I have represented in an illustration on page 169.

I never noticed the Tahk-heesh or "Sticks" with many nets—although they may easily have had them, so slight were my investigations on this point. Among my trading material, to pay for services, fish hooks were eagerly sought for by all of the Indians I met until White River was passed. Beyond that point the Yukon becomes too muddy for any kind of fishing depending on the fish's eyesight. The natives are not so eager to obtain lines, their common ones of sinew evidently answering all their purposes.

No good bows or arrows were seen among them, their only weapons being the stereotyped Hudson Bay flint-lock smooth-bore musket—the only kind of gun throwing a ball that this great trading company has ever issued since it came into existence. They also sell a cheap variety

of double-barreled percussion-cap shot-gun, which the natives buy, and, loading them with balls, find them superior to the first named instrument of destruction—the bow. Singular as it may appear, these natives—like the Eskimo I found around the northern part of Hudson's Bay—prefer the flint-lock to the percussion-cap, probably for the reason that the latter depends on three articles of trade—caps, powder and lead—while the former depends on but two of these, and so lessens the chances of being short of ammunition when many weeks' journey away from their supplies. These old muskets are tolerably good at forty to fifty yards, and are even reasonably dangerous at two and three times that distance, and in all their huntings they manage by peculiar tact, common to savage sportsmen, to get within this distance of moose, black bear and caribou, and thereby secure a pretty fair subsistence the year round, their summer diet being salmon and a few berries and roots. Some few of them had old horse-pistols—flint-lock, smooth-bore and brass-mounted—and I could never imagine the use to which they could put them—unless it were to present to their enemies on the verge of battle, or to give to the mother of their intended bride as one of the gifts usually presented by savages under such circumstances.

The last day of June, at about eight o'clock in the evening, we heard roaring ahead as we swung around a high clay bluff, and were conscious of the fact that we were shooting forward at a more rapid rate than usual. The raft was accordingly swung on shore, and a prospecting party sent out which discovered that there were rapids extending out into the river, but of no consequence to us. In fact, they were directly in front of our position on the shore, and so swift was the current that we could not get out into the stream fast enough to avoid sticking on the rough bar of gravel and boulders. Soon after the crew had jumped in and were preparing to pry the raft around into the stream, violent splashing was heard on the outer side of the craft, and it was found that a goodly-sized grayling had hooked himself into a line that some one had allowed to trail over the logs in the hurry and excitement of attending to more important duties connected with the supposed rapids. He was taken from the hook and when another one immediately repeated the operation, it soon became evident that we were getting into



CASTING FOR GRAYLING FROM THE RAFT.

the very best of fishing waters, and the first of that character on the river. After the raft swung clear of the outer boulders of the reef, several lines and flies were put out, and it was quite amusing to see the long "casts," or rather attempts at them, as we rushed by distant ripples near the bends of the bank, more than one of which were successful in landing a fine grayling.

That evening we camped late (about 10 P. M.) near where a couple of ripples were formed by gravel bars running out into the stream, and some fifty or sixty graylings rewarded the three lines that were kept going until about 11, or till it was too dark to fish with any comfort. The grayling caught that evening seemed to be of two distinct sizes, the larger averaging about a pound in weight, the smaller about one-fourth as much. On the morning of July 1, we approached the grand cañon of the Yukon River, and the next day its rapids, nearly five miles in length, were "shot" by the raft. So many of the logs were torn off and the craft so shaken up generally, that the next few days were occupied in repairing it even more solidly than before.

If the musquitoes had been almost unbearable before, they now became entirely so. Nothing could be done unless the wind was blowing or the smoke from a resinous pine fire was so thick that the eyes were in an acute state of inflammation.

A fair wind made me think it possible to go hunting inland; but it died down after getting away two or three miles, and my fight back to camp with the musquitoes I will always remember as one of the salient points of my life. It seemed as if there were an upward rain of insects from the grass, which became a deluge over the marshy tracts—and over half the land was marshy. Of course, not a sign of game was seen except a few old tracks. Indeed, the tracks of an animal are about the only part of it that could exist here in the musquito season—that is to say, from the time the snow is half off the ground until the first severe frost, some three or four months later. During that time, all the living creatures that can leave ascend the mountains, closely following the snow line, and even there they do not get complete quiet, the exposure to the constant winds being of far more benefit than the coolness due to the altitude while the musquitoes are left undisputed masters of the valleys.

