TEN THOUSAND MILES WITH A DOG SLED

BY

HUDSON STUCK

Freeditorial

TEN THOUSAND MILES WITH A DOG SLED

CHAPTER I

FAIRBANKS TO THE CHANDALAR THROUGH CIRCLE CITY AND FORT YUKON

THE plan for the winter journey of 1905-6 (my second winter on the trail) was an ambitious one, for it contemplated a visit to Point Hope, on the shore of the Arctic Ocean between Kotzebue Sound and Point Barrow, and a return to Fairbanks. In the summer such a journey would be practicable only by water: down the Tanana to the Yukon, down the Yukon to its mouth, and then through the straits of Bering and along the Arctic coast; in the winter it is possible to make the journey across country. A desire to visit our most northerly and most inaccessible mission in Alaska and a desire to become acquainted with general conditions in the wide country north of the Yukon were equal factors in the planning of a journey which would carry me through three and a half degrees of latitude and no less than eighteen degrees of longitude.

The course of winter travel in Alaska follows the frozen waterways so far as they lead in the general direction desired, leaves them to cross mountain ranges and divides at the most favourable points, and drops down into the streams again so soon as streams are available. The country is notably well watered and the waterways are the natural highways. The more frequented routes gradually cut out the serpentine bends of the rivers by land trails, but in the wilder parts of the country travel sticks to the ice.

Our course, therefore, lay up the Chatanika River and one of its tributaries until the Tanana-Yukon watershed was reached; then through the mountains, crossing two steep summits to the Yukon slope, and down that slope by convenient streams to the Yukon River at Circle City.

THE GOLD TRAIN

We set out on the 27th of November with six dogs and a "basket" sled and about five hundred pounds' weight of load, including tent and stove, bedding, clothes for the winter, grub box and its equipment, and dog feed. The dogs were those that I had used the previous winter, with one exception. The leader had come home lame from the fish camp where he had been boarded during the summer, and, despite all attentions, the lameness had persisted; so he must be left behind, and there was much difficulty in securing another leader. A recent stampede to a new mining district had advanced the price of dogs and gathered up all the good ones, so it was necessary to hunt all over Fairbanks and pay a hundred dollars for a dog that proved very indifferent, after all. "Jimmy" was a handsome beast, the handsomest I ever owned and the costliest, but, as I learned later from one

who knew his history, had "travelled on his looks all his life." He earned the name of "Jimmy the Fake."

Midway to Cleary "City," on the chief gold-producing creek of the district, our first day's run, we encountered the gold train. For some time previous a lone highwayman had robbed solitary miners on their way to Fairbanks with gold-dust, and now a posse was organised that went the rounds of the creeks and gathered up the dust and bore it on mule-back to the bank, escorted by half a dozen armed and mounted men. Sawed-off shotguns were the favourite weapons, and one judged them deadly enough at short range. The heavy "pokes" galled the animals' backs, however they might be slung, and the little procession wound slowly along, a man ahead, a man behind, and four clustered round the treasure.

These raw, temporary mining towns are much alike the world over, one supposes, though perhaps a little worse up here in the far north. It was late at night when we reached the place, but saloon and dance-hall were ablaze with light and loud with the raucity of phonographs and the stamping of feet. Everything was "wide open," and there was not even the thinnest veneer of respectability. Drinking and gambling and dancing go on all night long. Drunken men reel out upon the snow; painted faces leer over muslin curtains as one passes by. Without any government, without any pretence of municipal organisation, there is no co-operation for public enterprise. There are no streets, there are no sidewalks save such as a man may choose to lay in front of his own premises, and the simplest sanitary precautions are entirely neglected. Nothing but the cold climate of the north prevents epidemic disease from sweeping through these places. They rise in a few days wherever gold is found in quantities, they flourish as the production increases, decline with its decline, and are left gaunt, dark, and abandoned so soon as the diggings are exhausted.

The next day we were on the Chatanika River, to which Cleary Creek is tributary, and were immediately confronted with one of the main troubles and difficulties of winter travel in this and, as may be supposed, in any arctic or subarctic country—overflow water.

OVERFLOW WATER AND ICE

In the lesser rivers, where deep pools alternate with swift shallows, the stream freezes solid to the bottom upon the shoals and riffles. Since the subterranean fountains that supply the river do not cease to discharge their waters in the winter, however cold it may be, there comes presently an increasing pressure under the ice above such a barrier. The pent-up water is strong enough to heave the ice into mounds and at last to break forth, spreading itself far along the frozen surface of the river. At times it may be seen gushing out like an artesian well, rising three or four feet above the

surface of the ice, until the pressure is relieved. Sometimes for many miles at a stretch the whole river will be covered with a succession of such overflows, from two or three inches deep to eight or ten, or even twelve; some just bursting forth, some partially frozen, some resolved into solid "glare" ice. Thus the surface of the river is continually renewed the whole winter through, and a section of the ice crust in the spring would show a series of laminations; here ice upon ice, there ice upon half-incorporated snow, that mark the successive inundations.

This explanation has been given at length because of the large part that the phenomenon plays in the difficulty and danger of winter travel, and because it seems hard to make those who are not familiar with it understand it. At first sight it would seem that after a week or ten days of fifty-below-zero weather, for instance, all water everywhere would be frozen into quiescence for the rest of the winter. Throw a bucket of water into the air, and it is frozen solid as soon as it reaches the ground. There would be no more trouble, one would think, with water. Yet some of the worst trouble the traveller has with overflow water is during very cold weather, and it is then, of course, that there is the greatest danger of frost-bite in getting one's feet wet. Water-proof footwear, therefore, becomes one of the "musher's" great concerns and difficulties. The best water-proof footwear is the Esquimau mukluk, not easily obtainable in the interior of Alaska, but the mukluk is an inconvenient footwear to put snow-shoes on. Rubber boots or shoes of any kind are most uncomfortable things to travel in. Nothing equals the moccasin on the trail, nothing is so good to snow-shoe in. The well-equipped traveller has moccasins for dry trails and mukluks for wet trails—and even then may sometimes get his feet wet. Nor are his own feet his only consideration; his dogs' feet are, collectively, as important as his own. When the dog comes out of water into snow again the snow collects and freezes between the toes, and if not removed will soon cause a sore and lameness. Then a dog moccasin must be put on and the foot continually nursed and doctored. When several dogs of a team are thus affected, it may be with several feet each, the labour and trouble of travel are greatly increased.

So, whenever his dogs have been through water, the careful musher will stop and go all down the line, cleaning out the ice and snow from their feet with his fingers. Four interdigital spaces per foot make sixteen per dog, and with a team of six dogs that means ninety-six several operations with the bare hand (if it be done effectually) every time the team gets into an overflow. The dogs will do it for themselves if they are given time, tearing out the lumps of ice with their teeth; but, inasmuch as they usually feel conscientiously obliged to eat each lump as they pull it out, it takes much longer, and in a short daylight there is little time to spare if the day's march is to be made.

"OVERFLOW" ICE

We found overflow almost as soon as we reached the Chatanika River, and in one form or another we encountered it during all the two days and a half that we were pursuing the river's windings. At times it was covered with a sheet of new ice that would support the dogs but would not support the sled, so that the dogs were travelling on one level and the sled on another, and a man had to walk along in the water between the dogs and the sled for several hundred yards at a time, breaking down the overflow ice with his feet.

At other times the thin sheets of overflow ice would sway and bend as the sled passed quickly over them in a way that gives to ice in such condition its Alaskan name of "rubber-ice," while for the fifteen or twenty miles of McManus Creek, the headwaters of the Chatanika, we had continuous stretches of fine glare ice with enough frost crystals upon it from condensing moisture to give a "tooth" to the dogs' feet, just as varnish on a photographic negative gives tooth to the retouching pencil. Perfectly smooth ice is a very difficult surface for dogs to pass over; glare ice slightly roughened by frost deposit makes splendid, fast going.

Eighty-five miles or so from Fairbanks, and just about half-way to Circle, the watercourse is left and the first summit is the "Twelve-Mile," as it is called. We tried hard to take our load up at one trip, but found it impossible to do so, and had to unlash the sled and take half the load at a time, caching it on the top while we returned for the other half.

It took us half a day to get our load to the top of the Twelve-Mile summit, a rise of about one thousand three hundred feet from the creek bed as the aneroid gave it. In the steeper pitches we had to take the axe and cut steps, so hard and smooth does the incessant wind at these heights beat the snow, and on our second trip to the top we were just in time to rescue a roll of bedding that had been blown from the cache and was about to descend a gully from which we could hardly have recovered it.

This summit descended, we were in Birch Creek water, and had we followed the watercourse would have reached the Yukon; but we would have travelled hundreds of miles and would have come out below Fort Yukon, while we were bound for Circle City. So there was another and a yet more difficult summit to cross before we could descend the Yukon slope. We were able to hire a man and two dogs to help us over the Eagle summit, so that the necessity of relaying was avoided. One man ahead continually calling to the dogs, eight dogs steadily pulling, and two men behind steadily pushing, foot by foot, with many stoppages as one bench after another was surmounted, we got the load to the top at last, a rise of one thousand four hundred feet in

less than three miles. A driving snow-storm cut off all view and would have left us at a loss which way to proceed but for the stakes that indicated it.

The descent was as anxious and hazardous as the ascent had been laborious. The dogs were loosed and sent racing down the slope. With a rope rough-lock around the sled runners, one man took the gee pole and another the handle-bars and each spread-eagled himself through the loose deep snow to check the momentum of the sled, until sled and men turned aside and came to a stop in a drift to avoid a steep, smooth pitch. The sled extricated, it was poised on the edge of the pitch and turned loose on the hardened snow, hurtling down three or four hundred feet until it buried itself in another drift. The dogs were necessary to drag it from this drift, and one had to go down and bring them up. Then again they were loosed, and from bench to bench the process was repeated until the slope grew gentle enough to permit the regulation of the downward progress by the foot-brake.

"SUMMITS"

The Eagle summit is one of the most difficult summits in Alaska. The wind blows so fiercely that sometimes for days together its passage is almost impossible. No amount of trail making could be of much help, for the snow smothers up everything on the lee of the hill, and the end of every storm presents a new surface and an altered route. A "summit" in this Alaskan sense is, of course, a saddle between peaks, and in this case there is no easier pass and no way around. The only way to avoid the Eagle summit, without going out of the district altogether, would be to tunnel it.

The summit passed, we found better trails and a more frequented country, for in this district are a number of creeks that draw supplies from Circle City, and that had been worked ten years or more.

At the time of the Klondike stampede of 1896-97, Circle City was already established as a flourishing mining camp and boasted itself the largest log-cabin town in the world. Before the Klondike drew away its people as a stronger magnet draws iron filings from a lesser one, Circle had a population of about three thousand. Take a town of three thousand and reduce it to thirty or forty, and it is hard to resist the melancholy impressionwhich entrance upon it in the dusk of the evening brings. There lay the great white Yukon in the middle distance; beyond it the Yukon Flats, snow-covered, desolate, stretched away enormously, hedged here at their beginning by grey, dim hills. Spread out in the foreground were the little, squat, huddling cabins that belonged to no one, with never a light in a window or smoke from a chimney, the untrodden snow drifted against door and porch. It would be hard to imagine a drearier prospect, and one had the feeling that it was a city of the dead rather than merely a dead city.

The weather had grown steadily colder since we reached the Yukon slope, and for two days before reaching Circle the thermometer had stood between 40° and 50° below zero. It was all right for us to push on, the trail was good and nearly all down-hill, and there were road-houses every ten or twelve miles. Freighters, weather-bound, came to the doors as we passed by with our jangle of bells and would raise a somewhat chechaco pride in our breasts by remarking: "You don't seem to care what weather you travel in!" The evil of it was that the perfectly safe travelling between Eagle Creek and Circle emboldened us to push on from Circle under totally different conditions, when travelling at such low temperatures became highly dangerous and brought us into grave misadventure that might easily have been fatal catastrophe.

Our original start was a week later than had been planned and we had made no time, but rather lost it, on this first division of the journey. If we were to reach Bettles on the Koyukuk River for Christmas, there was no more time to lose, and I was anxious to spend the next Sunday at Fort Yukon, three days' journey away. So we started for Fort Yukon on Thursday, the 7th of December, the day after we reached Circle.

THE YUKON FLATS

A certain arctic traveller has said that "adventures" always imply either incompetence or ignorance of local conditions, and there is some truth in the saying. Our misadventure was the result of a series of mistakes, no one of which would have been other than discreditable to men of more experience. Our course lay for seventy-five miles through the Yukon Flats, which begin at Circle and extend for two hundred and fifty miles of the river's course below that point. The Flats constitute the most difficult and dangerous part of the whole length of the Yukon River, summer or winter, and the section between Circle City and Fort Yukon is the most difficult and dangerous part of the Flats. Save for a "portage" or land trail of eighteen or twenty miles out of Circle, the trail is on the river itself, which is split up into many channels without salient landmarks. The current is so swift that many stretches run open water far into the winter, and blow-holes are numerous. There is little travel on the Flats in winter, and a snow-storm accompanied by wind may obliterate what trail there is in an hour. The vehicle used in the Flats is not a sled but a toboggan, and our first mistake was in not conforming to local usage in this respect. There is always a very good reason for local usage about snow vehicles. But a toboggan which had been ordered from a native at Fort Yukon would be waiting for us, and it seemed not worth while to go to the expense of buying another merely for three days' journey.

The second mistake was in engaging a boy as guide instead of a man. He was an attractive youth of about fourteen who had done good service at the Circle City mission the previous winter, when our nurse-in-charge was contending single-handed against an epidemic of diphtheria. He was a pleasant boy, with some English, who wanted to go and professed knowledge of the route. The greatest mistake of all was starting out through that lonely waste with the thermometer at 52° below zero. The old-timers in Alaska have a saying that "travelling at 50° below is all right as long as it's all right." If there be a good trail, if there be convenient stopping-places, if nothing go wrong, one may travel without special risk and with no extraordinary discomfort at 50° below zero and a good deal lower. I have since that time made a short day's run at 62° below, and once travelled for two or three hours on a stretch at 65° below. But there is always more or less chance in travelling at low temperatures, because a very small thing may necessitate a stop, and a stop may turn into a serious thing. At such temperatures one must keep going. No amount of clothing that it is possible to wear on the trail will keep one warm while standing still. For dogs and men alike, constant brisk motion is necessary; for dogs as well as men—even though dogs will sleep outdoors in such cold without harm—for they cannot take as good care of themselves in the harness as they can when loose. A trace that needs mending, a broken buckle, a snow-shoe string that must be replaced, may chill one so that it is impossible to recover one's warmth again. The bare hand cannot be exposed for many seconds without beginning to freeze; it is dangerous to breathe the air into the lungs for any length of time without a muffler over the mouth.

Our troubles began as soon as we started. The trail was a narrow, winding toboggan track of sixteen or seventeen inches, while our sled was twenty inches wide, so that one runner was always dragging in the loose snow, and that meant slow, heavy going.

SUNRISE AND SUNSET

The days were nearing the shortest of the year, when, in these latitudes, the sun does but show himself and withdraw again. But, especially in very cold weather, which is nearly always very clear weather, that brief appearance is preceded by a feast of rich, delicate colour. First a greenish glow on the southern horizon, brightening into lemon and then into clear primrose, invades the deep purple of the starry heavens. Then a beautiful circle of blush pink above a circle of pure amethyst gradually stretches all around the edge of the sky, slowly brightening while the stars fade out and the heavens change to blue. The dead white mirror of the snow takes every tint that the skies display with a faint but exquisite radiance. Then the sun's disk appears with a flood of yellow light but with no appreciable warmth, and for a little space his level rays shoot out and gild the tree tops and the

distant hills. The snow springs to life. Dead white no longer, its dry, crystalline particles glitter in myriads of diamond facets with every colour of the prism. Then the sun is gone, and the lovely circle of rose pink over amethyst again stretches round the horizon, slowly fading until once more the pale primrose glows in the south against the purple sky with its silver stars. Thus sunrise and sunset form a continuous spectacle, with a purity of delicate yet splendid colour that only perfectly dry atmosphere permits. The primrose glow, the heralding circle, the ball of orange light, the valedictory circle, the primrose glow again, and a day has come and gone. Air can hold no moisture at all at these low temperatures, and the skies are cloudless.

AN ESCAPADE ON THE YUKON

Moreover, in the wilds at 50° below zero there is the most complete silence. All animal life is hidden away. Not a rabbit flits across the trail; in the absolutely still air not a twig moves. A rare raven passes overhead, and his cry, changed from a hoarse croak to a sweet liquid note, reverberates like the musical glasses. There is no more delightful sound in the wilderness than this occasional lapse into music of the raven. We wound through the scrub spruce and willow and over the niggerhead swamps, a faint tinkle of bells, a little cloud of steam; for in the great cold the moisture of the animals' breath hangs over their heads in the still air, and on looking back it stands awhile along the course at dogs' height until it is presently deposited on twigs and tussocks. We wound along, a faint tinkle of bells, a little cloud of steam, and in the midst of the cloud a tousle of shaggy black-and-white hair and red-and-white pompons—going out of the dead silence behind into the dead silence before. The dusk came, and still we plodded and pushed our weary way, swinging that heavy sled incessantly, by the gee pole in front and the handle-bars behind, in the vain effort to keep it on the trail. Two miles an hour was all that we were making. We had come but thirteen or fourteen miles out of twenty-four, and it was dark; and it grew colder.

The dogs whined and stopped every few yards, worn out by wallowing in the snow and the labour of the collar. The long scarfs that wrapped our mouths and noses had been shifted and shifted, as one part after another became solid with ice from the breath, until over their whole length they were stiff as boards. After two more miles of it it was evident that we could not reach the mail cabin that night. Then I made my last and worst mistake. We should have stopped and camped then and there. We had tent and stove and everything requisite. But the native boy insisted that the cabin was "only little way," and any one who knows the misery of making camp in extremely cold weather, in the dark, will understand our reluctance to do so.

I decided to make a cache of the greater part of our load—tent and stove and supplies generally—and to push on to the cabin with but the bedding and

the grub box, returning for the stuff in the morning. And, since in the deepest depths of blundering there is a deeper still, by some one's carelessness, but certainly by my fault, the axe was left behind in the cache.

With our reduced burden we made better progress, and in a short time reached the end of the portage and came out on the frozen river, just as the moon, a day or two past the full, rose above the opposite bank. One sees many strange distortions of sun and moon in this land, but never was a stranger seen than this. Her disk, shining through the dense air of the river bottom, was in shape an almost perfect octagon, regular as though it had been laid off with dividers and a ruler.

We were soon in doubt about the trail. The mail-carrier had gone down only two or three times this winter and each time had taken a different route, as more and more of the river closed and gave him more and more direct passage. A number of Indians had been hunting, and their tracks added to the tangle of trails. Presently we entered a thick mist that even to inexperienced eyes spoke of open water or new ice yet moist. So heavy was the vapour that to the man at the handle-bars the man at the gee pole loomed ghostly, and the man ahead of the dogs could not be distinguished at all. We had gone so much farther than our native boy had declared we had to go that we began to fear that in the confusion of trails we had taken the wrong one and had passed the cabin. That is the tenderfoot's, or, as we say, the chechaco's, fear; it is the one thing that it may almost be said never happens. But the boy fell down completely and was frankly at a loss. All we could get out of him was: "May-be-so we catch cabin bymeby, may-be-so no." If we had passed the cabin it was twenty odd miles to the next; and it grew colder and the dogs were utterly weary again, prone upon the trail at every small excuse for a stop, only to be stirred by the whip, heavily wielded. Surely never men thrust themselves foolhardily into worse predicament! Then I made my last mistake. Dimly the bank loomed through the mist, and I said: "We can't go any farther; I think we've missed the trail and I'm going across to yon bank to see if there's a place to camp." I had not gone six steps from the trail when the ice gave way under my feet and I found myself in water to my hips.

AN ESCAPADE ON THE YUKON

Under Providence I owe it to the mukluks I wore, tied tight round my knees, that I did not lose my life, or at least my feet. The thermometer at Circle City stood at 60° below zero at dark that day, and down on the ice it is always about 5° colder than on the bank, because cold air is heavy air and sinks to the lowest level, and 65° below zero means 97° below freezing.

My moose-hide breeches froze solid the moment I scrambled out, but not a drop of water got to my feet. If the water had reached my feet they would

have frozen almost as quickly as the moose hide in that fearful cold. Thoroughly alarmed now, and realising our perilous situation, we did the only thing there was to do—we turned the dogs loose and abandoned the sled and went back along the trail we had followed as fast as we could. We knew that we could safely retrace our steps and that the trail would lead us to the bank after a while. We knew not where the trail would lead us in the other direction. As a matter of fact, it led to the mail cabin, two miles farther on, and the mail-carrier was at that time occupying it at the end of his day's run.

The dogs stayed with the sled; dogs will usually stay with their sled; they seem to recognise their first allegiance to the load they haul, probably because they know their food forms part of it.

Our cache reached, we made a fire, thawed out the iron-like armour of my leather breeches, and cutting a spare woollen scarf in two, wrapped the dry, warm pieces about my numbed thighs. Then we pushed on the eighteen miles or so to Circle, keeping a steady pace despite the drowsiness that oppressed us, and that oppressed me particularly owing to the chill of my ducking. About five in the morning we reached the town, and the clergyman, the Reverend C. E. Rice, turned out of his warm bed and I turned in, none the worse in body for the experience, but much humbled in spirit. My companion, Mr. E. J. Knapp, whose thoughtful care for me I always look back upon with gratitude, as well as upon Mr. Rice's kindness, froze his nose and a toe slightly, being somewhat neglectful of himself in his solicitude for me.

We had been out about twenty hours in a temperature ranging from 52° to 60° below zero, had walked about forty-four miles, labouring incessantly as well as walking, what time we were with the sled, with nothing to eat—it was too cold to stop for eating—and, in addition to this, one of us had been in water to the waist, yet none of us took any harm. It was a providential overruling of blundering foolhardiness for which we were deeply thankful.

The next day a native with a fast team and an empty toboggan was sent down to take our load on to the cabin and bring the dogs back. Meanwhile, the mail-carrier had passed the spot, had seen the abandoned sled standing by recently broken ice, and had come on into town while we slept and none knew of our return, with the news that some one had been drowned. The mail for Fairbanks did but await the mail from Fort Yukon, and the town rumour, instantly identifying the abandoned sled, was carried across to Fairbanks, to my great distress and annoyance. The echoes of the distorted account of this misadventure which appeared in a Fairbanks newspaper still reverberate in "patent insides" of the provincial press of the United States.

FORT YUKON

The next Monday we started again, this time with a toboggan and with a man instead of a boy for guide, and in three days of only moderate difficulty we reached Fort Yukon.

Fort Yukon, though it holds no attraction for the ordinary visitor or the summer tourist on the river, is a place of much interest to those who know the history of Alaska. While it is purely a native village, with no white population save the traders and the usual sprinkling of men that hang around native villages, it is yet the oldest white man's post on the Yukon River, save the post established by the Russians at Nulato, five or six hundred miles lower down. The Hudson Bay Company established itself here in 1846, and that date serves as the year one in making calculations and determining ages to this day. It is a fixed point in time that every native knows of. Any old man can tell you whether he was born before or after that date, and, if before, can pick out some boy that is about the age he was when the event occurred. The massacre at Nulato in 1851 serves in a similar way for the lower river.

After the Purchase, and the determination of the longitude of Fort Yukon by Mr. Raymond in 1869—who made the first steamboat journey up the Yukon on that errand—the Hudson Bay Company moved three times before they succeeded in getting east of the 141st meridian, and at the point reached on the third move, the New Rampart House on the Porcupine River, only a few hundred yards beyond the boundary-line, they remained until the gold excitement on the Yukon and the journeying of the natives to new posts on that river rendered trading unprofitable; then they withdrew to the Mackenzie. The oldest white men's graves in Alaska, again with the exception of Nulato, are those in the little Hudson Bay cemetery near Fort Yukon.

ARCHDEACON MACDONALD

Fort Yukon is also the site of the oldest missionary station on the river, unless there were earlier visits of Russian priests to the lower river, of which there seems no record, for in 1862 there was a clergyman of the Church of England at this place. Archdeacon MacDonald was a remarkable man. Married to a native wife, he translated the whole Bible and the Book of Common Prayer into the native tongue, and his translations are in general use on the upper river to this day. He reduced the language to writing, extracted its grammar, taught the Indians to read and write their own tongue, and dignified it by the gift of the great literature of the sacred books. The language is, of course, a dying one—English is slowly superseding it—but it seems safe to say that for a generation or two yet to come it will be the basis of the common speech of the people and the language of worship. It is

chiefly in matters of trading and handicrafts that English is taking its place, though here as elsewhere it stands to the discredit of the civilised race that blackguard English is the first English that is learned.

There seems ground to question whether the substitution of a smattering of broken English for the flexibility and picturesque expressiveness of an indigenous tongue, thoroughly understood, carries with it any great intellectual gain, though to suggest such a doubt is treason to some minds. The time threatens when all the world will speak two or three great languages, when all little tongues will be extinct and all little peoples swallowed up, when all costume will be reduced to a dead level of blue jeans and shoddy and all strange customs abolished. The world will be a much less interesting world then; the spice and savour of the ends of the earth will be gone. Nor does it always appear unquestionable that the world will be the better or the happier. The advance of civilisation would be a great thing to work for if we were quite sure what we meant by it and what its goal is. To the ordinary government school-teacher in Alaska, with some notable exceptions, it seems to mean chiefly teaching the Indians to call themselves Mr. and Mrs. and teaching the women to wear millinery, with a contemptuous attitude toward the native language and all native customs. The less intelligent grade of missionary sometimes falls into the same easy rut. So letters pass through the post-offices addressed: "Mr. Pretty Henry," "Mrs. Monkey Bill," "Miss Sally Shortandirty"; so, occasionally, the grotesque spectacle may present itself, to the passengers on a steamer, of a native woman in a "Merry Widow" hat and a blood-stained parkee gutting salmon on the river bank.

The nobler ideal, as it seems to some of us, is to labour for God-fearing, self-respecting Indians rather than imitation white men and white women. An Indian who is honest, healthy and kindly, skilled in hunting and trapping, versed in his native Bible and liturgy, even though he be entirely ignorant of English and have acquired no taste for canned fruit and know not when Columbus discovered America, may be very much of a man in that station of life in which it has pleased God to call him.

Christmas and the Fourth of July are the Indian's great holidays, the one just after the best moose hunting and the other just before the salmon run. It may be supposed that there were always great feasts at the winter and summer solstices, though now he is sufficiently devout at the one and patriotic at the other. At these seasons, and for weeks before and after, Fort Yukon gathers a large number of Indians. It is the native metropolis of the country within a radius of a hundred miles, and what may be termed its permanent population of one hundred and fifty is doubled and sometimes trebled by contingents from the Chandalar, the Porcupine, and the Black Rivers, from that long river called Birch Creek, and all the intervening

country. Many families of the "uncivilised," self-respecting kind, to which reference has been made, come in from outlying points, and the contrast between them and their more sophisticated kinfolk of the town is all in their favour.

JIMMY

Such a gathering had already taken place in preparation for the Christmas holidays when we reached Fort Yukon on the 15th of December. It would have been pleasant to spend Christmas with them, but we were due two hundred and fifty miles away, at Bettles, for that feast, if by any means we could get there. So we lingered but the two days necessary to equip ourselves. Jimmy had torn our bedding to pieces on the night of the mishap; it was lashed on the outside of the load, and he had scratched and clawed it to make a nest for himself until fur from the robe and feathers from the quilts were all over the trail. The other dogs, not so warmly coated as he, had been content to sleep in the snow. Jimmy's character was gradually revealing itself. A well-bred trail dog will not commit the canine sacrilege of invading the sled. That is a "Siwash" dog's trick. So there was fresh bedding to manufacture, as well as supplies for two hundred miles to get together.

A mail once a month went at that time from Fort Yukon to the Koyukuk, and there was little other travel. The course lay fifty or sixty miles across country to the Chandalar River, about one hundred miles up that stream, and then across a divide to the South Fork of the Koyukuk, and across another to the Middle Fork, on which Coldfoot is situated. It is not possible to procure any supplies, save sometimes a little fish for dog food and that not certainly, between Fort Yukon and Coldfoot, so that provision for the whole journey must be taken.

THE CHANDALAR

A new Indian guide had been engaged as far as Coldfoot, and we set out—three men, two toboggans, and seven dogs; four on the larger vehicle and three on the smaller, one of the dogs brought by our guide. Three miles from Fort Yukon we crossed the Porcupine River and then plunged into the wilderness of lake and swamp and forest that stretches north of the Yukon. A portage trail, as such a track across country is called to distinguish it from a river trail, has the advantage of such protection from storm as its timbered stretches afford. For miles and miles the route passes through scrub spruce that has been burned over, with no prospect but a maze of charred poles against the snow, some upright, others at every angle of inclination. Then comes a lake, with difficulty in finding the trail on its wind-swept surface and sometimes much casting about to discover where it leaves the lake again, and then more small burned timber. Wherever the route is through woods, living or dead, it is blazed; when it strikes the open,

one is often at a loss. After three or four days of such travel, sometimes reaching an old cabin for the night, sometimes pitching the tent, one is rejoiced at the sight of distant mountains and at the intimation they bring that the inexpressible dreariness of the Yukon Flats is nearly past; and presently the trail opens suddenly upon the broad Chandalar.

The Hudson Bay voyageurs are responsible for many names in this part of Alaska, and Chandalar is a corruption of their "Gens de large." The various native tribes received appellations indicating habitats. A tribe that differed from most northern Indians, in having no permanent villages and in living altogether in encampments, was named "Gens de large," and the river which they frequented took their name.

It is one of the second-rate tributaries of the Yukon, and in general its waters are swift and shallow, not navigable for light-draught steamboats for more than one hundred and fifty miles, save at flood, and not easily navigable at all. It is these swift shallow streams that are so formidable in winter on account of overflow water, and the Chandalar is one of the most dreaded.

DIPHTHERIA

Ten miles along the river's surface brought us to the Chandalar native village, a settlement of half a dozen cabins and twenty-five or thirty souls. The people came out to meet us, and said they were just about to bury a baby, and asked me to conduct the funeral. Because we had not done a day's march and were under compulsion to push on at our best speed, I did not unlash the sled but went just as I was up the hill with the sorrowful procession to the little graveyard. On the way down I asked as best I could of what sickness the baby had died, and I felt some uneasiness when the throat was pointed to as the seat of disease. When, presently, I was informed that two others were sick, and of the same complaint, my uneasiness became alarm. I went at once to see them, and the angry swollen throats patched with white membrane which I discovered left no room for doubt that we were in the presence of another outbreak of diphtheria. That disease had scourged the Yukon in the two preceding years. Twenty-three children died at Fort Yukon in the summer of 1904, half a dozen at Circle in the following winter, though that outbreak was grappled with from the first; and all along the river the loss of life was terrible.

There was no question that we must give up all hope of reaching Bettles for Christmas and stay and do what we could for these people. So we made camp on the outskirts of the village, and I went to work swabbing out the throats with carbolic acid and preparing liquid food from our grub box. There was nothing to eat in the village but dried fish and a little dried moose, and these throats like red-hot iron could hardly swallow liquids. The

two patients were a boy of sixteen and a grown woman. It was evident that unless we could isolate them the disease would probably pass through the whole village, and, indeed, others might have been infected already. It was likely that we were in for a siege of it, and our supply of condensed milk and extract of beef would soon be exhausted. Moreover, at Fort Yukon was the trained nurse who had coped with the epidemic there and at Circle, while we had virtually no experience with the disease at all. It was resolved to send back to Fort Yukon for supplies and for the nurse.

The next morning Mr. Knapp and the native boy took the dogs and the sled and started back. With no load save a little grub and bedding, they could make the journey in two days, a day must be allowed for preparations, and, with the aid of another dog team, two days more would bring them back. Five days was the least they could be gone. It was asking a great deal of this lady to abandon her Christmas festival, preparations for which had long been making, and to come sixty-five miles through the frozen wilderness in a toboggan; but I felt sure she would drop everything and come.

For those five days I was busied in close attention to the patients and in strenuous though not altogether availing efforts to maintain a quarantine of the cabin in which they lay. There was little more that I could do than swab out the throats and administer food every two hours. As the disease advanced it was increasingly painful to swallow and exceedingly difficult to induce the sufferers to make the attempt or to open their mouths for the swabbing. After two or three days the woman seemed to have passed the crisis of the disease and to be mending, but the boy, I thought, grew worse. One becomes attached to those to whom one ministers, and this poor, speechless boy, with his terrible throat and the agony in his big black eyes, appealed to me very strongly indeed. It was torture to move his head or to open his mouth, and I had to torture him continually.

Every night I gathered the people for Divine service. Here was a little community far off in the wilds that had carefully conserved and handed on to their children the teaching they had received no less than thirty years before. The native Bibles and prayer-books and hymnals were brought out, bearing dates of publication in the seventies; one of their number acted as leader, and what he read was painfully followed in the well-thumbed books. They lifted their voices in a weird transformation of familiar tunes, with quavers and glides that had crept in through long, uncorrected use, and amongst the prayers said was one for "Our Sovereign lady Queen Victoria, and Albert Edward, Prince of Wales." I tried to explain that Queen Victoria was dead, that they were not living under British rule, and I took a pencil and struck out the prayers for the royal family from the books. But there was doubt in their minds and a reluctance to alter in any particular the liturgy that had been taught them, and it is quite likely that intercessions

for a defunct sovereign of another land still arise from the Chandalar village. One cannot but feel a deep admiration for the pioneer missionaries of this region—Bishop Bompas, Archdeacon MacDonald, and the others—whose teaching was so thorough and so lasting, and who lived and laboured here long before any gold seeker had thought of Alaska, when the country was an Indian country exclusively, with none of the comforts and conveniences that can now be enjoyed. It was to a remote cabin on the East Fork of this river that Archdeacon MacDonald retired for a year to make part of his translation of the Bible, according to the Indian account.

THE SHORTEST DAY

At noon on the 21st of December, the shortest day, there is a note in my diary that I saw the sun's disk shining through the trees. Although fully half a degree of latitude north of the Arctic Circle, the refraction is sufficient to lift his whole sphere above the horizon. One speculates how much farther north it would be possible to see any part of the sun at noon on the shortest day; but north of here, throughout Alaska, is broken and mountainous country. We were on the northern edge of the great flat of the interior.

The fifth day at the village was Christmas Eve. My boy was in a critical condition, very low and weak, with a temperature that stayed around 101° and 102°. As night approached I watched with the greatest anxiety for the party from Fort Yukon, and, just as the last lingering glow of the long twilight was fading from the south, there was a distant tinkle of bells on the trail, and faintly once and again a man's voice was raised in command and I knew that relief was at hand.

The nurse had dropped everything and had come, as I felt sure she would. Gathering medicines and supplies and hiring a native dog team and driver, she had left immediately, and the round trip had been made in the shortest time it was possible to make it. It was a tremendous relief to see her step out of the rugs and robes of the toboggan and take charge of the situation in her quiet, competent way. A small, outlying cabin was selected for a hospital, the family that occupied it bundled out into a tent, and the two sick persons carefully moved into it, with whom and the mother of the sick boy the nurse took up her abode. Then there was the Christmas-tree in the chief's cabin, with little gifts for the children sent out from the mission at Fort Yukon some time before, and a dance afterward, for Christmas festivities must go on, whatever happens, at a native village. I took James's pocket-knife to him after the celebration was over, and I think he really tried to smile as he thanked me with his eyes.

The next day after the services, although it was Christmas Day, we set to work on the disinfecting of the large cabin in which the sick had lain. Stringing bedclothes and wearing apparel on lines from wall to wall, and

stuffing up every crack and cranny with cotton, we burned quantities of sulphur, that the nurse had brought with her, all day long.

A recent article in a stray number of a professional journal picked up in the office of a medical missionary, devoted column after column to the uselessness of all known methods of disinfection. Sulphur, formaldehyde, carbolic acid, permanganate of potash, chloride of lime, bichloride of mercury—the author knew not which of these "fetiches" to be most sarcastic about. It may be that the net result of our copious fumigation was but the bleaching of the coloured garments hung up, but at least it did no harm. One sometimes wishes that these scientists who sit up so high in the seat of the scornful would condescend to a little plain instruction.

The anti-diphtheritic serum is now kept in readiness at all our missions in Alaska, and the disease seems to have ceased its depredations; but it has taken terrible toll of the native people.

THE MISSIONARY NURSE

We wished to stay with the nurse until the sickness should be done, but she would not hear of it, and insisted upon the resumption of our journey. It did not seem right to go off and leave this lonely woman, sixty-five miles from the nearest white person, to cope with an outbreak of disease that might not yet have spent itself, although there had been no new case for a week. "You've done your work here, now leave me to do mine. You'll not get to Point Hope this winter if you stay much longer."

"Aren't you afraid to stay all by yourself?" I asked, somewhat fatuously.

"Afraid? Afraid of what? You surely don't mean afraid of the natives?"

I did not know what I meant; it seemed not unnatural that a woman with such prospect before her should be a little timid, but she was resolute that we go, and we went.

Not until the next summer did I learn the upshot—both patients recovered and there was no other case. Six years later, when these words are written, I have just baptized a son of the boy who lay so ill, who would have perished, I think, had we not reached the Chandalar village just in time.

CHAPTER II

CHANDALAR VILLAGE TO BETTLES, COLDFOOT, AND THE KOYUKUK

AT five o'clock in the morning of the 27th of December, hours before any kind of daylight, while the faint "pit-pat" of all-night dancing still sounded from the chief's cabin, we dropped down the steep bank to the river surface and resumed our journey. Ahead was a man with a candle in a tin can, peering for the faint indications of the trail on the ice; the other two were at the handle-bars of the toboggans. It is strange that in this day of invention and improvement in artificial illumination, a candle in a tin can is still the most dependable light for the trail. A coal-oil lamp requires a glass which is easily broken, and the ordinary coal-oil that comes to Alaska freezes at about 40° below. In very cold weather a coal-oil lantern full of oil will go out completely from the freezing of its supply. All the various acetylene lamps are useless because water is required to generate the gas, and water may not be had without stopping and building a fire and melting ice or snow. The electric flash-lamp, useful enough round camp, goes out of operation altogether on the trail, because the "dry" cell that supplies its current is not a dry cell at all, but a moist cell, and when its moisture freezes is dead until it thaws out again. No extremity of cold will stop a candle from burning, and if it be properly sheltered by the tin can it will stand a great deal of wind. The "folding pocket lantern," which is nothing but a convenient tin can with mica sides, is the best equipment for travel, but an empty butter can or lard can is sometimes easier to come by.

The Chandalar is wide-spread in these parts, with several channels, and the trail was hard to follow. One track we pursued led us up a bank and along a portage and presently stopped at a marten trap; and we had to cut across to the river and cast about hither and thither on its broad surface to find the mail trail.

THE CHANDALAR GAP

All the rivers that are confluent with the Yukon in the Flats enter that dreary region through gaps in the mountains that bound the broad plain. These gaps are noted for wind, and the Chandalar Gap, which had loomed before us since daybreak, is deservedly in especial bad repute. The most hateful thing in the Arctic regions is the wind. Cold one may protect one's self against, but there is no adequate protection against wind. The parkee without opening front or back, that pulls on over the head, is primarily a windbreak, and when a scarf is wrapped around mouth and nose, and the fur-edged hood of the parkee is pulled forward over cap and scarf, the traveller who must face the wind has done all he can to protect himself from it.

Unfortunately, in the confusion of striking the tent and packing in the dark, my scarf had been rolled up in the bedding, and, since the wind was not bad until we approached the Gap in the evening, I had not troubled about it. Now, as we drew nearer and nearer, the wind rose constantly. The thermometer was at 38° below zero, and wind at that temperature cuts like a knife. But to get my scarf meant stopping the whole procession and unlashing and unloading the sled, and the man who unlashed in that wind would almost certainly freeze his fingers. So I gave up the thought of it, turned my back to the wind while I tied my pocket handkerchief round mouth and nose, drew the strings of my parkee hood close, and then faced it again to worry through as best I could. The ice is always swept clear of snow in the Gap. The river narrows within its jaws, the ragged rocks rise up to the bluffs on either hand, and the blue-streaked ice stretches between. We all suffered a good deal. Against that cruel wind it was impossible to keep warm. The hands, though enclosed in woollen gloves, and they in blanket-lined moose-hide mitts, grew numb; the toes, within their protection of caribou sock with the hair on, strips of blanket wrapping, and mukluks stuffed with hay, tingled with warning of frost-bite; the whole body was chilled. We all froze our faces, I think, for the part of the face around and between the eyes cannot be covered. I froze my cheeks, my nose, and my Adam's apple, the last a most inconvenient thing to freeze.

ON THE KOYUKUK.

The cabin was just the other side of the Gap, and it was well that it was no farther, for we were weary with our thirty-mile run and dangerously cold with the exposure of the last hour. It was rather a large cabin as trail cabins go, with a rickety sheet-iron stove in the middle, burned full of holes, and it was hours before the fire began to make any impression on the obstinate, sullen cold of that hut. When we went to bed the frost still stood thick and heavy on the walls all over the room. A log building, properly constructed, is a warm building, but slowness in parting with heat means slowness in receiving heat, and a log cabin that has been unoccupied for a long time in very cold weather is hard to heat in one evening.

When we started next morning the thermometer stood at 45° below zero, but we were out of the wind region and did not mind the cold. It is curious that a few miles on either side of that Gap the air will be still, while in the Gap itself a gale is blowing. Seven times I have passed through that Gap and only once without wind. The great Flats were now behind us, we had passed into the mountains, and for the remainder of our long journey we should scarce ever be out of sight of mountains again. Up the river, with its constant trouble of overflow, going around the open water whenever we could, plunging through it in our mukluks when it could not be avoided—with the care of the dogs' feet that the cold weather rendered more than ever

necessary when they got wet, and the added nuisance of throwing the toboggans on their sides and beating the ice from them with the flat of the axe wherever water had been passed through—for two days we followed its windings, the thermometer between -45° and -50°, the mountains rising higher and the scenery growing more picturesque as we advanced. At the end of the second day from the Gap we were at the mouth of the West Fork of the Chandalar, and after passing up it for fifteen or sixteen miles we left that watercourse to cross the mountains to the South Fork of the Koyukuk River.

Then began hard labour again. A toboggan is not a good vehicle for crossing summits. Its bottom is perfectly flat and smooth, polished like glass by the friction of the snow. If the trail be at all "sidling" (and mountain trails are almost always "sidling"), the toboggan swings off on the side of the inclination and must be kept on the trail by main force. The runners of a sled will grip the surface, if there be any inequalities at all, but a toboggan swings now this way and now that, like a great pendulum, dragging the near dogs with it. Again and again we had to hitch both teams to one toboggan to get up a sidling pitch while all hands kept the vehicle on the trail, and our progress was painful and slow. In soft snow on a level surface like the river bed or through the Flat country, generally, the toboggan is much the more convenient vehicle, for it rides over the snow instead of ploughing through it, but on hard snow anywhere or on grades the toboggan is a nuisance. Thus wallowing through the deep snow at the side of the toboggans to hold them in place we sweated and slaved our way mile after mile up the gradual ascent until we reached the spot, just under a shoulder of the summit, where there was dry spruce and green spruce for camping, the dry for fire and the green for couch, and there we halted for the night.

JOHN MUIR

Next morning we crossed the low pass and dropped down easily into the wide valley of the Koyukuk South Fork, with a fine prospect of mountains everywhere as far as the eye could see. I had stood and gazed upon those same mountains on my journey of the previous winter, my first winter in Alaska, and had seen a most remarkable sight. As we began the descent and a turn of the trail gave a new panorama of peaks I did not at first realise the nature of the peculiar phenomenon I was gazing at. Each peak had a fine, filmy, fan-shaped cloud stretching straight out from it into the sky, waving and shimmering as it stretched. The sun was not above the horizon, but his rays caught these sheer, lawn-like streamers and played upon them with a most delicate opalescent radiance. Then all at once came to my mind the recollection of a description in John Muir's Mountains of California (surely the finest mountain book ever written) of the snow banners of the Sierra Nevada, and I knew that I was looking at a similar spectacle. It meant that a

storm was raging on high, although so far we were sheltered from it. It meant that the dry, sand-like snow of the mountain flanks was driven up those flanks so fiercely before the wind that it was carried clean over them and beyond them out into the sky, and still had such pressure behind it that it continued its course and spread out horizontally, thinning and spreading for maybe a mile before it lost all coherence and visibility. As far as I could see mountain peaks I could see the snow banners, all pointing one way, all waving, all luminous and shimmering in the sun-rays. It was a very noble sight, and I gazed a long while entranced, not knowing how ominous it was. When we reached the valley and left the shelter of the gulch we struck the full force of that fearful gale, and for two days and nights of incessant blizzard we lay in a hole dug out of a sand-bank (for we had no tent that year), the trail lost, the grub box nearly empty, and no fire possible to cook anything with had the grub box been full.

The valley before us—to resume the narrative—is a high, wind-swept region of niggerhead and swamp, the catch-basin of the South Fork of the Koyukuk River. The trail descends one of its southern draws, follows up the main valley awhile, crosses it, and leaves by one of its northern draws to pass over the mountains that separate its drainage from the main fork of the Koyukuk. The cold had given place to wind, and though the gale did not approach the fierceness of last year's storm, it gave great trouble in following the track. These high headwater basins are always windy; the timber is scrubby spruce with many open places, and in such open places the trail is soon obliterated altogether.

When the light fails this casting about for blazes whenever a clump of spruce is reached becomes increasingly slow and difficult and at last becomes hopeless. The general direction determined, it might be thought that the traveller could ignore the tracks of previous passage and strike out for himself, but he knows that the trail, however rough, is at least practicable, whereas an independent course may soon lead to steep gullies or cut banks, or may entangle him in some thicket that he must resort to the axe to pass through. Moreover, even two or three passages through the snow in the winter will give some bottom to a trail; a bottom that, when the wind-swept areas are passed and the snow-shoes are resumed, both he and his dogs will be thankful for.

CAMP MAKING

So we made a camp as it darkened to night, not far from the spot where I had "siwashed" with an Indian companion the previous winter, the wind blowing half a gale at 20° below zero.

Making camp under such circumstances is always a very disagreeable proceeding. It takes time and care to make a comfortable camp, and time

and care in the wind and the cold involve suffering. Two suitable trees must be selected between which the tent is to be suspended by the ridge-rope, and the snow must all be scraped away by the snow-shoes, or, if it be too deep, beaten down. Then while one man unlashes and unpacks the sleds, another cuts green spruce and lays it all over the tent space, thicker and finer where the bed is to be. Then up goes the tent, its corner ropes and its side strings made fast to boughs, if there be such, or to stakes, or to logs laid parallel to the sides. Then the stovepipe is jointed and the stove set up on the edge of green billets properly shaped. Meanwhile the axe-man, the green boughs cut, has been felling and splitting a dry tree for stove wood, and the whole proceedings are rushed and hastened towards getting a fire in that stove. Sometimes it is a question whether we shall get a fire before we freeze our fingers or freeze our fingers before we get a fire. The fire once going, we are safe, for however much more work there is in the open, and there is always a good deal more, one can go to the tent to get warm. Enough stove wood must be cut, not only for night and morning, but for cooking the dog feed. The dog pot, filled with snow, into which the fish are cut up, is put upon the outdoor fire as soon as man-supper begins cooking in the tent. When it boils, the rice and tallow must be added, and when the rice has boiled twenty minutes the whole is set aside to cool. Meanwhile the two aluminum pots full of snow, replenished from time to time as it melts, are put upon the stove in the tent as the necessary preliminary to cooking. Sometimes ice, and more rarely water, may be had, and then supper is hastened. If we are camped on the river bank sometimes a steel-pointed rifle-bullet fired straight down into the ice will penetrate to the water below and allow a little jet to bubble up. Melting snow is a tedious business at best; but, since three times out of four when camping it must be done, the aluminum pots are a treasure. There is still work for every one as well as the cook. Snow must be banked all round the tent to keep out the wind. Little heaps of spruce boughs must be cut for the dogs' beds; it is all we can do for them whatever the weather, and they appreciate it highly. It may be that dog moccasins must be taken off and strung around the stove to dry, and before supper is ready the inside ridge-rope of the tent is heavy with all sorts of drying man-wear: socks, moccasins, scarfs, toques, mittens. One of the earliest habits a man learns on the trail is to hang up everything to dry as soon as he takes it off. Why should it be hung up to dry unless it has got wet? the writer was once asked, in detailing these operations. Because there is no other way to remove the ice with which everything becomes incrusted in very cold weather.

