

and ran up toward the house, leaving him on the rocks by the sea.

Mrs. Wilson met her half-way across the lawn. "I was coming to join you," she began. "Lord Rainford is there," said Helen.

"Mrs. Wilson, I find that I must see Mrs. Ray again before I go to town. Could you let them drive me across, and then to the station?"

"Why, certainly," said Mrs. Wilson in the national terms of acquiescence.

(To be continued.)

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## A MUSK-OX HUNT.

FOR about twelve months during 1879 and '80, I was traveling by sledge in the arctic regions with a party of twenty persons. During that time we depended for our food, as well as for that of our forty-two dogs, upon the game of the country, twice traversed by us, stretching from the waters of North Hudson's Bay to the Arctic Ocean. The design of subsisting for so long a time upon the game of those bleak, dreary regions entailed a great variety of hunting adventures. And to describe one of the incidents of a hunt after musk-oxen, or musk-sheep as they are sometimes called, is the object of this article.

Our route led us from the northernmost point 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 known as King William's Land, on which island and adjacent mainland Sir John Franklin's party of over a hundred British seamen perished in 1848-49, and whose sad fate it was the object of this expedition, as far as possible, to determine. This route lay directly across country. The bulk of authorities on Arctic sledging, both white and native, bore against long overland sledge journeys, an opinion to which they often gave practical illustration by unnecessary detours to follow salt-water ice or sinuous water-courses. Our course, therefore, had never been traveled by either white men or natives, and the latter, who formed an important element of the expedition, advised against it. The Indians of the north, as I found them, are loath to enter a totally unknown country. They knew almost nothing of the game of the region, so they said, but believed that musk-oxen would be found, and if they proved to be plentiful they were willing to undertake the journey. Accordingly, a preliminary reconnaissance as far as Wager River was made by me in January, 1879, and although no musk-oxen were actually seen, we found abundant traces of them. These facts overcame the objections of the natives, who now readily consented to accompany us.

Our party was well armed with the finest breech-loaders and magazine guns, and carried an ample supply of fixed ammunition. The hunting force of the party consisted of four full-grown Eskimo men, and three Eskimo boys, ranging from twelve to eighteen, and the four white men.

We left North Hudson's Bay on the first day of April, 1879, and by the 8th of the month were, according to our natives, in what they termed the musk-ox country, the locality in which they had been accustomed to hunt these huge monsters during winter trips from the sea-coast, where the natives live the greater part of the year. But the musk-cattle of the Arctic are so sparsely distributed that they form only a small part of the game necessary to furnish these northern nomads with their yearly supplies, and they place very little reliance upon them. The annual musk-ox hunt, however, is looked forward to with much interest, and is long in advance the burden of their conversation, while housed in their little snow huts. It is in the sport and excitement of the chase that they find the greatest reward, and not in the meat secured nor in the half-worthless robes that are thus obtained. These robes are almost of no value to them unless they be near some trading station or whale-ships wintering in the ice. To us, however, their huge carcasses were, as food for our three teams of dogs, of great importance compared with that of the reindeer or any other game that we would be likely to fall in with.

On April 9th, we came upon a large trail of musk-cattle. The sign was tolerably old, some six or seven days at least; but one of the peculiarities of the animals is that they will travel very slowly when undisturbed and in a good grazing country, and this same herd, so the Eskimos believed, was not far off; 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 to warrant any such delay, and we pushed on.



Again, on the 13th, we came upon the fresh trail of a large herd of these cattle, and I had the hardest work imaginable, persuading these natives to pass on without following it up. The Eskimos have far more excitability in the presence of game or its sign than any other race of people I have encountered, not even excepting the various Indian tribes of our great Western plains.

Before we had fairly gone into camp on the 22d,—and by going into camp on an arctic sledge journey is meant the building of peculiarly constructed domes of snow, or snow-houses, the unharnessing of the dogs, et cetera,—a most furious gale of wind arose, which raged so terribly for five days that even the natives found it prudent not to stay out of the snow-huts for any considerable time; and this enforced idleness reduced our commissary to an alarming minimum. We managed, however, to get away by the 28th, the storm even then only slightly abating, and after traveling nineteen miles in a north-north-west direction we went into camp, the weather somewhat better, but the larder in a reduced condition. Shortly after camping, Ik-queé-sik, my Netschilluk Eskimo guide, who had absented himself while the *igloos*, or snow-houses, were being built, came running excitedly into the village from a distant high hill, the perspiration in huge drops streaming down his brown and dirty face, and with my army signal telescope, full drawn, under one arm. While gasping for breath, he reported that he had seen a herd of eight or ten musk-oxen about four or five miles to the northward, slowly grazing along to the west, and evidently unaware of danger. Everything was put aside, and every Eskimo, man, woman, and child, was soon at the top of a high hill near by, and a dozen dirty and eager natives were clamoring to look through the telescope. 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, Ik-queé-sik's discovery having been made too late to risk an attack so near nightfall.