CASTING FOR GRAYLING FROM THE RAFT.

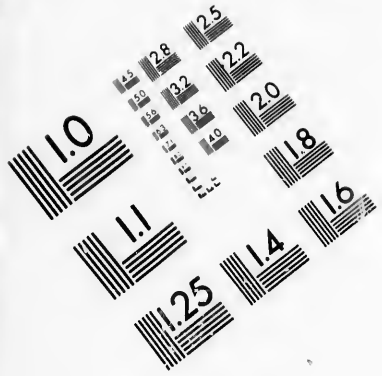
Had there been any game within good range and I had got a fair shot, I honestly doubt if I could have secured it, for these pests—not altogether because of their ravenous attacks on my face (and especially the eyes), but for the reason that they were absolutely so thick and dense that no one could have seen clearly through the mass in taking aim. When I got back to camp I was thoroughly exhausted with my incessant fight. I was completely out of breath and had to recover it in a stifling smoke from dry, resinous pine knots. It is not unlikely that a person, especially of a nervous temperament, without a mask, or taking refuge out on the broad river, or in a closed house, would soon be killed by nervous prostration. I know that the native dogs are killed by them under certain circumstances, and I heard reports from persons so reliable that, coupled with my own experience, I have never for an instant doubted them, that the great brown "grizzly" bear of these regions at times is compelled to succumb to them. The statement seems almost preposterous, but the explanation is comparatively simple. Bruin, having exhausted all the roots and berries on one mountain, or finding them scarce, thinks he will cross a valley to another range. Covered with heavy fur on his body, his eyes, nose and ears are the vulnerable points for the musquitoes, and here of course they congregate in dense swarms. Reaching a swampy stretch, they rise in myriads, until his fore-paws are kept busy striving to keep his eyes clear, and not succeeding, he becomes enraged, and, bear like, rises on his haunches to fight. It is now only a mere matter of time until his eyes are so swollen by the attacks that he is perfectly blind, and wanders aimlessly about until he becomes mired in the marsh and starves to death.

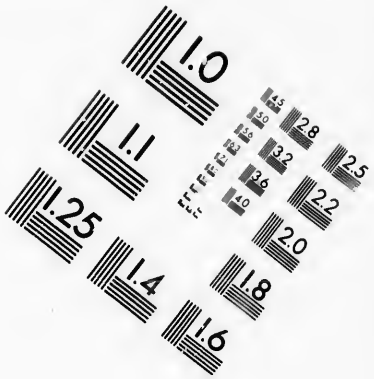
While waiting at the Grand Cañon to repair the raft, our fishing tackle was kept quite busy, to such an extent that we landed between four and five hundred nice graylings. A fine fishing ground we never afterward found on the Yukon. Nowhere in the five miles of boiling rapids and cascades was the fishing at all comparable to the ripples and gentler whirlpools above and below this stretch. Pleasant, half-cloudy evenings were especially good for sport, but sometimes the grayling would cease biting at all points with a unanimity that suggested intel-

ligence—and sometimes they would resume in the same curious way. A bright sun would not cut them off altogether, but when it was square in their faces it was wonderful how many times they would "rise" before taking the hook. This may be common, as the reason seems evident, but I never noticed it so distinctly before. I do not think I exaggerate when I say that one little fellow made fully two score of unsuccessful attempts, retreating behind a boulder each time, the ripple

FISHING FOR GRAYLING AT THE LOWER CASCADES.

of which was his favorite point for "rising." Having all the fish that we could eat, not only for ourselves and our Indians, but also the Indians who congregated round about us, we humored these fanciful fellows, even changing our flies to suit their whims if they got too tired of one. White flies late in the evening, red ones under the shadows of the dark green spruce overhanging the streams, brown and brownish-black ones when there were white, fleecy clouds in the sky, and, in general, colors complementary to the predominating background were the best.