CAMP COOKING

As his snow melts the cook throws into the pot a few handfuls of evaporated potatoes, a handful of evaporated onions, and smaller quantities of

evaporated "soup vegetables," and leaves them to soak and simmer and resume their original size and flavour. By and by he will cut up the moose meat or the rabbits or birds, or whatever game he may have, and throw it in, and in an hour or an hour and a half there will be a savoury stew that, with a pan of biscuits cooked in an aluminum reflector beside the stove and a big pot of tea, constitutes the principal meal of the day. Or if the day has been long and sleep seems more attractive even than grub, he will turn some frozen beans, already boiled, into a frying-pan with a big lump of butter, and when his meat is done supper is ready. Beans thus prepared eaten red hot with grated cheese are delicious to a hungry man. With the stove for a sideboard, food may always be eaten hot, and that is one advantage of camp fare.

The men satisfied, the dogs remain, and while two of the party wash dishes and clean up, the third feeds the dogs. Their pot of food has been cooling for an hour or more. They will not eat it until it is cold and a mess of rice will hold heat a long time even in the coldest weather. When it is nearly cold it is dished out with a paddle into the individual pans and the dogs make short work of it. There are some who feed straight fish, and, if the fish be king salmon of the best quality, the dogs do well enough on it. But on any long run it is decidedly economical to cook for the dogs—not so much from the standpoint of direct cost as from that of weight and ease of hauling. An hundred pounds of fish plus an hundred pounds of rice plus fifty pounds of tallow will go a great deal farther than two hundred and fifty pounds of fish alone. There is little doubt, too, that in the long run the dogs do better on cooked food. It is easier of digestion and easier to apportion in uniform rations. Rice and fish make excellent food. The Japs took Port Arthur on rice and fish. The tallow answers a demand of the climate and is increased as the weather grows colder. Man and dog alike require quantities of fat food in this climate; it is astonishing how much bacon and butter one can eat. When the dogs have eaten, and each one has made the rounds of all the other pans to be sure nothing is left, they retire to their respective nests of spruce bough and curl themselves up with many turnings round and much rearranging of the litter. Feet and nose are neatly tucked in, the tail is adjusted carefully over all, the hair on the body stands straight up, and the dogs have gone to bed and do not like to be disturbed again.

DOG-HARNESS

Therein lies the cruelty of depriving them of their tails, which used to be the general custom in this country. The old tandem harness almost required it, as the breath of the dog behind condensed upon the tail of the dog in front until he was carrying around permanently a mass of ice that was a burden to him and rendered his tail useless for warmth. But the rig with a long mid rope, to which the dogs are attached by single-trees in such manner that

they may at will be hitched abreast or one ahead of the other as the trail is wide or narrow, is superseding the tandem rig, and one sees more bushy tails amongst the dogs. The thick, long-haired tail of the dog in this country is indeed his blanket, and in cold weather the tailless dog is at a great disadvantage.

It was said that all the dogs retired to the nests of spruce bough; it should have been all but one. It is Lingo's special charge to guard the sled and his special privilege to sleep on it. Turning around and curling up on the softest spot he can find of the unlashed and partly unloaded toboggan, he will not touch anything it contains nor permit any other dog to touch it.

The northern skies are clouded the next morning, the first day of the new year, and there is a ruddy dawn that is glorious to behold. The white earth gives back a soft rose tint, as an organ pipe gives back a faint tone to the strong vibration of another pipe in pitch with it. We shall not see the sun himself any more for many weeks, but we see his light upon the flanks of the mountains for an hour or so around noon. The bold, shapely peaks of the South Fork of the Koyukuk turn their snows to pink fire as his rays slowly descend their sides, and the whole scene is exquisitely beautiful. What a wonderful thing colour is! When the skies are overcast this is a dead black-and-white country in winter, for spruce, the prevailing wood, is black in the mass at a little distance. Gaze where one will, there is naught but black and white. The eye becomes tired of the monotony and longs for some warmer tone. That is surely the reason why all those who live in the country cherish some gay article of attire, why the natives love brilliant handkerchiefs, why the white man also will choose a crimson scarf. Trudging at the handle-bars, I have found pleasure in the red pompons of the dogs' harness, in the gay beading of mitten and hind-sack. And that is why a lavish feast of colour such as this dawn stirs one's spirit with such keen delight. It gives life to a dead world.

But the wind is still bitter and interferes sadly with one's enjoyment. All through the valley, up the creek by which we leave it, past the twin lakes on the low summit, the wind grows in force, and when we leave Slate Creek for the present and make a "portage" over a mountain shoulder to strike the creek again much lower down, the wind has risen to a gale that overturns the toboggans and makes the men fight for their footing. The actual physical labour of it is enormous, and there can be no rest; it is too bitterly cold in that blast to stop. For a mile or two we struggle and slave to beat our way around that mountain shoulder and then drop down to the creek again. The blessed relief it is to get out of the fury of that wind into the comparative shelter of the creek, to be done with the ceaseless toil of holding the heavy toboggans from hurtling down the hillside, to be able to keep one's feet without continually slipping and falling on the wind-hardened snow, no

words can adequately convey. We are all frozen again a little; this man's nose is touched, that man's cheeks, and the other man's finger.

THE KOYUKUK GOLD CAMP

On the middle fork of the Koyukuk, at the mouth of Slate Creek, Coldfoot sits within a cirque of rugged mountain peaks, the most northerly postal town in the interior of Alaska, the most northerly gold-mining town in the world, as it claims. It sprang into existence in 1900 and flourished for a season or two with the usual accompaniments of such florification. In 1906 it was already much decayed, and is now dead. Ever since its start the Koyukuk camp has steadily produced gold and given occupation to miners numbering from one hundred and fifty to three hundred, but the scene of operations, and therefore the depot for supplies, has continually changed. In 1900 the chief producing creek was Myrtle, which is a tributary of Slate Creek, and the town at the mouth was in eligible situation, though much over-built from the first. Then the centre of interest shifted to Nolan Creek, fifteen miles farther up the river, which is a tributary of Wiseman Creek, and the town of Wiseman sprang up at the mouth of that creek. The post-office, the commissioner's office, and the saloon, the stores and road-houses, migrated to the new spot, and Coldfoot was abandoned. Now the chief producing creek is the Hammond River, still farther up the Koyukuk, and if its placer deposits prove as rich as they promise it is likely that a town will spring up at the mouth of the Hammond which will supersede Wiseman.

There has never been found a continuous pay-streak in the Koyukuk camp. It is what is known as a "pocket" camp. Now and again a "spot" is found which enriches its discoverers, while on the claims above and below that spot the ground may be too poor to work at a profit; for ground must be rich to be worked at all in the Koyukuk. It is the most expensive camp in Alaska, perhaps in the world. This is due to its remoteness and difficulty of access. Far north of the Arctic Circle, the diggings are about seventy-five miles above the head of light-draught steamboat navigation, and more than six hundred miles above the confluence of the Koyukuk with the Yukon. Transshipped at Nulato to the shoal-water steamboats that make three or four trips a season up the Koyukuk, transshipped again at Bettles, the head of any steamboat navigation, freight must be hauled on horse scows the remaining seventy-five miles of the journey; and all that handling and hauling means high rates. The cost of living, the cost of machinery, the general cost of all mining operations is much higher than on the Yukon or on the other tributaries of that river. The very smallness of the camp is a factor in the high prices, for there is not trade enough to induce brisk competition with the reduction of rates that competition brings.

MINERS' GENEROSITY

Yet the smallness and the isolation of the camp have their compensations. There is more community life, moreesprit de corps amongst the Koyukuk miners than will be found in any other camp in Alaska. Thrown upon their own resources for amusement, social gatherings are more common and are made more of, and hospitality is universal. Like all sparsely settled and frontier lands, Alaska is a very hospitable place in general, but the Koyukuk has earned the name of the most hospitable camp in Alaska. Since the numbers are small, and each man is well known to all the others, any sickness or suffering makes an immediate appeal and brings a generous response. Again and again the unfortunate victim of accident or disease has been sent outside for treatment, the considerable money required being quickly raised by public subscription. There is probably no other gold camp in the world where it is a common thing for the owner of a good claim to tell a neighbour who is "broke" to take a pan and go down to the drift and help himself.

Until my visit of the previous year no minister of religion of any sort had penetrated to the Koyukuk, and, save for one journey thither by Bishop Rowe, my annual visits have been the only opportunities for public worship since. It will suffice for the visit now describing as well as for all the others to say that the reception was most cordial and the opportunity much appreciated. We went from creek to creek and gathered the men and the few women in whatever cabin was most convenient, and no clergyman could wish for more attentive or interested congregations.

Upon our return to Coldfoot from the creek visits the thermometer stood at 52° below zero, although it had been no lower than 38° below when we left the last creek, some fifteen miles away. As a general rule, the temperature on these mountain creeks, which are at some considerable elevation above the river into which they flow, will read from 10° to 15° higher than on the river, and if one climbed to the top of the peaks around Coldfoot, the difference then would probably be 20° or 25°. At the summit road-house between Fairbanks and Cleary City in the Tanana country in cold weather the thermometer commonly reads 20° above the one place and 10° or 15° above the other.

LINGO

This interesting fact, which surprises a good many people, for we are used to think of elevated places as cold places, is due to the greater heaviness of cold air, which sinks to the lowest level it can reach; and the river bed is the lowest part of the country. It would be interesting to find out to what extent this rule holds good. The ridges and the hilltops are always the warmest places in cold weather; would this hold as regards mountain tops?—as

regards high mountain tops? Probably it would hold in the sunshine, but the rapid radiation of heat in the rarefied atmosphere of mountain tops would swing the balance the other way after dark. There is no doubt, however, that the coldest place in cold weather in Alaska is the river surface, and it is on the river surface that most of our travelling is done. The night we returned to Coldfoot we put our toboggan up high on the roof of an outhouse to keep its skin sides from the teeth of some hungry native dogs, leaving some of the load that was not required within it, covered by the sled cloth. Later on I saw by the light of the moon Lingo's silhouetted figure sitting bolt upright on top of the sled, and he gave his short double bark as I drew near to make me notice that he was still doing his duty although under difficulties. The dog had climbed up a wood-pile and had jumped to the top of the outhouse and so to the sled. I thought of Kipling'sMen That Fought at Minden:

"For fatigue it was their pride

And they would not be denied

To clean the cook-house floor."

Here at Coldfoot we came first into contact with that interesting tribe of wandering inland Esquimaux known as the Kobuks, from their occupation of the river of that name. The Koyukuk has its own Indian people, but these enterprising Kobuks have pushed their way farther and farther from salt water into what used to be exclusive Indian territory. Representatives of both races were at Coldfoot, and as we lay weather-bound for a couple of days, I was enabled to renew last year's acquaintance with them, though without a good interpreter not much progress was made. The delight of these people at the road-house phonograph, the first they had ever heard, was some compensation for the incessant snarl and scream of the instrument itself. It was very funny to see them sitting on the floor, roaring with laughter at one particularly silly spoken record of the "Uncle Josh at the World's Fair" order. Over and over again they would ask for that record, and it never ceased to convulse them with laughter. "He's been enjoyin' poor health lately, but this mornin' I heard him complain that he felt a little better"—how sick and tired we got of this and similar jokes drawled out a dozen times running! The natives did not understand a word of it; it was the human voice with its pronounced, unusual inflections that aroused their merriment. The phonograph is becoming a powerful agency for disseminating a knowledge of English amongst the natives throughout Alaska, and one wishes that it were put to better use than the reproduction of silly and often vulgar monologue and dialogue and trashy ragtime music. As an index of the taste of those who purchase records, the selection brought to this country points low.

The third day the thermometer stood at -49° and we were free to leave without actually breaking the rule we had made after the escapade on the Yukon. Two other teams were going down the river, so we started with them on the sixty-five mile journey to Bettles. Twenty miles or so below Coldfoot the Koyukuk passes for several miles in a narrow channel between steep rock bluffs, with here and there great detached masses standing in the middle of the river. One has a grotesque resemblance to an aged bishop in his vestments and is known as the Bishop Rock; another a more remote likeness to an Indian woman, and this is known as the Squaw Rock. This part of the river, which is called the cañon of the Koyukuk, though it is not a true cañon, is very picturesque, and because of frequent overflow, offers glare ice and swift passage to the traveller when it does not embarrass him with running water. We were fortunate enough to pass it without getting our dogs' feet wet, and made the half-way road-house in a brilliant moon that rendered travelling at night pleasanter than during the day.

TRAVELLING AT "50 BELOW"

The next day we started again at near 50° below, but because there was a good trail and a road-house for noon, the travelling was rather pleasant than otherwise. If there be a warm house to break the day's march and eat in, where ice-incrusted scarfs and parkees and caps and mittens may be dried out, with a warm outhouse where the dogs may rest in comfort, travelling in such weather is not too risky or too severely trying. The continual condensation of the moisture from the breath upon everything about the head and face is a decided inconvenience, and when it condenses upon the eye-lashes, and the upper and the lower lashes freeze together, the ice must be removed or it is impossible to open the eyes. This requires the momentary application of the bare hand, and every time it goes back into the mitten it carries some moisture with it, so that after a while mittens are wet as well as head-gear; moreover, there is always a certain perspiration that condenses. One gets into the habit of turning the duffel lining of the moose-hide mitts inside out and hanging them up the moment one gets inside a cabin. Round every road-house stove there is a rack constructed for just that purpose.

There is no more striking phenomenon of the arctic trail than the behaviour of smoke in cold weather. As one approaches a road-house, and to greater degree a village or a town, it is seen enveloped in mist, although there be no open water to account for it, and the prospect in every other direction be brilliantly clear. It is not mist at all; it is merely the smoke from the stovepipes. And the explanation is simple, although not all at once arrived at. Smoke rises because it is warmer than the air into which it is discharged; for that and no other reason. Now, when smoke is discharged into air at a temperature of 50° below zero, it is deprived of its heat

immediately and falls to the ground by its greater specific gravity. The smoke may be observed just issuing from the pipe, or rising but a few feet, and then curling downward to be diffused amidst the air near the ground.

It was to such a smoke-enveloped inn that we pulled up to warm and refresh ourselves and our team for the twenty miles that remained of the day's march. We had almost reached the limit of Koyukuk road-houses. Bettles being the head of navigation, and merchandise late in the season finding water too shallow for transport to the diggings, there is more or less freighting with dog teams and horses all the winter. This travel keeps open the road-houses on the route. From an "outside" point of view they may appear rough and the fare coarse. The night accommodation is a double row of bunks on each side of a long room with a great stove in the middle. Sometimes there is straw in the bunks, sometimes spruce boughs; in the better class even sometimes hay-stuffed mattresses. But to the weary traveller, who has battled with the storm or endured the intense cold for hours at a stretch, they are glad havens of refuge; they are often even life-saving stations.

METEOROLOGICAL

While we lay at the road-house the clear sky clouded and the thermometer rose. This is an unfailing sequence. Clear, bright weather is cold weather; cloudy weather is warm weather. The usual explanation, that the cloud acts as a blanket that checks the radiation of heat from the earth, is one of those explanations that do not explain. There is no heat to radiate. The cloud is a mass of moist air, which is warm air, introducing itself from some milder region. So the cloud brings the heat; and the lower layers of atmosphere extract it and thereby discharge the moisture. For an hour or two around noon the thermometer stood at -35° and there was a light fall of snow; then the skies cleared because they were discharged of all their moisture, and the thermometer went down to -50° again. It is a beautifully simple process and sometimes takes place two or three times a day. Every time the sky clouds, the thermometer rises; every time the sky clears, the thermometer falls. And because the barometer gives notice of changes in the density of the atmosphere, it is valuable in forecasting temperature in our winters. A steady rise in the barometer means a steady fall in the thermometer; a fall in the barometer in a time of great cold infallibly prophesies warmer weather; even such rapid changes as the one given above are anticipated. So well is this established, that during "50°-below spells" at Fairbanks, impatient, weather-bound travellers and freighters would busy the hospital telephone with inquiries about the barometer, the hospital having the only barometer in the country.

After another long, cold run, on the night of Friday, the 12th of January, we reached Bettles, the place we had planned to spend Christmas at. We were unable to stir from Bettles for two solid weeks, for during the whole of that time the thermometer never rose above 50° below zero.

The long wait at Bettles would have been excessively tedious had it not been for the kind hospitality of Mr. and Mrs. Charles Grimm, the Commercial Company's agent and his wife, and this is but one of many times that I have been under obligation to them for cordial welcome and entertainment, for needs anticipated, and every sort of assistance gladly rendered. We had been expected many days; the Christmas festivities with a gathering of natives of both races had come and gone; still they looked for us, for in this country one does not give a man up merely because he is a few weeks behind time, nor hold him to account for unpunctuality. The natives remained for the most part, and there was abundant opportunity of intercourse with them and some beginnings of instruction. As the days passed and all arrangements for our advance were made, we chafed more and more at the delay, for it was very plain that the prospect of visiting Point Hope grew less and less; but this is a great country for teaching patience and resignation.

PARASELENÆ

Some of the weather during that two weeks' wait was of quite exceptional severity. One night is fixed for ever in my memory. It is a very rare thing for the wind to blow in the "strong cold," but that night there was a wind at 58° below zero. And high up in the heavens was a sight I had never seen before. The moon, little past her full, had a great ring around her, faintly prismatic; and equidistant from her, where a line through her centre parallel with the horizon would cut the ring, were two other moons, distinct and clear. It was a strangely beautiful thing, this sight of three moons sailing aloft through the starry sky, as though the beholder had been suddenly translated to some planet that enjoys a plurality of satellites, but no living being could stand long at gaze in that wind and that cold. A perfect paraselene is, I am convinced, an extremely rare thing, much rarer than a perfect parhelion ("moon-cats" my companion thought the phenomenon should be called, saving the canine simile for the sun), for in seven years' travel I have never seen another, and the references to it in literature are few.

The next day at noon, the sun not visible above the distant mountains, there appeared in the sky a great shining cross of orange light, just over the sun's position, that held and shone for nigh an hour and only faded with the twilight. It is not surprising that these appearances should deeply impress the untutored mind and should be deemed significant and portentous; they must deeply impress any normal mind, they are so grand and so strange.

The man who has trained his intellect until it is so stale, and starved his imagination until it is so shrivelled that he can gaze unmoved at such spectacles, that they are insignificant to him, has but reduced himself to the level of the dog upon whom also they make no impression—though even a dog will howl at a great aurora. Of course we know all about them; any schoolboy can pick up a primer of physical geography and explain the laws of refraction, and the ugly and most libellous diagram of circles and angles that shows just how these lustrous splendours happen; but the mystery beyond is not by one hair's breadth impaired nor their influence upon the spectator diminished. In Alaska perhaps more than any other country it is the heavens that declare the glory of God and the firmament that shows His handiwork, and the awestruck Indian who comes with timid inquiry of the import of such phenomena is rightfully and scientifically answered that the Great Father is setting a sign in the sky that He still rules, that His laws and commandments shall never lose their force, whether in the heavens above or on the earth beneath.

THE STRONG COLD

The "strong cold" itself is an awe-inspiring thing even to those who have been familiar with it all their lives; and a dweller in other climes, endowed with any imagination, may without much difficulty enter into the feelings of one who experiences it for the first time. It descends upon the earth in the brief twilight and long darkness of the dead of winter with an irresistible power and an inflexible menace. Fifty below, sixty below, even seventy below, the thermometer reads. Mercury is long since frozen solid and the alcohol grows sluggish. Land and water are alike iron; utter stillness and silence usually reign. Bare the hand, and in a few minutes the fingers will turn white and be frozen to the bone. Stand still, and despite all clothing, all woollens, all furs, the body will gradually become numb and death stalk upon the scene. The strong cold brings fear with it. All devices to exclude it, to conserve the vital heat seem feeble and futile to contend with its terrible power. It seems to hold all living things in a crushing relentless grasp, and to tighten and tighten the grip as the temperature falls.

Yet the very power of it, and the dread that accompanies it, give a certain fearful and romantic joy to the conquest of it. A man who has endured it all day, who has endured it day after day, face to face with it in the open, feels himself somewhat the more man for the experience, feels himself entered the more fully into human possibilities and powers, feels an exultation that manhood is stronger even than the strong cold. But he is a fool if ever he grow to disdain the enemy. It waits, inexorable, for just such disdain, and has slain many at last who had long and often withstood it.

On those rare occasions when there is any wind, any movement of the air at all, there enters another and a different feeling. Into the menace of a power, irresistible, inflexible, but yet insentient, there seems to enter a purposeful, vengeful evil. It pursues. The cold itself becomes merely a condition; the wind a deadly weapon which uses that condition to deprive its victim of all defence. The warmth which active exercise stores up, the buckler of the traveller, is borne away. His reserves are invaded, depleted, destroyed. And then the wind falls upon him with its sword. Of all of which we were to have instance here on the Koyukuk.

"FOUND FROZEN"

In the second week of our stay at Bettles, while Divine service was in progress in the store building, crowded with whites and natives, the door opened and, with an inrush of cold air that condensed the moisture at that end of the room into a cloud and shot along the floor like steam from an engine exhaust, there entered an Indian covered with rime, his whole head-gear one mass of white frost, his snow-shoes, just removed, under his arm, and a beaded moose-skin wallet over his shoulder. Every eye was at once turned to him as he beat the frost from his parkee hood and thrust it back, unwrapped fold after fold of the ice-crusted scarf from his face, and pulled off his mittens. Seeking out the agent, he moved over to him and whispered something in his ear. It was plain that the errand was of moment and the message disturbing, and as I had lost the attention of the congregation and the continuity of my own discourse, I drew things to a close as quickly as I decently could. That Indian had come seventy-five miles on snow-shoes in one run, without stopping at all save to eat two or three times, at a continuous temperature of 50° below zero or lower, to bring word that he had found a white man frozen to death on the trail; and on the Koyukuk that feat will always be counted to Albert the Pilot for righteousness. From the location and description of the dead man, there was no difficulty in identifying him. He was a wood-chopper under contract with the company to cut one hundred cords of steamboat wood against next summer's navigation at a spot about one hundred miles below Bettles. He had taken down with him on the "last water" enough grub for about three months, and was to return to Bettles for Christmas and for fresh supplies. After a day or two's rest the Indian was sent back with instructions to bring the body to a native village we should visit, to whipsaw lumber for a coffin and dig a grave, and we engaged to give the body Christian burial.

Uneasy at the softening muscles and sinews of this long inaction, I took snow-shoes and a couple of Kobuks one day and made an ascent of the hill behind Bettles known as Lookout Mountain, because from its top the smoke of the eagerly expected first steamboat of the summer may be seen many

miles down the river; being moved to that particular excursion by dispute among the weather-bound freighters as to the hill's height.

The change of temperature as we climbed the hill was striking. On the first shoulder we were already out of the dense atmosphere of the valley and above the smoke gloom of the houses, and as we rose the air grew milder and milder, until at the top we emerged into the first sunshine of many weeks and were in an altogether different climate—balmy and grateful it was to us just come up from the strong cold. The aneroid showed the altitude about seven hundred feet above Bettles, and I regretted very much I had not brought the thermometer as well, for its reading would have been most interesting.

The view from the top was brilliantly clear and far-reaching. The broad plain across the river was checkered black and white with alternating spruce thickets and lakes; beyond it and the mountains that bounded it lay the valley of the south fork which we had crossed fifty or sixty miles farther up on our journey hither. Right in front of us the middle fork made its big bend from southwest to south, and to the left, that is, to the north, the valley of the John River opened up its course through the sharp white peaks of the Endicott Mountains. It was in this direction that my eyes lingered longest. I knew that sixty or seventy miles up this river we could cross the low Anaktuvak Pass into the Anaktuvak River, which flows into the Colville, and that descending the Colville we could reach the shores of the Northern Ocean. It was a journey I had wished to make—and have wished ever since. There are many bands of Esquimaux on that coast, never visited save by those who make merchandise of them in one way or another. Please God, some day I should get there; meanwhile our present hopes lay west, though, indeed, these grew daily fainter.

CHAPTER III

BETTLES TO THE PACIFIC—THE ALATNA, KOBUK PORTAGE, KOBUK VILLAGE, KOTZEBUE SOUND

ALL our preparations were long since made. Our Indian guide had been sent back to Fort Yukon from Coldfoot, and here we engaged a young Esquimau with his dog team and sled, to go across to Kotzebue Sound with us. There was also a young Dane who wished to go from the Koyukuk diggings to the diggings at Candle Creek on the Seward Peninsula, and him we were willing to feed in return for his assistance on the trail. The supplies had been carefully calculated for the journey, the toboggans were already loaded, and we waited but a break in the cold weather to start.

Our course from Bettles would lead us sixty-five miles farther down the Koyukuk to the mouth of the Alatna. The visit to the native village and the burial of the poor fellow frozen to death would take us ten miles farther down than that, and we would return to the Alatna mouth. Then the way would lie for fifty miles or so up that stream, and then over a portage, across to the Kobuk River, which we should descend to its mouth in Kotzebue Sound; the whole distance being about five hundred miles through a very little travelled country. We learned indeed, that it had been travelled but once this winter, and that on the first snow. It was thought at Bettles that we might possibly procure some supplies at a newly established mission of the Society of Friends about half-way down the Kobuk River, but there was no certainty about it, and we must carry with us enough man-food to take us to salt water. Our supply of dog fish we might safely count upon replenishing from the natives on the Kobuk. Another thing that caused some thought was the supply of small money. There was no silver and no currency except large bills on the Koyukuk, and we should need money in small sums to buy fish with. So the agent weighed out a number of little packets of gold-dust carefully sealed up in stout writing-paper like medicine powders, some worth a dollar, some worth two dollars, the value written on the face, and we found them readily accepted by the natives and very convenient. Two years later I heard of some of those packets, unbroken, still current on the Kobuk.

At last, on the 26th of January, we got away. The thermometer stood only a few degrees above -50° when we left, but the barometer had been falling slowly for a couple of days, and I was convinced the cold spell was over. With our three teams and four men we made quite a little expedition, but dogs and men were alike soft, and for the first two days the travel was laborious and slow; then came milder weather and better going.

THE KOYUKUK "TOWNS" OF '98

We passed the two ruined huts of Peavey, the roofs crushed by the superincumbent snow. In the summer of 1898 a part of the stream of gold seekers, headed for the Klondike by way of Saint Michael, was deflected to the Koyukuk River by reports of recent discoveries there. A great many little steamboat outfits made their way up this river late in the season, until their excessive draught in the falling water brought them to a stand. Where they stopped they wintered, building cabins and starting "towns." In one or two cases the "towns" were electrically lit from the steamboat's dynamo. The next summer they all left, all save those who were wrecked by the ice, and the "towns" were abandoned. But they had got upon the map through some enterprising representative of the land office, and they figure on some recent maps still. Peavey, Seaforth, Jimtown, Arctic City, Beaver City, Bergman, are all just names and nothing else, though at Bergman the Commercial Company had a plant for a while.

We passed the mouth of the Alatna, where were two or three Indian cabins, and went on the remaining ten miles to Moses' Village, where the body of the man frozen to death had been brought. Moses' Village, named from the chief, was the largest native village on the Koyukuk River, and we were glad, despite our haste, that we had gone there. The repeated requests from all the Indians we met for a mission and school on the Koyukuk River and the neglected condition of the people had moved me the previous year to take up the matter. This was my first visit, however, so far down the river.

We found the coffin unmade and the grave undug, and set men vigorously to work at both. The frozen body had been found fallen forward on hands and feet, and since to straighten it would be impossible without several days' thawing in a cabin, the coffin had to be of the size and shape of a packing-case; of course the ground for the grave had to be thawed down, for so are all graves dug in Alaska, and that is a slow business. A fire is kindled on the ground, and when it has burned out, as much ground as it has thawed is dug, and then another fire is kindled. We had our own gruesome task. The body should be examined to make legally sure that death came from natural causes. With difficulty the clothes were stripped from the poor marble corpse, my companion made the examination, and as a notary public I swore him to a report for the nearest United States commissioner. This would furnish legal proof of death were it ever required; otherwise, since there is no provision for the travelling expenses of coroners, and the nearest was one hundred and forty or one hundred and fifty miles away, there would have been no inquest and no such proof.

A WILDERNESS TRAGEDY

The man had delayed his return to Bettles too long. When his food was exhausted and he had to go, there came on that terrible cold spell. A little memorandum-book in his pocket told the pitiful story. Day by day he lingered hoping for a change, and day by day there was entry of the awful cold. He had no thermometer, but he knew the temperature was -50° or lower by the cracking noise that his breath made—the old-timer's test. At last the grub was all gone and he must go or starve. The final entry read: "All aboard to-morrow, hope to God I get there." The Indians estimated that he had been walking two days, and had "siwashed it" at night somewhere beside a fire in the open without bedding. Holes were burned in his breeches in two places, where, doubtless, he had got too near the fire. He had nothing whatever to eat with him save a piece of bacon gnawed to the rind. There were only two matches in his pocket, and they were mixed up with trash of birch-bark and tobacco, so it is likely he did not know he had them. He had lit all the fires he could light and eaten all the food he had to eat. Still he was plugging along towards the native village nine miles away. Then he lost the trail, probably in the dark, for it was faint and much drifted, and had taken off his snow-shoes to feel with his moccasined feet for the hardened snow that would indicate it. That was almost the end. He had gone across the river and back again, feeling for the trail, and then, with the deadly numbness already upon his brain, had wandered in a circle. The date of his starting in the memorandum-book and the distance travelled made it almost certain that, at some moment between the time when those three moons floated in the sky and the time when that cross glared on the horizon, he had fallen in the snow, never to rise again. Fifty-eight below zero and a wind blowing!

One supposes that the actual death by freezing is painless, as it is certainly slow and gradual. The only instance of sudden gelation I ever heard of is in Longfellow's "Wreck of the Hesperus," where the skipper, having answered one question, upon being asked another,

"Answered never a word,

For a frozen corpse was he."

But if the actual death be painless, the long conscious fight against it must be an agony; for a man of any experience must realise the peril he is in. The tingling in fingers and toes and then in knees and elbows is a warning he recognises only too well. He knows that, unless he can restore warmth by restoring the circulation, he is as good as frozen already. He increases his pace and beats his arms against his breast. But if his vitality be too much reduced by hunger and fatigue and cold to make more than a slight response to the stimulation, if the distance to warmth and shelter be too

great for a spurt to carry him there, he is soon in worse case than before. Then the appalling prospect of perishing by the cold must rise nakedly before him. The enemy is in the breach, swarming over the ramparts, advancing to the heart of the fortress, not to be again repelled. He becomes aware that his hands and feet are already frozen, and presently there may be a momentary terrible recognition that his wits begin to wander. Frantically he stumbles on, thrashing his body with his arms, forcing his gait to the uttermost, a prey to the terror that hangs over him, until his growing horror and despair are mercifully swallowed up in the somnolent torpidity that overwhelms him. All of us who have travelled in cold weather know how uneasy and apprehensive a man becomes when the fingers grow obstinately cold and he realises that he is not succeeding in getting them warm again. It is the beginning of death by freezing.

We buried the body on a bench of the bluff across the river from the native village, the natives all standing around reverently while the words of committal were said, and set up a cross marked with lead-pencil: "R. I. P.—Eric Ericson, found frozen, January, 1906." Two or three years later a friend sent me a small bronze tablet with the same legend, and that was affixed to the cross. There are many such lonely graves in Alaska, for scarce a winter passes that does not claim its victims in every section of the country. That same winter we heard of two men frozen on the Seward Peninsula, two on the Yukon, one on the Tanana, and one on the Valdez trail. This day I recorded a temperature of 10°, the first plus temperature in thirty-nine days, and that previous rise above zero was the first in twenty days.

NEGLECTED NATIVES

That night we gathered all the natives, and after long speech with poor interpretation I ventured to promise them a mission the next year. Some of them had been across to the Yukon years before and had visited the mission at Tanana. Some had been baptized there. Some had never seen a clergyman or missionary of any sort before, and had never heard the gospel preached. We were touched by one old blind woman who told of a visit to a mission on the Yukon, and how she learned to sing a hymn there. Her son interpreted: "She say every night she sing that hymn for speak to God." She was encouraged to sing it, and it turned out to be the alphabet set to a tune! After much pleading and with some hesitation, I baptized seventeen children, comforting myself with the assurance of the coming mission, which would undertake their Christian training and instruction.

Back next day at the mouth of the Alatna, I was again impressed with the eligibility of that spot as a mission site. It was but ten miles above the present native village, and, with church and school established, the whole population would sooner or later move to it. This gives opportunity for

regulating the building of cabins, and the advantage of a new, clean start. Moreover, the Alatna River is the highway between the Kobuk and the Koyukuk, and the Esquimaux coming over in increasing numbers, would be served by a mission at this place as well as the Indians. I foresaw two villages, perhaps, on the opposite sides of the river—one clustered about the church and the school, the other a little lower down—where these ancient hereditary enemies might live side by side in peace and harmony under the firm yet gentle influence of the church. So I staked a mission site, and set up notices claiming ground for that purpose, almost opposite the mouth of the Alatna, which, in the native tongue, is Allakaket or Allachaket.

THE INLAND ESQUIMAUX

There was some trail up the Alatna and we made fair headway on its surface, stopping two nights at Kobuk huts. We are out of the Indian country now, and shall see no more Indians until we are back on the Yukon. The mode of life, the habits, the character of the races are very different—the first Esquimau habitation we visited proclaiming it. These inland Esquimaux, though some of the younger ones have never seen salt water—our guide, Roxy, for one—are still essentially a salt-water people. Their huts, even in the midst of trees, are half-underground affairs, for they have not learned log-building; the windows are of seal gut, and seal oil is a staple article of their diet. Their clothing is also marine, their parkees of the hair-seal and their mukluks of the giant seal. Communications are always kept up with the coast, and the sea products required are brought across. The time for the movement of the Kobuks back and forth was not quite yet, though we hoped we should meet some parties and get the benefit of their trail. Just before we left the Alatna River we stopped at Roxy's fish cache and got some green fish, hewing them out of the frozen mass with the axe. The young man had fished here the previous summer, had cached the fish caught too late to dry in the sun, and they had remained where he left them for four or five months. Most of them had begun to decay before they froze, but that did not impair their value as dog food, though it rendered the cooking of them a disagreeable proceeding to white nostrils. This caching of food is a common thing amongst both natives and whites, and it is rarely that a cache is violated except under great stress of hunger, when violation is recognised as legitimate. Doughty, in his Arabia Deserta, mentions the same custom amongst the Arabs; Sven Hedin amongst the Tartars. Sparsely peopled waste countries have much the same customs all over the world. Even the outer garb in the Oriental deserts has much resemblance to our parkee; both burnoose and parkee are primarily windbreaks, and it makes little difference whether the wind be charged with snow or sand.

At midday on the 3d of February we left the Alatna River and took our way across country for the Kobuk. We had now no trail at all save what had been

made a couple of months before by the only other party that had crossed the portage this winter, and it was buried under fifteen or sixteen inches of snow. There was quite a grade to be climbed to reach the plateau over which our course lay, and the men, with rope over the shoulder, had to help the dogs hauling at the sled. Indeed, over a good deal of this portage, from time to time, the men had to do dog work, for the country is rolling, one ridge succeeding another, and the loose, deep snow made heavy and slow going. One man must go ahead breaking trail, and that was generally my task, though when the route grew doubtful and the indications too faint for white man's eye, Roxy took my place and I took his gee pole, and slipped his rope around my chest.

Breaking trail would not be so laborious if one could wear the large snow-shoes that are used for hunting. But the hunting shoe, though it carries the man without fatigue, does not help the dogs. The small shoe known as the trail shoe, packs the snow beneath it, and by the time the trail breaker has gone forward, then back again, and then forward once more, the snow is usually packed hard enough to give the dogs some footing. Footing the dog must have or he cannot pull; a dog wallowing in snow to his belly cannot exert much traction on the vehicle behind him. The notion of snow-shoeing as a sport always seems strange to us on the trail, for to us it is a laborious necessity and no sport at all. The trail breaker thus goes over most of the ground thrice, and when he is anxious at the same time to get a fairly accurate estimate by the pedometer of the distance travelled, he must constantly remember to upend the instrument in his pocket when he retraces his steps, and restore it to its recording position when he attacks unbroken snow again. Also he must take himself unawares, so to speak, from time to time, and check the length of his stride with the tape measure and alter the step index as the varying surfaces passed over require. Conscientiously used, with due regard to its limitations, the pedometer will give a fair approximation of the length of a journey, but a man can no more tell how far he has gone by merely hanging a pedometer in his pocket than he can tell the height above sea-level of an inland mountain by merely carrying an aneroid barometer to the top.

THE SUNRISE AND THE MOUNTAINS

It was on this Alatna-Kobuk portage that we saw the most magnificent sunrise any of us could remember. It had been cloudy for some days with threat of snow which did not fall. We were camped in a little hollow between two ridges, and I had been busy packing up the stuff in the tent preparatory to the start, when I stepped out with a load of bedding in my arms, right into the midst of the spectacle. It was simple, as the greatest things are always simple, but so gorgeous and splendid that it was startling. The whole southeastern sky was filled with great luminous bands of alternate purple

and crimson. At the horizon the bands were deeper in tone and as they rose they grew lighter, but they maintained an unmixed purity of contrasting colour throughout. I gazed at it until the tent was struck and the dogs hitched and it was time to start, and then I had to turn my back upon it, for our course lay due west, and I was breaking trail. But on the crest of the rising ground ahead there burst upon my delighted eyes a still more astonishing prospect. We were come to the first near view of the Kobuk mountains, and the reflected light of that gorgeous sunrise was caught by the flanks of a group of wild and lofty snow peaks, and they stood up incandescent, with a vivid colour that seemed to come through them as well as from them. To right and left, mountains out of the direct path of that light gave a soft dead mauve, but these favoured peaks, bathed from base to summit in clear crimson effulgence, glowed like molten metal. It was not the reflected light of the sun, but of the flaming sky, for even as I looked, a swift change came over them. They passed through the tones of red to lightest pink, not fading but brightening, and before my companions reached me the sun's rays sprang upon the mountains from the horizon, and they were golden.

It seems almost foolish to the writer and may well seem tedious to the reader, to attempt in words the description of such scenes; yet so deep is the impression they produce, and so large the place they take in the memory, that to omit them would be to strike out much of the charm and zest of these arctic journeys. Again and again in the years that have passed, the recollection of that pomp of colour on the way to the Kobuk has come suddenly upon me, and always with a bounding of the spirit. I can shut my eyes now and see that incomparable sunrise; I can see again that vision of mountains filling half the sky with their unimaginable ardency, and I think that this world never presented nobler sight. Surely for its pageantry of burning, living colour, for purity and depth and intensity of tint, the Far North with its setting of snow surpasses all other regions of the earth.

TRAVELLING KOBUK LADS

That same day we met a couple of Kobuk youths on their way to the Koyukuk, and they gave us the greatest gift it was in the power of man to give us—a trail! There is no finer illustration of the mutual service of man to man than the meeting of parties going opposite ways across the unbroken snows. Each is at once conferring and receiving the greatest of favours, without loss to himself is heaping benefit on the other; is, it may be—has often been—saving the other, and being himself saved. No more hunting and peering for blazes, no more casting about hither and thither when open stretches are crossed; no more three times back and forth to beat the snow down—twenty miles a day instead of ten or twelve—the boys' trail meant all that to us. And our trail meant almost as much to them. So we were rejoiced

to see them, sturdy youths of sixteen or seventeen, making the journey all by themselves. My heart goes out to these adventurous Kobuks, amiable, light-hearted, industrious; keen hunters, following the mountain-sheep far up where the Indian will not go; adepts in all the wilderness arts; heirs of the uncharted arctic wastes, and occupying their heritage. If I were not a white man I would far rather be one of these nomadic inland Esquimaux than any other native I know of.

That same day we crossed two headwater forks of the Kokochatna, as the Kobuks call it, or the Hogatzitna as the Koyukuks call it, or the Hog River, as the white men call it, a tributary of the Koyukuk that comes in about one hundred and fifty miles below the Alatna. As we came down a steep descent to the little east fork, it showed so picturesque and attractive, with clumps of fine open timber on an island, that it remains in my mind one of the many places from the Grand Cañon of the Colorado almost to the Grand Cañon of the Noatak, where I should like to have a lodge in the vast wilderness.

We had but crossed the west fork when we knew that we were close to the watershed between the Kobuk and the Koyukuk, between the streams that fall into Kotzebue Sound and those that fall by the Koyukuk and the Yukon Rivers into Bering Sea; and because it seemed a capital geographic feature, it was disappointing that it was so inconspicuous. Indeed, we were not sure which of two ridges was the actual divide. Beyond those ridges there was no question, for the ground sloped down to Lake Noyutak, a body of water some three and a half miles in length and of varying breadth that drains into the Kobuk. Here in a cabin we found three more young Kobuks, and spent the night, getting our first view of the Kobuk River next day, not from an eminence, as I had hoped, but only as we came down a bank through thick timber and opened suddenly upon it. By the pedometer I made the portage forty-six miles.

THE KOBUK RIVER

The upper Kobuk is a picturesque river, the timber being especially large and handsome for interior Alaska. We reached it just above the mouth of the Reed River, tributary from the north. The weather was warm—too warm for good travelling—the thermometer standing at 15¬¬¬°, 20°, and one day even 30° above zero all day long, so that we were all bareheaded and in our shirt-sleeves. From time to time, as the course of the river varied, we had distant views of the rocky mountains of the Endicott Range, or, as it might be written, the Endicott Range of the Rocky Mountains, for such, in fact, it is—the western and final extension of the great American cordillera. On the other side of those mountains was the Noatak River, flowing roughly parallel with the Kobuk, and discharging into the same arm of the sea.

The division of the labour of camping amongst four gave us all some leisure at night, and I found time to read through again The Cloister and the Hearth and Westward Ho! with much pleasure, quite agreeing with Sir Walter Besant's judgment that the former is one of the best historical novels ever written. There are few more attractive roysterers in literature to me than Denys of Burgundy, with his "Courage, camarades, le diable est mort!" This matter of winter reading is a difficult one, because it is impossible to carry many books. My plan is to take two or three India-paper volumes of classics that have been read before, and renew my acquaintance with them. But reading by the light of one candle, though it sufficed our forefathers, is hard on our degenerate eyes.

The days were much lengthened now, and the worst of the winter was done. There would still be cold and storm, but hardly again of the same intensity and duration. When the traveller gets well into February he feels that the back of the winter is broken, for nothing can take from him the advantage of the ever-lengthening days, the ever-climbing sun.

On the afternoon of the third day on the Kobuk we reached a cabin occupied by two white men, the first we had seen since we left Bettles, and we were the first white men they had seen all the winter. They were waiting for the spring, having a prospecting trip in view; simply spending the winter eating up their grub. There was nothing whatever to read in the cabin, and they had been there since the freeze-up! They welcomed us, and we stayed overnight with them, and that night there was a total eclipse of the moon, of which we had a fine view. We had an almanac which gave the time of totality at Sitka, and we knew the approximate longitude of our position, so we were able to set our watches by it.

The next two days are noted in my diary as two of the pleasantest days of the whole journey—two of the pleasantest days I ever spent anywhere, I think. A clear, cloudless sky, brilliant sunshine, white mountain peaks all about us, gave picture after picture, and the warm, balmy air made travelling a delight. There are few greater pleasures than that of penetrating into a new country, with continually changing views of beauty, under kindly conditions of weather and trail. In the yellow rays of the early sun, the spruce on the river bank looked like a screen of carved bronze, while the slender stems of birches in front of the spruce looked like an inlaying of old ivory upon the bronze, the whole set upon its pedestal of marble-like snow. The second day we took a portage of nine or ten miles across a barren flat and struck the river again just below a remarkable stretch of bank a mile or so in length, with never a tree or a bush or so much as the smallest shrub growing on it. Thick timber above suddenly ceased, thick timber below suddenly began again, and this bare bank reached back through open, barren flat to a low pass in the mountains. It was a bank of solid ice, so we

were told later, and I remembered to have heard of ice bluffs on the Kobuk, and wished that the portage had struck the river above this spot instead of below it, that there might have been opportunity to examine it.

THE MISSION

ENGLISH AND ESQUIMAU

A little farther down the river and we were at the new mission of the Society of Friends, where a cordial reception awaited us and, luxury of luxuries, a warm bath! Again and again the wash-tub was emptied and fresh water was heated until we all had wallowed to our heart's content. The rude log buildings of the mission had been begun the previous fall, and were not yet complete, but they were advanced enough for occupation, and the work of the mission went actively on. It was in charge of rather an extraordinary man. He gave us a sketch of his life, which was full of interest and matter for thought. For many years he was a police officer and jailer in the West. Then he sailed on a whaler and thus became acquainted with the Esquimaux. He was converted from a life of drunkenness and debauchery—though one fancied his character was not really ever so bad as he painted it—at a "Peniel" mission in a Californian town. He went in out of mere idle curiosity, just recovered from a spree, and was so wrought upon that when he came out he was a different creature, a new man, the old life with its appetite for vicious indulgence sloughed off and left behind him, and he now possessed with a burning desire to do some such active service for God as aforetime he had done for the devil. After three or four months of some sort of training in an institution maintained by the California Society of Friends—a body more like the Salvation Army, one judges, than the old Quakers—he volunteered for service at a branch which the old-established mission of the Society at the mouth of the Kobuk desired to plant two hundred miles or so up the river, and had come out and had plunged at once into his task. So here he was, some six or seven months installed, teacher, preacher, trader in a small way, and indefatigable worker in general. Pedagogical training or knowledge of "methods" he had none at all, but the root of the matter was in him, and surely never was such an insatiable school-teacher. Morning, noon, and night he was teaching. While he was cooking he was hearing lessons; while he was washing the dishes and cleaning the house he was correcting exercises in simple addition. In the schoolroom he was full of a genial enthusiasm that seemed to impart instruction by sheer dynamic force. "Boot," the lesson book said. There was no boot in the schoolroom, all were shod in mukluks. He dives into his dwelling-house attachment and comes back holding up a boot. "Boot," he says, and "boot" they all repeat. Presently the word "tooth" was introduced in the lesson. Withdrawing a loose artificial tooth of the "pivot" variety from

his upper jaw, he holds it aloft and "tooth!" he cries out, and "toot!" they all cry, and he claps it back into his head again.