Our dogs, that had been loosened from their harnesses, were now secured to the overturned sledges and to other heavy materials, to prevent their scampering after the game should they scent them in the night, as their ravenous appetites would undoubtedly prompt them to do; while around each animal's nose was closely wound a muzzle of seal or walrus-line thongs, to prevent the usual concert of prolonged howls.

The following morning a heavy drifting fog threatened to spoil our sport and lose us our coveted meat, but we managed to get away soon after eight o'clock, having a party

of eleven rifles, with two Eskimo women, two light sledges, and all the dogs. At that hour the great thick clouds seemed to be lifting, but shortly after starting the fog settled down upon us again. After some two or three hours of wandering around in the drifting mist, guiding our movements as much as possible by the direction of the wind, which we had previously determined, we came plump upon the trail, apparently not over ten minutes old, of some six or seven of the animals. Great fears were entertained by the experienced hunters that the musk-oxen had heard our approach, and were now probably "doing their level best" to escape. The sledges were immediately stopped and the dogs rapidly unhitched from them, from one to three or four being given to each of the eleven men and boys, white or native, that were present, who, taking their harnesses in their left hands or tying them in slip-nooses around their waists, started without delay upon the trail, leaving the two sledges and a few of the poorer dogs in charge of the Innuït women, who had come along for that purpose, and who would follow on the trail with the empty sledges as soon as firing was heard. The dogs, many of them old musk-ox hunters, and with appetites doubly sharpened by hard work and a constantly diminishing ration, tugged like mad at their 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 going on. The rapidity with which an agile native hunter can run when thus attached to two or three excited dogs is astonishing. Whenever a steep valley was encountered the Eskimos would slide down on their feet, in a sitting posture, throwing the loose snow to their sides like escaping steam from a hissing locomotive, until the bottom was reached; then, quick as thought, they would throw themselves at full length upon the snow, and the wild, excited brutes would drag them up the other side, where, regaining their feet, they would run on at a constantly accelerating gait, their guns in the meantime being held in the right hand or tightly lashed upon the back.

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





ON THE TRAIL

in deep, long baying, as they shot forward like arrows, and disappeared over the crests of the hills amidst a perfect bewilderment of flying snow and fluttering harness traces. The discord of shouts and howlings told us plainly that some of the animals had been brought to bay not far distant, and we soon heard a rapid series of sharp reports from the breech-loaders and magazine guns of the advanced hunters. We white men arrived just in time to see the final struggle. The oxen presented a most formidable-looking appearance, with their rumps firmly wedged together, a complete circle of swaying horns presented to the front, with great blood-shot eyeballs glaring like red-hot shot amidst the escaping steam from their panting nostrils, and pawing and plunging at the circle of furious dogs that encompassed them. The rapid blazing of magazine guns right in their

faces—so close, often, as to burn their long, shaggy hair—added to the striking scene. Woe to the over-zealous dog that was unlucky enough to get his harness line under the hoofs of a charging and infuriated musk-ox; for they will follow up a leash along the ground 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 their horns.

Although we tired and panting white men rested where the first victims fell, Too-loó-ah, my best hunter,—an agile, wiry young Iwillik Eskimo of about twenty-six, with the pluck and endurance of a blooded horse,—and half the dogs pressed onward after the scattered remnants of the herd, and succeeded in killing two more after a hard run for three miles. The last one he would probably not have overtaken if the swiftest dog,



Parseneuk, had not chased him to the edge of a steep precipice. Here a second's hesitation gave the dog a chance to fasten on the ox's heels, and the next second Parseneuk was making an involuntary aerial ascent, which

scenes) showed plainly the fights and quarrels in which they had figured. Parseneuk, as a favorite, had been raised and fed in the *igloo*, under the fostering protection of the old squaw, and, being saved the necessity of