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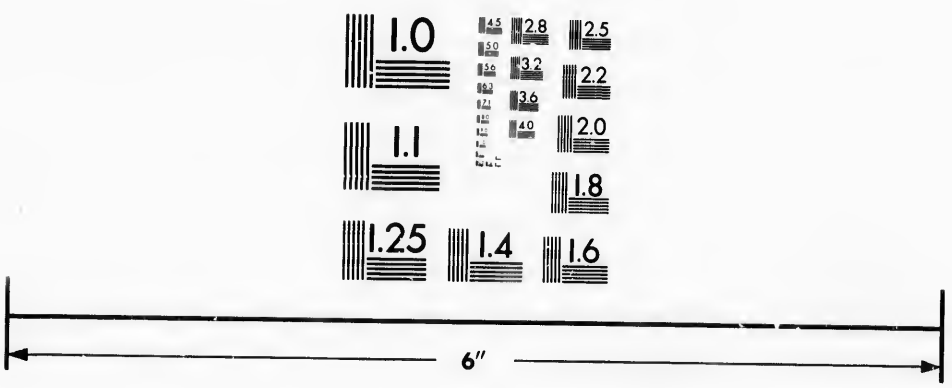

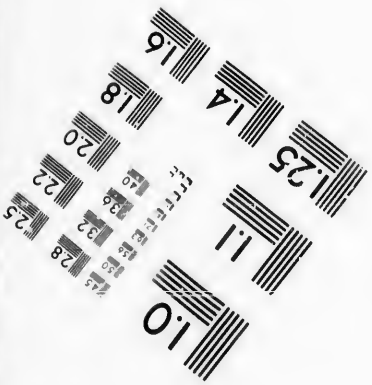

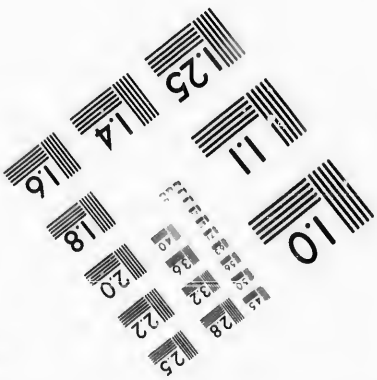

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Thousands of small brown moths or millers filled the air whenever a gentle wind blew from the north, and as they constantly fell into the water, as we often saw them do, and were eaten greedily by the fishes, our large scores show how very plentiful the latter must have been. Had we known all that was ahead of us, we would have left the fine fishing of the Grand Cañon with no little regret, but in exploring a wholly unknown country one always half believes that, however good the present conditions may be, the prospects are even better.

On the 5th of July we got away early in the morning, and by noon had passed the mouth of the Tahk-heena, or Tahk river, coming in from the west. This stream is almost as large as the Yukon, and, to our discomfort, was of muddy water, for we anticipated that it would affect our grand grayling bouts, which it did, and we never afterward felt sure of even a mess.

In the last (fifth) lake of the chain, on the headwaters of the Yukon—Lake Kluktassi—we caught a fine large salmon trout weighing over eight pounds (the limit of the Doctor's fish scales), also one or two others not so heavy.

On the 9th we floated out of this lake, and no besieger ever saw the flag of a fortress fall with more heartfelt satisfaction than we saw lowered for the last time the old wall-tent that had served us so long as a sail by day and a shelter by night.

In many places destructive fires had swept through the spruce and pine forests, and they were of different dates, for side by side were the standing trees whose bodies had been blackened but a few weeks before, and the old brown and tawny stumps, fast sinking to decay, with just enough charcoal about them to show the method of their fate, and hardly distinguishable from so many great brown bears or buffaloes, in various fantastic attitudes, as the imagination was allowed to play among them.