We were present on Sunday at the services. There was hearty singing of "Pentecostal" hymns with catchy refrains, but we were compelled to notice again what we had noticed amongst the little bands of these people on the Koyukuk when we set them to singing, that the English was unintelligible; and since it conveyed no meaning to us could have had little for them. This is the inevitable result of ignoring the native tongue and adopting the easy expedient of teaching the singing of hymns and the recitation of formulas like the commandments in English. For a generation or two, at least, the English learned, save by children at a boarding-school, where nothing but English is spoken, is fragmentary and of doubtful import in all except the commonest matters of speech. And at such boarding-schools there is danger of the real misfortune and drawback of natives growing up to live their lives amongst natives, ignorant of the native tongue. There is no quick and easy way of stamping out a language, thank God; there is no quick and easy way of imparting instruction in a foreign language. By and by all the Alaskan natives will be more or less bilingual, but the intimate speech and the most clearly understood speech will still be the mother tongue. The singing done, there was preaching through an interpreter, and then each individual present "gave testimony," which consisted for the most part in the recitation of a text of Scripture. Then there were individual prayers by one and another of the congregation, and then some more singing. The only hymn I could find in the book that I knew was the fine old hymn, "How Firm a Foundation," and that was sung heartily to the "Adeste Fideles." They are naturally a musical race, picking up airs with great facility, and they thoroughly enjoy singing.

THE "DOUBLE STANDARD"

After the service the missionary confided some of his troubles to me. He had lately learned through his interpreter that the burden of most of the individual prayers was that the supplicator might "catch plenty skins" and be more successful in hunting than his fellows; and though he had done his best to impress upon them the superior importance of making request for spiritual benefit, he was afraid they had made no change. "Our people 'outside,'" he said, "don't understand these folk, and I'm not sure that I thoroughly understand them myself." "They're all 'converted,'" he said; "they all claim to have experienced a change of heart, but some of them I know are not living like converted people, and sometimes I have my doubts about most of them." My sympathy went out to him in his loneliness and his earnestness and his disappointments. I pointed out that the emotional response to emotional preaching was comparatively easy to get from any primitive people, but that to change their whole lives, to uproot old customs

of sensual indulgence, to engraft new ideas of virtue and chastity was a long, slow process anywhere in the world. It was chiefly in the matter of sexual morality that his doubts and difficulties lay, and I was able to assure him that his experience was but the common experience of all those who had laboured for the uplifting of savage people. Indeed, how should it be otherwise? Until quite lately there was almost promiscuous use of women. A man receiving a traveller in his dwelling overnight proffered his wife as a part of his hospitality; the temporary interchange of wives was common; young men and young women gratified themselves without rebuke; children were valuable however come by, and there was no special distinction between legitimate and illegitimate offspring. As one reflects on these conditions and then looks back upon conditions amongst white people, it would seem that all the civilised races have done is to set up a double standard of sexual morality as against the single standard of the savage. It can hardly be claimed that the average white man is continent, or even much more continent than the average Esquimau, but he has forced continence upon the greater part of his women, reserving a dishonoured remnant for his own irresponsible use. And there are signs that some of those who nowadays inveigh against the white man's double standard are in reality desirous of substituting, not the single standard of the Christian ideal, but the single standard of the savage. In the mining camps the prostitute has a sort of half-way-recognised social position, and in polite parlance is referred to as a "sporting lady"—surely the most horribly incongruous phrase ever coined; she often marries a miner who will tell you that she is as good as he is, and she is received afterwards by all but a few as a "respectable married woman."

There had been some trouble of this sort at this mission. The great northern gold seekers' wave of '97 and '98 threw a numerous band of prospectors up the Kobuk as well as up the Koyukuk. The wave had receded and left on the Kobuk but one little pool behind it, a handful of men who found something better than "pay" on the Shungnak, a few miles away. And there was much criticism of the missionary's methods amongst them. Word of the arrival of strangers had brought some of them to Long Beach, and on Sunday night I had opportunity of addressing them, with a view to enlisting their sympathy, if possible. What if mistakes were made, what if some of the methods employed were open to question? Here was a man who beyond doubt was earnestly labouring in the best way he knew for the improvement of these natives. Such an effort demanded the co-operation of every right-feeling man.

PERSONAL CLEANLINESS

After all, however grand the physical scenery, the meteorological phenomena, may be, the people of any country are the most interesting

thing in it, and we found these Esquimaux extraordinarily interesting. Dirty they certainly are; it is almost impossible for dwellers in the arctic regions to be clean in the winter, and the winter lasts so long that the habit of winter becomes the habit of the year. White and native alike accept a lower standard of personal cleanliness than is tolerated outside. I remember asking Bishop Rowe, before I came to Alaska: "What do you do about bathing when you travel in the winter?" To which he replied laconically: "Do without." It is even so; travellers on the Alaskan trails as well as natives belong to the "great unwashed." In the very cold weather the procuring of water in any quantity is a very difficult thing even for house dwellers. Every drop of it has to be carried from a water-hole cut far out on the ice, up a steep grade, and then quite a little distance back to the dwelling—for we do not build directly upon these eroding banks. The water-hole is continually freezing up and has to be continually hewed free of ice, and as the streams dwindle with the progress of winter, new holes must be cut farther and farther out. On the trail, where snow must usually be melted for water, it is obvious that bathing is out of the question; even the water for hands and face is sparingly doled by the cook, and two people will sometimes use the same water rather than resort to the painful though efficient expedient of washing with snow. If this be so despite aluminum pots and a full kit of camp vessels, it is much more so with the native, whose supply of pots and pans is very limited. I have seen a white man melt snow in a frying-pan, wash hands and face in it, throw it out, fry bacon and beans in it, then melt more snow and wash his cup and plate in it. There is, however, this to be said anent the disuse of the bath in this country, that in cold weather most men perspire very little indeed, and the perspiration that is exuded passes through to the outer garments and isimmediately deposited upon them as frost; and there is this further to be said about dirt in general, that one blessed property of the cold is to kill all odours.

One grows tolerant of dirt in this country; there is no denying it, and it is well that it is so; otherwise one would be in a chronic state of disgust with oneself and every one else. So the dirt of the native, unless specially prominent and offensive, is accepted as a matter of course and ignored. This obstacle overcome, the Esquimaux are an attractive and most interesting race, and compare to advantage with the Indians in almost every particular. They are a very industrious people. Go into an Esquimau's hut at almost any time when they are not sleeping, and you will find every individual occupied at some task. Here is a man working in wood or bone with the ingenious tools they have evolved; here are women working in skin or fur, and some of them are admirable needlewomen; here, perhaps, is another woman chewing mukluks—and many a white man who has kept his feet dry in overflow water is grateful to the teeth that do not disdain this most

effective way of securing an intimate union between sole and upper. Even the children are busy: here is a boy whittling out bow and arrow—and they do great execution amongst rabbits and ptarmigan with these weapons that entail no cost of powder and shot; here is a girl beating out threads from sinew with a couple of flat stones. Some of us, troubled with unconscientious tailors, wish that a law could be passed requiring all buttons to be sewn on with sinew—they never come off.

A LIGHT-HEARTED FOLK

They are a very light-hearted people, easily amused, bubbling over with laughter and merriment, romping and skylarking with one another at every intermission of labour. One of my white travelling companions on this journey was in the habit of using a little piece of rabbit skin to protect his nose in cold or windy weather. The care of the nose is sometimes very troublesome indeed, it freezes more readily than any other portion of the body; and a little piece of rabbit skin, moistened and applied to the nose, will stay there and keep it warm and comfortable all day. But it does not exactly enhance one's personal attractions.

We had stopped for camp and were all together for the first time in four or five hours, when Roxy noticed this rabbit-skin nose protector, upon which the breath had condensed all the afternoon until two long icicles depended from it, one on each side, reaching down below the mouth; and he fell straightway into a fit of laughter that grew uncontrollable; he rolled on the snow and roared. A little annoyed at this exhibition, I spoke sharply: "What's the matter with you, Roxy; what on earth are you cutting up like that for?" Checking himself for a moment, he pointed to my companion and said, "Alleesame walrus," and went off into another paroxysm of laughter, rolling about and roaring. At intervals all the evening he would break out again, and when we sat down to eat it overcame him once more and he rushed outside where he could give vent to his mirth with less offence.

The boy was straightforward and conscientious. We were camped over Sunday once, and Roxy had noticed many marten tracks in the neighbourhood. He had brought a few traps along with him to set out as we went and pick up on his return, and he wanted to know if I thought he might set some that day, although it was the day of rest. Careful not to interfere in any way with the religious instruction any native has received from any source, I told him that was a matter for him to decide himself; that each man was responsible for his own conduct. The boy thought awhile—and he did not set his traps. Now that young man had never received any instruction at a mission; all his teaching had been from other Esquimaux. This same question of working on Sunday was the cause of some of the difficulty between the missionary at Long Beach and the miners at

Shungnak. The sluicing or "cleaning-up" season is short, and mining operators generally consider that they cannot afford to lose an hour of it. The Kobuks employed by these miners quit their work on Sunday, and that brought the operations to a standstill. There was something to be said on the miners' side, but I rejoiced that the Esquimau boys showed such steadfastness to their teaching. "If you cannot use them six days in the week, if it has to be seven or none, then do as the miners on the Yukon side do, consider the country uninhabited, and make your arrangements as though there were no Kobuks." That was my advice, and this may be read in connection with Mr. Stefanson's caustic comments on the same rigidity of observance.

We left Long Beach with a grateful feeling for the hospitality with which we had been received and with a substantial respect for the earnest missionary effort that was being put forth there. We were able to replenish our grub supply and also to exchange our two toboggans for one large sled, for we were out of the toboggan country again and they had already become a nuisance, slipping and sliding about on the trail. Our host was up early with a good breakfast for us, and speeded the parting guest, which on the trail is certainly an essential part of true hospitality, with all the honours; the natives lined up on the bank and the younger ones running along with us for a few hundred yards.

THE JADE MOUNTAINS

Soon after we left the mission we went up a series of terraces to a desolate, barren, wind-swept flat, the portage across which cut off a great bend of the river and saved us many miles of travel. To our right rose the Jade Mountains, whence the supply of this stone which used to be of importance for arrow-heads and other implements was obtained and carried far and wide. A light crust on the snow broke through at every step, though the snow was not deep enough and the ground too uneven to make snow-shoes useful; so we all had more or less sore feet that night when we regained the river and made our camp near the mouth of the Ambler, another tributary from the north.

The next day was an exceedingly long, tedious day. The Kobuk River, which in its upper reaches is a very picturesque stream, began now to be as monotonous as the lower Yukon. It had grown to considerable size, and the bends to be great curves of many miles at a stretch, one of which, a decided bend to the north of the general westerly direction of the river, we were three full hours in passing down. It was while traversing this bend that we witnessed a singular mirage that lent to the day all the enlivenment it had. Before us for ten or twelve miles stretched the broad white expanse of the river bed, shimmering in the mellow sunlight, and far beyond, remote but

clear, rose the sharp white peaks of the mountains that divide the almost parallel valleys of the Kobuk and the Noatak. As we travelled, these distant peaks began to take the most fantastic shapes. They flattened into a level table-land, and then they shot up into pinnacles and spires. Then they shrank together in the middle and spread out on top till they looked like great domed mushrooms. Then the broad convex tops separated themselves entirely from their stalk-like bases and hung detached in the sky with daylight underneath. And then these mushroom tops stretched out laterally and threw up peaks of their own until there were distinct duplicate ranges, one on the earth and one in the sky. It was fascinating to watch these whimsical vagaries of nature that went on for hours. A change in one's own position, from erect to stooping, caused the most convulsive contortions, and when once I lay down on the trail that I might view the scene through the lowest stratum of the agitated air, every peak shot up suddenly far into the sky like the outspreading of one's fingers, to subside as suddenly as I rose to my feet again. The psalmist's query came naturally to the mind, "Why hop ye so ye hills?" and our Kobuk boy Roxy, whose enjoyment of fine landscapes and strange sights was always a pleasure to witness, answered the unspoken question. "God make mountains dance because spring come," he said prettily enough.

Then we crossed another portage and cut off ten miles of river by it, and when we reached the river again I wanted to stop, for it grew towards evening and here was good camping-ground. But we had lately met some travelling Kobuks and they had told Roxy of a cabin "just little way" farther on, and I yielded to the rest of the company, who would push on to it and thus avoid the necessity of making camp. That native "just little way" is worse than the Scotch "mile and a bittock"; indeed, the natives have poor notion of distance in general, and miles have as vague meaning to them as kilometres have to the average Anglo-Saxon.

A BELATED CAMP

On and on we pushed, mile after mile, and still no cabin. In the gathering dusk we would continually think we saw it; half-fallen trees or sloping branches simulating snow-covered gables. At last it grew quite dark, and when there was general agreement that we must seek the cabin no longer, but camp, there was no place to camp in. Either the bank was inaccessible or there was lack of dry timber. We went on thus, seeking rest and finding none, until seven-thirty, and then made camp by candle-light, in a poor place at that, having trudged thirty-five miles that day. A night-made camp is always an uncomfortable camp, and an uncomfortable camp means a miserable night, which to-morrow must pay for. We did not get to bed till nearly midnight, and it was nine-forty-five when we started out next morning, and we made only fifteen miles that day.

The Kobuk valley continued to open out wider and wider and the mountains right and left to recede. The Jade Mountains were now dim and distant behind us, and new ranges were coming into view. The people on this lower river are very few. It was just about one hundred miles from Long Beach when we reached the next native village, a miserable collection of pole dwellings, half underground, with perhaps a score of inhabitants. Certainly the conditions of life deteriorated as we descended this river. The country seems to afford nothing but fish; we were amongst the ichthyophagi pure and simple. Roxy, bred and born on the upper Kobuk and never so far down before, is very scornful about it. "Me no likee this country," he says; "no caribou, no ptarmigan, no rabbits, no timber, no nothin'." The weather had grown raw and cold again, with a constant disagreeable wind that took all the fun out of travelling. We passed a place where a white man was pessimistically picking away at a vein of coal in the river bluff. "Yes, we been here all winter," he said, "working on the blamed ledge. I always knowed it was goin' to pinch out, and now it's begun to pinch. My partner's gone to Candle for more grub, but I told him it weren't no use. It's pinchin' out right now. I knowed it afore we started work, but the blamed fool wouldn't listen to me. 'It'll pinch out,' I told him a dozen times; 'you mark my word it'll pinch out,' I told him, and now it's begun to pinch; and I hope he'll be satisfied." We were reminded of the many coal-mines from time to time located on the Yukon, in all or nearly all of which the vein has "pinched out." The deposits on the coast may be all the fancy of the magazine writer paints, and may hold the "incalculable wealth" that is attributed to them, but the coal on the interior rivers seems in scant measure and of inferior quality.

The same night we reached the native village at the mouth of the Squirrel River, another northern tributary—the Kobuk receives most of its waters from the north—and we spent the night and the next day, which was Sunday, in one of the half-underground huts of the place, in company with twelve other people. Here we found Roxy's brother, dubbed "Napoleon" by some white man. They had not seen one another for years, yet all the greeting was a mutual grunt. The Kobuks are not demonstrative in their affections, but it would not be right to conclude the affection lacking. I have seen an old Esquimau woman taking part in a dance the night after her husband was buried, yet it would have been unjust to have concluded that she was callous and indifferent. It is very easy to misunderstand a strange people, and very hard to understand them thoroughly.

THE CANINE INTRUDER

The roof of the tent was dome-shaped and it was lit by a seal-gut skylight. In the morning while I was conducting Divine service and attempting most lamely by the mouth of a poor interpreter to convey some instruction, a dog

fight outside adjourned to the roof and presently both combatants came tumbling through the gut window into the midst of the congregation. They were unceremoniously picked up and flung out of the door, a few stitches with a needleful of sinew repaired the window, and the proceedings were resumed. These gut windows have their convenience as well as their inconvenience. When the hut gets too warm and close even for Esquimaux, the seal gut is folded back and the outer air rushes in to the great refreshment of the occupants; when the hut is cool enough the gut is replaced. A skylight is far and away the best method of illuminating any single-story structure, and this membrane is remarkably translucent, while the snow that falls or frost that forms upon such a skylight is quickly removed by beating the hand upon the drum-like surface. All glass windows must be double glazed, or else in the very cold weather they are quickly covered with a thick deposit of frost from the condensation of the moisture inside the room, and then they admit much less light than gut does. One of its unpleasant features is the way the membrane snaps back and forth with a report like a pistol whenever the door is opened and shut, but on the whole it is a very good substitute for glass indeed.

SLEEPING CUSTOMS

These river Esquimaux vary greatly in physical appearance. While many of them are somewhat undersized and all have small feet and hands, some are well-developed specimens of manhood. "Riley Jim," the chief of this tribe, would be counted a tall, stalwart man anywhere. And while many have coarse, squat features, here and there is one who is decidedly attractive in appearance. A sweet smile which is often upon the face, and small, regular white teeth, greatly help to redeem any countenance. A youth of about eighteen at the Squirrel River would properly be called handsome, one thinks—though amongst native people one grows a little afraid of forgetting standards of comparison; and his wife—for he was already a husband—was a decidedly pretty girl. A word ought to be said which applies to all the Esquimaux we met. Although many people live in one hut and there is no possible privacy, yet we saw no immodesty of any sort. They sleep entirely nude—probably our own great-grandparents did the same, at least the people of Defoe and Smollet did, for nightshirts and pyjamas are very modern things. There is much to be said from an hygienic point of view in favour of that custom as against turning in "all standing" as the Indian generally does, or sleeping in the day underwear as most white men do. But although every one of a dozen people in cabin after cabin that we stayed at on the Kobuk River above and below this place, of both sexes and all ages, would thus strip completely and go to bed, there was never any exposure of the body at all. It may be, of course, that our presence imposed a greater care in this respect, but it did not so impress us; it seemed the normal

thing. Another noticeable feature of the lives of all these people was their devoutness in the matter of thanks before and after meat. Some of them would not so much as give and receive a drink of cold water without a long responsive grace.

As we went on down the river the country grew bleaker and drearier and the few scattered inhabitants were living more and more the life of the seacoast. The dwellings resembled igloos more than cabins, being completely covered with snow and approached by underground passages, with heavy flaps of untanned sealskin to close them. When we passed a fork of the river we knew that we were entering the delta of the Kobuk, and that another day would take us to the mission on Kotzebue Sound. It was a long, hard day, in which we made forty miles, but an interesting one. With a start at six, we were at the mouth by nine-thirty. The spruce which had for some time been dwarfing and dwindling gave place to willows, the willows shrank to shrubs, the shrubs changed to coarse grass thrusting yellow tassels through the snow. The river banks sank and flattened out and ceased, and we were on Hotham Inlet with the long coast-line of the peninsula that forms it stretching away north and south in the distance. Roxy's bewilderment was amusing. He stopped and gazed about him and said: "Kobuk River all pechuk!" ("Pechuk" means "played out.") "What's the matter, no more Kobuk River?" I think his mind had never really entertained the notion of the river ending, though of course he must often have heard of its mouth in the salt water. He was out of his country, his bearings all gone, a feeling of helpless insecurity taking the place of his usual confidence, and I think he said no more all that day.

We had to traverse the ice of Hotham Inlet northward to its mouth, double the end of the peninsula, and then travel south along the coast to the mission at Kikitaruk, the peninsula being too rugged to cross. Three considerable rivers drain into Hotham Inlet, roughly parallel in their east and west courses, the Noatak, the Kobuk, and the Selawik, so that its waters must be commonly more fresh than salt, for its bounds are narrow and the extensive delta of its eastern shore would argue its depth slight. Ahead of us, as we travelled north making a bee-line for the end of the peninsula, all the afternoon, loomed the rocky promontory of Krusenstern, one of Kotzebue's capes, and far beyond, stretching up the dim coast-line, lay the way to Point Hope. It was with a sinking of the heart that I gazed upon it, for I knew already, though I had not announced a decision, that the road to Point Hope could not be my road that year. All day long the thermometer stood between -40° and -30°, and the constant light sea-breeze kept scarfs wrapped closely about mouths and noses, which always means disagreeable travel. When the company stopped at noon to eat a little frozen lunch, I was too chilly to cease my movement and pressed on. The day of

that blessed comfort of the trail, the thermos flask, was not yet. By two-thirty we had reached Pipe Spit, which still further contracts the narrow entrance of the inlet, and turning west for a mile or two rounded the point and then turned south for ten miles along the coast. Just about dark we reached the mission and stood gazing out over the rough ice of Kotzebue Sound to the Arctic Ocean, having made the forty miles in ten and a half hours. We had come about one thousand miles from Fairbanks, all of it on foot and most of it on snow-shoes.

THE ARCTIC OCEAN

So here was my first sight of the Arctic Ocean. All day long I had anticipated it, and it stirred me,—a dim, grey expanse stretching vast and vague in the dusk of the evening. The old navigators whose stories I had read as a boy passed before me in their wonderful, bold sailing vessels, going in and out uncharted waters that steamships will not venture to-day—Kotzebue, Beechey, Collinson, McClure—pushing resolutely northward.

Less happy had been my first sight of the Pacific Ocean, five years before. I had the ill luck to come upon it by way of that Western Coney Island, Santa Monica, and from the merry-go-rounds and cheap eating places Balboa and Magellan and Franky Drake fled away incontinent and would not be conjured back; though, indeed, the original discoverers would have had yet further occasion to gaze at one another "with a wild surmise" if they had seen shrieking companies "shooting the chutes." But here was vastness, here was desolation, here was silence; jagged ice masses in the foreground and boundless expanse beyond, solemn and mysterious. The Arctic Ocean was even as I had pictured it.

The missionary in charge at Kikitaruk had been informed by letter of our projected journey during the previous summer and had long expected us. We were received with kindness and hospitality, and after supper began at once our acquaintance with his work, for there was a service that night which it was thought we should attend. I spoke for a few minutes through an excellent interpreter and then spent a couple of hours nodding over the stove, overcome with sleep, while there was much singing and "testimony."

TOTAL-ABSTINENCE ESQUIMAUX

The Californian Society of Friends, established here a number of years with branches at other points on Kotzebue Sound, has done an excellent work amongst the Esquimaux. If they had accomplished nothing else it would stand to the everlasting credit of the Society's missionaries that they have succeeded in imbuing the natives under their charge with a total aversion to all intoxicating liquor. We had come down from the remotest points to which the influence of these people has extended; we had met their natives five

hundred miles away from their base of instruction, and everywhere we found the same thing. It was said by the white men on the Koyukuk that a Kobuk could not be induced to take a drink of whisky. It seemed to us a pity that the force of this most wholesome doctrine should be weakened by the unsuccessful attempt to include tobacco in the same rigorous prohibition. In several cabins where we stayed there was no sign of smoking until members of our party produced pipes, whereupon other pipes were furtively produced and the tobacco that was offered was eagerly accepted. From any rational point of view the putting of whisky and tobacco in the same category is surely a folly. There can be few more harmless indulgences to the native than his pipe, and no one knows the solace of the pipe until he has smoked it around the camp-fire in the arctic regions after a hard day's journey.

The decision to turn my back on Point Hope was, I think, the most painful decision I ever made in my life; with all my heart I wanted to go on. It was only one hundred and sixty or one hundred and seventy miles away. The journey had been made in three or four days; but we were now come to a country where travel is impossible in bad weather and where bad weather prevails; and that journey might quite as likely take two weeks. I worked over the calendar in my diary, figuring how many days of travel still remained, allowing reasonable margins, and I could not see that I had much more than time to get back to Fairbanks before the break-up, which for sufficient reason I regarded as my first duty. The day of rest at Kikitaruk was Washington's birthday, the 22d of February. Eight weeks would bring us to the 19th April, by which time the trails would be already breaking up. Counting out Sundays, that left forty-eight days of travelling with something like twelve hundred miles yet to make without going to Point Hope—an average of about twenty-five miles a day. I knew that we had made no such average in the distance already covered, and though I knew also that travelling improved generally as the season advanced, I did not know how very much better going there is on the wind-hardened snows of the coast when travelling is possible at all. Again and again I have regretted that I did not take the chance and push on, but at the time I decided as I thought I ought to decide, and one has no real compunctions when that is the case.

THE RESOLUTION TO TURN SOUTH

So a first-hand knowledge of our own most interesting work among the Esquimaux was not for me on that occasion—and there has arisen no opportunity since. Mr. Knapp, who had planned to spend the rest of the winter at Point Hope, would get a guide and a team here and turn north after some days' rest, while I would turn south. Roxy was impatient to return to Bettles. "Me no likee this country," was all that could be got out of him. So I paid him his money and made him a present of the .22 repeating rifle with which he had killed so many ptarmigan on the journey, outfitted

him with clothes, grub, and ammunition, and let him go; saying good-bye with regret, for he was a good boy to us all the way.

It was late on the night of our single day of rest when I got to bed, for there had been squaring up of accounts and much writing, and when I went to bed I did not sleep. Again and again I reviewed the decision I had come to and fought against it, though such is far from my common habit. Even as I write, years after, the bitter rebellious reluctance with which I turned south comes back to me. I wished the hospital at Fairbanks at the bottom of the deep blue sea. I protested I would go on and complete my journey, even though it involved "thawing out" at Tanana and getting to Fairbanks on a steamboat in the summer. I had a free hand, a kindly and complaisant bishop, and none would call me strictly to account. Then I realised that it was merely pride of purpose, self-willed resolution of accomplishing what had been essayed—in a word, personal gratification for which I was fighting, and with that realisation came surrender and sleep.

CHAPTER IV

THE SEWARD PENINSULA—CANDLE CREEK, COUNCIL, AND NOME

ONE day's rest was not a great deal after the distance we had come—and that day fully occupied with business—but since Point Hope was abandoned some sort of schedule must be made for the Seward Peninsula, and where Sunday shall be spent is always an important factor in arranging these itineraries. There was just time to reach Candle for the next Sunday and it was decided to attempt it. Hans would accompany me as far as Candle, where he hoped to find work. It meant two days of forty-five miles each, for it is ninety miles from Kikitaruk to Candle, but they told us it could be done.

So the reluctant adieus made, letters despatched, some mailed here at Kikitaruk, some to be carried back to Bettles and mailed there—these latter getting outside long before the former—we started at seven in the morning instead of six, as we had planned, on the journey down the shore of Kotzebue Sound. That hour's delay turned out to be a calamity for us.

The trail was smooth along the beach until Cape Blossom was reached, and I had the first riding of the winter, Hans and I alternately running and jumping on the sled. There was a portage across the cape, and three or four miles below it was the wreck of the river steamer Riley, which used to make a voyage up the Kobuk with supplies for the miners at the Shungnak. The thermometer was at -38° when we started, and the same light but keen breeze was blowing that had annoyed us on the other side of the peninsula. What a barren, desolate region it is!—low rocks sinking away to the dead level of the snow-field on the one hand, nothing but the ice-field on the other.

A BAD NIGHT

CAMPED IN THE OPEN

We were bound for an igloo forty-five miles from the mission, the only shelter between Kikitaruk on the peninsula and Kewalik on the mainland, and we had been warned that the igloo would be easy to miss if it grew dark as it would be almost indistinguishable from the snow-drifts of the shore. Some directions from a multitude of counsellors remembered in one sense by Hans and in another by me, added to our uncertainty as to just where the igloo lay. The wind increased in force as the evening advanced and the last time I looked at the thermometer it still registered -38°. The sun set over the sound with another of those curious distortions which had before proved ominous to us. It was flattened and swollen out like a pot-bellied Chinese lantern, with a neck to it and an irregular veining over its surface that completed the resemblance. The wind increased until the air was full of flying snow and it grew dark, and still there was no sign of the igloo. Only

slowly and with much difficulty could the trail be followed, and that meant we were soon not moving fast enough to keep warm in the fierce wind. At last we lost the trail altogether, and sometimes we found ourselves out on the rough ice of the sound and sometimes wallowing in a fresh snow-drift on the shore. I became possessed with the fear that we had passed the igloo. I was positive that we were told at the mission that we should reach it before the high bluffs were passed, and we had passed them a long way and had now but a shallow shelf to mark the coast-line. It is strange how long that delusion about passing his destination will pursue the Alaskan traveller. Presently the dogs dropped off a steep bank in the dark, and only by good fortune we were able to keep the heavy sled from falling upon them, for they were dead tired and lay where they dropped. With freezing fingers I unhitched the dogs while Hans held the sled, and we lowered it safely down. But it was plain that it was dangerous to proceed. We could not find the trail again and were growing alarmingly cold. We were "up against it," as they say here, "up against it good and strong." We had a tent but no means of putting it up, a stove but nothing to burn in it, a grub box full of food but no way to cook it. So the first night of coast travel was to show us the full rigour and inhospitality of the coast and to make us long for the interior again. Wood can almost always be found there within a few miles, if it be not immediately at hand, and no one properly appreciates the hospitality of a clump of spruce-trees until he has spent a night of storm lying out on this barren coast. We turned the dogs loose and threw them a fish apiece, unlashed the sled, and got out our bedding. I had been sleeping in robes, Hans in a shedding caribou-hide sleeping-bag that was my pet aversion. When he crawled out in the morning he was so covered with hair that he looked like a caribou, and the miserable hairs were always getting into the food. We fished them out of the coffee, pulled them out of the butter, and picked them out of the bread. But now in that sleeping-bag he had an enormous advantage. We lay side by side on the snow in the lee of the sled, and, tuck myself up with blanket and robe as I would, it was impossible to keep the swirling snow from coming in. I called the dogs to me and made them lie on my feet and up against my side, and so long as they lay still I could get a little warmth, but whenever they rose and left me I grew numb again. But Hans in his sleeping-bag was snoring. The bag is the only bedding on the coast. Added to the physical discomfort of that sleepless, shivery night was some mental uneasiness. There was no telling to what height the storm might rise, nor how long it might continue. Sometimes travellers overtaken in this way on the coast have to lie in their sleeping-bags for three days and nights before they can resume their journey. The only interest the night held was the thought that came to me that as nearly as I could tell we camped exactly on the Arctic Circle. The long night dragged its slow length to the dawn at last and the wind moderated a little at the same time, so with the

first streak in the east I awoke Hans, we gathered our poor dogs together, rolled up the snow-incrusted bedding, and resumed our journey. Two miles farther on was the igloo! Our calls awoke some one and we were bidden to enter. Descending a ladder and crawling through a dark passage we came in to the grateful warmth and shelter. The chamber was crowded with sleeping Esquimaux and reeked with seal oil and fish, but Hans said it "looked good and smelled good to him," and so it did to me also. One has to lie out on that coast in a storm to appreciate the value of mere shelter. We went at once to cooking, for we had eaten nothing but a doughnut or two in twenty-four hours, and surely never meal was more relished than the reindeer steaks and the coffee we took amongst those still sleeping Esquimaux. I should have liked to spend the day and the next night there, for they were friendly and kindly, but the wind had moderated somewhat and there was still a chance to reach Candle for Sunday. With the offer of a sack of flour at Kewalik we induced a couple of Esquimaux to accompany us, for I knew we had to cross the mouth of a bay over the ice to reach the mainland and I wanted to take no more chances.

Our company, again raised to four, started out about nine, and until the Choris Peninsula was reached the trail still skirted the shore. It is strange that Kotzebue, who named this peninsula of a peninsula for the artist who accompanied his expedition in 1816, should have left the main peninsula itself unnamed, and that the British expedition which named Cape Blossom ten years later should have failed to supply the omission. It still bears no name on the map. We portaged across the Choris Peninsula and at the end of the portage took a straight course across the mouth of Escholtz Bay (Escholtz was Kotzebue's surgeon) for Kewalik on the mainland, passing Chamisso Island, named for Kotzebue's poet friend. There is something very interesting to me in this voyage of Kotzebue's, and I have long wished to come across a full narrative of it. But the bitter wind that swept across that ice-sheet with the thermometer at -30° brought one's thoughts back to one's own condition. My hands I could not keep warm with the gear that had sufficed for 50° and 60° below in the interior, and I was very glad to procure from one of our native companions a pair of caribou mitts with the hair inside, an almost invulnerable gauntlet against cold. If that wind had been in our faces instead of on our sides I am sure we could not have travelled at all. At last we won across the ice and brought up at a comfortable road-house at Kewalik, about ten miles from Candle. Here we lay overnight, taking the opportunity of thawing out and drying the frost-crusted bedding, leaving the short run into town for the morning.

CANDLE CREEK

The diggings on Candle Creek yield to the Koyukuk diggings only as the most northerly gold mining in the world. Although the general methods are the same in all Alaskan camps, local circumstances introduce many differences. In all Alaskan camps the ground is frozen and must be thawed down. The timber of the interior renders wood the natural fuel for the production of the steam that thaws the ground, but the scarcity of wood on the Seward Peninsula substitutes coal. There is coal on the peninsula itself, but of very inferior quality, mixed with ice. One may see chunks of coal with veins of ice running through them thrown upon the fire. The wood of the interior is a great factor in its commercial and domestic economy, and its absence on the Seward Peninsula makes great change not only in the natural aspect of the country but in the whole aspect of its industrial and domestic life also. Wood-chopping for the stove and the mill, wood-sawing, wood-hauling employ no small percentage of all the white men in the interior—occupations which do not exist at all on the peninsula. But its encompassment by the sea, its peninsularity, is the dominating difference between the Seward Peninsula and the interior, and does indeed make a different country of it altogether. All prices are very much lower on the peninsula because ships can bring merchandise directly from the "outside." Thus amongst those who have money to spend there is a more lavish scale of living than in the interior towns, and luxuries may be enjoyed here that are out of the question there. Perhaps, conversely, it is true that life on the peninsula is somewhat harder for the poorer class. Whether a railway from salt water to the mid-Yukon would redress this great difference in the cost of everything may be doubted. Railways do not usually operate at less than water-rates. There will probably always be an advantage in the cost of living and mining in favour of the Seward Peninsula camps.

There had been no public religious service of any sort in Candle, with its several hundreds of population, in three years, so there was special satisfaction in having reached the place for Sunday when many miners were in town from the creeks, and an overflowing congregation was readily assembled. And there was great pleasure in three days' rest at the hospitable home of a friend while the temperature remained below -40°, exacerbated by a wind that rendered travelling dangerous. Moreover, by waiting I had company on the way, and now that I was without native attendant or white companion, and disposed, if possible, to make the journey right across the peninsula to Council and then to Nome without engaging fresh assistance, I was doubly glad of the opportunity of travelling with two men bound for the same places and acquainted with the route.

THE SEWARD PENINSULA

Travelling, like so many other things, is very different on the Seward Peninsula. The constant winds beat down and harden the snow until it has a crust that will carry a man anywhere. There are only two means by which snow becomes crusted; one is this packing and solidifying by the wind, and the other is thawing and freezing again. There is much less wind in the interior than on the coast, and usually much less snowfall, and the greater part of the surface of the country is protected by trees; the climate, being continental instead of marine, is not subject to such great fluctuations of temperature. A thaw sufficiently pronounced or sufficiently prolonged to put a stout crust on the snow when freezing is resumed, is a very rare thing in the interior and a common thing on the coast. So a striking difference in travel at once manifests itself; in the interior all the snow is soft except on a beaten trail itself, while in the Seward Peninsula all the snow is alike hard. The musher is not confined to trails—he can go where he pleases; and his vehicle is under no necessity of conforming in width to a general usage of the country—it may be as wide as he pleases. Hence the hitching of dogs two and three abreast; hence the sleds of twenty-two, twenty-four, or twenty-six inches in width. My tandem rig aroused the curiosity of those who saw it. Hence many other differences also. Hitherto we had not dreamed of watering the dogs since snow fell; now I found their mouths bloody from their ineffectual attempts to dig up the hard snow with their teeth, and had to water them night and morning. It is not the custom on the Seward Peninsula to cook for the dogs, and dog mushers there argue the needlessness of that trouble. But the true reason is other and obvious. It is difficult for the traveller to get enough wood to cook for himself, let alone the dogs. On the Seward Peninsula skis are extensively used when there is soft snow; the prevalence of brush almost everywhere in the interior renders them of little use—and they are, therefore, little used, snow-shoes being universal.

So, as in nearly all such matters everywhere, local peculiarities, local differences, local customs, usually arise from local conditions, and the wise man will commonly conform so soon as he discovers them. There is almost always a sufficient reason for them.

A "SIDLING" TRAIL

The journey from Candle to Council was a surprisingly swift one. We covered the one hundred and thirty miles in three days, far and away the best travelling of the winter so far, but the usual time, I found. The hard snow gives smooth passage though the interior of the peninsula is rugged and mountainous; two prominent elevations, the Ass's Ears, standing up as landmarks during the first day of the journey. The route crossed ridge after

ridge with steep grades, and the handling of the heavy sled alone was too much for me. Again and again it was overturned, and it was all that I could do, and more than I ought to have done, to set it up again. The wind continued to blow with violence, and shelter from it there was none. One hillside struggle I shall always remember. The trail sloped with the hill and the wind was blowing directly down it. I could keep no footing on the marble snow and had fallen heavily again and again, in my frantic efforts to hold sled and dogs and all from sweeping down into a dark ravine that loomed below, when I bethought me of the "creepers" in the hind-sack, used on the rivers in passing over glare ice. With these irons strapped to my feet I was able to stand upright, but it was only by a hair's breadth once and again that I got my load safely across. When I was wallowing in a hot bath at Council two days later I found that my hip and thigh were black and blue where I had fallen, though at the time, in my anxiety to save the dogs and the sled, I had not noticed that I had bruised myself. So, judging great things by little, one understands how a soldier may be sorely wounded without knowing it in the heat and exaltation of battle.

Then for a while there would be such travel as one sees in the children's picture-books, where the man sits in the sled and cracks his whip and is whisked along as gaily as you please—such travel as I had never had before; but there was no pleasure in it—the wind saw to that.

On the second day we crossed "Death Valley," so called because two men were once found frozen in it; a bleak, barren expanse, five or six miles across, with a great gale blowing right down it, charged not only with particles of hard snow but with spicules of ice and grains of sand. Our course was south and the gale blew from the northwest, and the right side of one's body and the right arm were continually numb from the incessant beating of the wind. The parkee hood had to be drawn closely all the time, and the eyes were sore from trying to peer ahead through the fur edging of the hood. One grows to hate that wind with something like a personal animosity, so brutal, so malicious does it seem. An incautious turn of the head and the scarf that protected mouth and nose was snatched from me and borne far away in an instant, beyond thought of recovery. It seems to lie in wait, and one fancies a fresh shrill of glee in its note at every new discomfiture it can inflict. There is nothing far-fetched in the native superstition that puts a malignant spirit in the wind; it is the most natural feeling in the world. I said so that night in camp, and one of my companions mentioned something about "rude Boreas," and I laughed. The gentle myths of Greece do not fit this country. The Indian name means "the wind beast," and is appropriate.

A savage, forbidding country, this whole interior of the Seward Peninsula, uninhabited and unfit for habitation; a country of naked rock and bare

hillside and desolate, barren valley, without amenities of any kind and cursed with a perpetual icy blast.

DEATH VALLEY

The valley crossed and its ridge surmounted, a still more heart-breaking experience was in store. We descended the frozen bed of a creek from which the wind had swept every trace of snow so that the ice was polished as smooth as glass. The dogs could get no footing and were continually down on their bellies, moving their legs instinctively but helplessly, like the flippers of a turtle, while the wind carried dogs and sled where it pleased. The grade was considerable and in bends the creek spread out wide. Nothing but the creepers enabled a man to stand at all, and creepers and brake together could not hold the sled from careering sideways across the ice, dragging the dogs with it, until the runners struck some pebble or twig frozen in the ice and the sled would be violently overturned. Twice with freezing fingers I unlashed that sled lying on its side, and took out nearly all the load before I could succeed in getting it upright again, losing some of the lighter articles each time. The third time was the worst of all. The brake had been little more than a pivot on which sled and dogs were swung to leeward, but now the teeth had become so blunt that, though I stood upon it with all my weight, it would not hold at all nor check the sideways motion under the impulse of the wind. Right across the creek we went, dragging the dogs behind, jerking them hither and thither over the glassy surface. I saw the rocks towards which we were driving, but was powerless to avert the disaster, and hung on in some hope, I suppose, of being able to minimise it, till, with a crash that broke two of the uprights and threw me so hard that I skinned my elbow and hurt my head, we were once more overturned. Never since I reached manhood, I think, did I feel so much like sitting down and crying. It seemed hopeless to think about getting down that creek until the wind stopped, and one doubts if the wind ever does stop in that country. But there was no good sitting there like a shipwrecked mariner, nursing sores and misfortunes; presently one would begin to feel sorry for oneself—that last resort of incompetence. And the bitter wind is a great stimulus. It will not permit inaction. So I was up again, fumbling at the sled lashings as best I could with torpid fingers, when one of my companions, uneasy at my delay, very kindly made his way back, and with his assistance I was able to get the sled upright again without unloading and hold it somewhat better on its course until another bend or two brought us to the partial shelter of bluffs and, a little farther, to the cabin where we were to spend the night. I understood now why my companions had a sort of hinged knife-edge fastened to one runner of their sled. By the pressure of a foot the knife-edge engaged the ice and held the sled on its course. This is another Seward Peninsula device.

THE KINDLY SWEDE

I have it in my diary that "a Swede named Petersen was very kind to us at the cabin, cooking for us and giving us cooked dog feed." Blessed Swede named Petersen!—there are hundreds of them in Alaska—and I shall never forget that particular one's kindness—the only man I met in the Seward Peninsula who still persisted in cooking dog feed whenever he could. He had cooked up a mess of rice and fish enough to last his three or four dogs several days while he sojourned at this cabin, and he gave it all to us and would take nothing for it. His language was what Truthful James calls "frequent and painful and free." I ignored it for a while, loath to take exception to anything a man said who had been so kind. But at last I could stand it no longer—it took all the savour out of his hospitality—and I said: "I hope you won't mind my saying it, for I'd hate to give offence to a man who has been so good to strangers as you have, but I wish you'd cut out that cursing; it hurts my ears." He sat silent a moment looking straight at me, and I was not sure how he had taken it. Then he said: "Maybe you been kinder to me saying that, than I been to you. That's the first time I ever been call down for cursin'. I don't mean nothin' by it; it's just foolishness and I goin' try to cut it out."

The dogs had done but ill on the dry fish, accustomed as they were to cooked food, and they ate ravenously of their supper. Only the previous night Lingo had betrayed his trust for the first and last time. Coming out of the cabin just before turning in, to take a last look round, I saw Lingo on top of the sled eating something, and I found that he had dug a slab of bacon out of the unlashed load and had eaten most of it. I knew he was hungry, missing the filling, satisfying mess he was used to, and I did not thrash him, I simply said, "Oh, Lingo!" and the dog got off the sled and slunk away, the very picture of conscious, shamefaced guilt. That was the only time he did such a thing in all the six years I drove him.

Council was past its prime at the time of this visit, but just as we entered the town, at the end of the third day's run, it seemed in danger of going through all the stages of decadence with a rush to total destruction out of hand, for a fire had broken out in a laundry, and with the high wind still blowing it looked as though every building was doomed. Of two chemical engines possessed by the town one refused to work, but the vigour and promptness of the people in forming two lines down to the river, and passing buckets with the utmost rapidity, coped with the outbreak just in time to prevent its spreading beyond all control. Tired as we were, we all pitched in and passed buckets until parkees and mitts and mukluks were incrusted with ice from water that was spilled. Efficient protection is a matter of great difficulty and expense in Alaskan towns, and there is not one of them that has escaped being swept by fire. The buildings are almost necessarily all of

wood, the cost of brick and stone construction being prohibitive. No one can guarantee ten years of life to a placer-mining town, and there would be no warrant for the expenditure of the sums required for fireproof building even were the capital available. But the rapidity with which they are rebuilt, where rebuilding is justified, is even more remarkable than the rapidity with which they are destroyed.

A Saturday and Sunday were very welcome at Council, and the courtesy of the Presbyterian minister, who gave up his church and his congregations to me, Esquimaux in the morning and white at night, was much appreciated.

NORTON SOUND

In warmer weather, the thermometer no lower than -5° at the start, but with the same gale blowing that had blown ever since we left Candle, though it had shifted towards the northeast, we got away on Monday morning, bound for Nome, ninety miles away, hoping to reach the half-way house that night. Five or six hours' run over good trails, with no greater inconvenience than the acceleration of our pace by the wind on down grades, until the sled frequently overran the dogs with entanglements and spillings, brought us to the seacoast at Topkok, and a noble view opened up as we climbed the great bluff. There Norton Sound spread out before us, its ice largely cleared away and blown into Bering Sea by the strong wind that had prevailed for nearly a week, its waves sparkling and dashing into foam in the March sunshine; the distant cliffs and mountains of its other shore just visible in the clear air. It was an exhilarating sight—the first free water that I had seen since the summer, and it seemed rejoicing in its freedom, leaping up with glee to greet the mighty ally that had struck off its fetters.

But from this point troubles began to grow. We dropped down presently to the shore and passed along the glare surface of lagoon after lagoon, the wind doing what it liked with the sled, for it was impossible to handle it at all. Sometimes we went along broadside on, sometimes the sled first and the dogs trailing behind, moving their silly, helpless paws from side to side as they were dragged over the ice on their bellies. When we had passed these lagoons the trail took the beach, running alongside and just to windward of a telephone-line, with rough shore ice to the left and bare rocks to the right. Again and again the already injured sled was smashed heavily against a telephone pole. I would see the impact coming and strive my utmost to avert it, but without a gee pole, and swinging the sled only by the handle-bars, it was more than I could do to hold the sled on its course against the beam wind that was forcing it towards the ice and the telephone poles; and a gee pole could not be used at the rate we had travelled ever since we left Candle. Mile after mile we went along in this way. I do not know how many poles I hit and how many I missed, but every pole on that stretch of coast was a

fresh and separate anxiety and menace to me. I think I would have been perfectly willing to have abolished and wiped out the whole invention of the telephone so I could be rid of those hateful poles. What were telephone poles doing in the arctic regions anyway? Telephone poles belonged with electric cars and interurban trolley-lines, not with dog teams and sleds.

Then it grew dark and the wind increased. I did not know it, but I was approaching that stretch of coast which is notorious as the windiest place in all Alaska, a place the topography of which makes it a natural funnel for the outlet of wind should any be blowing anywhere in the interior of the peninsula. My companions were far ahead, long since out of sight. I struggled along a little farther, and, just after a particularly bad collision and an overturning, I saw a light glimmering in the snow to my right. It was a little road-house, buried to the eaves and over the roof in snow-drift, with window tunnels and a door tunnel excavated in the snow. I was yet, I learned, five miles from Solomon's, my destination, but I hailed this haven as my refuge for the night and went no farther, more exhausted by the struggle of the last two or three hours than by many an all-day tramp on snow-shoes. It was a miserable, dirty little shack, but it was tight; it meant shelter from that pitiless wind. That night the thermometer stood at 7°, the first plus temperature in twenty-two days.

By morning the gale had greatly diminished, and by the time I reached Solomon's and rejoined my companions it was calm, the first calm since we left the middle Kobuk. We had some rough ice to cross to avoid a long detour of the coast, and then we were back on the shore again and it began to snow. The snow was soon done and the sun shone, but the new coating of dazzling white gave such a glare that it was necessary to put on the snow glasses for the first time of the winter—and that is always a sign winter draws to a close.