AT BAY.

was hardly finished before Too-loó-ah had put three shots from his Winchester carbine into the brute's neck and head, whereupon the two animals came to earth together,—Parseneuk on the soft snow at the bottom of the twenty-foot precipice, fortunately unhurt. Parseneuk was a trim-built animal that I had secured from the Kinnetoo Eskimos who inhabit the shores of Chesterfield Inlet, being one of the very few tribes of the great Eskimo family, from the Straits of Belle Isle to those of Behring Sea, who live away from the sea-coasts. They subsist principally upon the flesh of the reindeer, and their dogs are adepts in hunting these fleet animals, Parseneuk being particularly swift and intelligent as a hunter. He had been the favorite in the Kinnetoo family from whom he was purchased, and I had to appease several of them with presents, as indirect damages to their affections. He had a beautiful head, with sleek muzzle and fox-like nose, while his pointed ears peered cunningly forth in strange contrast with the many other dogs that I have met, whose broken and mutilated ears (usually restored in illustrations of Arctic

combating for his daily bread, thus preserved his ears.

The chase finished, the half-famished dogs received all they could eat,—their first full feast in over three weeks,—and after loading the two sledges with the remaining meat and a few of the finer robes as mementos 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 hardly noticing the most vigorous applications of the well-applied whip.

The Eskimos with whom I was brought in contact never hunt the musk-oxen without a plentiful supply of well-trained dogs; for, with their help, the hunters are almost certain of securing the whole herd, unless the animals are apprised of the approach, as they were in our encounter with them. When the flying herd has been brought to bay in their circle of defense by the dogs, the Eskimo hunters approach within five or six feet and make sure of every shot that is fired, as a wounded animal is somewhat dangerous, and extremely liable to stampede the herd. A band of these brutes when once stampeded



are much harder to bring to bay the second time; but it may be well to mention that if the hunt is properly managed, such stampedes are extremely rare. When the circle of cattle is first approached, the hunters take care to dispatch first the active and aggressive bulls, conformably to a general hunting maxim followed in all parts of the world. As their members fall, one at a time, the musk-oxen persist in their singular mode of defense, presenting their ugly-looking horns toward as many points of the compass as their remaining numbers will allow. When but two are left, these, with rumps together, will continue the unequal battle; and even the last "forlorn hope" will back up against the largest pile of his dead comrades, or against a large rock or snow-bank, and defy his pursuers, dogs and hunters, until his death. While the calves are too young and feeble to take their places in ranks, which, in general, is about the first eight or nine months of their existence, they occupy the interior space formed by the defensive circle; but when their elders have perished in their defense, with an instinct born of the species, they will form in the same order and show fight.

The calves 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 Plains. They can be readily captured alive by the Eskimo dogs, if the hunters be near to prevent their being immediately killed by these ravenous animals; but, in these inhospitable regions, it is impossible to furnish them with proper nourishment to sustain life until they can be transferred to a vessel, which, moreover, can only escape from here during the autumn months; consequently, there are no cases on record, I believe, where these most curious animals have been exhibited in the temperate zones. The natives told me they had kept calves alive for a few days, but they sank so rapidly 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 or American whale ships, they used the bow and arrow, or the lance, dashing fearlessly past the brutes as they buried the sharpened bonelance-head deep in some vital part. In the olden times, one of their tests of manly courage was for the hunter to pass within the circle of animals and return, backward and forward, killing one of the oxen at each passage. Of such feats, the old gray-haired men of the tribes still boast.

One old Iwillik Innuut,—so I was told by his tribe, and they are not given to vain boasting,

—while traveling with dogs and sledge from one village to another, during his younger days, came suddenly and unexpectedly upon a couple of musk-oxen that had strayed far from their usual haunts. Unhitching his dogs from the sledge, he soon brought the oxen to bay. His only weapon was a "snow-knife," a kind of long-bladed butcher knife which they use to cut the blocks of snow in constructing their houses. Nothing daunted, however, he courageously attacked them, and in a few minutes had secured both.