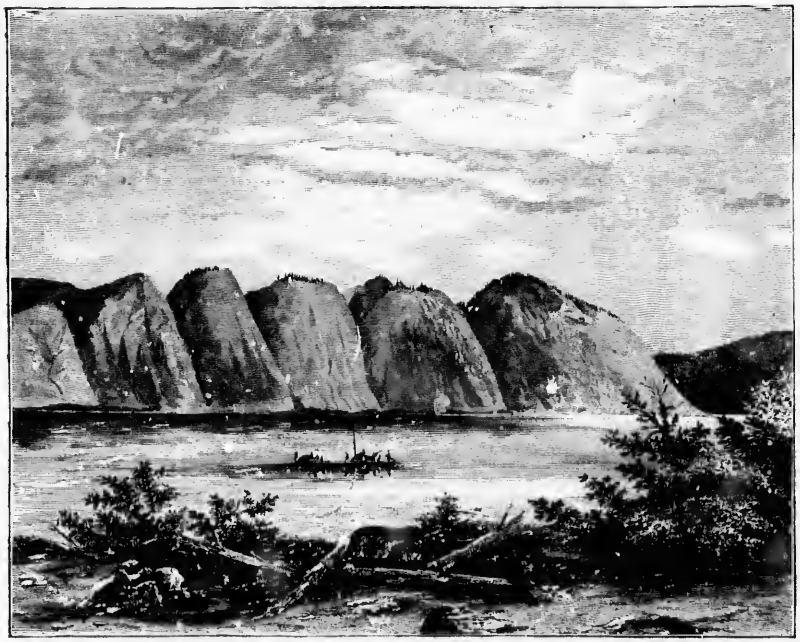
"How much that looks like a big grizzly," exclaimed one of the members of the party on the bow of the raft, as he pointed at a distant stump on a high clay bank almost directly in front of us.

"The old roots look exactly like legs, don't they?" chimed in a second person, as he caught the figure designated by the first.

"And the broken limb on the left any one would swear was a head, if he hadn't been floating through stumps just like it all day long," added a third.

"That small limb for a tail gives it dead away, though, for grizzlies never have any—"

"It *is* a grizzly!" broke in a chorus of voices, as the "stump" with its "old roots" and "limbs," broken and small, took on motion



"GRIZZLY" BEAR BLUFF ON THE UPPER YUKON.

and waddled down the slope of the bank, and there was a scrambling around under the piles of bedding and kitchen utensils for rifles and guns, accompanied with a sound of ripping gun-cover linings, and other "ripping" sounds that suddenly attracted Bruin's attention, and with a snort the stump wheeled around, the broken limb stood straight

out, and the old roots went a-wagging until they all disappeared in the thick evergreens before any of us could get a shot.

"We didn't stand a ghost of a show of getting him even if we had killed him, with this old raft tearing along at four or five miles an hour," exclaimed one Nimrod of the North, as he took a Springfield cartridge out of a Winchester rifle magazine.

"And there would have been no fun in simply killing him unless we could have gotten the robe," said another, as he looked down in the gun-cover for the fore-sight that he had torn off with a piece of the lining.

"The robe and meat are worthless at this time of year, especially those strong old grizzlies like that fellow," spasmodically ejaculated another fox who had failed to get the grapes, as he tried to ram a forty-inch barrel gun in a thirty-two-inch cover belonging to some one else.

"I was just thinking myself that, taking it altogether, we were mighty lucky that we didn't ——"

BUMP!!!

And we all scrambled off in the cold water, and viciously pried the raft clear of the fifth gravel bar for that day.

From the way that bear departed, I imagine that he spent the rest of the afternoon on the road. I never saw any thing that impressed every living thing it met with such fear as our raft. Every thing fled from it, even at the most secure distance, and this probably accounted for our very small game scores. Moose were seen in front of us and behind us, swimming the river at a frantic gait, but so far away that we could just tell that they were moose by their palm-leaf horns and Roman noses. If we accidentally got nearer, they went through the willows and spruce brush with a noise like that of a disappearing steamboat. Mr. Grizzly strode off as if he had a contract for cutting a straight right-of-way through the thicket, and rounding a corner suddenly, some birds that were in a bush were in such a horrible hurry to get out of the way, that one got knocked, or tumbled, into the water and was drowned. Just why our innocent looking craft should inspire such mortal terror I have never been able to imagine.