DOGS AND REINDEER

On the approach to Nome we had our first encounter with reindeer, and at once my dog team became unmanageable. I had had some trouble that morning with a horse. A new dog I procured at Kikitaruk had never seen a horse before, and made frantic efforts to get at him, leaping at his haunches as we passed by. But when they saw the reindeer the whole team set off at a run, dragging the heavy sled as if it were nothing. The Esquimau driving the deer saw the approaching dogs and hastily drew his equipage off the trail farther inshore, standing between the deer and the dogs with a heavy whip. What the result would have been had the dogs reached the deer it is hard to say. I had kept my stand on the step behind the sled and managed to check its wild career with the brake and to throw it over and stop the approach before the carnivora reached their immemorial prey. Herein lies one of the

difficulties of the domestication of reindeer in Alaska, a country where so far dogs have been the only domestic animals. Again, as we entered the outskirts of Nome the incident was repeated, and only the hasty driving of the reindeer into a barn prevented the dogs from seizing the deer that time.

NOME

Jimmy was long deposed from his ineffectual leadership and a little dog named Kewalik—the one I obtained at Kikitaruk—was at the head of the team. Kewalik had never seen so many houses before; hitherto almost every cabin he had reached on his journeys had been a resting-place, and he wanted to dive into every house we passed. At Candle and Council both, our stopping-place had been near the entrance to the little town. But now we had to pass up one long street after another and I had continually to drag him and the team he led first from a yard on this side of the road and then from one on the other. The dog was perfectly bewildered and out of his head by the number of people and the number of houses he saw. We were indeed a sorry, travel-worn, unkempt, uncivilised band, man and dogs, with an old, battered vehicle, and we felt our incongruity with the new environment as we entered the metropolis of the luxury and wealth of the North. Here we passed a jeweller's shop, the whole window aglow with the dull gleam of gold and ivory—the terrible nugget jewellery so much affected in these parts and the walrus ivory which is Alaska's other contribution of material for the ornamental arts. Here we passed a veritable department store, its ground-floor plate-glass window set as a drawing-room, with gilded, brocaded chairs, marquetry table, and ormolu clock, and I know not what costliness of rug and curtain. It was all so strange that it seemed unreal after that long passage of the savage wilds, that long habitation of huts and igloos and tents. Hitherto we had often been fortunate could we buy a little flour and bacon; here the choice comestibles of the earth were for sale. I looked askance at my greasy parkee as I passed shops where English broadcloth and Scotch tweeds were displayed; at my worn, clumsy mukluks when I saw patent-leather pumps. But Nome knows how to welcome the wanderer from the wilderness and to make him altogether at home. There could be no warmer hospitality than that with which I was received by the Reverend John White and his wife, than that which I had at many a home during my week's stay.

Nothing in the world could have caused the building of a city where Nome is built except the thing that caused it: the finding of gold on the beach itself and in the creeks immediately behind it. It has no harbour or roadstead, no shelter or protection of any kind; it is in as bleak and exposed a position as a man would find if he should set out to hunt the earth over for ineligible sites.

But Nome is also a fine instance of the way men in the North conquer local conditions and wring comfort out of bleakness and desolation by the clever adaptation of means to ends.

The art of living comfortably in the North had to be learned, and it has been learned pretty thoroughly. People live at Nome as well as they do "outside." One may sit down to dinners as well cooked, as well furnished, as well served as any dinners anywhere. The good folk of Nome delight in spreading their dainty store before the unjaded appetite of the winter traveller, and it would be affectation to deny that there is keen relish of enjoyment in the long-unwonted gleam of wax candle or electrolier upon perfect appointment of glass, silver, and napery, in the unobtrusive but vigilant service of white-jacketed Chinaman or Jap. Nome has a great advantage over its only rival in the interior, Fairbanks, in the matter of freight rates. The same merchandise that is landed at the one place for ten or twelve dollars a ton within ten or twelve days of its leaving Seattle, costs fifty or sixty at the other, and takes a month or more to arrive. But this accessibility in the summer is exactly reversed in the winter. No practicable route has been discovered along the uninhabited shores of Bering Sea, and all the mail for Nome comes from Valdez to Fairbanks and then down the Yukon and round Norton Sound by dog team. In winter Fairbanks is within seven or eight days of open salt water; Nome a full month. After navigation closes in October, the first mail does not commonly reach the Seward Peninsula until January. So that, with all its comforts and luxuries, Nome is a very isolated place for eight months in the year.

MINING AT NOME

We went out with the dog sled to the diggings a few miles behind the town, and a busy scene we found, enveloped in steam and smoke. Here an old beach line had been discovered and was yielding rich reward for the working. A long line of conical "dumps" marked its extension roughly parallel with the present shore, and the buckets that arose from the depths, travelled along a cable, and at just the right moment upset their contents, continually added to these heaps. All the winter "pay-dirt" is thus excavated and stored; in the summer when the streams run the gold is sluiced out. But that phrase "when the streams run" covers a world of difficulty and expense to the miner. In some places in this Seward Peninsula, ditches thirty and forty miles long have been constructed to insure the streams running when and where they are needed.

There was quite a little to do in Nome. A new sled must be bought, and another dog, and, above all, some arrangement made about a travelling companion. I was not willing to hire a native who would have to return here, and I was resolved never again to travel alone. So I put an advertisement in

the newspaper, desiring communication with some man who was intending a journey to Fairbanks immediately, and was fortunate to meet a sober, reliable man who undertook to accompany and assist me for the payment of his travelling expenses.

The week wore rapidly away, and I began to be eager to depart, mindful of the eight hundred odd miles yet to be covered. Spring seemed already here and summer treading upon her heels, for the town was all slush and mud from a decided "soft snap," the thermometer standing well above freezing for days in succession.

A visitor to this place is struck by the number of articles made from walrus ivory exposed for sale, chief amongst them being cribbage-boards. A walk down the streets would argue the whole population given over to the incessant playing of cribbage. The explanation is found in the difficulty of changing the direction of Esquimau activity once that direction is established. These clever artificers were started making cribbage-boards long ago and it seems impossible to stop them. Every summer they come in from their winter hunting with fresh supplies carved during the leisure of the long nights. The beautiful walrus tusk becomes almost an ugly thing when it is thus hacked flat and bored full of holes. The best pieces of Esquimau carving are not these things, made by the dozen, but the domestic implements made for their own use, and some of this work is very clever and tasteful indeed, adorned with fine bold etchings of the chase of walrus, seal, and polar bear.

CHAPTER V

NOME TO FAIRBANKS—NORTON SOUND—THE KALTAG PORTAGE—NULATO—UP THE YUKON TO TANANA

WE left Nome on the 13th of March, the night before being taken up by a banquet which the Commercial Club was kind enough to give me; indeed, the whole stay was marked by lavish kindness and hospitality, and I left with the feeling that Nome was one of the most generous and open-handed places I had ever visited.

The soft weather continued and made sloppy travel. Our course lay all around Norton Sound to Unalaklík, and then over the portage to Kaltag on the Yukon; up the Yukon to the mouth of the Tanana, and then up that river to Fairbanks. The first day's run was the retracing of our steps to Solomon's, and that was done without difficulty save for a new trouble with the dogs. It appeared that we no longer had any leader. All the winter through my team had been behind another team, and that constant second place had turned our leaders into followers. We thought we had two leaders, but neither one was willing to proceed without some one or something ahead of him. On such good ice-going as this it was out of the question for one of us to run ahead of the team simply to please these leader-perverts, and the whip had to be wielded heavily on Jimmy's back ere he could be induced to fill his proper office—and then he did it ill, with constant exasperating stoppings and lookings-back. At Solomon's I met a man who had spent some years with Peary in his arctic explorations, and I sat up far into the night drawing interesting narratives out of him. So far as Topkok we were still retracing our steps, but once over the great bluff, which gave no view this time owing to the mist which accompanies this soft weather, we were on new ground, our course lying wholly along the beach.

At Bluff was the most interesting, curious gold mining I have ever seen, the extraction of gold from the sand of Norton Sound, two hundred yards or more out from the beach. There it lies under ten or twelve feet of water with the ice on top. How shall it be reached? Why, by the exact converse of the usual Alaskan placer mining; by freezing down instead of thawing down. The ice is cut away from the beginning of a shaft, almost but not quite down to the water, leaving just a thin cake. The atmospheric cold, penetrating this cake, freezes the water below it, and presently the hole is chopped down a little farther, leaving always a thin cake above the water. A canvas chute is arranged over the shaft, with a head like a ship's ventilator that can be turned any way to catch the wind. Gradually the water is frozen down, and as it is frozen more and more ice is removed until the bottom is reached, surrounded and protected by a cylindrical shaft of ice; then the sand can be

removed and the gold it contains washed out. They told us they were making good money and their ingenuity certainly deserved it.

ICE TRAVEL

We stopped that night at the native village of Chinnik, the people of which are looked after by a mission of the Swedish Evangelical Church on Golofnin Bay, which we should cross to-morrow. But the mission is off the trail, and we did not come to an acquaintance with the missionaries of this body until we reached Unalaklík. Next day, climbing and descending considerable grades in warm, misty weather, we reached Golofnin Bay, pursued it some distance, and left it by a very steep, long hill that was close to one thousand feet high, at the foot of which we were once more on the beach of the sound—and at the road-house for the night. From that place the trail no longer hugged the coast but struck out boldly across the ice for a distant headland, Moses' Point, where we lunched, and, that point reached, struck out again for Isaac's Point, most of the travelling during a long day in which we made forty-eight miles being four or five miles from land. The day was clear, and the shore-line of the other side of the sound, which grew nearer as we proceeded, was subject to strange distortions of mirage. The road-house that night nestled picturesquely against a great bluff, and right across the ice lay Texas Point, for which we should make a bee-line to-morrow. Sometimes the traveller must go all round Norton Bay, but at this time the ice was in good condition and our route cut across the mouth of the bay for twenty-two miles straight for the other side. It was like crossing from Dover to Calais on the ice. The passage made, the Alaskan mainland was reached once more, the Seward Peninsula left behind us, and our way lay across desolate, low-lying tundra strewn with driftwood and hollowed out here and there into little lagoons. Evidently the waves sweep clean across it in stormy weather when the sound is open; a salt marsh. In the midst of it reared a sort of lookout tripod of driftwood thirty or forty feet high, lashed and nailed together, with a precarious little platform on top and cleats nailed to one of the uprights for ascent. I essayed the view, but the rusty nails broke under my feet. We deemed it a hunting tower from which water-fowl might be spied in the spring. Sixteen miles of this melancholy waste brought us to the shore again, to a tiny Esquimau village and a tumble-down, half-buried shack of a road-house where we should spend the night, a little schooner lying beached in front of it. If its exterior were uninviting, the scene as we entered was sinister. By the light of a single candle—though it was not yet dark outside—amidst unwashed dishes and general grime, sat an evil-eyed Portuguese or Spaniard, in a red toque, playing poker with three skin-clad Esquimaux. So absorbed were they in the game that they had not heard us arrive nor seen us enter. With a brief, reluctant interval for the preparation of a poor supper, the card playing went on all the evening far into the night.

My companion discovered that the chips were worth a dollar apiece and judged it to be "considerable of a game." At last I arose from my bunk and said that we were tired and had come there to sleep, and with an ill grace the playing was shortly abandoned and the natives went off. The arctic shores have their beach-combers as well as the South Sea Islands.

UNALAKLÍK

The next day was Sunday, but I was anxious to spend my day of rest at Unalaklík and most indisposed to spend it here, so we got away with a very early start long before daylight. Six or seven miles of tundra and lagoon travel and the trail crossed abruptly a tongue of land and struck out over the salt-water ice for a cape fifteen miles away. The going was splendid. It was not glare ice, but ice upon which snow had melted and frozen again. It was so smooth that one dog could have drawn the sled, yet not so smooth as to deny good footing. We kept well out to sea, passing close to the mountainous mass of Besborough Island, plainly riven by some ancient convulsion from the sheer bluffs of the mainland. Our only trouble was in keeping the dogs well enough out, for, not being water-spaniels or other marine species, they had a hankering after the land and a continual tendency to edge in to shore.

So from headland to headland we made rapid, easy traverse, thoroughly enjoying the ride, munching chocolate and raisins, speculating about the seasons when it had been possible to cross direct from Nome to Saint Michael on the ice, and exchanging stories we had heard of the disasters and hairbreadth escapes attending such overbold venture. Only this winter three men and a dog team were blown out into Bering Sea by a sudden storm, and lay for four days in their sleeping-bags drifting up and down on an ice cake, until at last they were blown back to the shore ice and made their escape. And there is a fine story of a white man rescued in half-frozen state by his Esquimau wife, and carried for miles on her back to safety.

At last we turned a point and drew in to the shore, and, not seeing the little town till we were almost upon it, arrived at Unalaklík early in the afternoon. We had made the two hundred and forty miles, as it is called, from Nome, in six days. In the last twelve days of travel we had covered five hundred miles, an average of nearly forty-two miles per day, far and away the best travelling of the winter. The preceding five hundred miles had taken twenty-two days.

We were in time to attend the Esquimau services at the mission both afternoon and night, and I found them very much the same as at Kikitaruk, with the exception that the singing was much more advanced and was very good indeed. There was an anthem of the Danks type sung by a choir—the parts well maintained throughout, the attacks good, the voices under excellent control—that it pleased and surprised me to hear, and there was a

long discourse most patiently and, as I judged, faithfully interpreted by a bright-looking Esquimau boy. It is well for those who speak much through an interpreter to listen occasionally to similar discourse. Only so may its unavoidable tediousness be appreciated.

GOVERNMENT SCHOOLS

The school next day pleased me still more, and I was glad that I had a school-day at the place. I heard good reading and spelling, saw good writing, and listened with real enjoyment to the fresh young voices raised again and again in song. There was, however, something so curiously exotic that for a moment it seemed irresistibly funny, in "The Old Oaken Bucket," from lips that have difficulty with the vowel sounds of English; from children that never saw a well and never will see one;—and I was irreverent enough to have much the same feeling about "I love thy templed hills," etc., in that patriotic Plymouth Rock song which is so little adapted for universal American use that, in a gibe not without justice, it has been called "Smith's Country, 'tis of Thee." One wonders if they sing it in the Philippine schools; and, so far as these regions are concerned, one wishes that some teacher with a spark of genius would take Goldsmith's hint and write a simple song for Esquimau children that should

"Extol the treasures of their finny seas

And their long nights of revelry and ease";

the splendour of summer's perpetual sunshine and the weird radiance of the Northern Lights; but prosody is not taught in your "Normal" school. The thing is a vain, artificial attempt to impose a whole body of ideas, notions, standards of comparison, metaphors, similes, and sentiments upon a race to which, in great measure, they must ever be foreign and unintelligible. Here were girls reading in a text-book of so-called physiology, and, as it happened, the lesson that day was on the evils of tight lacing! The reading of that book, I was informed, is imposed by special United States statute, and the teacher must make a separate report that so much of it has been duly gone through each month before the salary can be drawn. Yet none of those girls ever saw a corset or ever will. One is reminded of the dear old lady who used to visit the jails and distribute tracts on The Evils of Keeping Bad Company.

But these incongruities aside, the school was a good school and well taught, the government appointing the teachers, as I learned, upon the nomination of the mission authorities; the only way that a government school can be successful at any mission station, for the two agencies must work together, as one's right hand works with one's left, to effect any satisfactory result. The hours spent in it were very enjoyable, and one wished one might have

had opportunity for further acquaintance with some of the bright-faced, interesting children, both full-bloods and half-breeds.

Unalaklík is a thriving Esquimau community, noted for its native schooner building and its successful seal hunters and fishermen. We were rejoiced to see signs of native prosperity and advance, and we left Unalaklík with high hope for its future.

Here also was real rest and refreshment at a road-house. Road-houses in Alaska are as various in quality as inns are "outside." Our previous night's halt was at one of the worst; this was one of the best. The proprietor was a good cook and he did his best for us, with omelet and pastry, and young, tender reindeer. It has been said that road-house keeping in Alaska is like soliciting life insurance "outside," the last resort of incompetence. Certain it is that a thoroughly lazy and incompetent man may yet make a living keeping a road-house, for there is no rivalry save at the more important points, and travellers are commonly so glad to reach any shelter that they are not disposed to be censorious. None the less, when they find a man who takes a pride in his business and an interest in the comfort of his guests, they are highly appreciative.

THE KALTAG PORTAGE

We should have only an occasional road-house from now on, but expected to reach some inhabited cabin each night. Our good travelling was over though we did not know it. We knew that the hard snows of the Seward Peninsula and the bare ice of Norton Sound were behind us, but we kept telling ourselves that the travel of all the winter would surely have left a fine trail on the Yukon. We were now about sixty-five miles from Saint Michael, by the coast. But taking the ninety-mile portage from Unalaklík to Kaltag we should reach the Yukon River more than five hundred miles above Saint Michael, so much does that portage cut off. This is the route the military telegraph-line takes, and we should travel along close beside it much of the way until the Yukon was reached.

The soft weather persisted, and we had even doubt about starting out in such a rapid thaw. A visit to the telegraph station informed us that the warm wave was spread all over interior Alaska and that there was general expectation of an early break-up. But if the snow on the portage were indeed rapidly going, that was all the more reason for getting across before it had altogether gone; so we pulled out in the warm, muggy weather, and even as we pulled out it began to rain!

Up the little Unalaklík River, water over the ice everywhere, we went for a few miles and then took to the tundra. All the snow had gone except just the hard snow of the trail, a winding ribbon of white across the brown moss.

The rain changed to sleet and back to rain again, and soon we were wet through and had much trouble in keeping that penetrating, persistent drizzle from wetting our load through the canvas cover. Though not an unique experience, it is rare to be wet with rain on the winter trail—rarer in the interior probably than on the coast. Once since on the Kuskokwim and once on the Fortymile it has happened to me in seven winters' travel. We pushed on for thirty miles, past several little native villages, until we came to Whaleback, a village part Esquimau and part Indian. These were the last Esquimaux we should see, and I was sorry, for I had grown to like very heartily and to respect very sincerely this kindly, gentle, industrious, good-humoured race. Surely they are a people any nation may be proud to have fringing its otherwise uninhabitable coasts, and should be eager to aid and conserve. There comes a feeling of impotent exasperation to me when I realise how many white men there are who speak of them continually with the utmost contempt and see them dwindle with entire complacency. The same thing is true in even more marked degree about the Indians of the interior: nine tenths of the land will never have other inhabitant, of that I am convinced, and the only question is, shall it be an inhabited wilderness or an uninhabited wilderness? Here, lodging with the natives, and, I make no doubt, living off them too, we found a queer, skulking white man whom I had met in several different sections of interior Alaska, known as "Snow-shoe Joe" or "The Frozen Hobo." The arctic regions one would esteem a poor place for the hobo, but this man manages to eke out an existence, if not to flourish, therein. Work he will not under any circumstances, but subsists on the hospitality of the whites until he has entirely worn it out and then removes to the natives, mushing from camp to camp and "bumming" his way as he goes. He was on his way to Saint Michael, he told me with perfect gravity, "to get work."

THE U. S. SIGNAL-CORPS

Before dark we had reached our destination for the night at the Old Woman Mountain, the divide between the waters of the Yukon and the waters of Norton Sound, and were kindly received and well treated at the telegraph station, the only resort on this portage for weary travellers. Here is surely a lonely post. For reasons connected with the maintenance of the wires and the keeping open of communications, it is necessary to have telegraph stations every forty or fifty miles, each with two or three men and a dog team, and shelter cabins about half-way between stations. A wind that blows a tree down in the narrow right-of-way cut through the forest—for we were come to forest again—or a heavy snowfall that loads branches until they fall across the wires, a post that comes up out of its hole as the thawing of spring heaves the ground around it, or the caving of the bank of a stream along which the line passes—any one of a dozen such happenings

anywhere along its thousand miles of course, may put the entire inland telegraph system out of operation; and the young men in whose section the interruption occurs—they have a means of determining that—must get out at once, find the seat of the trouble and repair it. In all sorts of weather, unless the thermometer be below -40°, out they must go.

It may be doubted if any other army in the world ever constructed and maintained a permanent telegraph line under such arduous conditions. It has been the army's one contribution to Alaska, the one justification for the enormous expense of maintaining army posts in the interior. Indeed it is often said by those who feel keenly the neglect of the territory by the general government that this telegraph system is the one contribution of the United States to Alaska. It is certainly a great public convenience and has assisted very materially in such development as the country has made. The men of the signal-corps deserve great credit for the faithful, dogged way in which they have carried out year after year their difficult and hazardous work, and often and often the weather-stressed traveller has been grateful for the hospitality which their cabins have afforded him.

They have not been an unmixed blessing to the country; soldiers do not usually represent the highest morale of the nation, and though the signal-corps is in some respect a picked corps, yet the men are soldiers, with many of the soldier characteristics. Too often a remote telegraph station has been a little centre of drunkenness, gambling, and debauchery with a little circumference of native men and women, and while some of the officers of the corps have been willing and anxious to do all in their power to suppress this sort of thing in their scattered and difficult commands, others have been jealous only for the technical efficiency of their work.

MORE SNOW

There are many allowances to be made for young men taken from the society of their kind and thrust out hundreds of miles in the wilderness to sit down for a year or two at one of these isolated spots. They may see no women save those amongst a straggling band of Indians for the whole time of their exile; they may see no white man save a mail-carrier—and in many places not even a mail-carrier—for weeks together. Time sometimes hangs very heavily on their hands, for trees are not always blowing down, nor wires snapping through the tension of the cold, and at some stations there will not be a dozen telegraph messages sent the whole winter through. If a young man be at all ambitious of self-improvement, here is splendid opportunity of leisure, but a great many are not at all so disposed. Character, except the most firmly founded, is apt to deteriorate under such circumstances; standards of conduct to be lowered. And what is here written of the young men of the

signal-corps may well apply in great measure to a large proportion of all the white men in the country.

The "eighty-mile portage" we had heard of at Nome became ninety miles at Unalaklík, and added another five to itself here, so that although we had travelled forty-two miles that day we were told that there were yet fifty-three ahead before we reached the Yukon.

So we decided not to attempt it in one day and to rest the next night at a "repair cabin" twenty-eight miles farther, making a somewhat late start in view of a short journey. It had been wiser to have started early. During our night at Old Woman Mountain some three inches of snow fell, and we found as we descended the Yukon slope that all the moisture that had fallen upon us as rain the previous day had fallen on this side as snow. The trail was filled full and buried, and so soft and mushy was it that although snow-shoes were badly needed they were impossible. The snow clung to them and came off the ground with them in heavy, clogging masses every time they were lifted. It clung to the sled, to the harness, to the dogs' feet, to everything that touched it; it gathered in ever-increasing snowballs on the long hair of the dogs. Travelling in warm weather in loose, new snow is most disagreeable work. We plugged along for twenty miles, and then in the dark in an open country with little patches of scattering spruce, had great trouble in finding the trail at all.

At last we could find it no longer, and when there was no hope of reaching the cabin that night we made a camp. We had now no tent or stove with us, so a "Siwash camp" in the open was the best we could do, and a wet, miserable camp it was. By inexcusable carelessness on my part, candles had been altogether forgotten in the replenishing of the supplies, and a little piece an inch long which we found loose in the grub box was all that we possessed. Dogs and men alike exhausted with the long day's sweating struggle through the deep snow, sleep should have come soundly and soon. It did to the rest, but I lay awake the night through. The easy, riding travel of the preceding week had been a poor preparation for to-day's incessant toil, and I was too tired to sleep. In the morning our bedding was covered with a couple of inches of new snow. My companion got up at daylight and made a journey of investigation ahead, following the trail better, but not finding the cabin. We had thought ourselves within a mile or two of it, but evidently were farther away. However, when we had eaten a hasty breakfast and hitched up and had gone along the trail that had been broken that morning to its end, ten yards beyond the place where my companion had turned back, we came in sight of the cabin, and there we lay and rested and dried things out all day and spent the next night. During the day there came a team from Kaltag, and once again we enjoyed the delight of receiving, and

at the same time conferring, the richest gift and greatest possible benefit to the traveller—a trail.

THE YUKON ONCE MORE

The next evening as it drew towards dark, after another day of soft, warm disagreeable travel, we reached the end of the portage, and the broad white Yukon stretched before us once more. Our hearts leaped up and I think the dogs' hearts leaped up also at the sight. I called to Nanook as we stopped on the bank, "Nanook, there's the good old Yukon again!" and he lifted his voice in that intelligent, significant bark that surely meant that he saw and understood. We had left the Yukon on the 15th of December at Fort Yukon; we reached it again on the 23d of March at Kaltag, more than six hundred miles lower down. We had two hundred and fifty miles of travel on its surface before us, and then close to another two hundred and fifty up the Tanana River to Fairbanks. But alas! for the fine Yukon trail we had promised ourselves! As we looked out across the broad river there was no narrow, dark line undulating over its surface, nor even a faint, continuous inequality to hint that trail had been, on snow "less hideously serene"; its perfect smoothness and whiteness were unscarred and unsullied. The trail was wiped out and swallowed up by the late snows and winds.

A LEARNED JESUIT

There is little interest in lingering over the long, laborious, monotonous grind up that river on show-shoes. When one has looked forward to pleasant, quick travel, the disappointment at slow, heavy plodding is the keener. The first little bit of trail we had was as we approached Nulato two days later on a Sunday morning, and it was made by the villagers from below going up to church at the Roman Catholic mission. We arrived in time for service, and enjoyed the natives' voices raised in the Latin chants as well as in hymns wisely put into the vernacular. It is historically a little curious to find Roman Catholic natives singing praises in their own tongue, and Protestant missions, like those on the Kobuk and Kotzebue Sound, using a language "not understanded of the people." The day was the Feast of the Annunciation as well as Sunday, and there was some special decorating of the church and perhaps some elaboration of the music. Here for the first and only time I listened to a white man so fluent and vigorous in the native tongue that he gave one the impression of eloquence. Father Jetté of the Society of Jesus is the most distinguished scholar in Alaska. He is the chief authority on the native language, and manners and customs, beliefs and traditions of the Middle Yukon, and has brought to the patient, enthusiastic labour of years the skill of the trained philologist. It is said by the Indians that he knows more of the Indian language than any one of them does, and this is not hard to believe when it is understood that he has systematically

gleaned his knowledge from widely scattered segments of tribes, jotting down in his note-books old forms of speech lingering amongst isolated communities, and legends and folk-lore stories still remembered by the aged but not much repeated nowadays; always keen to add to his store or to verify or disprove some etymological conjecture that has occurred to his fertile mind. His work is recognised by the ethnological societies of Europe, and much of his collected material has been printed in their technical journals.

A man of wide general culture, master of three or four modern, as well as the classic, languages, a mathematician, a writer of beautiful, clear English, although it is not his mother tongue, he carries it with the modesty, the broad-minded tolerance, the easy urbanity that always adorn, though they by no means always accompany, the profession of the scholar; and one is better able to understand after some years' acquaintance with such a man, after falling under the authority of his learning and the charm of his courtesy, the wonderful power which the society he belongs to has wielded in the world. If such devotion to the instruction of the ignorant as was described at the mission on the middle Kobuk be praiseworthy, by how much the more is one moved to admiration at the spectacle of this man, who might fill with credit any one of half a dozen professional chairs at the ordinary college, gladly consecrating his life to the teaching of an Indian school!

Hearing an interest expressed in the massacre which took place at Nulato in 1851, Father Jetté offered to accompany us to the site of that occurrence, about a mile away. It stands out prominently in the history of a country that has been singularly free from bloodshed and outrage, and its date is the notable date of the middle river, as the establishment of the post at Fort Yukon by the Hudson Bay Company in 1846 is the notable date of the upper river. They are fixed points in Indian chronology by which it is possible to approximate other dates and to reach an estimate of the ages of old people.

THE NULATO MASSACRE

Much has been written about the Nulato massacre, and the accounts vary in many particulars. The Russian post here was first established by Malakof in 1838. Burned during his absence by the Indians, it was re-established by Lieutenant Zagoskin of the Russian navy in 1842. The extortions and cruelties of his successor, Deerzhavin, complicated by a standing feud between two native tribes, and probably having the rival powers of certain medicine-men as the match to the mine, brought about the destruction of the place and the death of all its inhabitants, white and native, by a sudden treacherous attack of the Koyukuk Indians. It happened that Lieutenant Barnard of the British navy, detached from a war-ship lying at Saint Michael

to journey up the river and make inquiries of the Koyukuk natives as to wandering white men, survivors of Sir John Franklin's expedition, who might have been seen or heard of by them, was staying at the post at the time and perished in the general massacre. His grave, with a headboard bearing a Latin inscription, is neatly kept up by the Jesuit priests at Nulato.

In the last few years the river has been invading the bank upon which the old village stood, and as the earth caves in relics of the slaughter and burning come to light. Old copper kettles and samovars, buttons and glass beads, all sorts of metal vessels and implements have been sorted out from charred wood and ashes, together with numerous skulls and quantities of bones. One of the most interesting of these relics was a brass button from an official coat, with the Russian crowned double-headed eagle on the face, and on the back, upon examination with a lens, the word "Birmingham."

Half the day serving for our day of rest this week, we were up and ready to start early the next morning, but so violent a wind was blowing from the southeast that we decided to remain, and the clatter of the corrugated iron roof and the whirling whiteness outside the windows made us glad to be in shelter. As the day advanced the wind increased to almost hurricane force, and the two-story house in which we lay began to rock in such a manner as to make the proprietor alarmed for his dwelling.

There was an "independent" trading-post at this village which seemed to present an object-lesson in rapacity and greed. There was not an article of standard quality in the store; the clothing was the most rascally shoddy, the canned goods of the poorest brands; the whole stock the cheapest stuff that could possibly be bought at bargain prices "outside," yet the prices were higher even than those that prevail in Alaska for the best merchandise. Loud complaints are often made against the commercial corporation which does the great bulk of the business in interior Alaska, yet if the writer had to choose whether he would be in the hands of that company or in the hands of an "independent" trader, he would unhesitatingly cast in his lot with the company. The independent trader makes money, sometimes makes large money, and makes it fairly easily, but the calling seems to appeal mainly, if not wholly, to men of low character and no conscience. There are few things that would redound more to the benefit of the Indian than a great improvement in the character of the men with whom he is compelled to do business.

The wind had subsided by the next morning and had been of benefit rather than injury to us, for it had blown the accumulated new snow off the old trail so that it was possible to perceive and follow it. But what was our surprise to find, with the recollection of that rattling roof and swaying building fresh in our minds, that ten miles away there had been no wind at

all! The snow lay undisturbed on every twig and bough from which the gentlest breeze would have dislodged it. One never ceases to wonder at what, for want of a better word, must be called the localness of much of the weather in Alaska—though, for that matter, in all probability it is characteristic of weather in all countries. The habit of continual outdoor travel gives scope as well as edge to one's observation of such things which a life in one place denies. That wind-storm had cut a clean swath across the Yukon valley. Yet it seems strange that so violent a disturbance could take place without affecting and, to some extent, agitating the atmosphere for many miles adjacent.

SNOW GLASSES

So, sometimes in snow-storm, sometimes in wind, always on snow-shoes and often hard put to it to find and follow the trail at all, we struggled on for two or three days more, sleeping one night at a wood-chopper's hut, another in a telegraph cabin crowded with foul-mouthed infantrymen sent out to repair the extensive damage of the recent storm and none too pleased at the detail, we plodded our weary way up that interminable river. At last we met the mail-man, that ever-welcome person on the Alaskan trail, and his track greatly lightened our labour. By his permission we broke into his padlocked cabin that night by the skilful application of an axe-edge to a link of the chain, and were more comfortable than we had been for some time. Past the mouth of the Koyukuk, past Grimcop, past Lowden, past Melozikaket to Kokrine's and Mouse Point, we plugged along, making twenty-two miles one day and thirty another and then dropping again to eighteen. The temperature dropped to zero, and a keen wind made it necessary to keep the nose continually covered. At this time of year the covering of the nose involves a fresh annoyance, for it deflects the breath upward, and the moisture of it continually condenses on the snow glasses, which means continual wiping. A stick of some sort of waxy compound to be rubbed upon the glass, bought in New York as a preventive of the deposit of moisture, proved entirely useless. In this respect the Esquimau snow goggle, which is simply a piece of wood hollowed out into a cup and illuminated by narrow slits, has advantage over any shape or kind of glass protection. A French metal device of the same order that is advertised in the dealer's catalogues was found to fail, perhaps owing to a wrong optical arrangement of the slits. It caused an eye-strain that brought on headache. But if that principle could be scientifically worked out and such a device perfected, it would be a boon to the traveller over sun-lit snow, for it would do away with glass altogether, with its two chief objections—its fragility and its opacity when covered with vapour.

SNOW-BLINDNESS

The indispensability of some eye protection when travelling in the late winter, and the serious consequences that follow its neglect, were once again demonstrated at Mouse Point. The road-house was crowded with "busted" stampeders coming out of the Nowikaket country. There had been a report of a rich "strike" on a creek of the Nowitna, late the previous fall, and a number of men from other camps—some from as far as Nome—had gone in there with "outfits" for the winter. The stampede had been a failure; no gold was found; there was much indignant assertion that no gold ever had been found and that the reported "strike" was a "fake," though to what end or profit such a "fake" stampede should be caused, unless by some neighbouring trader, it is hard to understand; and here were the stampeders streaming out again, a ragged, unkempt, sorry-looking crowd in every variety of worn-out arctic toggery, many of them suffering from acute snow-blindness. It is surprising that even old-timers will go out in the hills for the whole winter without providing themselves with protection against the glare of the sun which they know will inevitably assail their eyes before the spring, yet so it is; and this lack of forethought is not confined to the matter of snow glasses: the first half dozen men we received in Saint Matthew's Hospital at Fairbanks suffering from severely frozen feet were all old-timers grown careless.

Father Ragarou, another Jesuit priest of another type, reached the road-house from the opposite direction about the same time we did, and I was interested in watching his treatment of the inflamed eyes. Upon a disk of lead he folded a little piece of cotton cloth in the shape of a tent, and, setting fire to it, allowed it to burn out completely. Then with a wet camel's-hair brush he gathered up the slight yellow residuum of the combustion and painted it over the eyes, holding the lids open with thumb and finger and drawing the brush through and through. An incredulous spectator, noticing the sacred monogram neatly stamped upon the disk of lead, made some sneering remark to me about "Romish superstition," but remembering the Jesuit's bark, and recalling that I had in my writing-case at that moment a letter I had brought all the way from the Koyukuk addressed to this very priest, begging for a further supply of a pile ointment that had proved efficacious, I held my peace. Whether it be an oxide or a carbonate, or some salt that is formed by the combustion, I am not chemist enough to know, but I saw man after man relieved by this application. Even the scoffer was convinced there was merit in the treatment, though stoutly protesting that "them letters" had nothing to do with it; which nobody took the trouble to argue with him. My own custom—we are all of us doctors of a sort in this country—is to instil a few drops of a five-per-cent solution of cocaine, which gives immediate temporary relief, and then apply frequent washes of boric

acid, bandaging up the eyes completely in bad cases by cloths kept wet with the solution. But I do not know that it brings better result than the lead treatment. Certainly it is a matter in which an ounce of any sort of prevention is better than a pound of any sort of cure. The affection is a serious one, being nothing more or less than acute ophthalmia; the pain is very severe, and repeated attacks are said to bring permanent weakness of the eyes. Smoked glasses or goggles,[A] veils of green or blue or black, even a crescent eye-shade cut out of a piece of birch-bark or cardboard and blackened on its under-side with charcoal, will prevent the hours and sometimes days of torture which this distemper entails.

HORSES AND MULES

For a few miles we had the trail of the stampeders, but when that crossed the river we put on our snow-shoes and settled to the steady grind once more. A day's mush brought us to "The Birches," and another to Gold Mountain. Between the two places there was a portage, and the trail thereon, protected by the timber, was good. We longed for the time when all trails in Alaska shall be taken off the rivers and cut in the protecting forest. But we had gone but a mile along this good trail when our hearts sank, for we saw ahead of us a procession of army mules packing supplies from Fort Gibbon to the telegraph repair parties. We pulled out into the snow that the mules might pass, and the soldiers said no word, for they knew just how we felt, until the last soldier leading the last mule was going by, and he turned round and said: "And her name was Maud!" It was in the height of Opper's popularity, his "comic supplements" the chief dependence of the road-houses for wall-paper. The reference was so apposite that we burst into laughter, but there was nothing funny about the devastation that had been wrought. That good trail was all gone—the bottom pounded out of it—and nothing was left but a ploughed lane punched full of sink-holes. We had no trouble following the trail on the river after this encounter, but it had been almost as easy going to have struck out for ourselves in the unbroken snow of the winter. It is hard to make outsiders understand how a man who loves all animals may come to hate horses and mules, particularly mules, in this country. Our travelling is above all a matter of surface. Distance counts and weather counts, but surface counts for more than either. See how fast we came across the Seward Peninsula in the most distressing weather imaginable! A well-used dog trail becomes so hard and smooth that it offers scarce any resistance to the passage of the sled, and for walking or running over in moccasins or mukluks is the most perfect surface imaginable. The more it is used the better it becomes. But put a horse on that trail and in one passage it is ruined. The iron-shod hoofs break through the crust at every step and throw up the broken pieces as they are withdrawn. With mules it is even worse; the holes they punch are deeper and sharper.

Neither man nor dog can pass over it again in comfort. One slips and slides about at every step, the leg leaders and ankle sinews are strained, the soles of the feet, though hardened by a thousand miles in moccasins, become sore and inflamed, and at night there is a new sort of weariness that only a horse-ruined trail gives. As a rule, the dog trail is of so little service to the horse or mule that it were as cheap to break out a new one in the snow, and it is this knowledge that exasperates the dog musher. So there is not much love lost between the horse man and the dog man in Alaska.

ARMY POSTS AND NATIVES

At last, after a night at "Old Station," we came in sight of Tanana, where is Fort Gibbon, the one the name of the town and the post-office, the other the name of the military post and the telegraph office. The military authorities refuse to call their post "Fort Tanana" and the postal authorities refuse to allow the town post-office to be called "Fort Gibbon," so there they lie, cheek by jowl, two separate places with a fence between them—a source of endless confusion. A letter addressed to Fort Gibbon is likely to go astray and a telegram addressed to Tanana to be refused. Stretching along a mile and a half of river bank, and beginning to come into view ten miles before they are reached, the military and commercial structures gradually separate themselves. Here to the left are the ugly frame buildings—all painted yellow—barracks, canteen, officers' quarters, hospital, commissariat, and so on. Two clumsy water-towers give height without dignity—a quality denied to military architecture in Alaska. To the right the town begins, and an irregular row of one and two story buildings, stores, warehouses, drinking shops, straggle along the water-front.

Unlike most towns in interior Alaska, Tanana does not depend upon an adjacent mining camp. It owes its existence first to its geographical position as the central point of interior Alaska, at the confluence of the Tanana and Yukon Rivers. Most of the freight and passenger traffic for Fairbanks and the upper river is transshipped at Tanana, and extensive stocks of merchandise are maintained there. The army post is the other important factor in the town's prosperity, and is especially accountable for the number of saloons. Not only the soldiers, but many civilian employees, are supported by the post, and when it is understood that three thousand cords of wood are burned annually in the military reservation, it will be seen that quite a number of men must find work as choppers and haulers for the wood contractors. Setting aside the maintenance of the telegraph service, which has already been referred to, it may be said without unfairness that the salient activities of the army in the interior of Alaska are the consumption of whisky and wood. There is no opportunity for military training—for more than six months in the year it is impossible to drill outdoors—and the officers complain of the retrogression of their men in all soldierly

accomplishments during the two years' detail in Alaska. Whether the prosperity of the liquor dealer be in any real sense the prosperity of the country, and whether the rapid destruction of the forest be compensated for by the wages paid to its destroyers, may reasonably be doubted.

Three miles away is a considerable native village where the mission of Our Saviour of the Episcopal Church is situated, with an attractive church building and a picturesque graveyard. The evil influence which the town and the army post have exerted upon the Indians finds its ultimate expression in the growth of the graveyard and the dwindling of the village.

This point at the junction of the two rivers was an important place for the inhabitants of interior Alaska ages before the white man reached the country. Tribes from all the middle Yukon, from the lower Yukon, from the Tanana, from the upper Kuskokwim met here for trading and for general festivity. It is impossible nowadays to determine when first the white man's merchandise began to penetrate into this country, but it was long before the white man came himself. Such prized and portable articles as axes and knives passed from hand to hand and from tribe to tribe over many hundreds of miles. Captain Cook, in 1778, found implements of white man's make in the hands of the natives of the great inlet that was named for him after his death, and they pointed to the Far East as the direction whence they had come. He judged that they had been brought from the Hudson Bay factories clean across the continent. There are many Indians still living who remember when they saw the first white man, and some were well grown at the time, but diligent inquiry has failed to discover one who ever saw a stone axe used, though some old men have been found who declared that their fathers, when young, used that implement. Traces have been discovered of the importation of edge-tools from four directions—from the mouth of the Yukon; from the Lynn Canal, by way of the headwaters of the Yukon; from the Prince William Sound, by way of the headwaters of the Tanana; as well as from the Hudson Bay posts in the Canadian Northwest, by way of the Porcupine River.

When the Russians established themselves at Nulato in 1842, and the Hudson Bay Company put a post at Fort Yukon in 1846, Nuchalawóya, as Tanana was called, became the scene of commercial rivalry, and it is said that by the meeting of the agents and voyageurs of the two companies at this point the identity of the Yukon and Quikpak Rivers was discovered.

The stories that linger with the village ancients of the great numbers of Indians who used to inhabit the country are doubtless based upon recollections of the gathering at old Nuchalawóya, when furs were brought here from far and wide, when there was no other place of merchandise in mid-Alaska. Now almost every Indian village has a trader and a store. That

the race has diminished, and in most places is still diminishing, is beyond question, but that it was ever very largely numerous the natural conditions of the country forbid us to believe.

WHISKY-PEDDLERS

During the Reverend Jules Prevost's time at Tanana—and he was in residence in the year of this journey—from careful vital statistics kept during two periods of five years each, the race seemed barely to be holding its own; but since that time there has been a considerable decline, coincident with the increase of drunkenness and debauchery at the village when Mr. Prevost's firm hand and watchful eye were withdrawn. The situation tends to grow worse, and while one does not give up hope, for that would mean to give up serious effort, the outlook for the Indians at this place seems unfavourable. Two hundred soldiers, six or eight liquor shops,—the number varies from year to year,—three miles off a native village of perhaps one hundred and fifty souls, and dotting those intervening miles cabins chiefly occupied by "bootleggers" and go-betweens—that is the Tanana situation in a nutshell. The men desire the native girls, and the liquor is largely a lure to get them. Tuberculosis and venereal disease are rife, and the two make a terribly fatal combination amongst Indians.

It was good to enjoy Mr. and Mrs. Prevost's hospitality, and it was good to speak through such an admirable interpreter as Paul. Something more than intelligence and knowledge of the languages are required to make a good interpreter; there must be sympathy and the ability to take fire. With such an interpreter, leaping at the speaker's thoughts, carrying himself entirely into his changing moods, rising to vehemence with him and again dropping to gentleness, forgetting himself in his identification with his principal, there is real pleasure in speaking to the natives who hang upon his vicarious lips. On the other hand, one of the most intelligent mission interpreters in the country is also so phlegmatic in disposition, so lifeless and monotonous in his speech, and particularly so impassive of countenance, that he reminds one of Napoleon's saying about Talleyrand: that if some one kicked him behind while he was speaking to you his face would give no sign of it at all.

CHENA AND FAIRBANKS

It is not necessary to write much detail of the two-hundred-mile journey to Fairbanks up the Tanana River. The trail was then wholly on the river, but now it has been taken wholly off, as every Alaskan musher hopes some day will be done with all trails. The region about the mouth of the river and for some miles up is one of the windiest in the country, and there is always troublesome crossing of bare sand-bars and of ice over which sand has been blown. The journey hastens to its close; men and dogs alike realise it, and push on willingly over longer stages than they had before attempted.

Two days from Tanana we were luxuriating in the natural hot springs near Baker Creek, wallowing in the crude wooden vat, when "Daddy Karstner" had shovelled enough snow in to make entering the water possible, and emerging ruddy as boiled lobsters. It was a beautiful and interesting spot then, with noble groves of birch and the finest grove of cottonwood-trees in Alaska—all cut down now—all ruined in a plunging and bounding and quite unsuccessful attempt to make a "Health Resort" of the place for the "smart set" of Fairbanks. It is a scurvy trick of Fortune when she gives large wealth to a man with no feeling for trees. We spent Sunday there and roamed over the curious domain, snow-free amidst all the surrounding snow, rank in vegetation amidst the yet-lingering winter death; and then we wallowed again.

Tolovana, Nenana, and then one long run of fifty-four miles, the longest and last run of the winter, and—Chena and Fairbanks. But just before we reached Chena, as we passed the fish camp where the dogs had been boarded the previous summer, Nanook stopped the whole team, looked up at the bank and gave utterance to his pronounced five barks on the descending scale. None of the other dogs seemed to notice or recognise the place, but Nanook said as plainly as if he had uttered speech: "Well, well! there's where I spent last summer!"

We reached Fairbanks on the 11th of April, in time for Good Friday and Easter, after an absence of four months and a half—with the accumulated mail of all that period awaiting me. The distance covered was about twenty-two hundred miles, three fourths of it on foot, more than half of it on snow-shoes. At Chena I had called up the hospital at Fairbanks on the telephone, and the exchange operator had immediately recognised my voice and bidden me welcome; but when I reached Fairbanks, a light beard that I had suffered to grow during the winter made me unrecognisable by those who knew me best. So effectually does a beard disguise a man and so surely may his voice identify him.

CHAPTER VI

THE "FIRST ICE"—AN AUTUMN ADVENTURE ON THE KOYUKUK

IT is not attempted in this narrative to give separate account of all the journeys with which it deals. That would involve much repetition and tedious detail. Our long journey has been described from start to finish, taking the reader far north of the Yukon, then almost to the extreme west of Alaska, and then round by the Yukon to mid-Alaska again. It is proposed now to give sketches of such parts of other journeys as do not cover the same ground, and they will lie, with one exception, south of the Yukon. While visiting many of the same points every winter, it has been within the author's good fortune and contrivance to include each year some new stretch of country, sometimes searching out and visiting a new tribe of natives, and blazing the way for the establishment of permanent missionary work amongst them. To these initial journeys belongs a zest that no subsequent travels in the same region ever have; there is a keen interest in what every new turn of a trail shall bring, every new bend of a river; there is eagerness rising with one's rising steps to excitement for the view from a new mountain pass; above all, there is deep satisfaction coupled with a sense of solemn responsibility in being the first to reach some remote band of Indians and preach to them the Gospel of our Lord Jesus Christ. There are few men nowadays on the North American continent to whom that privilege remains.

A period of nearly three years elapses between the beginning of the journey that has already been described and the short sketch of a journey that follows. Many things had happened in those three years. It had been the happy duty of the writer to return to the Koyukuk late in the winter of 1906-7, empowered to build the promised mission for the hitherto neglected natives of that region. Pitching tent at a spot opposite the mouth of the Alatna, with the aid of a skilled carpenter and a couple of axemen brought from the mining district above, and the labour of the Indians, the little log church and the mission house were put up and prepared for the two ladies—a trained nurse and a teacher—who should arrive on the first steamboat. The steamboat that brought them in carried him out on its return trip, and the next year was spent in the States making known the needs of the work in Alaska and securing funds for its advancement.