The danger from these formidable and ferocious-looking brutes is undoubtedly more apparent than real, judging from the few accidents that occur. The dogs are frequently killed by being tossed in the air or pawed to death as already described. The musk-bulls are prevented from following up a dog's trailing harness line by attaching a toggle noose where the trace joins the harness at the root of the dog's tail when the traces are separated from the dogs before they are slipped for the chase; also a sure way is to fold the trace into a "bundle noose" until it rests on the dog's back. 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 hair that covers him down below the knees, as if he were carrying a load of black brush. As his generic name (*Ovibos moschatus*) imports, he seems to form a connection between the ox and the sheep. His peculiar covering makes him look like a huge ram, to which his horns add much of similarity. In fact, this covering partakes of the character of both wool and hair. First, there is a dense coat of blackish-brown hair like that on the hump, shoulders, and fore-legs of the buffalo, which extends over the whole body, and is, I believe, never shed. Below this, there is an under-coating of soft, light brown wool, which is invisible through the first, unless parted by the hands, and which is shed annually. This seems to be a true wool and of the finest texture. A Mr. Pennant, an English gentleman, gives an instance of a man of his, of the name of Jeremy, having woven from this inner fleece of the musk-ox a pair of stockings which were as fine as any of the best silk stockings.

During the summer months, just after this fleece is shed, it is still found matted into the long black hair, and is only prevented from falling to the ground by this interweaving process. The short hair on their foreheads is very often found matted into little balls or



small lumps with ordinary dirt, showing unmistakably that they use their head and horns in tearing up the earth. This they have been seen to do when closely pressed and brought to bay; but they are so seldom hunted that

The native bow is 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 braid made from the sinews on the superficial dorsal muscles



THE ATTACK.

we may suppose their head and horns are used in removing the snow from the mossy patches where they graze in the winter time. Their horns, from their peculiar shape, would certainly make excellent snow-shovels.

The shape of these weapons of defense is certainly most peculiar. Starting from the median line of the forehead, at which point the horns are joined base to base, they present a thick flat plate, or shield, of corrugated horn almost a foot in width. As these flat shields circle around the eyes about four inches from them, the outer edges are gradually incurvated until about half way between the eyes and nostrils a perfect horn is formed. From here it tapers, curling upward near its extremity with a jauntiness worthy of a Limerick hook. To the natives of the north, these horns afford many implements of the chase and household utensils. They thoroughly understand the well-known principle of steaming the horn in order to render it soft while it is being worked.

of the reindeer, a cluster of these braids about as thick as a man's middle finger running the length of the back of the bow to give it strength and elasticity. I found the Eskimo of King William's Land and vicinity using copper stripped from Sir John Franklin's ships to rivet their bows together. The Eskimo bow is not in any way equal to the Indian bow, seldom being effective at over forty or fifty yards with such game as the reindeer. Except as children's playthings, bows have entirely disappeared, wherever intercourse with the Hudson's Bay Company or American whalers has placed fire-arms in the hands of the natives; and this includes the whole of the great Eskimo family (or Innuits, as they should be properly called), except those stretched along the shores of the Arctic Ocean from about King William's Land on the east to the farthest point reached by American whalers from the Pacific on the west.

A camp is always picked near a lake which the Eskimos know, by certain signs,





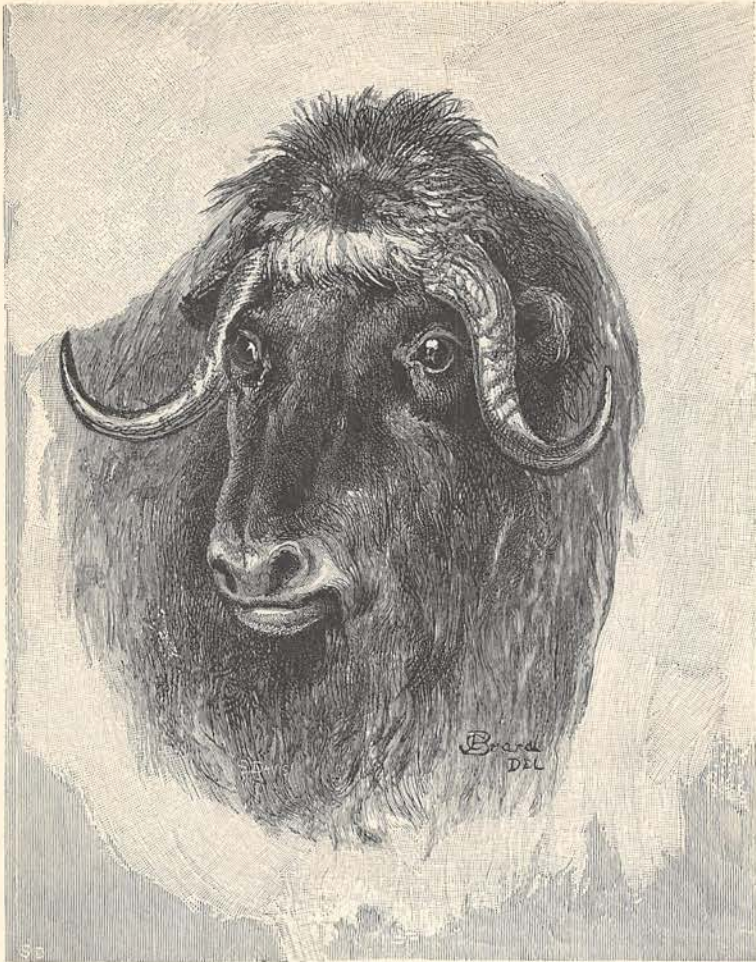
MUSK-OX.