Some Indians whom we met said that the moose and caribou closely

A SNAP SHOT AT A MOOSE.

follow the snow line as it retreats up the mountain sides, in the spring and summer, and only leave their elevated retreats, except in isolated cases, as the snow drives them down into the valleys, where hunting recommences in the early fall. One bit of information surprised me not a little—the fact that the sub-Arctic moose never make "moose-yards" in the winter, so well known and often described in hunting and other books relating to the habits of that animal in the south-eastern Canadian provinces. This is the more singular as the country is buried under deep snows, and swept by chilly winds—is just the place, indeed, where the "yards" would be most serviceable. It would almost seem that Arctic representatives of species hibernating in the temperate zones lose, far north, the instinct which elsewhere prompts them to hibernate. Probably the extreme duration of the intensely cold weather in that zone, has, by making hibernation for the whole season impossible, caused them to abandon the habit altogether. I inquired carefully from many different reliable sources, Indians and white men, regarding this peculiarity of the northern moose and I believe it to be undoubted.

On the 12th we shot the last rapids on the river (the Rink Rapids) and a little way beyond tried to get a shot at a moose, but failed. We first saw him cracking through the high willow brush on the right bank, one of the party taking him for an Indian running toward us swaying his arms wildly to attract attention. We caught occasional glimpses of his broad horns and brown sides, and as he came to a little opening formed by the mouth of a creek, he bolted out into full view for a mere second and gave a splendid opportunity for a snap shot. Nor were we unprepared. Since the bear episode, the guns were not wearing their overcoats as much as they had been, and when the noble animal sprung in view, I had him covered with my rifle and the trigger fell with his feet as he cleared the opening and the snap shot was a snap of the cap on the cartridge; the first failure with a metallic cartridge I had had in the presence of game on this trip.

Selkirk, where the Pelly comes in, was reached the next day, and here we were detained for two or three days on business connected with the main object of our expedition. Here, too, our fishing almost ceased.

The camera being out we took a photograph of the only two varieties of edible fish we had caught with the hook and line on the river—grayling and a sort of yellow-spotted salmon trout. Coarse and ugly-looking eel-pouts were caught near Selkirk, but even the Indians looked on them with disgust. Shoals of small graylings, from an inch to an inch and a half in length, were seen on the bright pebbly beaches of the lakes, and eddies of the river. They could be readily caught with a musquito bar as a net, and formed a tempting bait for the salmon trout.

Ducks and geese were seen everywhere along the stream, but as the hens were breeding no efforts were made to secure them until later in the season, when we were on the lower river. As we drifted placidly with the quiet current, there was hardly an hour in the day that we did not see ahead of us some maternal duck with her little ducklings stretched out behind her, like canal boats in tow of a huge steamer. They would try to escape by fast swimming, and oftentimes some tired

AYAN MOOSE-ARROW.

chick would take a short rest on its mother's back. We were drifting in the swift current of the central stream while they hugged the slow waters of the banks, and it would be but a short while before they were tired out and would scramble off into the thick willows and hide.

Twelve miles below Selkirk is the Ayan Indian village of Kah-tung, the largest tribal town we saw on the river. These Ayans live chiefly on salmon in the summer and on various kinds of game in the winter. They are very poorly supplied with arms and ammunition, being at the greatest extremes from either the trade that enters at the head or the mouth of the river, a sort of neutral ground between the two. They relied, therefore, more on bows and arrows and other savage weapons of the chase, than any other tribes we encountered, although even these were not of a striking quality. Their moose arrows were peculiar. Besides the double-barb forward, common to all arrows, there was a series of barbs continued back on one side of the shaft for about three

inches. The moose is too heavy an animal to be killed by so weak a missile as a northern Indian's arrow, unless it be an exceedingly well directed one; but by this ingenious but cruel design, an arrow once imbedded in a moving muscle, as a wounded moose is trying to escape, is slowly carried forward until a vital point is reached, for when once struck with one of these arrows the Ayans will stay on the trail of a

INDIANS OF THE MIDDLE YUKON RIVER KILLING MOOSE.

wounded moose like a sleuth-hound until it succumbs even to this slow process. Time is the least valuable article with which an Indian deals.