DOCTOR GRAFTON BURKE

On my return I brought with me a young physician, Doctor Grafton Burke, as a medical missionary, and a half-breed Alaskan youth, Arthur, who had been at school in California, as attendant and interpreter. A thirty-two-foot gasoline launch designed for the Yukon and its tributaries was also brought and was launched at the head of Yukon navigation at Whitehouse. The

voyages of the Pelican on almost all the navigable waters of interior Alaska do not belong to a narrative concerned solely with winter travel, but her maiden voyage ended in an unexpected and rather extraordinary journey over the ice which is perhaps worth describing. After the voyage down the Yukon, and up and down the Tanana, it was purposed to take the boat up the Koyukuk to the new mission at the Allakaket, where dogs and gear had been left, and put her in winter quarters there. The delays that associate themselves not unnaturally with three novices and a four-cylinder gasoline engine, had brought the date for ascending the Koyukuk a little too late for safety, though still well within the ordinary season of open water. The possibility of an early winter closing the navigation of that stream before the Pelican reached her destination had been entertained and provided against, though it seemed remote. Three dogs, needed anyway to replace superannuated members of the team, had been bargained for at Tanana and accommodations for them arranged, and a supply of dog fish stowed on the after deck of the launch. But when we went to pay the arranged price and receive the dogs, the vender's wife and children set up such a remonstrance and plaintive to-do that he went back on his bargain and we did not get the dogs. There was no time to hunt others, to linger was to invite the very mishap we sought to guard against, so we pulled out dogless, reached the mouth of the Koyukuk on the 17th of September and, having taken on board the supply of gasoline cached there, turned our bow up the river the next morning. For five days we pushed up the waters of that great, lonely river, and by that time we were some twenty-five miles above Hogatzakaket, three hundred and twenty-five miles from the mouth and one hundred and twenty-five miles from the mission, at the camp of a prospector who had recently poled up from the Yukon. We woke on board the launch the next morning to find ice formed all around us and ice running in the river. The thermometer had gone to zero in the night.

THE RUNNING ICE

A very brief attempt to make our way against the running ice showed the danger of doing so, for the thin cakes had knife-edges and cut the planking of the boat so that she began to leak. Then there came to me with some bitterness that I had earnestly desired a thin steel armour-plating at the water-line, but had allowed myself to be persuaded out of it by her builders. So again my forethought had been of no avail—though, of course, lightness of draught was the first consideration. We put back to the camp and proceeded to flatten out and cut up all the empty cans and tinware we could find and nail it along the water-line of the boat, but the prospector persuaded us to wait a day or two. He had never seen a river close with the first little run of ice. He looked for a soft spell and open water yet. It was foolish to risk the boat against the ice. So we waited; and night after night

the thermometer fell a little lower and a little lower, until presently a sheet of ice stretched across the whole river in the bend where we lay. We were frozen in. The remote possibility we had feared and sought to guard against had happened. Navigation had ceased on the Koyukuk at the earliest date anybody remembered, the 23d of September. Three days more had surely taken us to the mission where they had long expected us; now we should have to make our way on foot, without dogs, on the dangerous "first ice," as it is called, taking all sorts of chances, pulling a Yukon sled, with tent and stove, grub and bedding, "by the back of the face."

But first there was the launch to pull out and make snug for the winter and safe against the spring break-up. A convenient little creek mouth with easy grade offered, which was one of the reasons I had not pushed on the few more miles we could have made. Here were eligible winter quarters; farther on we might have trouble in putting the boat in safety; here also was a kindly and capable man willing to assist us.

It was our great good fortune to find this man at this spot. A steamboat he had signalled as she entered the mouth of the Koyukuk had passed him by unheeded, and he had been left to make his way six hundred miles up to the diggings, with his winter's outfit in a poling boat. He had accomplished more than half the task, and, warned by the approach of winter, had stopped at this place a few days before we reached it, and had begun the building of a little cabin; meaning to prospect the creek, which had taken his eye as having a promising look. The cabin we helped him finish was the twenty-first cabin he had built in Alaska, he informed us.

There is something very impressive about the quiet, self-reliant, unrecorded hardihood of the class of which this man was an excellent type. We asked him why he had no partner, and he said he had had several partners, but they all snored, and he would not live with a man that snored. He had prospected and mined in many districts of Alaska during nearly twenty years. Once he had sold a claim for a few hundred dollars that had yielded many thousands to the purchaser, and that was as near wealth as he had ever come. But he had always made a living, always had enough money at the close of the summer to buy his winter's "outfit" and try his luck somewhere else.

THE PROSPECTOR

Singly, or in pairs, men of this type have wandered all over this vast country: preceding the government surveys, preceding the professional explorer, settling down for a winter on some creek that caught their fancy, building a cabin, thawing down a few holes to bed-rock, sometimes taking out a little gold, more often finding nothing, going in the summer to some

old-established camp to work for wages, or finding employment as deck-hand on a steamboat.

With an axe and an auger they have dotted their rough habitations all over the country; with a pick and a shovel and a gold pan they have tested the gravels of innumerable creeks. They know the drainage slopes and the practicable mountain passes, the haunts of the moose and the time and direction of the caribou's wanderings. The boats they have built have pushed their noses to the heads of all navigable streams; the sleds they have made have furrowed the remotest snows. In the arts of the wilderness they are the equal of the native inhabitant; in endurance and enterprise far his superior. The more one learns by experience and observation what life of this sort means, and realises the demands it makes upon a man's resourcefulness, upon his physique, upon his good spirits, upon his fortitude, the more one's admiration grows for the silent, strong men who have gone out all over this land and pitted themselves successfully against its savage wildness. Often in stress for the necessaries of life, there are yet no men as a class more free-handed and generous; trained to do everything for themselves, there are none more willing to help others.

It is no small task to pull a four-ton boat out of the water with only such wilderness tackle as we could devise. We made ways of soft timbers, squaring and smoothing them; we cut down many trees for rollers; we dug and graded the beach. Then, having altogether unloaded her and built a high cache of poles and a platform for her stuff, and having chopped the ice from all around her, we rigged a Spanish windlass and wound that boat out of the water with the half-inch cable she carried, and up on the ways and well into the mouth of the little creek. Then we levelled her up and thoroughly braced her and put her canvas cover all over her, and she lay there until spring and took no harm at all.

Arthur had meantime been making a sled of birch, intending to pull it himself while the doctor and I pulled a Yukon sled borrowed from our friend the prospector. By the 6th of October all our dispositions were made for departure, and the ice seemed strong enough to warrant trusting ourselves to it; but we waited another two days, the thermometer still reaching a minimum each night somewhere around zero. When we said good-bye to our friend Martin Nelson (sometimes one wonders if anywhere else in the world can be found men as kind and helpful to strangers) and started on our journey, it soon appeared that Arthur's sled was more hindrance than help. There was no material to iron the runners save strips of tin can, and these could not be beaten so smooth that they did not drag and cut on the ice. So the load was transferred to our sled and the little sled abandoned, and we took turns at the harness. This was the order of the journey: one man went ahead with an axe to test the ice; one man put the rope trace about his

shoulders; one man pushed at the handle-bars which had been affixed to the sled. It was fortunate that amidst the equipment on the launch were two pairs of ice-creepers. Without them any sort of pulling and pushing on the glare ice would have been impossible.

We soon found that the bend in which we had frozen was no sort of index of the general condition of the river. Much of it was still wide open, and every elbow between bends was piled high with rough ice from pressure jams. There was shore ice, however, even in the open bends, along which we were able to creep; and, though the ice-jams gave considerable trouble, yet we did very well the first day and camped at dark with eighteen or nineteen miles to our credit, in the presence of a great, red, smoky sunset and a glorious alpenglow on a distant snow mountain.

The next day was full of risks and difficulties. We were to learn more about the varieties and vagaries of ice on that journey than many winters' travel on older ice would teach.

THE START

At times, for a few hundred yards, the sled would glide with little effort over smooth, polished ice; then would come a long sand-bar, the side of which we had to hug close, and the ice upon it was what is called "shell-ice," through several layers of which we broke at every step. As the river fell, each night had left a thin sheet of ice underneath the preceding night's ice, and the foot crashed through the layers and the sled runners cut through them down to the gravel and sand at the bottom. Then would come another smooth stretch on which we made good time. But as we advanced up the river the current was swifter and swifter and the ice conditions grew steadily worse. Here was a steep-cut bank with just about eighteen or twenty inches of ice adhering to it and the black, rushing water beyond. We must either get our load along that shelf or unload the sled and pack everything over the face of a rocky bluff. Arthur passed over it first, testing gently with the axe, and found it none too strong. But the alternative was so toilsome that we resolved to take the chance. The doctor put the trace over his shoulders, Arthur took the handle-bars, while I climbed to a ledge of the rocks and, with a rope made of a pair of camel's-hair puttees unwound for the purpose and fastened to the sled, took all the weight I could and eased the sled over the worst place where the ice sloped to the water. If the ice had broken I might have held the sled from sinking until one of the others came to me, or I might not; the boys would probably have gone in too. It was a most risky spot and the sort of chance no one would think of taking under ordinary circumstances. As it was, the ice broke under Arthur's feet, and only by throwing his weight on the sled did he save himself a ducking. But we got the load safely across.

A good run of perhaps a mile, and then we had to go back at least half a mile, for the ice played out altogether on our side of the river as we reached the Batzakaket, and there was open water in the middle. To reach the shore ice that was continuous on the other side, we had to "double" the open water. With such varying fortune the day passed, and we camped on the level ice of a little creek tributary to the right bank, having made perhaps another nineteen miles.

When I awoke in the morning my heart sank at the tiny, creeping patter of fine snow on the silk tent. Snow was one thing I greatly dreaded, for there was not a pair of snow-shoes amongst us! A little snow would not do much harm, but if once snow began to fall we might have a foot or two before it ceased, and then we should be in bad case. It stopped before noon, but the half-inch that fell made the sled drag much heavier. The actual force to be exerted was not the most laborious feature of pulling that sled; it was the jerk, jerk, jerk on the shoulders. A dog's four legs give him much smoother traction than a man's two legs give, just as a four-cylinder engine will turn a propeller with much less vibration than a two-cylinder engine. Every step forward gave an impulse that spent itself before the next impulse was given, and the result was that the shoulders grew sore.

We came that morning to the longest and roughest ice-jam we had so far encountered. It was as though a thousand bulls had been turned loose in a mammoth plate-glass warehouse. Jagged slabs of ice upended everywhere in the most riotous confusion, and it was impossible to pick any way amongst them, so a man had to go ahead and hew a path. It was while thus engaged that the doctor fell and injured his knee so severely on a sharp ice point that he hobbled in pain the rest of the trip. This was a very serious matter to us, for, though he insisted on still taking his trick at the traces, his effectiveness as a motive power was much diminished; and we had no sooner thus hewed and smashed our way through that jam than we had to hew and smash it across to the other side again in our search for passage.

"BY THE BACK OF THE FACE"

Then we came to a place where, in order to cut off a long sweeping curve of the river with open water and bad shore ice, we went through a dry slough and had to drag those iron runners over gravel and stones, where sometimes it was all the three of us could do to move the sled a few feet at a time. Yet all along the banks were willows, and if we had only known then what we know now we would have cut down and split some saplings and bound them over the iron, and so have saved three fourths of that labour.

BEAR MEAT AND BEANS

So the day's run was short, though the most exhausting yet, and we were all thoroughly tired out when we pitched the tent. I have note of a great supper of bear meat and beans, the meat the spoil of our friend the prospector's gun. It is one of the compensations of human nature that the satisfaction of appetite increases in pleasure in proportion to the bodily labour that is done. With food abundant and at choice, I do not like bear meat and will not eat beans. Yet my diary bears special note of the delicious meal they furnished on this occasion. Put any philosopher in the traces, or set him ahead of the dog team on show-shoes, breaking trail all day, and towards evening it is odds that his mind is not occupied with deep speculations about the infinite and the absolute, but rather with the question of what he will have for supper. Particularly should the grub be a little short, should fresh meat give out, or, above all, should sugar be "shy," it is astonishing how one's mind runs on eating and what elaborate imaginary repasts one partakes of. Yet of all food that a man ever eats there is none that is so relished and gives such clear gustatory pleasure as the plain, rough fare of the camp—provided it be well cooked. Greatly as we were in need of sleep, we got little, for the doctor's knee pained him all night and poor Arthur developed a raging toothache that did not yield until carbolic acid had been thrice applied.

Soon after we started the next day, the river narrowed and swept round a series of mountain bluffs and we began to have the gloomiest expectations of trouble. It seemed certain that ice would fail us for passage, and we would have to pack our sled and its load by slow relays over the mountain. But to our delight we passed between the bluffs on good, firm, smooth ice, and it was not until we emerged on the flat beyond that our difficulty began. So it is again and again on the trail. Almost always it is the unexpected that happens; almost always it is something quite different from what our apprehensions have dwelt upon that arises to hinder and distress us. A tongue of level land that struck far out into the water, a cut mud bank with a current so swift that no ice at all had formed along it, interposed an obstacle that it took hours to circumvent. We had to leave the sled and cut a trail through the brush for half a mile along this peninsula in order to reach a stretch of the river where the ice was resumed, and the little snow that had fallen being quite insufficient to give the sled good passage, we had an exceedingly arduous job in getting it across.

A mile or two of good going brought us in view of the smoke of a human habitation. What a blessed sight often and often this waving column of blue smoke in the distance is! Sometimes it means life itself to the Alaskan musher, and it always means warmth, shelter, food, companionship, assistance; all that one human being can bring to another. "The bright and

the balmy effulgence of morn" never "breaks on the traveller faint and astray" with half the rejoicing that comes with the first sight of mere smoke. "I believe I see smoke," cried Arthur, with the quick vision of the native. "Where? Where?" we eagerly inquired, and the doctor left the handle-bars and limped forward to the boy ahead with the axe. "Away yonder on that bank," pointed Arthur. "I see it! I see it!" the doctor shouted; "we're coming to a house, we're coming to people!" The trip was a severe apprenticeship to Alaskan life for a man straight from the New York hospitals, although before the accident to his knee I had declared that if only they could be trained to live on dry fish I thought a team of young doctors would haul a sled very well. He was delighted at coming upon the first inhabited house we had seen since we helped Nelson to build his little cabin—and that was only the second inhabited house in three hundred miles.

BREAKING THROUGH

But, perhaps because we grew less cautious in our excitement, almost immediately after we had spied the smoke of the cabin we got into one of the worst messes of the whole trip. Arthur had pushed ahead and we had followed with a spurt, and almost at the same time all three of us became aware that we were on dangerous ice. Arthur cried, "The ice is breaking; go back!" just as we began to feel it swaying under our feet. I shouted to the doctor, "Go on to the bank quick!" and pushed with all my might, and we managed to make a few yards more towards shallow water, over ice that bent and cracked at every step, before it gave way and let down the sled and the men into two feet of water. Arthur had run safely over the breaking ice and had gained the bank, and as I write, in my mind's eye I can see the doctor, who had been duly instructed in the elementary lessons of the trail, standing in the water and calling to Arthur: "Make a fire quick; make a fire. I'm all wet!"

But it was not necessary to make a fire, for the thermometer was no lower than 10° or 15° above zero, and the chief trouble was not the wetting of our legs but the wetting of the contents of the sled. Along the bank was stronger ice, and we managed, though not without much difficulty, to get the sled upon it and to make our way to the Indian cabin.

As soon as old "Atler" (I have never been quite sure of what white man's name that is a corruption) knew who we were, his hospitality, which had been ready enough at first sight, became most cordial and expansive. While we pulled off our wet clothing his wife hung it up to dry and had the kettle on and some tea making, and he and Arthur got out our wet bedding and festooned it about the cabin. Most fortunately the things that would have suffered most from water did not get wet. So there we lay all the afternoon,

having made no more than six miles, and there we lay all the next day, which was Sunday.

There was a sort of awful interest that centred upon one member of this family, a boy of seven or eight years. The previous spring he had killed his uncle by the accidental discharge of a .22 rifle, shooting him through the heart. The gun had been brought in loaded and cocked and had been set in a corner of the cabin, and the child, playing with it, had pulled the trigger. The carelessness of Indians with firearms is the frequent cause of terrible accidents like this. The child was still too young to realise what he had done, but one fancies that later it will throw a gloom on his life.

To my great relief and satisfaction I was able to arrange here for a young Indian man to accompany us with his one dog. He was a native of those parts and knew every bend and turn of the river. We were, indeed, in great need of help. The doctor's knee grew worse rather than better, and Arthur was suffering the return of an old rheumatism in his leg. I was the only sound member of the party, and my shoulders were galled by the rope and my feet tender and sore from continual wearing of the crampons. We were now not quite half-way—some sixty miles lay behind us and sixty-five before—and we had been travelling four days.

"ONE-EYED WILLIAM"

Divine service being done on Sunday morning, the whole of it well interpreted by Arthur to the great satisfaction of the Indians, he and "One-Eyed William," our recruit, started out to survey to-morrow's route. In this reconnaissance William broke through some slush ice at the greatest depth of the river in seeking a safe place to cross, and, had Arthur not been with him, would almost certainly have drowned, for the current was very swift and the man, like most Indians, unable to swim a stroke;—though, indeed, swimming is of little avail for escape out of such predicament and is a poor dependence in these icy waters winter or summer. More beans boiled and a batch of biscuits baked against our departure, and evening prayer said and interpreted, we were ready for bed again.

Our visit was a great delight to old Atler. An inflamed eye was much relieved by the doctor's ministrations, and the natural piety which he shares with most Indians was gratified at the opportunity of worship and instruction. A good old man, according to his lights, I take Atler to be, well known for benevolence of disposition and particularly priding himself on being a friend of the white man. He told us of one unworthy representative of that race he had helped a year ago. The man had come out of the Hogatzitna (Hog River) country, entirely out of food, himself and a couple of dogs nigh to starvation, and Atler had taken care of him for several days while he recuperated and had given him grub and dog fish enough to get him to Bettles, one hundred

and thirty miles away, where he could purchase supplies. The old Indian had robbed his own family's little winter stock of "white-man's grub" that this stranger might be provided, and had never heard a word from him since, though he had promised to make return when he reached Bettles.

Unfortunately Alaska's white population is sprinkled with men like this, men without heart and without conscience, and it is precisely such rascals who are loudest in their contemptuous talk of the Indians. It is such men who chop down the woodwork of cabins rather than be troubled to take the axe into the forest a few rods away, who depart in the morning without making kindling and shavings, careless how other travellers may fare so themselves be warm without labour; who make "easy money" in the summer-time by dropping down the Yukon with a boat-load of "rot-gut" whisky, leaving drunkenness and riot at every village they pass; who beget children of the native women and regard them no more than a dog does his pups, indifferent that their own flesh and blood go cold and hungry. They are the curse and disgrace of Alaska, and they often go long time insolent and unwhipped because our poor lame law is not nimble enough to overtake them; "to whom is reserved the blackness of darkness for ever," one's indignation is sometimes disposed to thunder savagely with Saint Jude; and indeed there needs a future punishment to redress the balance in this country.

FIDO

At break of day our reinforced company was off, Arthur and "One-Eyed William" going ahead to sound the ice and pick the way, the dog "Fido" (such a name for a Siwash dog!) and myself in the traces, the doctor at the handle-bars. The rest had benefited the doctor's knee, but walking was still painful and he needed the support of the handle-bars all day. What a great difference that one strong, willing little dog made! His steady pulling kept the sled in motion and relieved one's shoulders of the galling jerk of the rope at every step. The going was "not too bad," as they say here, all day, though it carried one rather severe disappointment. William had told us of a portage he thought we could take that would cut off eight or nine miles of the river; but when we reached it the snow upon it proved insufficient to afford a passage, for it was a rough niggerhead flat, and we had to swing around the outer edges of the great curves the river makes, where alone was ice, with trouble and danger at every crossing.

The decision as to whether we should halt or go forward, as to whether ice was safe or unsafe, as to whether we should cross the river or stay where we were—every decision that concerned the secure advance of the party—I put wholly upon William, and would not permit myself or any other to question his judgment or to argue it with him. There was no sense in half-measures;

this young man knew the river as none of us did, knew ice as none of us did, and we must put ourselves entirely in his hands. The debate that had become usual at every doubtful course arose at the portage just referred to, but it was at once suppressed by the announcement that hereafter no one could have the floor but William, and that when he had spoken the matter was settled. Day by day I think we all came to a keener realisation of how very dangerous a journey we were making; it lay heavily on my mind that I had brought these two young men—whether by mishap or mismanagement—into real peril of their lives. Again and again I blamed myself for the delays that had deferred our start up the Koyukuk, again and again I wished that we had waited longer before leaving thePelican's winter quarters. I had even contemplated a week's stay at Atler's, to give the river a chance to get into better shape, but unless there came a very much sharper spell than we had had so far a week would not make much difference, and our grub began to run short and Atler was none too well supplied. So it seemed best to push on.

The next day was full of toil and difficulty. There was no good ice to make fine time over that day. Starting in the grey dawn, for mile after mile we had to haul the sled over crumbly shell-ice that broke through to gravel; and when the shell-ice was done we came to a new bend where a rapid current washed a steep mud bank. There was just a little shelf of ice, but the brush overhung it so that the passage of the sled was not possible. William and Arthur started with the axes to clear away the brush, but it seemed to me foolish to do that unless the ledge held out and led somewhere, for the turn of the bank threw it out of sight. So they went forward cautiously along that ledge to the end—and an end they found, sure enough, so that had we followed the axemen with the sled we should have had to creep all the way back again. There was nothing for it but to cut another land trail on a bench that we could reach where the sled was stopped but that could not be reached at all farther on. A long and slow and laborious job it was, that took most of the morning, to cut that trail and then get the load over it to ice again.

By noon we were opposite the Red Mountain, one of the well-known Koyukuk landmarks, and on the site of an old Indian fishing camp. William and Arthur had made a great fire when we came up, and we heated some beans and made some tea and ate lunch. A mile farther on was the cabin of a white man, and we paid him a brief visit and got a little tea from him, for ours was nearly gone. It did me good to hear him sing the praises of Deaconess Carter, the trained nurse at the mission. She had taken him in, crippled with rheumatism, and had cured him. Already the new mission was proving a boon to whites as well as natives. We made no more than four or

five miles farther when, coming to spruce with no more in sight for a long distance, we pitched the tent, all very tired.

That night the thermometer went to 5° below zero, the coldest weather of the season so far. As a consequence the next day we had a new and very disagreeable trouble. The cold weather, by increasing the amount of running ice in the still open stretches, had brought about a jam that had raised the level of the water and caused an overflow of the ice—a very common phenomenon of a closing river. We picked our way wet-foot much of the day, and towards evening came to a complete impasse in the middle of the river, with open water in front and on one hand, and new thin ice on the other. So we had to turn round and go back again a long way, the mid-river being the only traversable place, until, when it seemed that we should have to go round another bend to reach a crossing, Arthur proposed that he and William, who wore mukluks, should carry the doctor and me, who wore moccasins across the overflow, and then rush the sled across; and this we did, wetting its contents somewhat, however. We camped immediately, for we had landed on impassable gravel.

THE RED MOUNTAIN

That night the thermometer went to 20° below zero, and we took good hope that the cold, which began to approach the real cold of winter, would put an end to overflow; but, on the contrary, it only aggravated the trouble. For the first mile or two there was nothing for it but to go through it, and at 20° below it is a miserable business to be wading in moccasins even for an hour. We had rearranged our load so that it stood up somewhat higher, but we could not avoid wetting the things on the bottom of the sled, and the ice formed about it very inconveniently. Moreover, the little dog, who had a great dislike to wetting his feet, began to give us a good deal of trouble, and at one time nothing but the admirable presence of mind and prompt action of William saved us from losing our whole load. We had reached a strip of new, dry ice formed the night before, with black, rushing water on the left, towards which the slippery surfacesloped. Presently as we advanced we began to encounter a little overflow water, coming from the bank on the right, seeping up between the ice and the bank; and that dog, to avoid wetting his feet in the overflow, deliberately turned towards the open water and set the sled sliding in the same direction. Without the crampons, which we had not used for the past few days, it was impossible to hold the sled against the dog's traction, and in another moment we should have lost everything, for the dog paid no heed to our voices, when William with a blow of his axe cut the rope by which the dog pulled, and, grasping the sled and throwing himself full length on the ice, managed to stop it on the very brink of the water. It was a close shave, but once more we were safe; and the doctor, in the exuberance of his gratitude, said that night: "If William wants

a glass eye I'll send to New York to get him one." But when William learned that the glass eye was a mere matter of looks and would in no wise improve his vision, he lost interest in it. Looks do not count for much amongst the Koyukuk Indians.

That night was a long way off yet, however; we had other risks to run, other labours. Here were two islands in the river, and the current, running like a mill-race and burdened with ice cakes, swept around the shore of one of them leaving the passage between them quite dry. There was no shore ice at all where the channel was, and it was so ugly-looking a reach that had there been any there I am sure we should not have ventured it. There was nothing for it but to drag the sled half a mile over the gravel, and we did it, the most heart-breaking labour of the whole trip. It took us exactly an hour to make that half mile. William did not know the trick of the split willows either, so we all four of us sweated for our ignorance. Shortly after, our guide pointed out the spot where poor Ericson's frozen body was found, two years and eight months before.

A NARROW ESCAPE

RUBBER ICE

Near the Kornuchaket (or the mouth of Old Man Creek), where the Koyukuk receives a considerable tributary, we approached the most dangerous travelling we had had yet. The river here is swift and deep, and there are several islands set in it. Most of its surface was frozen, but the ice was very thin. William stopped the procession before we reached the bad stretch and went hastily over a part of it. Under his single weight we could see the ice-sheet undulating. It had been our rule that ice was not safe unless it took three blows of the axe to bring water, but this ice gave water at a blow. When William returned he made quite an harangue, which Arthur interpreted. He thought we could make it past the mouth of the creek, and if we could we should find good going to Moses' Village. But we must go just as fast as we could travel; we must not let the sled stop an instant. The ice would bend and crack; but he thought if we went quickly we could get across. So for nearly a quarter of a mile we rushed that sled over "rubber" ice that swayed and cracked and yielded under our feet and under the sled, until we reached the bank of one of the islands, and then again we launched her and ran with her to the shore. Once one of my feet broke through, and immediately the water welled up allaround—with the steamboat channel underneath—but without pause we increased our speed and made the strong shore ice safely at last. No man will ever doubt the plasticity, the "viscosity" of ice, as it used to be styled in the old glacier controversies, who has passed over the "rubber" ice that forms under certain circumstances and at certain seasons on these rivers.

We would never, I am sure, have attempted that ice had not William been with us. We would have struck a blow with the axe and declared it unsafe. Of course, it was unsafe; the whole journey was unsafe, but I am convinced that this thin, continuous sheet of ice, cushioned actually upon the surface of the water out of which it was growing, was really safer than much of the thicker but brittle, unsupported ice we had unhesitatingly come over. Chemists tell us that certain substances in the act of formation, which they call nascent substances, are extraordinarily active and potent, and it may be that ice in the same state has a special tenacity of texture which belongs to that state alone. I wish that I could have measured the thickness of that ice. Where my foot went through I know it was very thin, but its thickness I will not venture to guess. There was the distinct feeling that the water was bearing the ice up and when it was punctured the water welled up with pressure behind it.

Beyond the Kornuchaket much more snow had fallen, and a few miles brought us to Moses' Village, called grandiosely "Arctic City," since a trader had established a store and a road-house there. At this spot a new overland mail trail from Tanana strikes the Koyukuk, and, although ten or twelve miles remained, we felt that our journey was done. My sled dogs were there, and, as I had not seen them for more than a year, that was a joyful reunion. Nanook's bark of welcome, which no one but I ever got with quite the same inflection, was as grateful to me as all the licking and slobbering of the others, for Nanook is a very independent beast, reserved in his demonstrations and not wearing his heart on his sleeve, so to speak. They were all glad to see me—Old Lingo and Nig, and even "Jimmy the Fake." Billy was dead. For fifteen or sixteen months they had been boarded here, and, since fish had been very scarce the preceding summer, their food had been chiefly bacon and rice and tallow, and there was a bill of close to four hundred dollars against us! Dogs are very expensive things in this expensive country. When used the winter through on the trail, and boarded the summer through at a fish camp, we estimate that it costs one hundred dollars per head per annum to feed a dog; so that the maintenance of a team of five dogs, which is the minimum practicable team, will cost five hundred dollars per annum for food alone.

SATURATED SNOW

When we had eaten a good supper and were reclining on spring cots in the bunk house, there was not one of us but confidently expected to be at the mission in the next forenoon. For a week past the natives had been going to and fro in three or four hours. The river was completely closed above here, and there was much more snow than we found below. So we hitched our own dogs to our own sled the next morning, when the doctor had visited a sick person or two, and started out on the last stretch of the journey. All

went well until we had turned the long bend at the head of which the old, abandoned post of Bergman is situated, just on the Arctic Circle, but a mile or two beyond we were wallowing in saturated snow that stretched all across the river right up to the banks on either side. An overflow was in progress, the water running along the surface of the ice and soaking up the snow so that there was six inches of slush all over it. We struggled along awhile, though from the first it seemed hopeless, and then we gave it up and went back to the road-house. There would be no passing that stretch of river with the sled until the cold had dealt with the overflow. It is almost always the unexpected that happens. The next morning I put on a pair of snow-shoes—Doctor Burke's knee forbade him their use—and taking William with me, mushed up through the slush and the snow to the mission, leaving the others to come on with the team so soon as they found it practicable.

A mile before we reached the mission was the new village built by the Esquimaux—"Kobuk town" they call it—and right in front of the village the Malamute Riffle, a noted difficulty of navigation, was still running wide open, though all the rest of the river was long closed. Near the riffle the Kobuks had a fish-trap, and some who were busy getting out fish saw and recognised me, and the whole population came swarming out for greetings. It was good to see these kindly, simple people again, to shake their hands and hear their "I glad I see you," which is the general native greeting where there is any English at all. Every one must shake hands; even the babies on their mothers' backs stretch out their little fingers eagerly, and if they be too small for that, the mother will take the little hand and hold it out. At the bend we take a portage and a quarter of a mile brings us to the Allakaket, to the familiar modest buildings of the mission, with its new Koyukuk village gradually clustering round it. The whole scene was growing into almost the exact realisation of my dream when first I camped on this spot two years and nine months before. There was a distinct thrill of pleasure at the sight of the church. Built entirely of logs with the bark on, there was nothing visible anywhere about it but spruce bark, save for the gleam of the gilded cross that surmounted the little belfry. The roof, its regular construction finished, was covered with small spruce poles with the bark on, nailed together at the apex, and where it projected well beyond the gables its under-side was covered with bark, as well as the cornice all round that finished it off. Even the window-frames and the door-panels were covered with bark. It was of the same tone because of the selfsame substance as the forest still growing around it, and it gave at the first glance the satisfied impression of fitness. It gave the feeling that it belonged where it was placed. It is ill praising one's own work, but I had been keen to see how it would strike me, fresh from the outside, after a year's absence, and I was very glad indeed that it pleased me again.

A STARVING WHITE MAN

I had no more than entered upon the warm welcome that waited at Saint John's-in-the-Wilderness, and was still wondering at the homelike cosiness which the mission house had assumed under the deft hands of the two ladies who occupied it, when there came an Indian with word of a white man he had found starving in the wilderness fifteen miles away. Another native with a dog team and a supply of immediate food was hastily despatched to bring the man in, and that night the poor emaciated fellow, looking like a man of sixty-five or seventy though he was really no more than forty, crawled out of the sled and tottered into the house. He had started out from Tanana two months before with two pack-horses to make his way across to the Koyukuk diggings, had lost his way and wandered aimlessly in that vast wilderness; one horse had been drowned, the other he had killed for meat. He had made a raft to come down the Kornutna (Old Man Creek) to the Koyukuk, knowing that there was a trading-post near its mouth, and had been frozen in and forced to abandon it. Since that time he had been living on a few spoonfuls of meal a day, with frozen berries, and once or twice a ptarmigan, and when Ned found him was at the last extremity and had given up, intending to die where he was.

That man's hunger was tremendous, but Miss Carter, having knowledge and experience of such cases, was apprehensive that if any large quantity of food were taken at a time there would be serious danger to him. So for a day or two he ate frequently but sparingly. A little later, as he grew stronger, to such extremes did his hunger pinch him that he would watch till there was no one looking and would go into the kitchen and steal food that was preparing, even taking it out of the frying-pan on the stove. He would be hungry immediately after having a full meal. In ten days he was sufficiently recovered to resume his journey to the diggings, and when I saw him at Coldfoot two months later I did not recognise him, so greatly had he changed from the poor shrunken creature that crept into the mission. We all think we have been hungry time and again; if ever we have gone a few days on short rations we are quite sure of it; this man had sounded the height and depth and stretched the length and breadth of it, and none of the rest of us really know what hunger means. I tried to get him to talk about it, but he said he wanted to forget it. He said he was ashamed to think of some of the things he had done and of some of the terrible thoughts that had come to him, and I pressed him no more. I have always felt that, even in its last hideousness of cannibalism, only God Himself can judge starvation.

TWO INTERPRETERS

Here began my first experience of the difficulties of conducting a mission at the same place for two different races of natives speaking totally different languages. Although the Indian language spoken here is the same as at Tanana, and much of the liturgy, etc., had been put into that tongue by Mr. Prevost and was therefore available, yet it was found impracticable to have two sets of services whenever the church was used, for both races would always attend anyway. Since the mastery of the two tongues was out of the question, and there were no translations at all into the Esquimau, it became a question of teaching the Esquimaux to take part in an Indian service or dropping both vernaculars altogether and conducting the service in English. After much doubt and experiment the latter was resolved upon, and the whole service of prayer and praise is in English. When the lessons are read and the address delivered it is necessary to use two interpreters; the minister delivers his sentence in English, then the Koyukuk interpreter puts it in Indian, and when he is done the Esquimau interpreter puts it into that tongue.

It is a very tedious business, this double interpretation and a twenty-minute sermon takes fully an hour to deliver, but there is no help for it. The singing is hearty and enthusiastic though the repertory is wisely very limited; and here, north of the Arctic Circle, is a vested choir of eight or ten Kobuk and Koyukuk boys who lead the singing and lead it very well.

Already the influence of the mission and the school was very marked. Given the native off by himself like this, in the hands of those in whom he has learned to place entire confidence, remote from debasing agencies, and his improvement is evident and his survival assured.

In two days the doctor and Arthur and the team came up, and so was brought to a happy conclusion a perilous journey over the first ice. One is often glad to have had experiences that one would by no means repeat, and this is a case in point. We had learned a good deal about ice; we had taken liberties with ice that none of us had ever thought before could be taken with impunity; we had learned to trust ice and at the same time to distrust it and in some measure to discriminate about it. The "last ice" is bad, but the "first ice" is much worse, and all three of us were agreed that we wanted no more travelling over it and no more pulling of a sled "by the back of the face."

Then followed a very happy, busy time of several weeks while the river ice was consolidating and the land trails establishing; happy with its manifold evidences of the rapid advance the natives were making under Miss Carter's able and beneficent sway, busy with the instruction of people eager to learn. It was busy and happy for Doctor Burke also; busy with the many ailments he relieved, happy with the beginnings of an attachment which two years later culminated in his marriage to Miss Carter's colleague at this mission.

CHAPTER VII

THE KOYUKUK TO THE YUKON AND TO TANANA—CHRISTMAS HOLIDAYS AT SAINT JOHN'S-IN-THE-WILDERNESS

LEAVING Fort Yukon on the 26th of November, 1909, and going again over almost the same route we followed during the first journey described in this volume, we reached the new mission at the Allakaket on the Koyukuk River on the 14th of December, after a period of almost continual cold. The climate of the interior of Alaska varies as much as any climate. The previous year, continuing the journey described in "The First Ice," I had passed over this same route in the opposite direction, between the same dates, with the thermometer well above zero the whole time. This trip themean of the minimum reading at night, the noon reading, and the reading at start and finish of each day's journey was -38 1/4°. Many days in that three weeks we travelled all day at 45° and 50° below zero, and we spent one night in camp at 49° below.

It was the beginning of a severe winter, with much snow north of the Yukon and long periods of great cold.

BIRTH, BURIAL, AND DANCING

The two weeks or so spent at the mission of Saint John's-in-the-Wilderness was enjoyed as only a rest is enjoyed after making such a journey; as only Christmas is enjoyed at such a native mission. It is the time of the whole year for the people; they come in from near and far intent upon the festival in both of its aspects, religious and social, and they enter so heartily into all that is provided for them that one does not know which to admire most, their simple, earnest piety or the whole-hearted enthusiasm of their sports and pastimes. Right out of church they go to the frozen river, old men and maidens, young men and matrons, mothers with babies on their backs and their skirts tucked up, and they quickly line up and are kicking the football stuffed with moose hair and covered with moose hide in the native game that their forefathers played ages before "Rugby" was invented.[B]When the church-bell rings, back they all troop again, to take their places and listen patiently and reverently to the long, double-interpreted service, the babies still on their mothers' backs, sometimes asleep, sometimes waking up and crying, comforted by slinging them round and applying their lips to the fountain of nourishment and solace.

On the nights when there is no church service there is feasting and dancing. The native dance is a very simple affair, entirely without any objectionable feature, and one cannot see any reason in the world for attempting to suppress it. A man and a woman get out in the middle of the floor and dance opposite one another without touching at all. The moccasined toes of

an expert man in this dance move with surprising rapidity, the woman, with eyes downcast, the picture of demureness, sways slightly from side to side and moves on her toes in rhythm to the man's movement. Presently another man jumps up and the first man yields his place; then another woman comes forward and the first woman yields her place, and so the dance goes on.

For a variety, of late years there is an occasional "white-man's dance," of the quadrille or the waltz kind, but the natives much prefer their own dancing. Here at the Allakaket the presence of the Esquimaux adds picturesqueness and strangeness, and the Esquimau dance, which consists of a series of jerky attitudinisings, with every muscle tense, to a curious monotonous chant and the beating of a drum, is a never-failing source of amusement to the Indians.

An old man's funeral in the morning away up on the high bluff overlooking the mission, a birth in the evening, a dance the same night—so goes the drama of life in this little, isolated native world. So soon as these people make up their minds that one of their number is sick unto death they make the coffin, for when trees must be felled and lumber whipsawed from them, it is well to be forehanded.

"BEFORE" AND "AFTER"

There is one old woman living up there yet whose coffin had been made three times. When it becomes evident that the unfavourable prognosis was mistaken the coffin is torn apart and made into shelves or some other article of household utility. It seems very cold-blooded, but it is easy to misjudge these people. The emotion of grief is real with them, I believe, but transient. They are matter-of-fact and entirely devoid of pretence, and when once a funeral has taken place and the service is all over they dismiss the gloomy event from their minds as soon as possible. The night of old Mesuk's death, however, there were fires lighted on all the trails and before most of the Esquimau cabins, the object of which was probably to frighten the spirit away from the dwellings of the living. We shall get the better of these superstitions by and by, but superstitions die hard, not only amongst Esquimaux. Moreover, practices like this linger as traditional practices long after their superstitious content is dissipated, and men of feeling do not wantonly lay hands on ancient traditional custom. I think that if I were an Esquimau and knew that from immemorial antiquity fires had been lighted on the trails and outside the doors upon the death of my ancestors, I should be tempted to kindle them myself upon an occasion, however firmly I held the Communion of Saints and the Safe Repose of the Blessed. And I am quite sure that if I were a Thlinket I should set up a totem-pole despite all the missionaries in the world. When one comes to think about it

dispassionately, there is really nothing in Christianity averse to the kindling of corpse fires or the blazoning of native heraldry. When all the little superstitions and peculiar picturesque customs are abolished out of the world it will be a much less interesting world than it is to-day. If there were any evidence or reason to believe that morality and religion will be furthered by the brow-beating or cajoling of the little peoples into a close similitude of the white race in dress and manners and customs, all other considerations would, of course, be swallowed up in a glad welcome of such advance. But almost the exact opposite is true. The young Indian or Esquimau, who by much mixing with white men has been "wised up," as the expressive phrase goes here, is commonly one of the least useful, the least attractive, the least moral of his kind. We have many such on the Yukon—young men who work on the steamboats in the summer and do odd jobs and hang around the stores in winter, and will not condescend to fish any more or to hunt or trap unless driven by the pinch of hunger. Show me an Indian who affects the white man in garb, in speech, in general habits, and external characteristics, and it will be easy to show an Indian whose death would be little loss to his community or his race; while the native woman who aspires to dress herself like a white woman has very commonly the purpose of attracting the attention of the white men. I think the young Indian man I recall as the best dressed, most debonair, and most completely "civilised," was living in idleness upon the bounty of the white trader whom every one knew to be his wife's paramour, and was impudently careless of the general knowledge.

Of all the photographs that illustrate missionary publications—and I have contributed enough villainous half-tones to warrant me in a criticism—the ones I dislike most are of the "Before and After" type. Here is a group of savages clad in skins, or furs, or feathers, or palm fibre, or some patient, skilful weave of native wool or grass; in each case clad congruously with their environment and out of the products it affords. Set against it is the same or a similar group clad out of the slop-shop, clad in hickory shirts and blue-jean trousers, clad so that, if faces could be changed as easily as clothing, they would pass for any commonplace group of whites anywhere. And, as if such change were in itself the symbol and guarantee of a change from all that is brutal and idolatrous to all that is gentle and Christian, there follows the triumphant "Before and After" inscription. All the fitness has gone, all the individuality, all the clever adaptation of indigenous material, all the artistic and human interest; and a self-conscious smirk of superiority radiates over made-by-the-million factory garments instead. Whenever I see such contrasting photographs there comes over me a shamed, perverse recollection of a pair of engravings by Hogarth, usually

suppressed, which a London bookseller once pulled out of a portfolio in the back room of his shop and showed me. They bore the same title.

I profess myself a friend of the native tongue because it is the native tongue—the easy, familiar, natural vehicle of expression; of the native dress because it is almost always comfortable and comely; of the native customs, whenever they are not unhealthy or demoralising, because they are the distinctive heritage of a people; and again, of tongue, dress, and customs alike, if you will, simply because they are dissimilar.

A BARREN UNIFORMITY

For it has always seemed a trumpery notion that uniformity in these things has any connection with the upbuilding of a people, has any ethical relation at all, and I have always wondered that so trumpery a notion should have so wide an influence. Moreover, is it not a little curious that, whereas the trend of biological evolution on its upward course, as Spencer assures us, is towards differentiation and dissimilarity, the trend of sociological evolution should be so marked towards this bald and barren uniformity? But these be deep matters.

I have never been able to join in the reproach of superciliousness so often applied to the lines of that noblest of missionary hymns in which Bishop Heber asks, "Can we, whose souls are lighted with wisdom from on high, Can we, to men benighted, the lamp of life deny?" If that be superciliousness, it is an essential superciliousness of Christianity itself, for the question lies at the very core of our religion and will not cease to be asked so long as the world contains those who believe with all their hearts, and those who do not believe because they have not heard. I never listen to that hymn without emotion, it can still "shake me like a cry Of trumpets going by." But the question that seems to stir the souls of some missionaries and most school-teachers, "Can we deny to these unfortunate heathen our millinery, our 'Old Oaken Bucket,' our Mr. and our Mrs.," leaves me quite cold.

Here was the weekly afternoon routine at this mission, only the mornings being devoted to books and classes: On Monday the children brought their soiled clothes of the week to the schoolroom and washed them; on Tuesday they were dried and ironed; on Wednesday they were mended; on Thursday a juvenile "society" did some sort of work for another mission; on Friday every child in the village had a hot bath. Now, let a routine of that sort be kept up, week after week, month after month, year after year, during the whole school life of a child, and it is bound to leave its mark; and there is no other way in which the same mark may be made.

At the Allakaket is fine example of what, I think, is the best rule in the world for the inferior races—the absolute rule of a devoted, intelligent, capable gentlewoman. We are but now writing the indentures of their apprenticeship to self-government in the elective village councils we have set up; it is good for them to serve it under this loving and unquestioned despotism.

MATTERS METEOROLOGICAL

During all that Christmas season the temperature was subject to such violent fluctuations that a chart of them would look like the picture showing the comparative heights of mountains, that used to be presented under "The World in Hemispheres" in the school geographies. A minimum of 52° below zero and a maximum of 10° below, was followed by a minimum of 53° below and a maximum of 18° below, and that by a minimum of 56° below and a maximum of 14° below, while on Christmas Day itself we registered a minimum of 58° below zero and a maximum of 1° above, a range of 59° in less than twelve hours. At a time of the year when the sun has scarcely any effect upon the temperature such tremendous changes point to corresponding atmospheric disturbances, and each rise was caused by the irruption of clouds upon a clear sky and was followed by a fall of snow.

It is a beautifully simple process. Driven into these regions by some compelling current of the upper atmosphere comes a mass of warm air laden with moisture—a cloud. As it comes in contact with the cold air of the region it parts with its heat, and the temperature of the lower air rises. Having parted with its heat, it can no longer contain its moisture; and, having parted with its moisture, it ceases to exist. The cold of the earth and of its immediate air envelope has seized upon that cloud and devoured it, and the cold resumes its sway. So have I opened the door of a crowded cabin, when an Indian dance or other gathering was in progress, at 50° or 60° below zero, and the cold, dry air meeting the hot, moist air has caused an immediate fall of snow on the threshold.

After the abrupt rise in temperature on Christmas Day, the snow began to fall heavily, with a barometer continually falling until it reached 27.98 inches, the lowest point recorded here (at an elevation of about 500 feet above the sea) in two years and a half—and before the snow ceased three feet had fallen.

Our winter itinerary called us to leave the Allakaket immediately after New Year's Day, and our route lay overland through a totally uninhabited country for nearly one hundred and fifty miles, to Tanana on the Yukon. We knew that it would not greatly interfere with our plans to lie another week at the Allakaket, and that would bring our departure after the monthly journey of the mail-carrier and would thus compel him to break trail for us through all that snow. That is the way the mail-carriers in Alaska are usually

treated, but Arthur and I took some pride in keeping as closely as possible to the announced dates of visitation and in doing such share of trail breaking as fell to us.

TRAIL BREAKING

So on Monday, the 3d of January, 1910, we bade farewell to Deaconess Carter and her colleague and to the native charges they rule and care for so admirably, and set out on our journey with an additional boy from the mission to help us through the heavy snow of the Koyukuk valley. For ten or twelve miles the way lay down the river, and the going was slow and toilsome from the first, although there had been some passage from Moses' Village to the mission, and there was, therefore, some trail. Our start had been late—it is next to impossible to get an early start from a mission; there is always some native who must have audience at the last moment—and after the long repose we were so soft that the heavy trail had wearied us, and we decided to "call it a day" when in five and a half hours we came to the road-house, the last occupied habitation between the Allakaket and Tanana. Soon after we reached the village there came trooping down from the mission a number of the inhabitants gone up for Christmas, who, after weeping upon our necks, so to speak, at our departure, had left us to break out that drifted trail for their convenient return. So will Indians treat a white man almost always, but I had thought myself an exception and was vexed to find that so they had treated me.

The next morning we entered the uninhabited wilderness with three feet of new snow on the trail and no passage over it since it had fallen. Our first trouble was finding the trail at all. The previous fall the Alaska Road Commission had appropriated a sum of money to stake this trail from Tanana to the Koyukuk River, for it passes over wind-swept, treeless wastes, where many men had lost their way. Starting out from Tanana, the men employed had done their work well until within ten miles of the Koyukuk River. There it was found that the labour and cost already expended had exhausted the appropriation, whereupon the proceedings were immediately stopped; not another stake was driven, and the whole party returned to Tanana and mushed two hundred and fifty miles up the Yukon to spend another little appropriation upon another trail. That is the unbusinesslike system in which the money available for such work in Alaska has been handled.