has not yet frozen to the bottom. This fact is ascertained by placing their pug noses in close proximity to the upper surface, when the peculiar hues indicate the presence or absence of water. While the most of the party are building their little huts of snow for the night's encampment, some one takes the ice-scoop and chisel, fares out on the lake, and selects a place for his operations. He then digs a hole with the chisel about a foot in diameter, and 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 is kept up until the water is reached, at from four to eight or ten feet below. This digging requires far more dexterity than one would at first glance suppose. The amateur finds it impossible to keep it from rapidly narrow-

ing to a point long before the water is reached. Moreover, if the débris be too freely chopped, it becomes reduced to a sort of ice-dust, which will pack in 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 of a strong fish-line, separated by an ice-hole through which neither of us could pass.

The range of musk-cattle is quite extensive. They occupy the extreme northern shores of Greenland on both the east and the west





MUSK-COW.

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  $60^{\circ}$  to  $79^{\circ}$  north, and from longitude  $67^{\circ} 30'$  west almost to the Pacific coast. 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's Land, in 1869, killed 79 musk-oxen, whose hides alone weighed 873 pounds. Dr. Rae, the celebrated Scotch explorer of this region of the Arctic, also secured large numbers of them. The musk-ox occurs

fossilized at Eschscholtz Bay on the north-west coast; and fossil oxen found in different sections of the United States, and which closely resemble the musk-ox, have been described by Dr. Leidy in the Smithsonian Institution's reports. 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 one species is known, are now strictly confined to the 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 with the calves I have never been able to discern 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 Oojuolik or Ooqueesik-Salik Eskimos, of Hayes River, who are not armed, and consequently can procure but 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. Over lakes, rivers, and flat plains it is equal to wood, but in very uneven ground its pliability is dangerous to fragile loads.

When closely pressed, the musk-oxen do not hesitate to throw themselves from the steepest and deepest precipices; and the natives speak of occasions where they have secured them in this manner without wasting powder or lead, finding them dead at the foot of the descent. Sir James Clarke Ross had a personal observation 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 buffalo of the plains at rare intervals. She was, however, accompanied by a black calf. This Melville Island is abundantly peopled with these oxen, not less than one hundred and fourteen being 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, as the reindeer constantly do when the channel is frozen over, and even confine their annual migrations to very limited areas. Different writers disagree as to whether they can be

called migratory 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 tolerably successful. When the temperature reaches the extremes of the bitter winter weather, as from  $-60^{\circ}$  to  $-70^{\circ}$  Fahrenheit, the musk-oxen and reindeer herds can be located, at from six to seven miles distance, by the cloud of moisture which hangs over them, formed by their condensing breath, and from favorable heights at even fifteen to twenty miles. Even at these extreme distances, the native hunters claim that they can discern the difference between musk-oxen and reindeer by some varying peculiarities of their vapors.

I remember being one of a party of six—five Innuits besides myself—that chased on the fresh trail of a small herd of musk-oxen from about nine o'clock in the morning until night-fall, 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 one small rest of five 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 not less than forty or fifty miles, and in a fine condition to believe many stories of endurance while on hunting chases that I had heard them tell. The thermometer at camp registered  $65^{\circ}$  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 upon their sides, they seem perfectly powerless to rise, either from fear or 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. The native men, women, and boys sat upon their heaving sides, evidently enjoying the cruel sport; and all the white men participated for a mere second, rather to please their savage allies, 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.

*Frederick Schwatka.*