One of my interpreters told me that these Indians, when hunting moose in the summer, run them into the broad rivers with dogs, and then pursue them in their light birch-bark canoes, killing them with knives, arrows or spears, and thus saving their valuable small lots of powder. They do not hesitate to jump on the back of a swimming

moose and stab it to the vitals with a knife, or cut its throat, leaving the canoe to look after itself, in the hope that it will be restored to him by a near companion after he has killed his prey. In fact, too near an approach in the fragile birch-bark canoe is apt to compromise its safety if the animal should begin to toss his head around like an orchestra leader's *bâton*, as he often does, and a canoe ranks much higher in the native's estimation than a moose's carcass. The moose-skins are used as coverings for their rude tents in winter as well as in summer; for, despite the fact that they live in a country densely timbered with fine trees for log cabins, even the few they build are of the most squalid and worthless character, which they leave in winter for the better protection of the tent. These winter tents are double; that is, after one conical tent has been pitched and wrapped in skins, another set of poles is added, and again covered with skins. There is an air-space of a foot or two at the bottom between the two tents, and there is a common apex for the two sets of poles. Over the outer tent is "banked" a thick covering of snow, which varies with the coldness of the weather, and taking it altogether, one can readily see that such a tent would be more comfortable than an ill-built log-cabin—and the Ayan's constructive ability is of a very low order indeed.

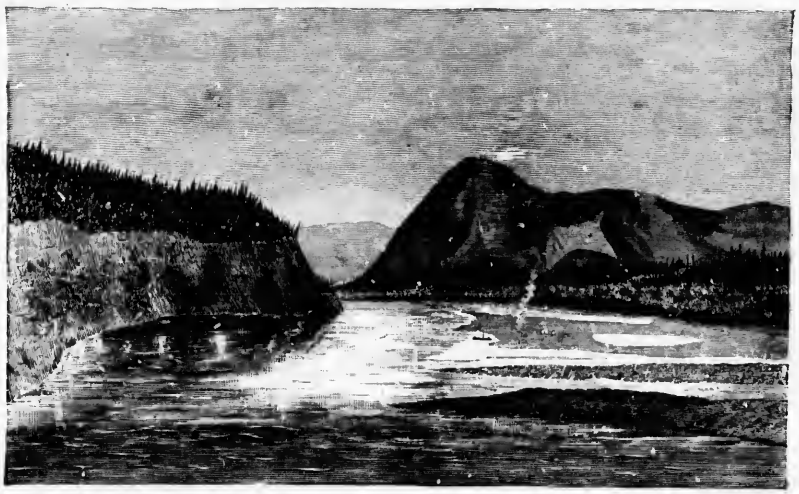
CROSS-SECTION THROUGH AYAN WINTER TENT.
I., Interior; P. P. P. P., Poles; A.S., Air Space; S., Snow.

July 16 saw us away from Ayanville, and drifting through a high, mountainous and picturesque country. On a northern hill, well up to its summit, we saw a big black bear in an opening, and a little further on three mountain goats sunning themselves on a beetling ridge.

When we were nearly ready to start on the morning of the 17th, we found four Ayan Indians from the village above, waiting—each in one of their pretty canoes—at our camp. They had with them the carcass of a black bear, which they offered us for sale, and on our buying one

ham, which was all that we could use, they offered us the rest as a present. We accepted the other hind quarter and they left the rest of the animal on the gravel beach. It happened that all four of the Indians were medicine-men, and as such never ate bear meat.

The next evening we camped at a most picturesque spot on the eastern bank, where a large, swift river came tumbling into the main stream. It was so clear that we felt confident of a mess of fish, but our confidence was misplaced. The tributary stream is called the Deer River, from the large numbers of woodland reindeer that infest its



MOOSE-SKIN MOUNTAIN AND MOUTH OF DEER RIVER.

valley at certain periods of their migrations, but unfortunately the middle of July was not one of these periods. To the northward loomed up a bright green mountain, from whose side a slide had torn a great mass of the turf, thus exposing the red clay in striking contrast to the green. The red space thus exposed resembled a huge moose-skin stretched on the ground to dry, and the Indians had accordingly named this the Moose-skin Mountain.

The next day we had quite a hunting excitement. We saw three or

four bears, both black and brown, in an open or untimbered space on the steep hillside of the western shore. We abandoned all other plans and kept up a regular skirmish fire on the bears as long as our raft was in range, but the only loss on their side was loss of breath in climbing the steep mountain to a place of safety. That day's experience shattered my faith in the theory that the black and brown bears will not inhabit the same locality at the same time.