The first trail breaker goes ahead with a long stick, which he thrusts continually down through the snow. The slightly harder surface over which sleds and dogs have passed reveals itself by offering more resistance to the penetration of the stick, and that is the only way the trail can be found. Even with three feet of new snow upon it, it is well worth while finding, or

otherwise there is no bottom at all and way must be made through all the snow of the winter. But all Alaskan trails are serpentine, and it is very difficult to put the new trail right on top of the old one. Back and forth the second trail breaker goes between his leader and the sled, and at intervals the first man comes back and forth also. And with it all is no path packed solid enough for the dogs to draw the heavy sled without great difficulty. We should have had a toboggan, but toboggans are little used on the Koyukuk, and we had only our sled. In five hours we made five miles and were worn out. We decided to pitch our tent and go ahead and break trail for the morrow's journey. On the lakes interspersed amongst the brush we had to break an entirely new trail, for we could find no trace of the old one.

If five miles in five hours be poor going, what is four miles in seven and a half hours? That is all we made the next day despite the snow-shoeing of the previous evening. The heavy sled was continually getting off the trail, however wide we show-shoed it. The two of us ahead went over every step of the distance four or five times, and sometimes all of us had to go back and forth again and again before the sled could be brought along at all. It was from 5° to 10° above zero all day, and at intervals snow fell heavily. We got at last to the middle of a little lake and were confronted by open water, the result of some warm spring, one supposes. Here we must stop until a laborious journey was made to the bank, trees were cut and carried, and the open place bridged so that the sled might be passed over it. Then again our painful progress was resumed until, as it grew dark, we reached the bank of the Kornutna, or Old Man Creek, and here we pitched tent again, and I went forward upon the bed of the stream to break out a part of to-morrow's path. That night two more inches of snow fell.

DOG DRIVING

For four miles the trail lies along the surface of this creek, and then takes up a steep gully and over a divide. That four miles was all we made the next day, back and forth, back and forth, wearily tramping it to and fro, dogs and men alike exhausted with the toil. The hatefulness of dog mushing usually appears under such circumstances; the whip is constantly plied, the senseless objurgations rise shriller and fuller. Once the sled is started, it must by any means be kept going, that as great a distance as possible may be covered before it stops again. The poor brutes, sinking almost to their bellies despite the snow-shoeing, have no purchase for the exercise of their strength and continually flounder and wallow. Our whip was lost and I was glad of it, for even as considerate a boy as Arthur is apt to lose patience and temper when, having started the sled with much labour by gee pole and rope about his chest, it goes but a few feet and comes to a halt again, or slips from the track and turns over in the deep snow. But it is at such times, too, that one appreciates at his full value such a noble puller as our wheel dog

Nanook. He spares himself not at all; the one absorbing occupation of every nerve and muscle of his body is pulling. His trace is always taut, or, if he lose footing for a moment and the trace slacken, he is up and at it again that the sled lose not its momentum if he can help it. When the lead line is pulled back that the sled may be started by the jerk of the dogs' sudden traction, Nanook lunges forward at the command, "Mush!" and strains at the collar, mouth open and panting, tongue dropping moisture, as keen and eager to keep that sled moving as is the driver himself. All day he labours and struggles, snatching a mouthful of snow now and then to cool his overheated body, and he drops in his tracks when the final halt is made, utterly weary, yet always with the brave heart in him to give his bark, his five-note characteristic bark of gladness, that the day's work is done at last. It is senseless brutality to whip such a dog, and most of our dogs were of that mettle, though Nanook was the strongest and most faithful of the bunch. One's heart goes out to them with gratitude and love—old "Lingo," "Nig," "Snowball," "Wolf," and "Doc"—as one realises what loyal, cheerful service they give.

VIOLENT FLUCTUATIONS

Arthur was so unwell with a violent cold and cough, that had been growing worse for a couple of days, that I decided on two things: to leave him in the tent while I snow-shoed ahead the next day, and to send back the boy I had brought from the mission to secure a fresh supply of food; for the back trail was, of course, comparatively easy. Arthur's condition threatened pneumonia, to my notion, and I believe he was saved from an attack of that disease which is so often fatal in this country by long rubbing all over the neck and the chest with a remedy that was new then—a menthol balm. I have used it again and again since and I am now never without it. A second application made in the morning, I started out, show-shoeing up the long hill and then down into the flat, and so to the mail-carrier's little hut that is reached under good conditions of trail the first day from Moses' Village, and then back again to the tent. That day a tendon in my right leg behind the knee became increasingly troublesome, and in climbing the hill on the return was acutely painful. I recognised it as "mal-de-raquet," well known in the Northwest, where the snow is commonly much deeper than in Alaska, and I found relief in the application of the same analgesic menthol balm that I was rejoiced to find had wrought a great improvement in Arthur's condition.

Meanwhile the warm weather of the past three or four days was over and another period of violent fluctuations of temperature similar to that around Christmastide was upon us. We went to bed with the thermometer at 10° below zero and were wakened by the cold at two in the morning to find it at

40° below, so we had to keep a fire going the rest of the night; for as soon as the fire in the stove goes out a tent becomes just as cold as outdoors.

We moved forward the next morning, but the trail we had broken was too narrow and had to be widened, which meant one snow-shoe in the deep snow all the time, a very fatiguing process that brought into painful play again the tendon strained with five days' heavy snow-shoeing.

The temperature was around 40° below all day, and our progress was so slow that it was not easy to keep warm, and the dogs whined at the innumerable stops. Yesterday it had been 10° below, the day before 10° above, and now, to-day, 40° below. It is hard to dress for such changeable weather, especially hard to dress the feet. My own wear, all the winter through, is a pair of smoke-tanned, moose-hide breeches, tanned on the Yukon but tailored outside. They are a perfect windbreak, yet allow ventilation, and they are very warm; but those who perspire much on exertion cannot wear them. The amount of covering upon the feet must be varied, in some measure at least, as the temperature changes. The Esquimau fur boot, with fur on the inside of the sole and on the outside of the upper, is my favourite footwear, with more or less of sock inside it as the weather requires; but such sudden changes as we were experiencing always find one or leave one with too much or too little footwear. By one-thirty we had struggled to the top of the hill, and it was very evident that the cabin was out of the question that day; so, since to pass down into the flat was to pass out of eligible camping timber, we pitched tent on the brow of the hill.

The cold business of making camp was done, all dispositions for the night complete, supper for men and dogs was cooked and ours eating, when we heard a noise in the distance that set our dogs barking and presently came the boy I had sent back, accompanied by an Indian and a fresh team loaded with such a bountiful supply of food, much of it cooked, that one felt it was worth while to get into distress to receive such generous and prompt succour. The ladies at the mission had sat up and cooked all night and had despatched the fastest team in the village the next morning to bring their provisions to us and to help us along. They had thought us at Tanana when we were not yet at the end of the first day's stage from Moses' Village. It would have been impossible for us to reach Tanana on the dog food and man food we started with.

SIXTY-FIVE BELOW ZERO

It was so cold and we were so crowded that I arose at three and made a fire and sat over it the rest of the night, and after breakfast, although it was Sunday, morning prayer being said, I started ahead again to break out the trail deeper and wider, leaving the teams with the distributed loads to follow. The thermometer stood at 38° below zero when I left camp, but as I began

the descent it was evident that it grew colder, and at the bottom of the hill I was sure it was 20° colder at least. Reaching the cabin, I kindled a fire and started back to meet the teams. About a mile from the cabin I saw them, for, since the load was distributed in the two sleds progress was much better; but by this time it had grown so cold that the dogs were almost entirely obscured from view by the clouds of steam that encompassed them. We hurried as best we might and reached the cabin about eleven, and as soon as we were arrived I took out the thermometer and let it lie long enough to get the temperature of the air, and it read 65° below zero. There had been no atmospheric change at all; it was simply the most marked instance I ever knew of the influence of altitude upon temperature. We had descended perhaps three hundred feet, and in that distance had found a difference of 27° in temperature.

The cabin was a wretched shack without door or window and full of holes, and in no part of it could one stand upright. We set ourselves to make things as comfortable as possible, however, rigging up the canvas sled cover for an outer door and a blanket for an inner door, and stopping up the worst of the holes with sacking. Then we went out and cut fresh spruce boughs to lie upon, and prospected around quite a while before we found dry wood nearly a quarter of a mile away. It was quite a business cutting that wood and packing the heavy sticks on one's shoulders, through the brush and up and down the banks of the little creek where it grew, on snow-shoes, at 65° below zero.

Our Sabbath day's journey done, the hut safely reached and furnished with fuel, we did not linger long after supper, but, evening prayer said, went to bed as the most comfortable place in the still cold cabin, thankful not to be in a tent in such severe weather.

The next day gave us fresh temperature fluctuations. At nine A. M. it clouded and rose to 35° below, by noon it had cleared again and the thermometer fell to 55° below, and at nine P. M. it stood once more at 65° below. The milder weather of the morning sent all hands out breaking trail, save myself, for with all our stuff in a cabin without a door it was not wise to leave it altogether—a dog might break a chain and work havoc—so I stayed behind in the little dark hovel, a candle burning all day, and read some fifty pages of Boswell's Life of Samuel Johnson over again. Some such little India-paper classic it is my habit to carry each winter. Last year I reread Pepys's Diary and the year before much of the Decline and Fall. Certain places are for ever associated in my mind with the rereading of certain old books. The Chandalar River is to me as much the scene of Lorna Doone, which I read for the sixth or seventh time on my first journey along it, as Exmoor itself; and The Cloister and the Hearth, that noble historical romance, belongs in my literary geography to the Alatna-Kobuk portage. So

will Boswell always bring back to me this trip across country from the Koyukuk to the Yukon through the deep snow.

The boys came back after dark, having broken some nine miles of trail and having suffered a good deal from the cold. I had supper cooked, and when that was done and the dogs fed we fell to reading the Gospels and Epistles for the Epiphany season, the boys reading aloud by turns. The all-day fire had warmed the little hut thoroughly, and despite the cold outside we were snug and comfortable within.

SEVENTY BELOW ZERO

That night the thermometer touched 70° below zero, within 2° of the greatest cold I have recorded in seven years' winter travel; a greater cold, I believe, than any arctic expedition has ever recorded, for it is in a continental climate like Siberia or interior Alaska, and not in the marine climate around the North Pole, that the thermometer falls lowest.

Save for an hour or two getting wood, we all lay close next day, for the temperature at noon was no higher than 64° below. It is impossible to break trail at such temperature, or to travel as slowly as we were travelling. In the strong cold one must travel fast if one travel at all. Indeed, it is distinctly dangerous to be outdoors. As soon as one leaves the hut the cold smites one in the face like a mailed fist. The expiration of the breath makes a crackling sound, due, one judges, to the sudden congealing of the moisture that is expelled. From every cranny of the cabin a stream of smoke-like vapour pours into the air, giving the appearance that the house is on fire within. However warmly hands and feet may be clad, one cannot stand still for a minute without feeling the heat steadily oozing out and the cold creeping in.

Notwithstanding the weather, that evening the mail came along, the white man who is the carrier, two tall, strong natives, and nine dogs. Only since descending to the flat had they suffered from the cold, for they found as great a difference as we did in the temperature; and they were grateful to us for the trail we had broken. The hut was uncomfortably crowded that night with seven people in it, but the thermometer stood at -56° and was rising, and gave us hope that we might move along to-morrow. Augmented as our party was into seven men, three sleds, and nineteen or twenty dogs, trail breaking would not be so arduous and progress would be much accelerated. There was good hope, moreover, that the heavy snow was confined to the Koyukuk valley and that when we passed out of it we should find better going.

The morning found a temperature of 45° below, and we sallied forth, quite an expedition. Four, including myself, went ahead beating down the trail; one was at each gee pole, our team last, getting advantage of everything

preceding. So far as the trail had been broken we made good time, covering the nine miles in about four hours. Another hour of somewhat slower progress took us to the top of a hill, and here the mail-carrier's two Indians had run ahead and built a great, roaring fire and arranged a wide, commodious couch of spruce boughs, and we cooked our lunch and took our ease for half an hour. The sky had clouded again and the temperature had risen to 28° below.

CLOSE QUARTERS

It is strange how some scenes of the trail linger in the memory, while others are completely forgotten. This noon halt I always remember as one of the pleasantest of all my journeyings. There was not a breath of wind, and the smoke rose straight into the air instead of volleying and eddying into one's face as camp-fires so often do on whichever side of them one sits. We were all weary with our five hours' trudge, and the rest was grateful; hungry, and the boiled ham they had sent from the mission was delicious. The warmth of the great fire and the cosiness of the thick, deep spruce boughs gave solid comfort, and the pipe after the meal was a luxurious enjoyment.

From that on the going was heavier and our progress slower, but we kept at it till dark, and still far into the night, fortunate in having two Indians who knew every step of the way, until at last we reached the hut that marks the end of the second stage from the Koyukuk River, on the top of a birch hill. We had made nineteen and a half miles that day and had taken eleven hours to do it.

If the noon rest be remembered as one of the pleasantest episodes of the trail, that night in the cabin on the hill I recall as one of the most miserable in my life. The hut was still smaller than the previous one, like it without door and window, and so low that one was bent double all the time. Walls and roof alike were covered with a thick coating of frost. The only wood discoverable in the dark was half-dry birch which would not burn in the stove but sent out volumes of smoke that blinded us. When the hut did begin to get a little warm, moisture from the roof dropped on everything. There we seven men huddled together, chilly and damp, choked and weary—a wretched band. There was no room for the necessary cooking operations; we had to cook and eat in relays; and how we slept, in what way seven men managed to pack themselves and stretch themselves in those narrow quarters, I cannot tell. However, we said our prayers and went to bed, snow falling heavily. The Indians were soon snoring, but sleep would not come to me, tired as I was, and I had not slept at all the previous night. So presently I took trional, X grs., and dozed off till morning.

Then we resolved to divide forces rather than subject ourselves to the miserable inconvenience of overcrowding these tiny huts, and at this stage

of the journey it was possible to do so without losing a whole day, for there was a cabin for the noon rest. It was arranged that the mail-man should start first and make the full day's run if possible, while we should "call it a day" at the half-way hut.

So Bob and his Indians sallied forth while yet my boys were reading their lessons to me, and when they were done we hitched up and followed. And as soon as we were down the hill and started along the bald flat, it was evident that we were out of the deep snowfall, for the present at any rate, and we plucked up spirit, for we were now to cross the wide, open, wind-swept uplands of the headwaters of the Melozitna and Tozitna, tributaries of the Yukon—the "Tozi" and "Melozi," as the white men call them—where snow never lies deep or long. We were out of the Koyukuk watershed now and in country drained by direct tributaries of the Yukon. The going was now incomparably the best we had had since we left the mission, the snow was light and we had the mail-carrier's trail; but, although the temperature had risen to 21° below, a keen wind put our parkee hoods up and our scarfs around our faces and made our 60° below clothing none too warm. In three hours we had reached the Melozi cabin, although that had included the climbing of a long, steep hill, and here we stayed for the rest of the day and night and shot some ptarmigan for supper, though we could easily have gone on and made the rest of the run.

The next day I sent the auxiliary sled and team and driver back to the Allakaket, keeping the mission boy with me, however, to return with the mail-carrier, who was already late and must go back as soon as he reached Tanana. I parted with the Indian regretfully, for he had been most helpful and always good-natured and cheerful, and had really begun to learn a little at our travelling night-school.

THE STAKED TRAIL

THE ARCTIC SKIES

A high wind was blowing, with the thermometer at 12° below, and the mail-man's trail was already drifted over and quite indistinguishable in the dark, and we began to appreciate the recent staking of this trail by the Road Commission. But for these stakes, set double, a hundred yards apart, so that they formed a lane, it would have been difficult if not impossible for us to travel on a day like this, for here was a stretch of sixteen or seventeen miles with never a tree and hardly the smallest bush. The wind blew stronger and stronger directly in our faces as we rose out of the Melozitna basin on the hill that is its watershed, and when the summit was reached and we turned and looked back there was nothing visible but a white, wind-swept waste. But ahead all the snow was most beautifully and delicately tinted from the reflection of the dawn on ragged shredded clouds that

streamed across the southeastern sky. Where the sky was free of cloud it gave a wonderful clear green that was almost but not quite the colour of malachite. It was exactly the colour of the water the propeller of a steamship churns up where the Atlantic Ocean shallows to the rocky shore of the north coast of Ireland. The clouds themselves caught a deep dull red from the sunrise, which the snow gave back in blush pink. Such an exquisite colour harmony did the scene compose that the wind, lulling for a moment on the crest of the hill, seemed charmed into peace by it.

The feast of colour brought a train of colour memories, one hard upon the heels of another, as we went down the hill; the Catbells, this golden with bracken, that purple with heather, and each doubled in the depths of Derwentwater; an October morning in the hardwood forests of the mountains of Tennessee, when for half an hour every gorgeous tint of red and yellow was lavishly flaunted—and then the whole pride and splendour of it wiped out at once by a wind that sprang up; the encircling and towering reds and pinks of a gigantic amphitheatre of rock in the Dolomites; a patch of flowers right against the snow in the high Rockies, so intensely blue that it seemed the whole vault of heaven could be tinctured with the pigment that one petal would distil. And, more inspiring than them all, there came the recollection of that wonderful sunrise and those blazing mountains of the Alatna-Kobuk portage. Every land has its glories, and the sky is everywhere a blank canvas for the display of splendid colour, but the tints of the arctic sky are of an infinite purity of individual tone that no other sky can show.

As we descended the hill into the Tozitna basin the wind rose again, now charged with heavy, driving snow, while in the valley the underfoot snow grew deep, so that it was drawing to dusk when we reached the cabin on a fork of the Tozitna where Bob the mail-man had spent the previous night, and there we stayed.

The next day is worthy of record for the sharp contrast it affords. All the night it had snowed heavily, and it snowed all the morning and into the afternoon. Some sixteen or seventeen inches of snow had fallen since Bob and his party passed, and again we had no trail at all. Moreover—strange plaint in January in Alaska!—the weather grew so warm that the snow continually balled up under the snow-shoes and clung to the sled and the dogs. At noon the thermometer stood at 17° above zero—and it was but four days ago that we recorded 70° below! It will be readily understood how such wide and sudden ranges of temperature add to the inconvenience and discomfort of mushing. Parkees, sweaters, shirts are shed one after the other, the fur cap becomes a nuisance, the mittens a burden, and still ploughing through the snow he is bathed in sweat who had forgotten what sweating felt like. The poor dogs suffer the most, for they have nothing they

can shed and they can perspire only through the mouth. Their tongues drop water almost in a stream, they labour for their breath, and their eyes have a look that comes only with soft weather and a heavy trail. So constantly do they grab mouthfuls of snow that the operation becomes quite a check on our progress.

By two o'clock it was growing dusk, and we had but reached the bank of the other fork of the Tozitna, not more than eight or nine miles from the cabin where we spent the night and yet thirteen or fourteen miles from the cabin we had hoped to reach. Beyond the banks of the stream was no more timber for a long distance; was such another stretch of open country as we had passed the previous day. So here was another disappointment, for camp must be made now lest there be no chance to make camp at all. But it was a good and comfortable camp, amidst the large spruce of the watercourse. Such disappointments are part of life on the trail; and supper done there was the more time for the boys.

The open country was again wind-swept, and being wind-swept the snow was somewhat hardened, and we fought our way against a gale, covering the twelve and three quarter miles in ten hours, Sunday though it was. At that last stage on the road to Tanana came out a young man from the mission with a dog team and an Indian, anxious at our long delay, and Harry Strangman's name is written here with grateful recognition of this kindness and many others. We went joyfully into town on the morrow, the 17th of January, having taken fifteen days to make a journey that is normally made in five.

THE MAIL-CARRIER

Half-way on that last day's mush we met the mail-man returning to the Koyukuk. So much had he been delayed that there was danger of a fine and all sorts of trouble, and the mail had been sent out to meet him at the noon cabin, together with a supply of grub for the return trip. But the caterer, whoever he was, forgot candles, and the mail-man would have had to make his way back to the Koyukuk without any means of artificial light, in the shortest days of the year, had we not been able to supply him with half a dozen candles that remained to us. It was a disappointment to George, the boy I had brought from the mission, that he must turn round and go back also. He had never "seen Tanana," which is quite a metropolis to him, and had looked forward to it keenly all the journey, but the boy braced up and took his disappointment manfully. A pitiful procession it was that passed us by and took our boy away; the poor, wearied dogs that had certainly earned the few days' rest they were so badly in need of left a trail of blood behind them that was sickening to see. Almost every one of them had sore, frozen feet; many of them were lame; and when we came to descend the long hill

they had just climbed, right at its brow, where the stiffest pull had been, was a claw from a dog's foot frozen into bloody snow.

So far as there is anything heroic about the Alaskan trail, the mail-carriers are the real heroes. They must start out in all weathers, at all temperatures; they have a certain specified time in which to make their trips and they must keep within that time or there is trouble. The bordering country of the Canadian Yukon has a more humane government than ours. There neither mail-carrier nor any one else, save in some life-or-death emergency, with licence from the Northwest Mounted Police, may take out horse or dogs to start a journey when the temperature is lower than 45° below zero; but I have seen a reluctant mail-carrier chased out at 60° below zero, on pain of losing his job, on the American side. Moreover, between the seasons, when travel on the rivers is positively dangerous to life, the mail must still be despatched and received, although so great is the known risk to the mail, as well as to the carrier, that no one will send any letter that he cares at all about reaching its destination until the trails are established or the steamboats run. But the virtually empty pouches must be transported from office to office through the running, or over the rotting ice, just the same, on pain of the high displeasure and penalty of a department without brains and without bowels. I have often wished since I came to Alaska that I could be postmaster-general for one week, and so I suppose has almost every other resident of the country.

The week following my arrival at Tanana was a solid week of cold weather, the thermometer ranging around 50° and 60° below zero, and that means keeping pretty close to the house. Even the sentries at the army post are withdrawn and the protection of the garrison is confided to a man who watches the grounds from a glass-walled cupola above the headquarters building. Yet a week of confinement and inaction grows tiresome after life in the open.

Sunday is always a busy day here. The mission and native village are three miles away from the town, and service must be held at both. The mission at Tanana is not a happy place to visit for one who has the welfare of the natives at heart. Despite faithful and devoted effort to check it, the demoralisation goes on apace and the outlook is dark.

SINGLE MEN IN BARRACKS

"Single men in barracks don't grow into plaster saints," we are told; sometimes they seem to grow into drunken, lustful devils without compassion for childhood, not to mention any feeling of magnanimity towards a feebler race. And when a girl who has been rough-handled, or who has been given drink until she is unable to resist the multiple outrage practised upon her, is told to pick out the malefactors from a company of

soldiers, all clean-shaven, all dressed alike, all around the same age, she generally fails to identify altogether. So the offence goes unwhipped, and the officer is likely as not to address a reprimand to the complaining missionary for "preferring charges you are unable to substantiate." Yet an officer who had himself written such a letter told me once that all Indians looked alike to him. Even should the girl identify one or more men, they have usually half a dozen comrades ready to swear an alibi.

Add to the trouble given by the soldiers the constant operation of the slinking bootleggers of the town, a score or more of whom are known to make money by this liquor peddling, and some of whom do nothing else for a living, yet whom it is next to impossible to convict, owing to the cumbrous machinery of the law and the attitude of juries, and it will be seen that the hands of those who are fighting for the native race are tied.

What has been said about the military does not by any means apply to all, either officers or men. Some of the officers have been decent, God-fearing men, conscious of the evil and zealous to suppress it; some of the men, indeed in all probability most of the men, quite free from such offence; some commanding officers have kept such a well-disciplined post that offences of all kinds have been greatly reduced. But the commanding officer is changed every year, and the whole force is changed every two years, so that there is no continuity of policy at the post, and an administration that has grown familiar with conditions and that stands so far as it can for clean living and sobriety and decency and the protection of the native people, may be followed by one that is loftily ignorant of the situation, careless about offences against morality, and impatient of any complaint.

Off by himself, separate from the demoralising influence of the low-down white, there is every hope and encouragement in the effort to elevate and educate the Indian; set down cheek by jowl with the riffraff of towns and barracks, his fate seems sealed.

DEATH-RATE AND BIRTH-RATE

Let these two mission stations, the Allakaket and Tanana, one hundred and fifty miles or so apart by the winter trail, represent the two conditions. In six years' time there has been manifest advance at the one and decay at the other. The birth-rate is greatly in excess of the death-rate at the Allakaket, the death-rate greatly in excess of the birth-rate at Tanana. In the year in which this journey was made there were thirty-four deaths and fourteen births at Tanana, and while the difference was an unusually large one, yet in the six years referred to there has not been one year in which the number of births exceeded the number of deaths. One does not have to be a prophet to foresee the inevitable result, if the process be not stopped.

A tribute should be paid to the zeal, now of one, now of another army surgeon at Fort Gibbon in tending the native sick, three miles away, when we have been unable to procure a physician of our own for the place. The missionary nurse, for five years last past Miss Florence Langdon, has been greatly helped in her almost desperate efforts here by the willing co-operation of these medical officers of the army.

CHAPTER VIII

UP THE YUKON TO RAMPART AND ACROSS COUNTRY TO THE TANANA—ALASKAN AGRICULTURE—THE GOOD DOG NANOOK—MISS FARTHING'S BOYS AT NENANA—CHENA AND FAIRBANKS

OUR course from Tanana did not lie directly up the Tanana River, but up the Yukon to Rampart and then across country to the Hot Springs on the Tanana River. The seventy-five miles up the Yukon was through the Lower Ramparts, one of the most picturesque portions of this great river. The stream is confined in one deep channel by lofty mountains on both banks, and the scenery at times is very bold and wild. But its topography makes it the natural wind course of the country—a down-river wind in winter, an up-river wind in summer blows almost continually. It was no colder than 5° below zero when we started on the trip, but the wind made the travelling unpleasant. The second day it had increased to a gale, and every mile we travelled it grew stronger. We travelled three hours, and the last hour we made scarcely a mile. So thickly charged with flying snow was the wind and so dead ahead that despite parkee hoods it blinded us, and the dogs could hardly be forced to keep their heads towards it. Their faces were so coated with crusted snow that they looked curiously like the face of harlequin in the pantomime. It did become literally intolerable, and when Arthur said that he knew there was a cabin right across the river, we made our way thither and shortly found it and lay there the rest of the day, the gale blowing incessantly. This was disappointing, because it meant that I could not reach Rampart for the Sunday I had appointed.

Next day the wind had ceased and the thermometer went down to 30° below zero. In places the ice was blown clear of snow; in other places it was heavily drifted. By midday we had reached the lonely telegraph station at "The Rapids," and were very kindly received by the signal-corps men in charge. They gave us to eat and to drink and would take no money. There is little travel on this part of the river nowadays, and the telegraph men are glad to see any one who may chance to pass by. We pushed on heavily again, and had to stop and cut a gee pole presently, for it was hard to handle the sled without it; but the gee pole always means laborious travel. The cold was welcome; it meant no wind; and we were glad to see the thermometer drop lower than 50° below zero that night at the old mail cabin. The mail goes no longer on the Yukon River from Fort Yukon to Tanana, and, barring this point, Rampart, towards which we were travelling, which is supplied across country from the Hot Springs, over the route we should traverse, no spot on that three hundred and fifty miles of river receives any mail at all. The population is small and scattered, it is true; on the same grounds Alaska might be denied any mail at all. There has been much resentment at this

abandonment of the Yukon River by the post-office and several petitions for its restoration, but it has not been restored.

THE WIND-SWEPT YUKON

We travelled all the next day at 50° below zero, and it was one of the pleasantest days of the winter. There was not a breath of wind, the going steadily improved, and, best of all, for three hours we were travelling in the sunshine for the first time this winter. Only those who have been deprived of the sun can really understand how joyful and grateful his return is. There was no heat in his rays, this last day of January; the thermometer stood at 49° below at noon, and had risen but 5° since our start in the morning; but the mere sight of him glowing in the south, where a great bend of the river gave him to us through a gap in the mountains, was cheerful and invigorating after two months in which we had seen no more than his gilding of the high snows. The sun gives life to the dead landscape, colour to the oppressive monotony of white and black, and man's heart leaps to the change as jubilantly as does the face of nature.

RAMPART AND ITS SALOON

Rampart City differs from Circle City, the other decayed mining town of the Yukon River, only in that the process is further advanced. Year by year there are a few less men on the creeks behind it, a few less residents in the town itself. Its long, straggling water-front consists in the main of empty buildings, the windows boarded up, the snow drifted high about the doors. One store now serves all ends of trade, one liquor shop serves all the desire for drink of the whites, and slops over through the agency of two or three dissolute squaw men and half-breeds to the natives up and down the river.[

Rampart had one fat year, 1898, when many hundreds of gold seekers, approaching the Klondike by Saint Michael and the lower Yukon were attracted and halted by the gold discoveries on Big and Little Minook, and spent the winter here. The next spring news was brought of the rich discoveries on Anvil Creek, behind Cape Nome, and an exodus began which grew into a veritable stampede in 1900, when the gold discoveries in the beach itself were made. Rampart's large population faded away as surely and as quickly to Nome as Circle City's population did to the Klondike. The Indians are almost all gone from their village a mile above the town; they dwindled away with the dwindling prosperity, some to Tanana, some to other points down the river; and what used to be the worst small native community in the interior of Alaska has almost ceased to exist. Most of the little band of white folks still remaining were gathered together at night, and appreciated, I thought, their semiannual opportunity for Divine service.

"DEVELOPED"

There is no resisting the melancholy that hangs over a place like this. As one treads the crazy, treacherous board sidewalks, full of holes and rotten planks, now rising a step or two, now falling, and reads the dimmed and dirty signs that once flaunted their gold and colours, "Golden North," "Pioneer," "Reception," "The Senate" (why should every town in Alaska have a "Senate" saloon and not one a "House of Representatives"?), one conjures up the scenes of rude revelry these drinking places witnessed a few years ago. How high the hopes of sudden riches burned in the breasts of the men who went in and out of them, doomed to utter disappointment in the vast majority! What a rapscallion crew, male and female, followed this great mob of gold seekers, and grew richer as their victims grew poorer! What earned and borrowed and saved and begged and stolen moneys were frittered away and flung away that winter; what health and character were undermined! How the ribaldry and valiant, stupid blasphemy rang out in these tumbling-down shanties! Go out on the creeks and see the hills denuded of their timber, the stream-beds punched with innumerable holes, filled up or filling up, the cabins and sluice-boxes rotting into the moss, here and there a broken pick and shovel, here and there a rusting boiler, and take notice that this region has been "developed."

When the debit and credit sides of the ledger are balanced, what remains to Alaska of all these thousands of men, of all the many hundreds of thousands of dollars they brought with them? Those creeks, stripped, gutted, and deserted; this town, waiting for a kindly fire with a favouring breeze to wipe out its useless emptiness; a few half-breed children at mission schools; a hardy native tribe, sophisticated, diseased, demoralised, and largely dead—that seems the net result.

The portage trail from Rampart to the Tanana River goes up Minook Creek and follows the valley to its head, then crosses a summit and passes down through several small mining settlements to the Hot Springs. The trail saves traversing two sides of the triangle which it makes with the two rivers.

The dogs' feet and legs had suffered so much from the deep snow and the heavy labour of the journey out of the Koyukuk and the rough ice of the Yukon that I was compelled to have not merely moccasins but moose-hide leggings made here, coming right up to the belly and tying over the back. All the hair was worn away from the back of the legs and the skin was in many places raw.

We had thought to cover the twenty-five or thirty miles up the valley and over the summit to a road-house just beyond its foot, but rough drifted trails and a high wind held us back until it was dark before the ascent was reached, and we pitched our tent and reserved the climb for the morrow.

It was a hard grind owing to the drifted snow and the wind that still disputed our passage, but the view from the summit, nearly eighteen hundred feet above last night's camp, was compensation enough, for it gave us the great mountain, Denali, or, as the map makers and some white men call it, Mount McKinley. Perhaps an hundred and fifty miles away, as the crow flies, it rose up and filled all the angle of vision to the southwest. It is not a peak, it is a region, a great soaring of the earth's crust, rising twenty thousand feet high; so enormous in its mass, in its snow-fields and glaciers, its buttresses, its flanking spurs, its far-flung terraces of foot-hills and approaches, that it completely dominates the view whenever it is seen at all. I have heard people say they thought they had seen Denali, as I have heard travellers say they thought they had seen Mount Everest from Darjiling; but no one ever thought he saw Denali if he saw it at all. There is no possible question about it, once the mountain has risen before the eyes; and although Mount Everest is but the highest of a number of great peaks, while Denali stands alone in unapproached predominance, yet I think the man who has really looked upon the loftiest mountain in the world could have no doubt about it ever after.

How my heart burns within me whenever I get view of this great monarch of the North! There it stood, revealed from base to summit in all its stupendous size, all its glistening majesty. I would far rather climb that mountain than own the richest gold-mine in Alaska. Yet how its apparent nearness mocks one; what time and cost and labour are involved even in approaching its base with food and equipment for an attempt to reach its summit! How many schemes I have pondered and dreamed these seven years past for climbing it! Some day time and opportunity and resource may serve, please God, and I may have that one of my heart's desires; if not, still it is good to have seen it from many different coigns of vantage, from this side and from that; to have felt the awe of its vast swelling bulk, the superb dignity of its firm-seated, broad-based uplift to the skies with a whole continent for a pedestal; to have gazed eagerly and longingly at its serene, untrodden summit, far above the eagle's flight, above even the most daring airman's venture, and to have desired and hoped to reach it; to desire and hope to reach it still.[D]

Plunging down the steep descent we went for four miles, and then after a hearty dinner at the road-house, essayed to make twenty-one miles more to the Hot Springs. But night fell again with a number of miles yet to come, the recent storm had furrowed the trail diagonally with hard windrows of snow that overturned the sled repeatedly and formed an hindrance that grew greater and greater, and again we made camp in the dark, short of our expected goal.

Of late I had been carrying an hip ring, a rubber ring inflated by the breath that is the best substitute for a mattress. The ring had been left behind at Rampart, and so dependent does one grow on the little luxuries and ameliorations one permits oneself that these two nights in camp were almost sleepless for lack of it.

THE HOT SPRINGS

Three hours more brought us to the spacious hotel, with its forty empty rooms, that had been put up, out of all sense or keeping, in a wild, plunging attempt to "exploit" the Hot Springs and make a great "health resort" of the place. The hot water had been piped a quarter of a mile or so to spacious swimming-baths in the hotel; all sorts of expense had been lavished on the place; but it had been a failure from the first, and has since been closed and has fallen into dilapidation. The bottoms have dropped out of the cement baths, the paper hangs drooping from the damp walls, the unsubstantial foundations have yielded until the floors are heaved like the waves of the sea.[E] But at this time the hotel was still maintained and we stayed there, and its wide entrance-hall and lobby formed an excellent place to gather the inhabitants of the little town for Divine service—again the only opportunity in the year.

What a curious phenomenon thermal springs constitute in these parts! Here is a series of patches of ground, free from snow, while all the country has been covered two or three feet deep these four months; green with vegetation, while all living things elsewhere are wrapped in winter sleep. Here is open, rushing water, throwing up clouds of steam that settles upon everything as dense hoar frost, while all other water is held in the adamantine fetters of the ice. Where does that constant unfailing stream of water at 110° Fahrenheit come from? Where does it get its heat? I know of half a dozen such thermal springs in Alaska,—one far away above the Arctic Circle between the upper courses of the Kobuk and the Noatak Rivers, that I have heard strange tales about from the Esquimaux and that I have always wanted to visit.

Whenever I see this gush of hot water in the very midst of the ice and the snow, I am reminded of my surprise on the top of Mount Tacoma. We had climbed some eight thousand feet of snow and were shivering in a bitter wind on the summit, yet when the hand was thrust in a cleft of the rock it had to be withdrawn by reason of the heat. One knows about the internal fire of some portion of the earth's mass, of course, but such striking manifestations of it, such bold irruption of heat in the midst of the kingdom of the cold, must always bring a certain astonishment except to those who take everything as a matter of course.

It is evident that this hot water, capable of distribution over a considerable area of land, makes an exceedingly favourable condition for subarctic agriculture, and a great deal of ground has been put under cultivation with large yield of potatoes and cabbage and other vegetables. But the limitations of Alaskan conditions have shorn all profit from the enterprise. There is no considerable market nearer than Fairbanks, almost two hundred miles away by the river. If the potatoes are allowed to remain in the ground until they are mature, there is the greatest danger of the whole crop freezing while on the way to market, and in any case the truck-farmers around Fairbanks find that their proximity to the consumer more than offsets the advantage of the Hot Springs.

ARCTIC AGRICULTURE

When the great initial difficulties of farming in Alaska are overcome, when the moss is removed and the ground, frozen solidly to bedrock, is broken and thawed, when its natural acidity is counteracted by the application of somealkali, and its reeking surface moisture is drained away; when after three or four years' cultivation it begins to make some adequate return of roots and greens, there remains the constant difficulty of a market. Around the mining settlements and during the uncertain life of the mining settlements, truck-farming pays very well, but it could easily be overdone so that prices would fall below the point of any profit at all. Transportation is expensive, and rates for a short haul on the rivers are high, out of all proportion to rates for the long haul from the outside, so that potatoes from the Pacific coast are brought in and sold in competition with the native-grown. And despite the protestations of the agricultural experimental stations, the outside or "chechaco" potato has the advantage of far better quality than that grown in Alaska. Tastes differ, and a man may speak only as he finds. For my part, I have eaten native potatoes raised in almost every section of interior Alaska, and have been glad to get them, but I have never eaten a native potato that compared favourably with any good "outside" potato. The native potato is commonly wet and waxy; I have never seen a native potato that would burst into a glistening mass of white flour, or that had the flavour of a really good potato.

There has been much misconception about the interior of Alaska that obtains yet in some quarters, although there is no excuse for it now. Not only the interior of Alaska, but all land at or near sea-level in the arctic regions that is not under glacial ice-caps, is snow free and surface-thawed in the summer and has a luxuriant vegetation. The polar ox (Sverdrup's protest against the term "musk-ox" should surely prevail) ranges in great bands north of the 80th parallel and must secure abundant food; and when Peary determined the insularity of Greenland he found its most northerly point a mass of verdure and flowers.

No doubt potatoes and turnips, lettuce and cabbage, could be raised anywhere in those regions; the intensity of the season compensates for its shortness; the sun is in the heavens twenty-four hours in the day, and all living things sprout and grow with amazing rankness and celerity under the strong compulsion of his continuous rays. Spring comes literally with a shout and a rush here in Alaska, and must cry even louder and stride even faster in the "ultimate climes of the pole." If the possibility of raising garden-truck and tubers constitutes a "farming country," then all the arctic regions not actually under glacial ice may be so classed.

Any one who visits the Koyukuk may see monster turnips and cabbages raised at Coldfoot, near the 68th parallel; from Sir William Parry's description we may feel quite sure that vegetables of size and excellence might be raised at the head of Bushnan's Cove of Melville Island, on the 75th parallel; he called it "an arctic paradise"; Greely reported "grass twenty-four inches high and many butterflies" in the interior of Grinnell Land under the 82d parallel; and if gold were ever discovered on the north coast of Greenland one might quite expect to hear that some enterprising Swede was growing turnips and cabbages at Cape Morris Jessup above the 83d parallel, and getting a dollar a pound for them.

In favourable seasons and in favourable spots of interior Alaska certain early varieties of Siberian oats and rye have been matured, and it stands to the credit of the Experiment Station at Rampart that a little wheat was once ripened there, though it took thirteen months from the sowing to the ripening. When the rest of the world fills up so that economic pressure demands the utilisation of all earth that will produce any sort of food, it may be that large tracts in Alaska will be put under the plough; but it is hard to believe that nine tenths of all this vast country will ever be other than wild waste land. At present the farming population is strictly an appendage of the mining population, and the mining population rather diminishes than increases.

Your health resort that no one will resort to is a dull place at best and a poor dependence for merchandising, so that the little town of Hot Springs is fortunate in having some mining country around it to fall back upon for its trade. We lay an extra day there, waiting for the stage from Fairbanks to break trail for us through the heavy, drifted snow, having had enough of trail breaking for a while. At midnight the stage came, two days late, and its coming caused me as keen a sorrow and as great a loss as I have had since I came to Alaska.

NANOOK'S DEATH

We knew naught of it until the next morning, when, breakfast done and the sled lashed, we were ready to hitch the dogs and depart. They had been put in the horse stable for there was no dog house; the health resorter, actual or prospective, is not likely to be a dog man one supposes; but they were loose in the morning and came to the call, all but one—Nanook. Him we sought high and low, and at last Arthur found him, but in what pitiful case! He dragged himself slowly and painfully along, his poor bowels hanging down in the outer hide of his belly, fearfully injured internally, done for and killed already. It was not difficult to account for it. When the horses came in at midnight, one of them had kicked the dog and ruptured his whole abdomen.

There was no use in inquiring whose fault it was. The dogs should have been chained; so much was our fault. But it was hard to resist some bitter recollection that before this "exploitation" of the springs, when there was a modest road-house instead of a mammoth hotel, there had been kennels for dogs instead of nothing but stables for horses.

I doubt if all the veterinary surgeons in the world could have saved the dog, but there was none to try; and there was only one thing to do, hate it as we might. Arthur and I were grateful that neither of us had to do it, for the driver of the mail stage, who had some compunctions of conscience, I think, volunteered to save us the painful duty. "I know how you feel," he said slowly and kindly; "I've got a dog I think a heap of myself, but that dog ain't nothin' to me an' I'll do it for you."

Nanook knew perfectly well that it was all over with him. Head and tail down, the picture of resigned dejection, he stood like a petrified dog. And when I put my face down to his and said "Good-bye," he licked me for the first time in his life. In the six years I had owned him and driven him I had never felt his tongue before, though I had always loved him best of the bunch. He was not the licking kind.

We hitched up our diminished team and pulled out, for we had thirty miles to make in the short daylight and we had lost time already; and as we crossed the bridge over the steaming slough we saw the man going slowly down to the river with the dog, the chain in one hand, a gun in the other. My eyes filled with tears; I could not look at Arthur nor he at me as I passed forward to run ahead of the team, and I was glad when I realised that we had drawn out of ear-shot.

All day as I trudged or trotted now on snow-shoes and now off, as the trail varied in badness, that dog was in my mind and his loss upon my heart, the feel of his tongue upon my cheek. It takes the close companionship between a man and his dogs in this country, travelling all the winter long, winter

after winter, through the bitter cold and the storm and darkness, through the long, pleasant days of the warm sunshine of approaching spring, sharing labour and sharing ease, sharing privation and sharing plenty; it takes this close companionship to make a man appreciate a dog. As I reckoned it up, Nanook had fallen just short of pulling my sled ten thousand miles. If he had finished this season with me he would have done fully that, and I had intended to pension him after this winter, to provide that so long as he lived he should have his fish and rice every day. Some doubt I had had of old Lingo lasting through the winter, but none of Nanook, and they were the only survivors of my original team.

THE TALKING DOG

Nanook was in as good spirits as ever I knew him that last night, coming to me and plumping his huge fore pawsdown on my moccasins, challenging me to play the game of toe treading that he loved; and whenever he beat me at it he would seize my ankle in his jaws and make me hop around on one foot, to his great delight. He was my talking dog. He had more different tones in his bark than any other dog I ever knew. He never came to the collar in the morning, he never was released from it at night, without a cheery "bow-wow-wow." And we never stopped finally to make camp but he lifted up his voice. There was something curious about that. Only two nights before, when we had been unable to reach the health resort owing to wind-hardened drifts right across the trail that overturned the heavy sled again and again, swing the gee pole as one would, and had stopped several times in the growing dusk to inspect a spot that seemed to promise a camping place, Arthur had remarked that Nanook never spoke until the spot was reached on which we decided to pitch the tent. What faculty he had of recognising a good place, of seeing that both green spruce and dry spruce were there in sufficient quantity, I do not know—or whether he got his cue from the tones of our voice—but he never failed to give tongue when the stop was final and never opened his mouth when it was but tentative.

I could almost tell the nature of any disturbance that arose from the tone of Nanook's bark. Was it some stray Indian dog prowling round the camp; was it the distant howling of wolves; was it the approach of some belated traveller—there was a distinct difference in the way he announced each. I well remember the new note that came into his passionate protest when he was chained to a stump at the reindeer camp, and the foolish creatures streamed all over the camping-ground that night. To have them right beside him and yet be unable to reach them, to have them brushing him with their antlers while he strained helplessly at the chain, was adding insult to injury. And he kept me awake over it all night and told me about it at intervals all next day.

The coat that dog had was the heaviest and thickest I ever saw. On his back the long hair parted in the middle, and underneath the hair was fur and underneath the fur was wool. He was an outdoors dog strictly. It was only in the last year or two that he could be induced voluntarily to enter a house; he seemed, like Mowgli, to have a suspicion of houses. And if he did come in he had no respect for the house at all. When first I had him he would dig and scratch out of a dog-house on the coldest night, if he could, and lay himself down comfortably on the snow. Cold meant little to him. Fifty, sixty, seventy below zero, all night long at such temperatures he would sleep quite contentedly. The only difference I could see that these low temperatures made to him was an increasing dislike to be disturbed. When he had carefully tucked his nose between his paws and adjusted his tail over all, he had gone to bed, and to make him take his nose out of its nest and uncurl himself was like throwing the clothes off a sleeping man. He never dug a hole for himself in the snow. I never saw a dog do that yet. In my opinion that is one of the nature-faker's stories. A dog lies in snow just as he lies in sand, with the same preliminary turn-round-three-times that has been so much speculated about. We always make a bed for them, when it is very cold, by cutting and stripping a few spruce boughs, and they highly appreciate such a couch and will growl and fight if another dog try to take it. They need more food and particularly they need more fat when they lie out at extreme low temperatures, and we seek to increase that element in their rations by adding tallow or bacon or bear's-grease—or seal oil—or whatever oleaginous substance we can come by.

CANINE CHARACTER

He was a most independent dog was Nanook, a thoroughly bad dog, as one would say in some use of that term—a thief who had no shame in his thievery but rather gloried in it. If you left anything edible within his ingenious and comprehensive reach he regarded it as a challenge. There comes to me a ludicrous incident that concerned a companion of one winter journey. He had carefully prepared a lunch and had wrapped it neatly in paper, and he placed it for a moment on the sled while he turned to put his scarf about him. But in that moment Nanook saw it and it was gone. Through the snow, over the brush, in and out amongst the stumps the chase proceeded, until Nanook was finally caught and my companion recovered most of the paper, for the dog had wolfed the grub as he ran. He would stand and take any licking you offered and never utter a sound but give a bark of defiance when you were done, and he would bear you no ill will in the world and repeat his offence at the next opportunity. Yet so absurdly sensitive was he in other matters of his person that the simple operation of clipping the hair from between his toes, to prevent the "balling-up" of the snow, took two men to perform, one to sit on the dog and the

other to ply the scissors, and was accompanied always with such howls and squeals as would make a hearer think we were flaying him alive.

Nanook's acquaintance with horses began in Fairbanks the first season I owned him, before I had had the harness upon him, when he was rising two years old. The dogs and I were staying at the hospital we had just established—because in those days there was nowhere else to stay—waiting for the winter. One of the mining magnates of the infancy of the camp (broken and dead long since; Bret Harte's lines, "Busted himself in White Pine and blew out his brains down in 'Frisco," often occur to me as the sordid histories of to-day repeat those of fifty years ago) had imported a saddle-horse and, as the mild days of that charming autumn still deferred the snow, he used to ride out past the hospital for a canter.

The dog had learned to lift the latch of the gate of the hospital yard with his nose and get out, and when I put a wedge above the latch for greater security he learned also to circumvent that precaution. And whenever the horse and his rider passed, Nanook would open the gate and lead the whole pack in a noisy pursuit that changed the canter to a run and brought us natural but mortifying remonstrance.

The rider had just passed and the dogs had pursued as usual, and I had rushed out and recalled them with difficulty. Nanook I had by the collar. Dragging him into the yard, shutting the gate, and putting in the wedge, I picked up a stick and gave him a few sharp blows with it. Then flinging him off, I said: "Now, you stay in here; I'll give you a sound thrashing if you do that again!" I was just getting acquainted with him then. The moment I loosed his collar the dog went deliberately to the gate, stood on his hind legs while he pulled out the wedge with his teeth, lifted the latch with his nose and swung open the gate, and standing in the midst turned round and said to me: "Bow-wow-wow-wow-wow-wow!" It was so pointed that a passer-by, who had paused to see the proceedings and was leaning on the fence, said to me: "Well, you know where you can go to. That's the doggonedest dog I ever seen!"

PARTNERS

It was a pleasure to come back to Nanook after any long absence—a pleasure I was used to look forward to. There was no special fawning or demonstration of affection; he was not that kind; that I might have from any of the others; but from none but Nanook the bark of welcome with my particular inflection in it that no one else ever got. "Well, well; here's the boss again; glad to see you back"; that was about all it said. For he was a most independent dog and took to himself an air of partnership rather than subjection. Any man can make friends with any dog if he will, there is no question about that, but it takes a long time and mutual trust and mutual

forbearance and mutual appreciation to make a partnership. Not every dog is fit to be partner with a man; nor every man, I think, fit to be partner with a dog.

Well, that long partnership was dissolved by the horse's hoof and I was sore for its dissolution. There was none left now that could remember the old days of the team save Lingo, and he grew crusty and somewhat crabbed. He was still the guardian of the sled, still the insatiable hand-shaker, but he grew more and more unsocial with his mates, and we heard his short, sharp, angry double bark at night more frequently than we used to. He reminded me of the complaining owl in Gray's "Elegy." He resented any dog even approaching the sled, resented the dogs moving about at all to disturb his "ancient solitary reign."

His work was well-nigh done, and old Lingo had honestly earned his rest. With the end of this winter he would enter upon the easy old age that I had designed for both of them. Lingo had never failed me; never let his traces slack if he could keep them taut, never in his life had whip laid on his back to make him pull; a faithful old work dog for whom I had a hearty respect and regard. But he never found his way to my heart as Nanook did. I loved Nanook, and had lost something personal out of my life in losing him. There are other dogs that I am fond of—better dogs in some ways that either Nanook or Lingo, swifter certainly—but I think I shall never have two dogs again that have meant as much to me as these two. All the other dogs were of the last two years and thought they belonged to Arthur, who fed them and handled them most. But Nanook and Lingo had seen boys come and boys go, and they knew better.

Six years is not very much of a man's life, but it is all a dog's life; all his effective working life. Nanook had given it all to me, willingly, gladly. He pulled so freely because he loved to pull. He delighted in the winter, in the snow and the cold; rejoiced to be on the trail, rejoiced to work. When we made ready to depart after a few days at a mission or in a town, Nanook was beside himself with joy. He would burst forth into song as he saw the preparations in hand, would run all up and down the gamut of his singular flexible voice, would tell as plainly to all around as though he spoke it in English and Indian and Esquimau that the inaction had irked him, that he was eager to be gone again.

Well, he was dead; as fine a dog as ever lived; as faithful and intelligent a creature as any man ever had, not of human race, for servant, companion, and friend. And I thought the more of myself that he had put his tongue to my cheek when I said good-bye to him.

THE AMATEUR PHOTOGRAPHER

Here on the Tanana was one of the most interesting original characters of the many in the land: an old inhabitant of Alaska and of the Northwest who had followed many avocations and was now settled down on the river bank, with a steamboat wood-yard, a road-house for the entertainment of occasional travellers, and a little stock of trade goods chiefly for Indians of the vicinity. A round, fat, pursy man he was, past the middle life, with a twinkling eye and a bristling moustache, and a most amazing knack of picking up new words and using them incorrectly. He had fallen out with the great trading company of Alaska and did almost all his purchasing from a "mail-order house" in Chicago, the enormous quarto catalogue on the flimsiest thin paper issued by that establishment being his chief book of reference and his choice continual reading. He would declaim by the hour on the iniquitous prices that prevail in the interior and had the quotations of prices of every conceivable merchandise from his vade mecum at his fingers' ends.

But his chief passion of the past two or three years was photography, in the which he had made but little progress, despite considerable expenditures; and he had come to the conclusion about the time of our visit that what he needed was a fine lens, although, as a matter of fact, he had never learned to use his cheap one. He had recently become acquainted with sensitive film and had ordered a supply. By a transposition of letters, which the nature of the substance doubtless confirmed in his mind when it arrived, he always spoke of these convenient strips of celluloid as "flims," and was just now most eloquently indignant that, although he had broken utterly with the Northern Commercial Company and refused to trade with them at all, the supply of "flims" he had received from the mail-order house were labelled "N. C." "Them blamed monopolists has cornered the flims," he exclaimed, and was hardly persuaded that the letters signified "non-curling" and did not darkly hint at a conspiracy in restraint of trade.

He produced and displayed a number of pieces of apparatus of a generally useless kind which he had ordered on the strength of their much advertising, and he observed sententiously, "We armatures get badly imposed upon." Here were patent gimcrack printing devices, although he had scarce anything worth printing; all sorts of atrocious fancy borders with which he sought in vain to embellish out-of-focus under-exposures; orthochromatic filters and colour screens with which he was eliminating undesirable rays, although the chief thing his negatives lacked was light of any kind. His soiled and stained development trays were scattered about a large table amidst dirty cups and saucers and plates and dishes, while at the other end of the table, surmounting a pile of thumbed and greasy

magazines and newspapers, lay the monstrous mail-order catalogue with pencilled indications of further apparatus to be purchased.

But his zeal and enthusiasm and resolute riding of his hobby were very attractive. If he ever gets out of his head the notion that success depends upon apparatus he will doubtless become a photographer of sorts. Enthusiasm of any kind other than mining and "mushing" enthusiasm is so rare in this land that it is welcome even when it seems wasted. He had recently discovered the wax match in his catalogue, and as a parting gift he presented me with a box of "them there wax vespers which beats the sulphur match all to thunder."

THE SULPHUR MATCH

But they do not. Nothing in this country can take the place of the old-fashioned sulphur match, long since banished from civilised communities, and the sulphur match is the only match a man upon the trail will employ. Manufactured from blocks of wood without complete severance, so that the ends of the matches are still heldtogether at the bottom in one solid mass, it is easy to strip one off at need and strike it upon the block. A block of a hundred such matches will take up much less space than fifty of any other kind of match, and the blocks may be freely carried in any as they are commonly carried in every pocket without fear of accidental ignition. The only fire producer that it is worth while supplementing the sulphur match with is the even older-fashioned flint and steel, which to a man who smokes is a convenience in a wind. All the modern alcohol and gasoline pocket devices are extinguished by the lightest puff of wind, but the tinder, once ignited, burns the fiercer for the blast. With dry, shredded birch-bark I have made a fire upon occasion from the flint and steel. One resource may here be mentioned, since we are on the subject, which is always carried in the hind-sack of my sled against difficulty in fire making. It is a tin tobacco-box filled with strips of cotton cloth cut to the size of the box and the whole saturated with kerosene. One or two of these strips will help very greatly in kindling a fire when damp twigs or shavings are all that are at hand. A few camphor balls (the ordinary "moth balls") will serve equally well; and there may come a time, on any long journey, when the forethought that has provided such aid will be looked back upon with very great satisfaction.

The mail trail from Tanana to Fairbanks touches the Tanana River only at one point, a few miles beyond the Hot Springs; but, as we wished to visit Nenana, we had to leave the mail trail after two days more of uneventful travel and strike out to the river and over its surface for seventeen or eighteen miles.

A NOTABLE GENTLEWOMAN

Nenana is a native village situated on the left bank of the Tanana, a little above the confluence of the Nenana River with that stream, and we have established an important and flourishing school there which receives its forty pupils from many points on the Yukon and Tanana Rivers. None but thoroughly sound and healthy children of promise, full natives or half-breeds, are received at the school, and we seek to give both boys and girls opportunity for the cultivation of the native arts and for some of the white man's industrial training, in addition to the ordinary work of the schoolroom. The school was started and had the good fortune of its first four years' life under the care of a notable gentlewoman, Miss Annie Cragg Farthing, who was yet at its head at the time of this visit, but who died suddenly, a martyr to her devotion to the children, a year later; and a great Celtic cross in concrete, standing high on the bluff across the river, now marks the spot of her own selection—a spot that gives a fine view of Denali—where her body rests, and also the Alaskan mission's sense of the extraordinary value of her life.

It would be easy to give striking instances of the potency and stretch of this remarkable woman's influence amongst the native people, an influence—strange as it may sound to those who deem any half-educated, under-bred white woman competent to take charge of an Indian school—due as much to her wide culture, her perfect dignity and self-possession, her high breeding, as to the love and consecrated enthusiasm of her character. It is no exaggeration to say that Miss Farthing's work has left a mark broad and deep upon the Indian race of this whole region that will never be wiped out.

There is no greater pleasure than to spend a few days at this school; to foregather again with so many of the hopeful young scamps that one has oneself selected here and there and brought to the place; to mark the improvement in them, the taming and gentling, the drawing out of the sweet side of the nature that is commonly buried to the casual observer in the rudeness and shyness of savage childhood. To romp with them, to tell them tales and jingles, to get insensibly back into their familiar confidence again, to say the evening prayers with them, to join with their clear, fresh voices in the hymns and chants, is indeed to rejuvenate oneself. And to go away believing that real strength of character is developing, that real preparation is making for an Indian race that shall be a better Indian race and not an imitation white race, is the cure for the discouragement that must sometimes come to all those who are committed heart and soul to the cause of the Alaskan native. School-teachers, it would seem, ought never to grow old; they should suck in new youth continually from the young life around them; and children are far and away the most interesting things in the world, more interesting even than dogs and great mountains.

CHIVALROUS INDIAN YOUTH

All the boys in the school, I think, swarmed across the river with us when we started away early in the morning,and the elder ones ran with the sled along the portage, mile after mile, until I turned them back lest they be late for school.

But when they were gone, still I saw them, saw them gathered round the grey-haired lady I had left, fawning upon her with their eyes, their hearts filled with as true chivalry as ever animated knight or champion of the olden time. Tall, upstanding fellows of sixteen or seventeen, clean-limbed and broad-shouldered, wild-run all their lives; hunters, with a tale of big game to the credit of some of them would make an English sportsman envious; unaccustomed to any restraint at all and prone to chafe at the slightest; unaccustomed to any respect for women, to any of the courtesies of life, I saw them fly at a word, at a look, to do her bidding, saw cap snatched from head if they encountered her about the buildings, saw them jump up and hold open the door if she moved to pass out of a room, saw the eager devotion that would have served her upon bended knee had they thought it would please her. It was wonderful, the only thing of quite its kind I had ever seen in my life.

When early in the school's history an old medicine-man at Nenana had been roused to animosity by her refusal to countenance an offensive Indian custom touching the adolescent girls, and had defiantly announced his intention to make medicine against her, I can see her now, her staff in her hand, attended by two or three of her devoted youths, invading the midnight pavilion of the conjurer, in the very midst of his conjurations, tossing his paraphernalia outside, laying her staff smartly across the shoulders of the trembling shaman, and driving the gaping crew helter-skelter before her, their awe of the witchcraft overawed by her commanding presence. I make no apology that I thought of the scourge of small cords that was used on an occasion in the temple at Jerusalem, when I heard of it. It gave a shrewder blow to the lingering tyrannical superstition of the medicine-man than decades of preaching and reasoning would have done. No man living could have done the thing with like effect, nor any woman save one of her complete self-possession and natural authority. The younger villagers chuckle over the jest of it to this day, and the old witch-doctor himself was crouching at her feet and, as one may say, eating out of her hand, within the year.

I saw these boys again, in my mind's eye, gone back to their homes here and there on the Yukon and the Tanana after their two or three years at this school, carrying with them some better ideal of human life than they could ever get from the elders of the tribe, from the little sordid village trader, from

most of the whites they would be thrown with, keeping something of the vision of gentle womanhood, something of the "unbought grace of life," something of the keen sense of truth and honour, of the nobility of service, something deeper and stronger than mere words of the love of God, which they had learned of her whom they all revered; each one, however much overflowed again by the surrounding waters of mere animal living, tending a little shrine of sweeter and better things in his heart.

LONG-REMEMBERED TEACHING

Here, three years after the visit and the journey narrated, when these words are written with diaries and letters and memoranda around me, I am just come from a long native powwow, a meeting of all the Indians of a village for the annual election of a village council, important in the evolution of that self-government we covet for these people, but undeniably tedious. And, because at our missions we seek to associate with us every force that looks to the betterment of the natives, we had invited the new government teacher, a lady of long experience in Indian schools, to be present. She had sat patiently through the protracted meeting, and at its close, when she rose to go, a young Indian man jumped up and held her fur cloak for her and put it gently about her shoulders. When she had thanked him she asked with a smile: "Where did you learn to be so polite?" A gleam came into the fellow's eyes, then he dropped them and replied, "Miss Farthing taught me."

Two days before, returning from a journey, I had spent the night at a road-house kept by a white man married to an Indian woman. There was excellent yeast bread on the table, and good bread is a rare thing in Alaska. "Where did you learn to make such good bread?" I inquired of the woman. There came the same light to her eyes and the same answer to her lips. Yet it was nine years ago, long before the school at Nenana was started, that this Indian boy and girl had been under Miss Farthing's teaching at Circle City.

They tell us there is no longer much place or use for gentility in the world, for men and women nurtured and refined above the common level; tell us in particular that woman is only now emancipating herself from centuries of ineffectual nonage, only now entering upon her active career.

Yet I am of opinion, from such opportunities to observe and compare as my constant travel has given me, that the quiet work of this gracious woman of the old school, with her dignity that nothing ever invaded and her poise that nothing ever disturbed, is perhaps the most powerful single influence that has come into the lives of the natives of interior Alaska.

Two days brought us past the little native village and mission at Chena (which is pronounced Shen-aw̆), past the little white town of the same name,

to Fairbanks, the chief town of interior Alaska. Chena is at the virtual head of the navigation of the Tanana River and is quite as near to the gold-producing creeks as Fairbanks, which latter place is not on the Tanana River at all but on a slough, impracticable for almost any craft at low water. For every topographical reason, from every consideration of natural advantage, Chena should have been the river port and town of these gold-fields. But Chena was so sure of her manifold natural advantages that she became unduly confident and grasping. When the traders at Fairbanks offered to remove to Chena at the beginning of the camp, if the traders at Chena would provide a site, the offer was scornfully rejected. "They would have to come, anyway, or go out of business." But they did not come; rather they put their backs up and fought. And because Fairbanks was enterprising and far-sighted, while Chena was avaricious and narrow, because Fairbanks offered free sites and Chena charged enormously for water-front, business went the ten miles up the often unnavigable slough and settled there, and by and by built a little railway that it might be independent of the uncertain boat service. The company came, the courts came, the hospital came, the churches came, and Chena woke up from its dreams of easy wealth to find itself and its manifold natural advantages passed by and ignored and the big town firmly established elsewhere.

How well I remember the virulent little newspaper published at Chena in those days and the bitterness and vituperation it used to pour out week by week! One wishes a file of it had been preserved. Alaskan journalism has presented many amusing curiosities that no one has had leisure to collect, but nothing more amusing than the frenzy of impotent wrath Chena vented when it saw its cherished prospects and opportunities slipping out of its grasp for ever.

"If of all words on tongue or pen,

The saddest are 'it might have been,'

Full sad are those we often see,

It is, but it hadn't ought to be."

It takes Bret Harte to strike the note for such rivalry and such disappointment.

CHAPTER IX

TANANA CROSSING TO FORTYMILE AND DOWN THE YUKON—A PATRIARCHAL CHIEF—SWARMING CARIBOU—EAGLE AND FORT EGBERT—CIRCLE CITY AND FORT YUKON

FAIRBANKS was a different place in 1910 from the centre of feverish trade and feverish vice of 1904-5, when the stores were open all day and half the night and the dance-halls and gambling dens all night and half the day; when the Jews cornered all the salt and all the sugar in the camp and the gamblers all the silver and currency; when the curious notion prevailed that in some mysterious way general profligacy was good for business, and the Commercial Club held an indignation meeting upon a threat of closing down the public gaming and refusing liquor licences to the dance-halls, and voted unanimously in favour of an "open town"; when a diamond star was presented to the "chief of police" by the enforced contributions of the prostitutes; when the weekly gold-dust from the clean-ups on the creeks came picturesquely into town escorted by horsemen armed to the teeth. The outward and visible signs of the Wild West are gone; the dance-halls and gambling tables are a thing of the past; the creeks are all connected with Fairbanks by railway and telephone; an early closing movement has prevailed in the shops; and the local choral society is lamenting the customary dearth of tenors for its production of "The Messiah."

Despite the steady decline in the gold output of late years, a drop of from twenty millions down to four or five, there is little visible decay in its trade, and despite stampedes to new diggings all over Alaska, there is no marked visible diminution in its population, though as a matter of fact both must have largely fallen off. The thing that more than any other has sustained the spirits and retained the presence of the business men is the expectation that seems to grow brighter and brighter, of the development of a quartz camp now that the placers are being exhausted. And in that hope lies the chance of Fairbanks to become the one permanent considerable town of interior Alaska. It is a substantial place, with good business houses and many comfortable homes electric-lit, steam-heated, well protected against fire—better than against flood—and, though it does not display the style and luxury of the palmy days of Nome, it has amenities enough to make disinterested visitors and passers-by wish that its hard-rock hopes may be realised.

FAIRBANKS

The little log church that is still, as a local artist put it, "the only thing in Fairbanks worth making a picture of," no longer stands open all day and all night as the town's library and reading-room, but has withdrawn into decorous Sabbath use in favour of the commodious public library built by a

Philadelphia churchman; the hospital adjoining it, that for two or three years cared for all the sick of the camp, is supplemented by another and a larger across the slough; young birch-trees have been successfully planted all along the principal streets, and the front yards everywhere are ablaze with flowers the summer through. You may eat hot-house lettuce and radishes in March; hot-house strawberries (at about ten cents apiece) in July and August; while common outdoor garden-truck of all kinds is plentiful and good in its short season.

We had another canine misfortune while we lay there. Doc, one of our leaders, got his chain twisted around his foot the night before we were to leave, and, in pulling to free it, stopped the circulation of the blood and the foot froze. It was as hard as wood and sounded like wood when it hit the sidewalks, from which the snow had been cleared, as the dog came limping along. An hour's soaking in cold water drew the frost out of the foot, and we swathed it in cotton saturated with carron oil, upon which it swelled so greatly that it was impossible to tell the extent of the injury or to determine whether or not the dog would ever be of use again. A kindly nurse at the hospital undertook his care, and we left him behind. One does not buy a dog so late in the season, with all the idle summer to feed him through, if any shift can be made to avoid it, and there was a Great Dane pup at the Salchaket, forty miles away, that I might pick up as I passed and perhaps make some use of for the remainder of the winter.

That mission was the next stop on our journey, and we reached it over the level mail trail, the chief winter highway of Alaska, connecting Fairbanks with Valdez on the coast. Three times a week there is a horse stage with mail and passengers passing over this trail each way, together with much other travel. The Alaska Road Commission has lavished large sums of money upon it, and the four hundred miles or thereabout is made in a week.

THE SALCHAKET

A day and a half brought us to the Salchaket, one of a chain of missions along the Tanana River, established by the energy and zeal of the Reverend Charles Eugene Betticher, Jr., during his incumbency at Fairbanks, that have already brought a great change for the better in native conditions. Five years had elapsed since last I visited this tribe, a reconnoitring visit on one of the first steamboats that ever went up the Tanana River above Fairbanks, and it was a delight to see the new, clean village with the little gardens round the cabins, and to note the appreciative attitude which the Indians showed. So highly do they value the missionary nurse in charge that however far afield their hunting may lead them, one of their number is sent back every week to see that the mission does not lack wood and water and meat; a simple, docile, kindly people that one's heart warms to.

This mission was our last outpost to the south. My farther journey had for its prime object the visiting of the natives of the upper Tanana as far as the Tanana Crossing, some two hundred and fifty miles beyond the Salchaket, the inquiring into their condition and into the desirability of establishing a post amongst them.

THE UPPER TANANA

The upper Tanana is probably one of the most difficult streams in the world to navigate that can by any stretchof the term be called navigable. The great Alaskan range begins to approach the Tanana River so soon as one gets above Fairbanks. Its prominent peaks, ten thousand to twelve thousand feet high, are continually in view from one angle to another as one pursues the river trail, and come constantly nearer and nearer. All the streams that are confluent with the Tanana on its left bank are glacial streams draining the high ice of these mountains. They come down laden thick with silt, at times foaming torrents, at times merely trickling watercourses that seam with numerous small runnels the wide deltas at their mouths. The tributaries of the right bank flow for the most part through heavily wooded country, and come out cleanly into the river. So the glacial waters form shoals and bars, and the woodland waters during freshets pile them high with driftwood. Such is the chief characteristic of the upper Tanana; a multiplicity of swift, narrow channels amidst bars laden with drift. It is subject to sudden rises of great violence; the attempt to stem a freshet on the upper Tanana is a hair-raising experience as the log of thePelican would show, but does not come within this narrative. Owing to the origin of much of its water, the Tanana is often in flood in dry, hot seasons, when other rivers run meagrely, as well as in times of rain. It cannot be stemmed in flood; its shoals deny passage in drouth; there must be just the right stage of water to permit its navigation, and that stage, "without o'erflowing, full," is not often found of duration to serve the voyage after the month of June.

A river difficult to navigate in summer is usually a river difficult to travel upon in winter, and the upper Tanana is notoriously dangerous and treacherous. Scarce a winter or a summer that it does not claim victims. It is emphatically a "bad river." Therefore, as far as there is any travel to speak of, land trails parallel the river. Past Richardson where the next night is spent, a decayed mining and trading town that dates back to the stampedes of 1905-6 when it was thought the upper Tanana would prove rich in gold, past Tenderfoot Creek on which the discoveries were made, past the mouth of the Big Delta with the great bluff on the opposite shore and the rushing black water at its foot that never entirely closes all the winter, and on the other hand the wide barrens of the Big Delta itself giving the whole fine sweep of the Alaskan range, we came at length to McCarthy's, the last telegraph station on the river,—for the line strikes across country thence to

Valdez following the government trail,—and there spent another night, and here we leave the government-made trail and take to the river surface and the wilderness.

Twelve miles through the woods along the left bank of the river brought us to the aptly named Clearwater Creek, a tributary that comes only from the foot-hills and carries no glacial water. This stream by reason of hot springs runs wide open all the winter and must be crossed by a ferry—a raft on a heavy wire. The man who owned the ferry and the house adjacent was gone from home, so we proceeded to cross as best we could. The raft was so small that first we took the dogs across then unloaded the sled and took part of the load, and returned for the remainder and the sled itself. Finally a canoe was loaded on the raft and, when it had been moored on the side we found it, Arthur paddled himself back. It was a strange scene, rafting and paddling a canoe in interior Alaska on the 2d of March, with the thermometer at -15°. Some eight miles farther along the portage trail we came to a little cabin about dusk, but disdaining its dirt and darkness we pitched our tent.

Another eighteen miles the next day is noted in my diary for pleasant woodland travel and for the particular interest of the numerous animal tracks we passed. Here a moose had crossed the trail, ploughing through the snow like a great cart-horse; here for two or three miles a lynx had urgent business in the direction of the Healy River. A lynx will always follow a trail if there be one, and will pick out the best going on the ice or snow in the absence of trail. I once followed a lynx track from the head of the Dall River to its mouth, and, save for turning aside occasionally to investigate a clump of willows or brush, the lynx was an excellent guide. Here were rabbit tracks and every now and then the little sharp tracks of a squirrel. We stopped for lunch under a tall cottonwood-tree, and Arthur pointed out that the trunk, up to a high crotch, was all seamed by bear claws. He said that the black bear climbed the same tree season after season, and told me that, according to the Indians, this was chiefly done when first he came from his winter den,—for the purpose of getting his bearings, as the boy suggested with a chuckle. A fox, a marten, and a weasel had all passed across lately, and of course then came the exclamation that scarce fails from native lips when a fox track is seen: "I wonder if it were a black fox!" A black fox means sudden wealth beyond the dreams of avarice to an Indian, and any fox track may be the track of a black fox.

The end of that portage brought us out on the Tanana River opposite the little trading-post at the mouth of the Healy—the last post of any kind we should see.

INDIAN TRADERS

The trader, by whom we were hospitably entertained, had heard of our projected occupation of the upper Tanana, and alert to his own interests, was anxious to know the plans for the establishment of a mission—plans which were yet all to make. He naturally favoured this spot, which it was already plain was quite out of the question, but professed his readiness to move to any place that we might decide upon, and his entire sympathy and co-operation.

The question of the trader, which always arises upon the establishment of a new mission site, is an important and sometimes a vexatious one, for he wields an influence amongst the Indians second only to that of the mission itself, and may be either a great help or a great hindrance. There is a natural desire to secure a man of character for the new post, and at the same time a natural reluctance to disturb vested interests and arouse bitter enmity by diverting trade. The suggestion has often been made that the mission should itself undertake a store in the interest of the natives, but those with most experience in such matters will agree that it is the wisdom of the bishop that sets his face against mission trading. The two offices are so essentially dissimilar as to be almost incompatible with one another; either the person in charge is a missionary first and a trader afterwards, in which case the store suffers, or he is a trader first and a missionary afterwards, in which case he is not a missionary at all. A clean, sober, and honest trader, content to take his time about getting rich, is a blessing to an Indian community. There are some such, one thinks, but they are not numerous. The profits are large, though the turnover is but one a year; the capital required is small; it is a life with much leisure; but in the main it attracts only a certain class of men.

A band of Indians to whom word of our visit had been sent had come down the river this far to meet us and escort us, but dog food was scarce and our arrival was delayed, and they had been compelled to return to their hunting camp whither we must follow them. We were now farther up the Tanana River than either of us had ever been before; the country had the fascination of a new country; every bend of the river held unknown possibilities, and the keenness and elation that only the penetration of a new country brings were upon the boy as well as upon myself.

The river and the mountains were already drawn much closer together, and as we pursued our journey upon the one we had continual fine views of the other. The going was good—too good—for much of it was new ice and spoke of recent overflow, and all too soon we came upon the water. At the mouth of the Johnson River, one of the glacial streams, the whole river was overflowed, and we waded for a mile through water that deepened

continually until there was risk of wetting our load. Then we were compelled to take to the woods and to cut a portage around the worst and deepest of it, and so passed beyond it to good ice and to an empty cabin where we spent the night, glad to be sheltered from an exceedingly bitter wind that had blown all day and had taken all the pleasure out of travel.

THE THERMOS BOTTLES

It is in such weather particularly that the thermos flasks prove such a boon to the musher. To stop and build a fire in the wind means to get chilled through. There is no pleasure in it at all, and I would rather push on until the day's journey is done. But the native boy must have his lunch, and will build a fire in any sort of weather and make a pot of tea. The thermos bottle, with its boiling-hot cocoa, gives one the stimulation and nourishment that are desired without stopping for more than a few moments. I have carried a pair of these bottles all day at 60° below zero, and, when opened, snow had to be put into the cocoa before it was cool enough to drink. Of course it is perfectly simple—all the astonishing things are—but I never open one of those bottles in the cold weather and pour out its contents without marvelling at it.

We left the river and struck inland towards the foot-hills of the Alaskan range, a long, rough journey over a trail that had been made by the band that came out to the Healy to meet us, and had been travelled no more than by their coming and going. The snow in this region had been as much lighter than usual as the snow in the Koyukuk had been heavier. Through the tangle of prostrate trunks of a burned-over forest and the dense underbrush that follows such a fire, with not enough snow to give smooth passage over the obstacles, we made our toilsome way, the labour of the dogs calling for the continual supplement of the men, one at the gee pole and one at the handle-bars. Some twenty miles, perhaps, a long day's continuous journey, we pushed laboriously into the hills and then pitched our tent; but in a few miles, next morning, we had struck the main Indian trail from the village near the Tanana Crossing, by which the hunting party had come, and what little was left of the journey went easily enough until we reached the considerable native encampment.

The men were all gone after moose save one half-naked, blear-eyed old paralytic, a dreadful creature who shambled and hobbled up asking for tobacco. The women were expecting us, however, and took the encamping out of our hands entirely, setting up the tent, hauling stove wood and splitting it up, making our couch of spruce boughs, starting a fire, and bringing a plentiful present of moose and caribou meat for ourselves and our dogs. Nothing could have been kinder than our reception; the full hospitality of the wilderness was heaped upon us. It was not until dark that

the men returned, and we had all the afternoon to get acquainted with the women and children. Already the chief difficulty we had to encounter presented itself. These people did not speak the language of the lower Tanana and middle Yukon—Arthur's language—at all. Their speech had much more affinity with the upper Yukon language, and it dawned upon me that they were not of the migration that had pushed up the Tanana River from the Yukon, as all the natives as far as the Salchaket certainly did, were not of that tribe or that movement at all, but had come across country by the Ketchumstock from the neighbourhood of Eagle—the route we should return to the Yukon by—and were of the Porcupine and Peel River stock. This was certainly a surprise; I had deemed all the Tanana River Indians of the same extraction and tongue, but the stretch of bad water from the Salchaket to the Tanana Crossing was evidently the boundary between two peoples.

CHIEF ISAAC

That night we met Chief Isaac and the principal men of his tribe. At first it seemed that such broken English as three or four of them had would be our only medium of intercourse, but later one was discovered who had visited the lower Tanana and the Yukon and who understood Arthur indifferently well, and by the double interpretation, halting and inefficient, but growing somewhat better as we proceeded, it was possible to enter into communication. These preliminaries arranged, the chief made a set speech of dignity and force. He thanked me for coming to them, and regretted he had not been able to wait longer at the Healy River to help us to his camp. When he was a boy he had been across to the Yukon and had seen Bishop Bompas, and had been taught and baptized by him, but he was an old man now and he had forgotten what he had learned. I was the first minister most of his people had ever seen. They heard that Indians in other places had mission and school, and they had felt sorry a long time that no one came to teach them; for they were very ignorant, little children who knew nothing, and when they heard a rumour that a mission and school would be brought to them their hearts were very glad. Wherever we should see fit to "make mission," there he and his people would go, and would help build for us and help us in every way; but he hoped it would be near Lake Mansfield and the Crossing, where most of them lived at present. Farther down the river was not so good for their hunting and fishing, but they would go wherever we said. That was the burden of the chief's speech.

I took a liking to the old man at once. He was evidently a chief that was a chief. The chieftainship here was plainly not the effete and decaying institution it is in many places on the Yukon. He spoke for all his people without hesitation or question, and one felt that what he said was law amongst them.

There followed for two days an almost continuous course of instruction in the elements of the Christian faith and Christian morals, all day long and far into the night, with no more interval than cooking and eating required. In the largest tent of the encampment, packed full of men and women, the children wedged in where they could get, myself seated on a pile of robes and skins, my interpreters at my side, my hearers squatted on the spruce boughs of the floor, the instruction went on. As it proceeded, the interpretation improved, though it was still difficult and clumsy, as speaking through two minds and two mouths must always be. Whenever I stopped there was urgent request to go on, until at last my voice was almost gone with incessant use. Over and over the same things I went; the cardinal facts of religion—the Incarnation, the Crucifixion, the Resurrection, the Ascension; the cardinal laws of morality—the prohibition of murder, adultery, theft, and falsehood; that something definite might be left behind that should not be lost in the vagueness of general recollection, and always with the insistence that this was God's world and not the devil's world, a world in which good should ultimately prevail in spite of all opposition.

SAVAGE, HEATHEN, PAGAN

It is at once a high privilege and a solemn responsibility to deal with souls to whom the appeal of the Christian religion had never before been made, as were most of my hearers. One cannot call them "heathen." One never thinks of these Alaskan natives as heathen. "Savage" and "heathen" and "pagan" all meant, of course, in their origin, just country people, and point to some old-time, tremendous superciliousness of the city-bred, long since disappeared, except, perhaps, from such places as Whitechapel and the Bowery. A savage is simply a forest dweller, a heathen a heath dweller, and for a large part of each year I come, etymologically, within the terms myself. But with its ordinary implication of ferocity and bloodthirstiness it is absurd to apply the word "savage" to the mild and gentle Alaskan Indian, and, with its ordinary implication of bowing down to wood and stone, it is misleading to apply the term "heathen" to those who never made any sort of graven image.

Much has been written, and cleverly written, about the Alaskan Indian that is preposterously untrue. Arthur, my half-breed boy, had recently been reading a story by Jack London, dealing with the Indians in the vicinity of Tanana, where he was bred and born, and his indignation at the representation of his people in this story was amusing. The story was called The Wit of Porportuk, and it presented a native chief in almost baronial state, with slaves waiting upon him in a large banqueting hall and I know not what accumulated wealth of furs and gold. Such pictures are far more flagrantly untrue to any conditions that ever existed in Alaska than anything Fenimore Cooper wrote about the Five Nations. There were never any slaves in the interior; there was never any wealth amongst the Indians; there was

never any state and circumstance of life. And the more one lives amongst them and knows them, the less one believes that they could ever have been a warlike people, despite their own traditions. Sporadic forays, fostered by their ignorant dread of one another or stirred up by rival medicine-men, there may have been between different tribes—and there certainly were between the Indians and the Esquimaux—with ambuscade and slaughter of isolated hunting parties that ventured too far beyond the confines of their own territory; and one such affair would furnish tradition for generations to dilate upon. I have myself found all the men of Nulato gone scouting, or hiding—I could not determine which—in the hills with their guns, upon a rumour that the "Huskies," or Esquimaux, were coming; I have known the Indians of the Yukon and the Tanana, and as far as the Koyukuk, excited and alarmed over the friendly visit of a handful of ragged natives from the Copper River to Nenana at Christmas time, although in either case it must certainly have been fifty years since there was any actual hostile incursion, and probably much longer.

A GENTLE, TIMID PEOPLE

They are a very timid people, and an exceedingly peaceable people. Years and years may be spent amongst them without knowledge of a single act of violence between Indian men; they do not quarrel and fight. Bold enough in the chase, willing to face dangers of ice and water and wild beast, they have a dread of anything like personal encounter, and will submit to a surprising amount of imposition and overbearing on the part of a white man without resorting to it. I knew a certain white man who claimed a whole river valley north of the Yukon as his, who warned off hunting parties of Indians who ventured upon it, and made them give up game killed in "his territory." They came to the mission and complained about it, but they never withstood the usurper. It ought to be added that it always appeared more as the making good of a practical joke than as a serious pretension, but the point is—the Indians submitted.

So far as these natives of the interior are concerned they were never idolaters. I cannot find that they had any distinct notion of worship at all. Their religion had root in a certain frantic terror of the unknown, and found expression in ceaseless efforts to propitiate the malign spirits surrounding them on every side. Thus they were given over to the mastery of those amongst them who had the traditional art of such propitiation, and fell more or less completely under that cruellest and most venal of sways, the tyranny of the witch-doctor. It is impossible to doubt, and hard to exaggerate, the grinding and brutal exactions to which this rule led. Anything that a man possessed might be demanded and must be yielded, on pain of disease and death, even to the whole season's catch of fur or the deflowering of a young

daughter. The utmost greed and lust that can disgrace humanity found its Indian expression in the lives of some of these medicine-men.

Since every sort of tyranny has its vulnerable spot, since the despotism of Russia was tempered by assassination and of Japan by the effect of public suicide, so melioration of the tyranny of the medicine-man seems to have been found in rivalry amongst members of the craft itself. Oppressed beyond endurance by one practitioner, allegiance would be transferred to some new claimant of occult powers, and the breaking of the monopoly of magic would be followed by a temporary lightening of the burdens. Some of the most lurid of Alaskan legends deal with the thaumaturgic contests of rival medicine-men, and one judges that sleight of hand and even hypnotic suggestion were cultivated to a fine point.

To such minds the Christian teaching comes with glad and one may say instantaneous acceptance. Their attitude is entirely childlike. They are anxious to be told more and more about it, to be told it over and over again. There is never the slightest sign of incredulity. It does not occur to them as possible that a man should be sent all this way to them, should hunt them up and seek them out to tell it to them, unless it were true. And one learns over again how universal is the appeal the Christian religion, and in particular the Life of Our Lord, makes to mankind. I have seen Indians and Esquimaux mixed, hearing for the first time the details of the Passion, stirred to as great indignation as was that barbarian chieftain who laid his hand on his sword and cried, "Would I and my men had been there!" or those Western cowboys, so the story runs, bred in illiteracy and irreligion, to whose children a school-teacher had given an account of the same great events, and who rode up to the schoolhouse the next day with guns and ropes, and asked: "Which way did them blamed Jews go?"

The medicine-man lies low; may himself profess acceptance of the new teaching, may even really accept it (for it is very hard, indeed, to follow and judge all the mental processes of an Indian)—yes, though it expressly sweep all his devils away, out of the sick, out of the wind and storm, from off every grave mound, though it leave him no paltry net-tearing or trap-springing sprite to work upon with his conjurations; yet the old superstition dies hard, often crops up when one had thought it perished, and even sometimes maintains itself, sub rosa, side by side with definite, regular Christian worship.

THE OLD, OLD STORY

The arctic explorer Stefanson, a careful and acute observer who has had exceptional opportunities for observation of the intimate life of the Esquimaux, has written much lately of the grafting of Christianity upon native superstition and the existence of both together, as though it were

some new thing or newly noticed by himself. Yet every one familiar with the history of Christianity knows that it has characterised the progress of religion in all ages. There was never a people yet that did not in great measure do this thing, nor is it reasonable to suppose that it could have been otherwise. It is impossible to make a tabula rasa of men's minds. It is impossible to uproot customs of immemorial antiquity without leaving some rootlets behind. And what is acquired joins itself insensibly to what is retained, and either the incongruity is hidden beneath a change of nomenclature or is not hidden at all. Our own social life is threaded through and through with customs and practices which go back to a superstitious origin. The matter is such a commonplace of history that it is bootless to labour it here.

A scientist is only a "scientist." How that name tends continually to depreciate itself as the pursuit of physical science is divorced more and more completely from a knowledge of literature, from a knowledge of the humanities! And a scientist is a poor guide to an acquaintance with man, civilised or uncivilised. To come to the study of any race of man, even the most primitive, without some knowledge of all the long history of man, of all the long history of man's thought, man's methods, man's strivings, man's accomplishments, man's failures, is to come so ill equipped that no just conclusions are likely to be reached. Your exclusive "scientist"—and such are most of them to-day—may be competent to deal with circles and triangles, with wheels and levers with cells and glands, with germs and bacilli and micro-organisms generally, with magnetos and dynamos, with all the heavenly host if you like, but he has no equipment to deal with man! Somatic anthropology in particular tends to assume in some quarters such an overimportance that one falls back upon the recollection that the original head measurers were hatters and that all hatters are proverbially mad. The occupation would seem to carry the taint.

It was with much pleasure that I was able to hold out hope to Chief Isaac of the mission and the school he desired so earnestly for his people. It must not be supposed that all of them were in the completely unevangelised state which has been dwelt upon, that to all of them the teaching of those two full days was novel; some of them, like the chief himself, had been across to the Yukon long ago and still bore some trace of the early labours of the Church of England missionaries to whom this region of Alaska that adjoins Canada is so much indebted. Others had once been to the Ketchumstock, upon the occasion of a visit from our missionary at Eagle, and had received instruction from him. But there were many present in that tent who had never seen any missionary, never had any teaching, to whom it was wholly new save as they might have picked up some inkling from those that had been more fortunate.

TRIBAL CONNECTIONS

When we left this encampment Isaac sent two of his young men to guide us, with a sled drawn by three or four small dogs, so gaily caparisoned with tapis and ribbons, tinsel, and pompons, that they might have been circus dogs. Here again is evidence of this tribe's affinity with the upper Yukon natives, and so with those of the Mackenzie. I never saw the tapis, a broad, bright ornamented cloth that lies upon the dog's back under his harness, on the Middle Yukon. It is characteristic of the Peel River Indians who come across by the Rampart House and La Pierre House.

A few hours' journey brought us to the Tanana River again, which we crossed, and took a portage on the other side that went up a long defile and then along a ridge and then down another long defile until at night we reached the native village at Lake Mansfield; a picturesque spot, for the lake is entirely surrounded by mountains except on the side which opens to the river. Here the Alaskan range and the Tanana River have approached so close that the water almost washes the base of the foot-hills, and the scenery is as fine and bold as any in Alaska. And here, at Lake Mansfield, if only there were navigable connection between the lake and the river into which it drains, would be an admirable place for a mission station.

A couple of hours next day took us the seven remaining miles to the Tanana Crossing. Here, at that time, was a station of the military telegraph connecting Valdez on the coast with Fort Egbert (Eagle) on the Yukon, a line maintained, at enormous expense, purely for military purposes. It passed through an almost entirely uninhabited country in which perhaps scarcely a dozen messages would originate in a year. The telegraph-line and Fort Egbert itself are now abandoned. Strategic considerations constitute a vague and variable quantity.

It was strange to find this little station with two or three men of the signal-corps away out here in the wilderness. Their post was supplied by mule pack-train from Fort Egbert, more than two hundred miles away, and they told me that only ten pounds out of every hundred that left Fort Egbert reached the Crossing, so self-limited is a pack-train through such country. We amused ourselves calculating just how much farther mules and men could go until they ate up all they could carry.

The Tanana Crossing is a central spot for the Indians of this region. Two days' journey up the river was the village of the Tetlin Indians. Two days' journey into the mountain range were the Mantasta Indians. Two days' journey across towards the Yukon were the Ketchumstock Indians. Most of them would congregate at this spot for certain parts of the year, should we plant a mission there, and despite the picturesque situation of Lake Mansfield, it looked as if the Crossing were the best point for building.

THE TANANA CROSSING

Our route lay northeast, across country to Fortymile on the Yukon, two hundred and fifty miles away, along the trail for the greater part of the distance by which the mule train reached the Tanana Crossing. The first five miles was all up-hill, a long, stiff, steady climb to the crest of the mountain that rises just behind the Crossing. We had to take it slowly, with frequent stops, so steep was the grade, and every now and then we got tantalising glimpses through the timber of the scene that spread wider and wider below us. Bend after bend of the Tanana River unfolded itself; the Alaskan range gave peak after peak; there lay Lake Mansfield, deep in its amphitheatre of hills, with the Indian village at its head.

At last my impatience for the view that promised made me leave the boys (we still had Isaac's young men) and push on alone to the top. And it was indeed by far the noblest view of the winter, one of the grandest and most extensive panoramas I had ever seen in my life.

Perhaps three miles away, as the crow flies, from the river, and seventeen hundred and fifty feet above it, as the aneroid gave it, we were already on the watershed, and everywhere in the direction we were travelling the wide-flung draws and gullies of the Fortymile River stretched out, so clear and beautiful a display of the beginnings of a great drainage system that my attention was arrested, notwithstanding my eagerness for the sight that awaited my turning around. But it was upon turning around and looking in the direction from which we had come that the grandeur and sublimity entered into the scene. There was, indeed, no one great dominating feature in this prospect as in the view of Denali from the Rampart portage, but the whole background, bounding the vision completely, was one vast wall of lofty white peaks, stretching without a break for a hundred miles. Enormous cloud masses rose and fell about this barrier, now unfolding to reveal dark chasms and glittering glaciers, now enshrouding them again. In the middle distance the Tanana River wound and twisted its firm white line amidst broken patches of snow and timber far away to either hand, and, where glacial affluents discharged into it, were finer, threadlike lines that marked the many mouths. The thick spruce mantling the slope in the foreground gave a sombre contrast to the fields of snow, and the yellow March sunshine was poured over all the wide landscape save where the great clouds contended with the great mountains.

The boys had stopped to build a fire and brew some tea before leaving the timber, and I was glad of it, for it gave me the chance to gaze my fill upon the inspiring and fascinating scene in the pleasant warmth of the mountain top, with the thermometer at 30° in the shade and just 12° higher in the sunshine.

A NOBLE VIEW

How grateful I was for the clear bright day! What a disappointment it has been again and again to reach such an eminence and see—nothing! It was the most extensive view of the great Alaskan range I had ever secured—that long line of sharp peaks that stretches and broadens from the coast inland until it culminates in the highest point of the North American continent and then curves its way back to the coast again. Of course, what lay here within the vision was only a small part of one arm of the range; it stopped far short of Denali on the one hand and Mount Sanford on the other, though it included Mount Kimball and Mount Hayes; yet it was the most impressive sight of a mountain chain I had ever beheld. It was a sight to be glad and grateful for, to put high amongst one's joyful remembrances; and with this notable sight we bade farewell to the Tanana valley.

Down the hill we went into Fortymile water and into a rolling country crossed by the military mule trail. If the morning had been glorious the evening was full of penance. Long before night our feet were sore from slipping and sliding into those wretched mule tracks. One cannot take one's eyes from the trail for a moment, every footstep must be watched, and even then one is continually stumbling.

We were able, however, to rig our team with the double hitch that is so much more economical of power than the tandem hitch, whenever the width of the trail permits it. We now carry a convertible rig, so that on narrow trails or in deep snow we can string out the dogs one in front of the other, and when the trail is wide enough can hitch them side by side. "Seal," the Great Dane pup we got at the Salchaket, was a good and strong puller, but he had no coat and no sense. It is bad enough to have no coat in this country, but to have no coat and no sense is fatal—as he found. His feet were continually sore and he had to be specially provided for at night if it were at all cold—a dog utterly unsuited to Alaska.

Thirty miles of such going as has been described is tiring in the extreme, and when we reached the Lone Cabin, behold! fifteen Indians camped about it, for whom, when supper was done, followed two hours of teaching and the baptism of six children. I would have liked to have stayed a day with them, but if we were to spend Palm Sunday at Fortymile and Easter at Eagle as had been promised, the time remaining did no more than serve; and there was a large band of Indians to visit at Ketchumstock.

The next day took us into and across the Ketchumstock Flats, a wide basin surrounded by hills and drained by the Mosquito Fork of the Fortymile. The telegraph-line, supported on tripods against the summer yielding of the marshy soil, cuts straight across country. This basin and the hills around form one of the greatest caribou countries, perhaps, in the world. All day we

had passed fragments of the long fences that were in use in times past by the Indians for driving the animals into convenient places for slaughter.

The annual migration of the vast herd that roams the section of Alaska between the Yukon and the Tanana Rivers swarms over this Flat and through these hills, and we were told at the Ketchumstock telegraph station by the signal-corps men that they estimated that upward of one hundred thousand animals crossed the Mosquito Fork the previous October.

CARIBOU

The big game of Alaska is not yet seriously diminished, though there was need for the legal protection that has of late years been given. It is probable that more caribou and young moose are killed every year by wolves than by hunters. Only in the neighbourhood of a considerable settlement is there danger of reckless and wasteful slaughter, and some attention is paid by game wardens to the markets of such places. The mountain-sheep stands in greater danger of extermination than either caribou or moose. Its meat, the most delicious mutton in the world, as it has been pronounced by epicures, brings a higher price than other wild meat, and it is easy to destroy a band completely. The sheep on the mountains of the Alaskan range nearest to Fairbanks have, it is said, been very greatly diminished, and that need not be wondered at when one sees sled load after sled load, aggregating several tons of meat, brought in at one shipment. The law protecting the sheep probably needs tightening up.