On the next day we came to the first Indian village on the Yukon that deserved the name of permanent, and even here the logs of the six cabins were so small as to be merely poles. The huts were certainly well ventilated. The village had about 120 souls, and was perched on a high, flat bank overlooking the river. It was at this village that, to me, the most wonderful and striking performance ever given by any natives we encountered on the whole trip was displayed, and in this I refer to their method of fishing for salmon. The Yukon is as muddy as any river in the world, from its mouth to the mouth of the White River, well above this village, and this spot of course is no exception. I believe that I do not exaggerate in the least when I say that if an ordinary pint tin cup was filled with it, nothing could be seen at the bottom of it until the sediment settled. The water is from eight to twelve feet deep on the fishing banks in front of their houses, where they fish with their nets, or at least that is the length of the poles to which the nets are attached. These nets are large dip nets, and the salmon that I saw them secure with them were caught about two hundred and fifty to three hundred yards from the shore.

Standing in front of the row of cabins, some one—generally an old squaw or a child, possibly on duty for that purpose—would announce that a salmon was coming up the river, probably a quarter of a mile away, when some man, ascertaining the fish's position, would run down to the beach, pick up his canoe, paddle and net, and start out into the river rapidly, the net lying on the deck in front of him, his movements being guided by his own sight and that of half a dozen others on the beach and bank, all shouting to him at the same time. Evidently in the canoe he could not see well at a distance, for he seemed to rely on the advice of those on shore until the fish was near him. Then

FISHING AT KLAT-OL-KLIN.

with one or two dexterous and powerful strokes with both hands, he would shoot the canoe to the desired position, regulating its finer movements by the paddle in his left hand, while with his right he would plunge the net the whole length of its pole to the bottom of the river, from eight to twelve feet, often leaning well over and thrusting his arm deep into the water, so as to adjust the mouth of the net (covering about two square feet) directly over the course of the salmon.

In seven attempts that I witnessed at intervals covering three hours, two were successful, salmon being caught that would weigh probably twenty pounds. When the fish is netted, a turn is given to the handle, thus effectually trapping it below the mouth of the net, and, when brought up alongside, a fish-club, somewhat like a potato-masher, is used to kill it immediately, for the struggles of so large a fish might easily upset a small, cranky canoe. How these Indians, at this great distance, can see the motion of isolated running salmon on the bottom of an eight or ten feet deep river, and determine their position near enough to catch them in the narrow mouth of a small net, when, under the eye, an object at the bottom of a vessel holding that many inches of water from the river is wholly invisible, is a marvelous problem that I will not attempt to solve. The solution, of course, depends in some way on the motion of the fish.

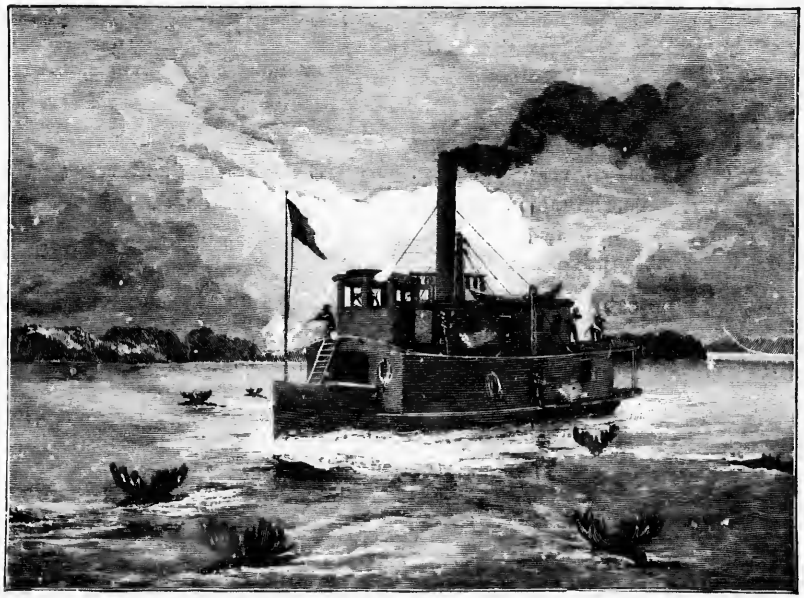
In vain they attempted to point out to members of my party the coming salmon. I feel perfectly satisfied that none of the white men saw the least traces that the natives tried to show them. In their houses and on their scaffoldings were several hundred salmon that had been caught in this singular way. The only respectable theory that I could evolve, was that the salmon came along near the top of the water, so as to show, or nearly show, the dorsal fin, and that when they neared the canoe, the sight of it, or more likely some slight noise, probably made on purpose, sent them to the bottom without any considerable lateral deviation, and that they were thus directed into the mouth of the net. My interpreter, however, told me that this superficial swimming did not take place, but that the motion of the fish was communicated to the top from the bottom.

This Indian village was called Klat-ol-Klin, but it is better known

FISHING AT KLAT-OL-KLIN.

as Johnny's Village, all of these Indians being anxious to appropriate American names.

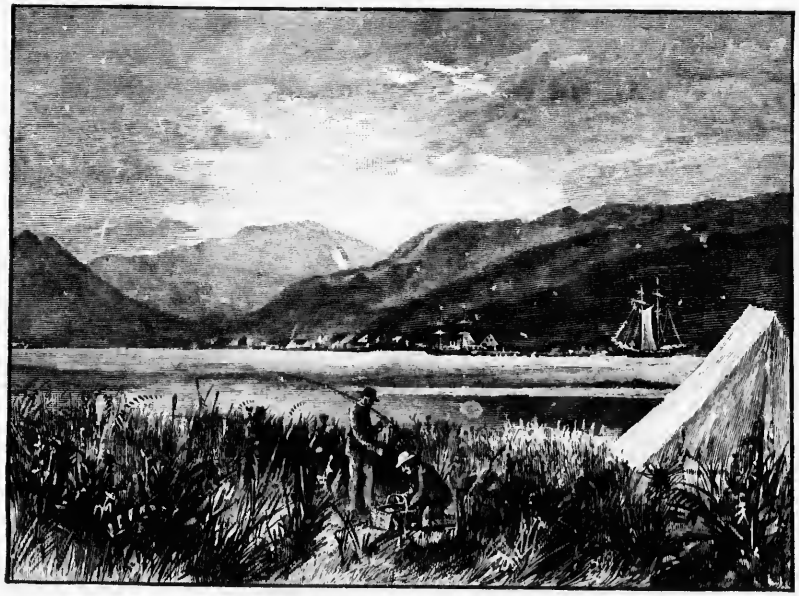
In the forenoon of July 24 we saw a large buck moose swim from an island to the mainland just back of us, it having evidently scented us. We had sincerely hoped that we could find these noble animals in some locality in quantities sufficient to justify our stopping over a day for a hunt, but the two I have mentioned were the only ones we saw on the river. Years ago they were quite numerous for many miles below



HUNTING MOOSE FROM RIVER STEAMER "YUKON."

this point, but we afterward ascertained that they are now nearly extinct here, an exceedingly severe winter some five or six years ago being held to account for their disappearance. It is to be greatly hoped that they have only been destroyed in part, so that they may eventually recover; for the Yukon valley will give them a safe refuge from civilization when the hunting of them in Maine and Canada will exist only in books and stories.

From where we saw this last moose, the country for 300 miles further on is as flat as a pancake—a sort of marshy tundra (timbered, however), where the musquitoes revel in numbers, and game is universally scarce. We were about ten days drifting through it, entering the hilly country on the 3d of August, having seen nothing to impress our hearts as hunters nor to relieve our stomachs with fresh meat. Our entry into the "lower ramparts," as this second hilly country is called,



PREPARING FOR A DAY'S TROUTING AT OONALASKA.

was celebrated by killing three geese, which we found to be fine eating after a fortnight's feasting on government bacon. From here on to the mouth of the river we found plenty of ducks and geese which were large enough to kill, and we secured a few messes, but the acme of impossibility is reached in hunting when floating down a broad river on such an unmanageable affair as a raft. Before moose became scarce on the lower stream, the river steamer Yukon of the Alaska Company, a

small craft plying on the stream of the same name, would occasionally encounter a herd swimming down the river, and rifles and revolvers would be brought out, and the exciting scene can be more easily imagined than described.

A few days were spent at Oonalaska. in the Aleutian group, as we returned to San Francisco from Bering Sea, and in the little mountain streams we had a day or two at trouting—our last act as Nimrods in the North.