The big game is a great resource to all the people of the country, white and native. It is no small advantage to be able to take one's gun in the fall and go out in the valleys and kill a moose that will suffice for one man's meat almost the whole winter, or go into the hills and kill four or five caribou that will stock his larder equally well. The fresh, clean meat of the wilds has to most palates far finer flavour than any cold-storage meat that can be brought into the country; and, save at one or two centres of population and distribution, cold-storage meat is not available at all. Without its big game Alaska would be virtually uninhabitable. Therefore most white men are content that the necessary measures be taken to prevent the wasteful slaughter of the game; for the rights of the prospector and trapper and traveller, and the rights of the natives to kill at any time what is necessary for food, are explicitly reserved.

THE KETCHUMSTOCK

We reached the village and telegraph post of Ketchumstock for the night only to find all the natives gone hunting; but since they had gone in the direction of Chicken Creek, towards which we were travelling, we were able to catch up with them the next morning without going far out of our way.

While we were pitching our tent near their encampment came two or three natives with dog teams, and as the dogs hesitated to pass our dogs, loose on the trail, a voluble string of curses in English fell from the Indian lips. Such is usually the first indication of contact with white men, and in this case it spoke of the proximity of the mining on Chicken Creek. To discover the women chewing tobacco was to add but another evidence of the sophistication of this tribe; a different people from Chief Isaac's tribe, different through many years' familiarity with the whites at these diggings. If the mission to be built at the Crossing tends to keep these Indians on the Tanana River and thus away from the demoralisation of the diggings, it will do them solid service.

In some way foul and profane language falls even more offensively from Indians than from whites; for the same reason, perhaps, that it sounds more offensive and shocking from children than from adults. Sometimes the Indian does not in the least understand the meaning of the words he uses; they are the first English words he ever heard and he hears them over and over again.

So here another day and a half was spent in instruction. There are some forty souls in this tribe and they have had teaching from time to time, though not in the last few years, at the mouths of missionaries from Yukon posts. Most of the adults had been baptized; I baptized sixteen children. One curious feature of my stay was the megaphonic recapitulation of the heads of the instruction, after each session, by an elderly Indian who stood out in the midst of the tents. What on earth this man, with his town-crier voice, was proclaiming at such length, we were at a loss to conjecture, and upon inquiry were informed: "Them women, not much sense; one time tell 'em, quick forget; two time tell 'em, maybe little remember." So when we stopped for dinner and for supper and for bed, each time this brazen-lunged spieler stood forth and reiterated the main points of the discourse "for thehareem," as Doughty would say, whose account of the attitude of the Arabs to their women often reminds me of the Alaskan Indians. It was interesting, but I should have preferred to edit the recapitulation.

When all was done for the day and we thought to go to bed came an Indian named "Bum-Eyed-Bob" (these white man's nicknames, however dreadful, are always accepted and used) for a long confabulation about the affairs of the tribe, and I gathered incidentally that gambling at the telegraph station had been the main diversion of the winter. It seems ungracious to insist so much upon the evil influence of the white men—we had been cordially received and entertained at that very place, and our money refused—but there is little doubt that the abandonment of the telegraph-line will be a good thing for these natives. Put two or three young men of no special intellectual resource or ambition down in a lonely spot like this, with no

society at all save that of the natives and practically nothing to do, and there is a natural and almost inevitable trend to evil. To the exceptional man with the desire of promotion, with books, and all this leisure, it would be an admirable opportunity, but he would be quite an exceptional man who should rise altogether superior to the temptations to idleness and debauchery. One may have true and deep sympathy with these young men and yet be conscious of the harm they often bring about.

Ten miles or so from the encampment brought us to Chicken Creek, and from that point we took the Fortymile River. The direct trail to Eagle with its exasperating mule tracks was now left, and our journey was on the ice. But so warm was the weather that 16th of March that we were wet-foot all day, and within the space of eight hours that we were travelling we had snow, sleet, rain, and sunshine. Leaving the main river, we turned up Walker Fork and, after a few miles, leaving that, we turned up Jack Wade Creek and pursued it far up towards its head ere we reached the road-house for the night.

THE FORTYMILE

We were now on historic ground, so far as gold mining in Alaska is concerned. The "Fortymilers" bear the same pioneer relation to gold mining in the North that the "Fortyniners" bear to gold mining in California. Ever since 1886 placers have been worked in this district, and it still yields gold, though the output and the number of men are alike much reduced. It is interesting to talk with some of the original locators of this camp, who may yet be found here and there in the country, and to learn of the conditions in those early days when a steamboat came up the Yukon once in a season bringing such supplies and mail as the men received for the year. It was here that the problem of working frozen ground was first confronted and solved; here that the first "miner's law" was promulgated, the first "miners' meeting" dealt out justice. Your "old-timer" anywhere is commonly laudator temporis acti, but there is good reason to believe that these early, and certainly most adventurous, gold-miners, some of whom forced a way into the country when there were no routes of travel, and subsisted on its resources while they explored and prospected it, were men of a higher stamp than many who have come in since. The extent to which that early prospecting was carried is not generally known, for these men, after the manner of their kind, left no record behind them. There are few creek beds that give any promise at all in the whole of this vast country that have not had some holes sunk in them. Even in districts so remote as the Koyukuk, signs of old prospecting are encountered. When a stampede took place to the Red Mountain or Indian River country of the middle Koyukuk in 1911-12, I was told that there was not a creek in the camp that did not show signs of

having been prospected long before, although it had passed altogether out of knowledge that this particular region had ever been visited by prospectors.

"SNIPING ON THE BARS"

As the Fortymile is the oldest gold camp in the North, some of its trail making is of the best in Alaska. In particular the trail from the head of Jack Wade Creek down into Steel Creek reminded one of the Alpine roads in its bold, not to say daring, engineering. It drops from bench to bench in great sweeping curves always with a practicable grade, and must descend nigh a thousand feet in a couple of miles. At the mouth of Steel Creek we are on the Fortymile River again, having saved a day's journey by this traverse. And here, on the Fortymile, we passed several men "sniping on the bars," as the very first Alaskan gold-miners did on this same river, and probably on these same bars, twenty-five years ago. One hand moved the "rocker" to and fro and the other poured water into it with the "long Tom"; so was the gold washed out of the gravel taken from just below the ice. It was interesting to see this primitive method still in practice and to learn from the men that they were making "better than wages."

The Fortymile is a very picturesque but most tortuous river. In one place, called appropriately "The Kink," I was able to clamber over a ridge of rocks and reach another bend of the river in six or seven minutes, and then had to wait twenty-five minutes for the dog team, going at a good clip, to come around to me. At length we reached the spot where a vista cut through the timber that clothes both banks, marked the 141st meridian, the international boundary, and passed out of Alaska into British territory. A few miles more brought us to Moose Creek, where a little Canadian custom-house is situated, and there we spent the night.

The next day we reached the Yukon; passing gold dredges laid up for the winter and other signs of still-persisting mining activity, going through the narrow wild cañon of the Fortymile, and so to the little town at its mouth of the same name, where there is a mission of the Church of England and a post of the Royal Northwest Mounted Police. I never come into contact with this admirable body of men without wishing that we had a similar body charged with the enforcement of the law in Alaska.

Sunday was spent there officiating for the layman in charge of the mission and in interesting talk with the sergeant of police about the annual winter journey from Dawson to Fort McPherson on the McKenzie, from which he had just returned with a detail of men. The next winter he and his detail lost their way and starved and froze to death on the same journey.

Here at one time was a flourishing Indian mission and school, and here Bishop Bompas, the true "Apostle of the North," lived for some time. The

story of this man's forty-five years' single-eyed devotion to the Indians of the Yukon and McKenzie Rivers is one of the brave chapters of missionary history. But the Church of England "does not advertise." Writers about Alaska, even writers about Alaskan missions, carefully collect all the data of the early Russian missions on the coast, but ignore altogether the equally influential and lasting work done along five hundred miles of what is now the American Yukon by the missionary clergy of the English Church before and after the Purchase. Bishop Bompas identified himself so closely with the natives as to become almost one of them in the eyes of the white men, and many curious stories linger amongst the old-timers as to his habits and appearance. It is interesting to know that the bishop was a son of that Sergeant Bompas of the English bar from whom Dickens drew the character of Sergeant Buzfuz, counsel for the plaintiff in the famous suit of "Bardell v. Pickwick."

But the natives have all left Fortymile, some to the large village of Moosehide just below Dawson, some to Eagle. The town, too, like all the upper Yukon towns, is much decayed; the custom-house, the police barracks, the company's store, the road-house, and the little mission embracing nearly all its activities and housing nearly all its population.

There is always some feeling of satisfaction in reaching the broad highway of the Yukon again, even though rough ice make bad going and one of the most notorious, dirty road-houses in the North hold its menace over one all day and amply fulfil it at night. There is indeed so little travel on the river now that it does not pay any one to keep a road-house save as incidental to a steamboat wood camp and summer fishing station. Two short days' travel brought us across the international boundary again to Eagle in Alaska, where at that time Fort Egbert was garrisoned with two companies of soldiers.

EAGLE

Eagle and Fort Egbert together, for the one begins where the other ends, have perhaps the finest and most commanding situation of any settlement on the Yukon River. The mountains rise with dignity just across the water and break pleasingly into the valley of Eagle Creek, a few miles up-stream. To the rear of the town an inconsiderable flat does but give space and setting before the mountains rise again; while just below the military post stands the bold and lofty bluff called the Eagle Rock, with Mission Creek winding into the Yukon at its foot. Robert Louis Stevenson said that Edinburgh has the finest situation of any capital in Europe and pays for it by having the worst climate of any city in the world. It would not be just to paraphrase this description with regard to Eagle, for while it is unsurpassed on the Yukon for site, there are spots on that river where still more

disagreeable weather prevails; yet it cannot be denied that the position of the place subjects it to exceedingly bitter winds, or that the valley of Eagle Creek, which gives pleasing variety to the prospect, acts also as a channel to convey the full force of the blast. Climate everywhere is a very local thing; topographical considerations often altogether outweigh geographical; and nowhere is this truer than in Alaska. Commanding sites are necessarily exposed sites, and he who would dwell in comfort must build in seclusion.

A native village of eighty or ninety souls, with its church and school, lies three miles up-stream from the town, so that the relative positions of village, town, and military post exactly duplicate those at Tanana. It must at once be stated, however, that this situation has not led to anything like the demoralisation amongst the natives at Eagle that thrusts itself into notice at the other place. Whether it were the longer training in Christian morals that lay behind these people, or better hap in the matter of post commanders (certainly there was never such scandalous irregularity and indifference at Egbert as marked one administration at Gibbon), or the vigilance during a number of consecutive years of an especially active deputy marshal and the wisdom and concern through an even longer period of a commissioner much above the common stamp,[F] or all these causes combined, the natives at Eagle have not suffered from the proximity of soldiers and civilians in the same measure as the natives at Tanana. Drunkenness and debauchery there have been again and again, but they have been severely checked and restrained by both the civil and military authorities.

It was pleasant during Holy Week and Easter to see so many of the enlisted men of the garrison taking part in the services in town; pleasant, especially, to see officers and men singing together in the choir, a tribute to the tact and zeal of the earnest layman in charge of this mission; and it was pleasant at the village to hear the native liturgy again and to see old men and women following the lessons in the native Bible.

FORT EGBERT ABANDONED

Fort Egbert is abandoned now, another addition to the melancholy of the Yukon; its extensive buildings, barracks, and officers' quarters, post-exchange and commissariat, hospital, sawmill, and artisans' shops, a spacious, complete gymnasium only recently built, are all vacant and deserted. In the yards lie three thousand cords of dry wood, a year's supply; cut on the hills, awaiting the expected annual contracts, lie as many more—six thousand cords of wood left to rot! Some of us perverse "conservationists," upon whom the unanimous Alaskan press delights to pour scorn, lament the trees more than the troops.

One may write thus and yet have many pleasant personal associations with the post and those who have lived there. A large and varied military

acquaintanceship is acquired by regular visits to these Alaskan forts, for the whole command changes every two years. If one stayed in the country long enough one would get to know the whole United States army, as regiment after regiment spent its brief term of "foreign service" in the North. Gazing upon the empty quarters, the occasion of my first visit came back vividly, when there was diphtheria amongst the natives at Circle and none to cope with it save the missionary nurse. The civil codes containing no provision for quarantine, the United States commissioner at Circle could not help, and the Indians grew restive and rebellious, and when Christmas came broke through the restrictions completely. Even some of the whites of the place defied her prohibition and attended native dances and encouraged the Indians in their self-willed folly.

SOME ARMY OFFICERS

So I went up the week's journey to Eagle and sought assistance from Major Plummer, the officer commanding the post, who, after telegraphing to Washington, promptly despatched a hospital steward and a couple of soldiers, and placed them entirely at the nurse's disposal. "I don't think we have any law for it," he said, "but we'll bluff it out." And bluff it out they did very effectively until the disease was stamped out, and then they thoroughly disinfected and whitewashed every cabin that had been occupied by the sick. I used to tell that nurse that, so far as I knew, she was the only woman who had ever had command of United States soldiers.

Then there was Captain Langdon of the same regiment, the scholarly soldier, with the account of every great campaign in history at his fingers' ends. I recollect one evening, when we had been talking of the Peninsular War, I ventured to spring on him the ancient schoolboy conundrum: "What lines are those, the most famous ever made by an Englishman, yet that are never quoted?" "Lines?" said he, "lines?" though I don't think he had ever heard the jest. "They must be the Lines of Torres Vedras." How well I remember the musical box that used to arouse me at seven in the morning, however late we had sat talking the night before!

And that young lieutenant, of wealthy New York people, just arrived from West Point, who was sent by another commandant to report upon the condition of the natives at the village and who came back and reported the whole population in utter destitution and recommended the issue of free rations to them all! As a matter of fact, during the administration of this commanding officer, some sixteen or eighteen persons were put upon the list for gratuitous grub, and it took a written protest to get them off. For no one who has the welfare of the natives at heart can tolerate the notion of making them paupers; these who have always fended abundantly for themselves, and can entirely do so yet. With free rations there would be no more

hunting, no more trapping, no more fishing; and a hardy, self-supporting race would sink at once to sloth and beggary and forget all that made men of them. If it were designed to destroy the Indian at a blow, here is an easy way to do it. Yet there are some, obsessed with the craze about what is called education, regarding it as an end in itself and not as a means to any end, who recommend this pauperising because it would permit the execution of a compulsory school-attendance law. Or is it a personal delusion of mine that esteems an honest, industrious, self-supporting Indian who cannot read and write English above one who can read and write English—and can do nothing else—and so separates me from many who are working amongst the natives?

These days at the end of March, when the sun shines more than twelve hours in the twenty-four, are too long for the ordinary winter day's twenty-five miles or so, and yet not quite long enough, even if man and dogs could stand it, to double the stage; so that there is much daylight leisure at road-houses. One grows anxious, after four months on the trail, to be done with it; to draw as quickly as may be to one's "thawing-out" place. One even becomes a little impatient of the continual dog talk and mining talk of the road-houses, to which one has listened all the winter. On the other hand, the travelling is very pleasant and the going usually very good, so that one may often ride on the sled for long stretches.

By river and portage—one portage that comes so finely down to the Yukon from a bench that there is pleasure in anticipating the view it affords—in two days we reached the Nation road-house, just below the mouth of the Nation River, a name that has always puzzled me. Here all night long the wolves howling around the carcass of a horse kept our dogs awake, and the whimpering of the dogs kept us awake. The country beyond the Yukon to the northeast, the large area included between the Yukon and the Porcupine, into which the Nation River offers passage, is one of the wildest and least known portions of Alaska, abounding in game and beasts of prey.

THE GLARE OF THE SUN

At the Charley River we visited the native village and held service and instruction as well as inadequate interpretation permitted. Round Coal Creek and Woodchopper Creek the scenery becomes bold and attractive, but we found, as usual, that as we pushed farther and farther down the river the snow was deeper and the going not so good. The sun grows very bright upon the snow these days of late March and early April. Even through heavily tinted glasses it inflames the eyes more or less, and a couple of hours without protection would bring snow-blindness. Bright days at this season are the only days in all the year when the camera shutter may be

used at its full speed. When the sun comes out after a flurry of new snow in April, the light is many times greater than in midsummer.

We reached Circle in a day and a half from Woodchopper Creek, in time to spend Sunday there. Circle had not changed much in the five years that had elapsed since the first visit to it mentioned in these pages. The slender trellis of the wireless telegraph had added a prominent feature to its river bank; a few more empty cabins had been torn down for fire-wood. Here it was necessary to shoot the Great Dane pup we got at the Salchaket. His feet were still very sore and he quite useless for the next winter, while Doc was returned to me from Fairbanks, not much the worse for his severe frost-bite. Indian after Indian begged for the dog, but I had more regard for him than to turn him over to the tender mercies of an Indian. There are exceptional Indians, but for my part I would rather be a dead dog than an ordinary Indian's dog—so he died.

There remained the seventy-five or eighty miles through the Yukon Flats to Fort Yukon—always the most dangerous stretch of the river, and at this season, when the winter's trail was beginning to break up, particularly so. It would be entirely practicable to cut a land trail that should not touch the river at all, or not at more than one point, between Circle and Fort Yukon, and such a portage besides removing all the danger would save perhaps twenty miles. In many places it was necessary for one of us to go ahead with an axe, constantly sounding and testing the ice. Here and there we made a circuit around open water into which the ice that bore the trail had collapsed bodily—one of them a particularly ugly place, with black water twenty feet deep running at six or seven miles an hour. I never pass this stretch of river without a feeling of gratitude that I am safely over it once more.

CAPTAIN AMUNDSEN

As we left the Halfway Island we passed an Indian from Fort Yukon going up the river with dogs and toboggan, and I chuckled, as I returned his very polite salutation and shook hands with him, at the success of the way he had been dealt with the previous fall, for he had been a particularly churlish fellow with an insolent manner. Six or seven years before he had been taken by Captain Amundsen, of the Gjoa, as guide along this stretch of the river. It will be remembered that when that skilful and fortunate navigator had reached Herschell Island from the east, he left his ship in winter quarters and made a rapid journey with Esquimaux across country to Fort Yukon expecting to find a telegraph station there from which he could send word of his success. But to his disappointment he found it necessary to go two hundred and thirty miles farther up the river to Eagle, before he could despatch his message. So he left his Esquimaux at Fort Yukon and took this

Indian as guide. And in his modest and most interesting book he mentions the man's surliness and says he was glad to get rid of him at Circle.

Some new outbreak of insolence for which he had been flung out of a store decided that he must be dealt with, and I sent for him, for the chief, the native minister, and the interpreter. With these assessors beside me, and Captain Amundsen's book open on the table, I spoke to the man of his general conduct and reputation. I read the derogatory remark about him in the book "printed for all the world to read," and told him that of all the people, white and native, the captain had met on his journeys, only one was spoken of harshly and he was the one. It made a great impression on the man. The chief and the native minister followed it up with their harangues, and the net result was a thorough change in his whole attitude and demeanour. He told us he felt the shame of being held up to the world as rude and impudent and would try to amend. He has tried so successfully that he is now one of the politest and most courteous Indians in the village, for which, if this should ever chance to reach Captain Amundsen's eye, I trust he will accept our thanks.

Fort Yukon, where the headquarters of the archdeaconry of the Yukon are now fixed, grows in native population and importance. A new and sightly church, a new schoolhouse, a new two-story mission house, a medical missionary and a nurse in residence, as well as a native clergyman, mark the Indian metropolis of this region and perhaps of all interior Alaska. Self-government is fostered amongst the people by a village council elected annually, that settles native troubles and disputes and takes charge of movements for the general good, and of the relief of native poverty. The resident physician has been appointed justice of the peace and there is effort to enforce the law of the land at a place where every man has been a law unto himself. But it is a very slow and difficult matter to enforce law in this country at all, and more particularly at these remote points; and the class of white men who are to be found around native villages, many of whom "fear not God neither regard man," pursue their debauchery and deviltry long time unwhipped.

CHAPTER X

FROM THE TANANA RIVER TO THE KUSKOKWIM—THENCE TO THE IDITAROD MINING CAMP—THENCE TO THE YUKON, AND UP THAT RIVER TO FORT YUKON

THE discovery of gold on the Innoko in the winter of 1906-7, and the "strike" on the Iditarod, a tributary of the Innoko, some three years later, opened up a new region of Alaska. It is characteristic of a gold discovery in a new district that it sets men feverishly to work prospecting all the adjacent country, and sends them as far afield from it as the new base of supplies will allow them to stretch their tether. A glance at the map will show that the Innoko and Iditarod country lies between the two great rivers of Alaska, the Yukon and the Kuskokwim, much lower down the Yukon than any of the earlier gold discoveries; that is to say that while the Tanana gold fields lie off the Middle Yukon, the Circle fields off the upper Yukon, the Iditarod camp belongs to the lower river. The Innoko workings were not extensive nor very rich, but they furnished a base for prospecting from which the Iditarod was reached, and Flat Creek, in the latter district, promised to be wonderfully rich. Immediately upon the news of this strike reaching the other camps of the interior, preparations were made far and wide for migrating thither upon the opening of Yukon navigation, and the early summer of 1910 saw a wild stampede to the Iditarod. Saloon-keepers, store-keepers, traders of all kinds, and the rag-tag and bobtail that always flock to a new camp were on the move so soon as the ice went out. From Dawson, from the Fortymile, from Circle, from Fairbanks, from the Koyukuk, and as soon as Bering Sea permitted, from Nome, all sorts of craft bore all sorts of people to the new Eldorado, while the first through steamboats from the outside were crowded with people from the Pacific coast eager to share in the opportunity of wealth. The sensational magazines had been printing article after article about "The incalculable riches of Alaska," and here were people hoping to pick some of it up. Iditarod City sprang into life as the largest "city" of the interior; the centre of gravity of the population of the interior of Alaska was shifted a thousand miles in a month.

Iditarod City furnished a new and large base of supplies. Amidst the heterogeneous mass of humanity that swarmed into the place, though by no means the largest element in it, were experienced prospectors from every other district in Alaska. Under the iniquitous law that then prevailed and has only recently been modified, by which there was no limit at all to the number of claims in a district which one man could stake for himself and others, every creek adjacent to Flat Creek, every creek for many miles in every direction, had long since been tied up by the men with lead-pencils and hatchets. So the newly arrived prospectors must spread out yet wider, and they were soon scattered over all the rugged hundred miles between

Iditarod City and the Kuskokwim River. Here and there they found prospects; and here and there what promised to be "pay." They started a new town, Georgetown, on the Kuskokwim itself; another town sprang up on the Takotna, a tributary of the Kuskokwim; and the great Commercial Company of Alaska, ever alert for new developments, put a steamboat on the Kuskokwim and built trading-posts at both these points. Thus the Kuskokwim country, which for long had been one of the least-known portions of Alaska, was opened up almost at a stroke.

CAMP AT 50° BELOW

It was my purpose to visit Iditarod City during the winter of 1910-11, although, by reason of the distance to be travelled, a journey thither would involve the omission of the customary winter visit to upper Yukon points. When the northern trip to the Koyukuk was returned from at Tanana, a sad journey had to be made to Nenana to bury the body of Miss Farthing, and Doctor Loomis, missionary physician at Tanana, who accompanied me on this errand, had almost as rough a breaking-in to the Alaska trail as we came back to Tanana again as Doctor Burke had in our journey over the "first ice" of the Koyukuk two years before. Two feet of new snow lay on the trail, and the thermometer went down to 60° below zero. We were camped once on the mail trail, unable to reach a road-house, at 50° below zero.

THE ROUTE TO THE IDITAROD

From Tanana the beaten track to the Iditarod lay one hundred and sixty miles down the Yukon to Lewis's Landing, and then across country by the Lewis Cut-Off one hundred miles to Dishkaket on the Innoko, and thenceacross country another hundred miles to Iditarod City. But I designed to penetrate to the Iditarod by another route. I had long desired to visit Lake Minchúmina and its little band of Indians, and to pass through the upper Kuskokwim country. So I had engaged a Minchúmina Indian as a guide, and laid my course up the Tanana River to the Coschaket, and then due south across country to Lake Minchúmina and the upper Kuskokwim.

The Cosna is a small stream confluent with the Tanana, about thirty miles above the mouth of that river, and we had hoped to reach it by the river trail upon the same day we left the mission at Tanana, the 18th of February, 1911. But the trail was too heavy and the going too slow and the start too late. When we had reached Fish Creek, about half-way, it was already growing dark, and we were glad to stop in a native cabin, where was an old widow woman with a blind daughter. The daughter, unmarried, had a little baby, and I inquired through Walter who the father was and whether the girl had willingly received the man or if he had taken advantage of her blindness. She named an unmarried Indian, known to me, and declared that she had not been consenting. It seemed a paltry and contemptible trick to

take advantage of a fatherless blind girl. I baptized the baby and resolved to make the man marry the girl.

The next night we reached the Coschaket, which, following the Indian rule, means "mouth of the Cosna," and found that our guide, Minchúmina John, had already relayed a load of grub that Walter had previously brought here from Tanana, one day's march upon our journey. Our course from the Coschaket left the Tanana River and struck across country by an old Indian trail that had not been used that winter. Through scrubby spruce and over frozen lakes and swamps, crossing the Cosna several times—a narrow little river with high steep banks—the trail went, until it brought us to a hunting camp of the Indians, about eighteen miles from the Coschaket. Here our stuff was cached and here we spent the night, doctoring the sick amongst them as well as we could. My eyes had been sorely tried this day despite dark smoked glasses, for we were travelling almost due south, and the sun was now some hours in the sky and yet low enough to shine right in one's face. So Walter stopped at a birch-tree, stripped some of the bark, and made an eye-shade that was a great comfort and relief.

From this place began the slow work of double-tripping. The unbroken snow was too deep to permit the hauling of our increased load over it without a preliminary breaking out of a trail on snow-shoes. So camp was left standing and Walter and John went ahead all day and returned late at night with eight or nine miles of trail broken, while I stayed in camp and had dog feed cooked and supper ready. The next day we advanced the camp so far as the trail was broken. A moose had used the trail for some distance, however, since the boys left it, and his great plunging hoofs had torn up the snow worse than a horse would have done.

A driving wind and heavy snowfall had drifted the new trail in the night so badly, moreover, that we were not able to cover the full stretch that had been snow-shoed, but camped in the dusk after we had gone eight miles. Eight miles in two days was certainly very poor travel, and at this rate our supplies would never take us down to the forks of the Kuskokwim. Yet there was no other way in which we could proceed. The weather was exceedingly mild, too mild for comfort—the thermometer ranging from 20° to 25° above—and the dogs felt the unseasonable warmth. It took us all that week to make the watershed between the drainage of the Tanana and the drainage of the Kuskokwim, a point about half-way to Lake Minchúmina. One day trail was broken, the next day the loads went forward. Tie the dogs as securely as one would, it was not safe to go off and leave our supplies exposed to the ravages that a broken chain or a slipped collar might bring, so two went forward and I sat down in camp. The boys on their return usually brought with them a few brace of ptarmigan or grouse or spruce hen or, at the least, a rabbit or so.

THE CAMP-ROBBERS

The camp-robbers, to my mind the most interesting of Alaskan birds, became very friendly and tame on these vigils. They stay in the country all the winter, when most birds have migrated, like prosperous mine owners, to less rigorous climates; they turn up everywhere, in the most mysterious way, so soon as one begins to make any preparation for camping, and they are bold and fearless and take all sorts of chances. On this journey more than once they alighted on a moving sled and pecked at the dried fish that happened to be exposed. Yet they are so alert and so quick in their movements that it would be difficult to catch them were they actually under one's hand. One of them, during a long day in camp, grew so tame that it pecked crumbs off the toe of my moccasin, and in another day or two would, one feels sure, have eaten out of the hand. There is a curious belief, strongly intrenched in the Alaskan mind, that the nest of this most common bird has never been found, and that the Smithsonian Institution has a standing offer of a large sum of money for the discovery. They build in the spruce-trees, ten or twelve feet above the ground, a nest of rough twigs, and lay five very small eggs, grey spotted with black. This, at any rate, is the description that Walter gives me of a nest he discovered with the bird sitting upon it, and I have found the boy's accounts of such matters entirely trustworthy. It is curious, however, that the nest of a bird so common all over Alaska as the camp-robber should be so rarely found. At times they are very mischievous and destructive, and the man who builds a careless cache will often be heard denouncing them, but to my mind a bird who gives us his enlivening company throughout the dead of an Alaskan winter deserves what pickings he can get.

SOFT WEATHER

On Saturday, the 25th of February, after climbing a rather stiff hill, we passed temporarily out of Yukon into Kuskokwim waters, for the tributaries of these two great drainage systems interlock in these hills. At the foot of the hill we stopped for lunch, a roaring fire was soon built, and a great cube of beaten snow impaled upon a stake was set up before the fire to drip into a pan for tea water, while the boys roasted rabbits. In a few hours more we were on the banks of one of the tributaries of the East Fork (properly the North Fork) of the Kuskokwim. Here, in an unoccupied native cabin, we made our camp and lay over Sunday, and here began the most remarkable spell of weather I have known in the interior at this season of the year. The thermometer rose to 37° and then to 40°; the snow everywhere was thawing, and presently it began to rain steadily. It was the first time I had seen a decided thaw in February, let alone rain.

Next day the rain turned to snow, but since the thermometer still stood around 40°, the snow melted as it fell, and we were wet through all day. The snow underfoot, however, was so much less and so much harder that we were able to proceed without preliminary trail breaking. But it was a most disagreeable day and the prelude to a more disagreeable night. Soft, wet snow clings to everything it touches. The dogs are soon carrying an additional burden; balls of snow form on all projecting tufts of hair; masses of snow must continually be beaten off the sled. Every time a snow-shoe is lifted from the ground it lifts a few pounds of snow with it. One's moccasins and socks are soon wet through, and the feet, encased in this sodden cold covering, grow numb and stay so. We crossed a considerable mountain pass in driving snow, and should never have found the way without John, for much of it was above timber, and when it took us through woods the blazes on the trees were so bleached with age as to be difficult of recognition. The Indians have used this trail for generations; but few white men have ever passed along it.

Wet snow, wet spruce boughs, wet tent, wet wood, wet clothing make poor camping. Water-proof equipment is so rarely needed on the winter trail that one does not bother with it. But the climate of the Kuskokwim valley is evidently different from that of the rest of the interior, if, as John said, such weather is not remarkable in these parts at this season. A third day was of much the same description; thawing and heavily snowing all day, the thermometer between 36° and 40°. The labour of going ahead of the teams and breaking trail, on the snow-shoes, through slush, grew so great that I relinquished it to John and took the handle-bars of his sled. We were approaching Lake Minchúmina, but the hills that led us into Yukon waters once more and should have given us views of the lake and the great mountains beyond gave nothing. It is a keen disappointment to be utterly denied great views, the expectation of which has been a support through long distances and fatigues.

At noon we built a fire with considerable difficulty, but once it was started we plied it with fuel till we had a noble, roaring bonfire, and we hung our wet socks and moccasins and parkees and caps and mitts around it and stayed there until they were dry, though the resumption of our journey in the continuous melting snow soon wet everything through again.

LAKE MINCHÚMINA

At length, late in the evening of the 28th of February, we descended a long ridge and came upon the northeastern shore of Lake Minchúmina, one of the most considerable lakes of interior Alaska. It stretched its broad expanse away into the misty distance, the farther shore quite invisible, the snow driving slowly over it, and it looked as though we had stumbled by mistake

upon the shores of the Arctic Ocean. There was no sort of trail upon it and the snow-shoes sank through the melting snow of its surface into the water that lay upon the ice and brought up a load of slush at every step; yet the going would have been still worse without them. The recollection of the six miles we trudged across that lake is a dismal recollection of utter fatigue, of mechanical lifting and falling of encumbered feet with the recurring feeling that it would be impossible to lift them any more. All across that lake I ate snow, and that and the back-ache legacy of an old strain are my signs of approaching exhaustion. Four hours passed ere we heard the noise of dogs and saw the glimmer of a light through the darkness, and the hearts of men and beasts alike leaped to the expectation of rest and shelter. We had feared the village might be deserted and were rejoiced that the Indians were still there.

Never was hospitality more grateful than that we had from the little remote band of natives at the Minchúmina village. They made a pot of tea and fried some flap-jacks for us, and that was our supper, though I think the boys ate some boiled moose meat from a pot on the stove. We had plenty of grub, but were too weary to cook it; we spread our bedding down on the floor amongst a dozen others and fell almost at once into a deep sleep. Almost at once; for the arrival of our eight dogs had made a commotion amongst the canine population of the place, that after repeated outbreaks of noisy animosity and defiance seemed to turn by common consent into a friendly and most protracted howling contest in which my malamute "Muk" plainly outdid all competitors. How much longer the noise would have kept up it is hard to say—dogs never seem too tired to howl—but when the limit of Indian patience was reached, an aged crone rolled out of the bed into which she had rolled "all standing," seized a staff and went outdoors to lay it impartially upon the backs of all the disturbers of the peace, domestic and foreign, with a screech that was as formidable as the blows. The rest was silence.

The next morning a dozen alarm-clocks went off within a few minutes of each other. Every adult in that cabin owned a separate alarm-clock, and rose, one supposes, to the summons of no other timepiece. At any rate, the clocks went off at intervals, and the natives arose one by one and seemed hugely to enjoy the clatter. Let one purchase a new thing and every individual in the community must have one also.

But what struck me instantly upon arising was the miraculous transformation that had taken place outdoors. The sun was shining brilliantly through a clear sky! I hastened to dress and, not waiting for breakfast, seized my camera and started out. The chinook was over; the sharp, welcome tang of frost was in the air; the snow was hard underfoot. Out upon the gleaming surface of the lake I went for nigh a mile, resolutely

refusing to look behind. I knew what vision awaited me when I turned around, had, indeed, caught a slight glimpse as I left the cabin, and I wanted the smooth, open foreground of the lake that I might see it to the best advantage.

DENALI AND HIS WIFE

There is probably no other view of North America's greatest mountain group comparable to that from Lake Minchúmina. From almost every other coign of vantage in the interior I had seen it and found it more or less unsatisfying. Only from distant points like the Pedro Dome or the summit between Rampart and Glen Gulch does the whole mass and uplift of it come into view with dignity and impressiveness. At close range the peaks seem stunted and inconspicuous, their rounded, retreating slopes lacking strong lines and decided character. But from the lake the precipitous western face of Denali and Denali's Wife rise sheer, revealed by the level foreground of the snow from base to summit. It was, indeed, a glorious scene. There stood the master peak, seeming a stupendous vertical wall of rock rising twenty thousand feet to a splendid sharp crest perhaps some forty or fifty miles away; there, a little farther to the south, rose the companion mass, a smaller but still enormous elevation of equally savage inaccessibility; while between them, near the base, little sharp peaks stretched like a corridor of ruined arches from mass to mass. One was struck at once by the simple appropriateness of the native names for these mountains. The master peak is Denali—the great one; the lesser peak is Denali's Wife; and the little peaks between are the children. And my indignation kindled at the substitution of modern names for these ancient mountain names bestowed immemorially by the original inhabitants of the land! Is it too late to strike Mount McKinley and Mount Foraker from the map? The names were given fifteen or sixteen years ago only, by one who saw them no nearer than a hundred miles. Is it too late to restore the native names contemptuously displaced?

The majesty of the scene grew upon me as I gazed, and presently hand went to camera that some record of it might be attempted. But alas for the limitations of photography! I knew, even as I made the exposures, first at one one-hundredth of a second and then at one-fiftieth, that there was little hope of securing a picture; the air was yet faintly hazy with thin vapour; the early sun made too acute an angle with the peaks; and the yellow lens screen was left in the hind-sack of the sled. It was even as I feared. When developed some months later, the film held absolutely no trace of the mighty mountains that had risen so proudly before it. I promised myself that at noon, when the sun had removed to a greater distance from the mountains and made a more favourable angle with them, I would return and try again; but by noon had come another sudden, violent change of the weather, and snow was falling once more.

THE MINCHÚMINA FOLK

So I got no picture, save the picture indelibly impressed upon my memory, of the noblest mountain scene I had ever gazed upon which made memorable this 1st of March; perhaps one of the noblest mountain scenes in the whole world, for one does not recall another so great uplift from so low a base. The marshy, flat country that stretches from Minchúmina to the mountains cannot be much more than one thousand feet above the sea. Those awful precipices dropping thousands of feet at a leap, those peaks rising serene and everlasting into the highest heaven, the overwhelming size and strength and solidity of their rocky bulk, all this sank into my heart, and there sprang up once again the passionate desire of exploring the bowels of them, of creeping along their glaciers and up their icy ridges, of penetrating their hidden chambers, inviolate since the foundation of the world, and maybe scaling their ultimate summits and looking down upon all the earth even as they look down!

Men, however, and not mountains, made the immediate demand upon one's interest and attention, and I returned to breakfast and the duties of the day. The Minchúmina people are a very feeble folk, some sixteen all told at the time of our visit, greatly reduced by the epidemics of the last decade, living remote from all others on the verge of their race's habitat. They trade chiefly at Tanana, a hundred and thirty miles or so away, walking an annual trip thither with their furs, and owning a nominal allegiance to our mission at that place. It was the first time that any clergyman had ever visited them, and the whole of the day was spent with them, discovering what they knew and trying to teach them a little more. The people sat around on the floor and hung upon the lips of the interpreter. But what a barrier a difference of language is! An interpreter is like a mountain pass, a means of access but at the cost of time and labour. He does not remove the obstruction. The Minchúmina people occupy a fine country that could amply support ten times the Indian population that now inhabits it. We were, indeed, now entering a country that has been almost depopulated by successive epidemics of contagious diseases. The measles in 1900 slew most of them, and diphtheria in 1906 destroyed all the children and many of the adults that remained. The chief of this little band wore a hat proudly adorned with ribbons and plumes, and flew a flag before his dwelling with the initials of the North American Trading and Transportation Company on it—a defunct Alaskan corporation. We could not learn the origin thereof; the flag and the letters were plainly home-made. It was probably a mere imitation of a flag he had seen years ago at Tanana, copied without knowledge of the meaning of the letters, as the Esquimaux often copy into the decoration of their clothing and equipment the legends from canned foods.

Lake Minchúmina drains by a fork of the Kantishna River into the Tanana and so into the Yukon. Just beyond the southwestern edge of the lake runs a deep gully for perhaps a mile that leads to another lake called Tsórmina, which drains into Minchúmina. And just beyond Tsórmina is a little height of land, on the other side of which lies Lake Sishwóymina, which drains into the Kuskokwim. So that little height of land is another watershed between Alaska's two great rivers. Lakes Tsórmina and Sishwóymina are not on any maps; indeed, this region has never been mapped save very crudely from the distant flanks of Denali upon one of Alfred Brook's early bold journeys into the interior of Alaska on behalf of the Geological Survey. Although the Russians had establishments on the lower Kuskokwim seventy-five years ago, and the river is the second largest in Alaska and easy of navigation, yet the white man had penetrated very little into this country until the Innoko and Iditarod "strikes" of 1908 and 1909 respectively.

It was our plan to follow the main valley of the Kuskokwim until the confluence of the Takotna with that stream, just below the junction of the main North and South Forks of the Kuskokwim, and then strike northwestward across country to the Iditarod.

The snow had passed and the sun was bright and the thermometer around zero all day when we left Minchúmina to pursue our journey. The welcome change in the weather had brought a still more welcome change in travel. The decided and continued thaw followed by sharp cold had put a crust on the snow that would hold up the dogs and the sled and a man on small trail snow-shoes anywhere. Trail making was no longer necessary, and in two days we made upward of fifty miles. So much difference does surface make.

TALIDA

Across the end of Lake Minchúmina, across Tsórmina and Sishwóymina and a number of lesser lakes we went, following a faint show-shoe trail towards a distant mountain group to the southwest, the Talida Mountains, at the foot of which lay the Talida village. On the other hand, to the east and southeast, we had tantalising glimpses through haze and cloud of the two great mountains, and presently of the lesser peaks of the whole Alaskan range, sweeping its proud curve to the coast. For a long way on the second day we travelled on the flat top of a narrow ridge that must surely have been a lateral moraine of a glacier, what time the ice poured down from the heights and stretched far over this valley—then through scattered timber, increasing in size and thickness and already displaying character that differed somewhat from the familiar forests of the Yukon. The show-shoe trail we were following was made by a messenger despatched by the Minchúmina people to invite the Talida people to a potlatch; for the caches were filled with moose meat beyond local consumption. Early on the second day we

met him returning and learned that he had gone on to yet another village a day's journey farther, still on our route.

The people were all gone hunting from the tiny native hamlet of Talida, but we entered a cabin and made ourselves at home. We had passed into the region where the Greek Church holds nominal sway, of which the icons with little candles before them on the walls gave token. No priest ever visits them, but a native at a village on the south fork where is a church holds some position analogous to that of a lay reader. The nearest priest is a half-breed, ill spoken of for irregularity of life, some two hundred miles farther down the river. The Greek Church is relaxing its hold in Alaska, perhaps inevitably, and suffers sadly since the removal of the bishop from Sitka from lack of supervision. Also we had passed out of Indian country into the land of the Esquimaux, for these people, far up towards the head of the river as they were, had yet come at some period from the mouth. We were out of Walter's language range now, and were glad that the bilingual John of the march country was with us to serve as interpreter.

Standing proudly up against the wall in one corner of the cabin was a rather pathetic object to my eyes—an elaborate gilt-handled silk umbrella. There needed no one to tell its story; it spoke of a visit to the Yukon with furs to sell and the usual foolish purchase of gay and glittering trash—novel and quite useless. What easy prey these poor people are to the wiles of the trader! Said one of them to me recently, when I asked the purpose of an "annex" to his store with a huge billiard-table in it—at an exclusive native village—"It's to get their money; there's no use trying to fool you; if we can't get it one way we've got to get it another." This gorgeous silk umbrella was concrete expression of the same sentiment. It was bought outside, it was brought into the country, it was set on exhibition in the store, because some trader judged it likely to attract a native eye. No one, white or native, uses an umbrella in interior Alaska.

We made twenty-five miles the next day through a wide, open country, well wooded in places with a park-like distribution of trees, unwonted in our travels and attractive. A new species of spruce threw thick branches right down to the ground and tapered up to a perfect cone; each tree apart from the others and surrounded by sward instead of underbrush. There was a dignity about these trees that the common Yukon spruce never attains. Rolling hills of small elevation stretched on either hand and game signs abounded. After eight hours of such travel we spoke of camping, but presently saw footprints in the snow and pushed on to the bank of a little river, the Chedolothna, where stood a cabin, a tent, and several high caches. Here, with two families that occupied the cabin, we stayed the night.

MEASLES AND DIPHTHERIA

Six people at this place, six at Talida, sixteen at Minchúmina, make up all the population of a region perhaps a hundred and fifty miles square. Yet it is a noble Indian country, one of the most favourable in all the interior, capable of supporting hundreds of people. Signs, indeed, of a much larger occupation of it were not wanting, and all accounts speak of the wholesale destruction of the natives by disease. We were told of a village a little farther up this stream where every living being, save one old man, died of diphtheria five years previously, while those who have heard the stories of the horrors of the epidemic of measles in 1900, usually connected in some way with the stampede to Nome of that year when the disease seems to have entered the country, will understand how a region once thickly peopled, for Alaska, has become the most thinly peopled in all the territory.

A half-breed trader, long resident at a point perhaps two hundred miles lower down the Kuskokwim, told me of coming back to a populous village after an absence of a few weeks, to find every person dead and the starving dogs tearing at the rotting corpses. It is terrible to think what the irruption of a new disease may mean to these primitive natives. Even a disease like measles, rarely fatal and not commonly regarded as serious amongst whites, takes to itself a strange and awful virulence when it invades this virgin blood. The people know no proper treatment; maddened by the itching rash that covers the body, they fling off all cover, rush outdoors naked, whatever the weather, and either roll in the snow or plunge into the stream; with the result that the disease "strikes in" and kills them. Such is the description that is given of its course along the lower Yukon and Kuskokwim. At many a Yukon village half the people died, despite the aid the few missionaries then on the river could afford; upon the Kuskokwim the havoc seems to have been still greater. Six years later, death again stalked through this region after having visited the Yukon, and this time seized his victims by the throat. In another chapter has been given some account of an outbreak of diphtheria on the Chandalar, following a more serious epidemic at Circle City and Fort Yukon. It was during that same winter the disease raged in this region, remote from any sort of medical or even intelligent lay aid, and swept off all the children that had been spared by the measles or had been born since that time. At our next stopping-place we saw the graves of nineteen children who died in one day!

THE INDIAN GUIDE

We learned that we were now within one day's travel of a road-house, at or near the junction of the forks of the Kuskokwim, and that a government trail had been surveyed and staked from the Iditarod to the Sushitna, passing close to the same point, and that during the present winter road-houses had

sprung up along the western portion of it, so that we should not have to make camp again on the way to Iditarod City. All of which Minchúmina John had collected from the people in the cabin, and now presented to me as reason why he should be released from further service. I was loath to let him go until we were actually at the road-house described, but he wanted to go back to the lake for the potlatch then preparing, and said that two days' delay would bar him from the best of the festivities.

So I settled with him, giving him fifty dollars of the sixty dollars covenanted to the Iditarod, and grub enough to take him back to the lake, and a rifle, for he was unprovided with firearms, and he went his way back, richly content, to the gorging of unlimited moose meat that awaited him, and the boy and I went ours. So far as merely his company was concerned I was not sorry to lose him. The old saying holds good upon the trail that "two is company and three is none." He interfered with my boy's lessons. Since he had scarce any English, and could not be ignored, the conversation was mainly in Indian. In a word he pulled the company down to a native level. And I was anxious that Walter's education should proceed.

This boy had been with me for two years, winter and summer, and it was a great pleasure to witness his gracious development of body, mind, and character. Clean-limbed, smooth-skinned, slender, and supple, his Indian blood showing chiefly in a slight swarth of complexion and aquilinity of feature, he now approached his twentieth year and began to gain the strength of his manhood and to give promise of more than the average stature and physical power. With only one full year's schooling behind him, the year before he came to me, his active intelligence had made such quick use of it that there was good foundation to build upon; and our desultory lessons in camp—reading aloud, writing from dictation, geography and history in such snippets as circumstances permitted—were eagerly made the most of, and his mental horizon broadened continually. Until his sixteenth year he had lived amongst the Indians almost exclusively and had little English and could not read nor write. He was adept in all wilderness arts. An axe, a rifle, a flaying knife, a skin needle with its sinew thread—with all these he was at home; he could construct a sled or a pair of snow-shoes, going to the woods for his birch, drying it and steaming it and bending it; and could pitch camp with all the native comforts and amenities as quickly as anybody I ever saw. He spoke the naked truth, and was so gentle and unobtrusive in manner that he was a welcome guest at the table of any mission we visited. Miss Farthing at Nenana had laid her mark deep upon him in the one year he was with her.

THE HALF-BREED

Before he came to me I had another half-breed for two years, and before that there had been a series of full-blooded native boys. I found the half-breed greatly preferable. With full command of the native language, with such insight into the native mind as few white men ever attain, he combines the white man's quickness of apprehension and desire for knowledge; and the companionship had been pleasant and profitable. Both these boys had picked up quickly and efficiently, without the slightest previous experience, the running and the care of the four-cylinder gasoline engine of the mission launch, and took a great and intelligent interest in all machinery. As an interpreter the half-breed is far superior to most full-bloods; he takes one's purport immediately; his mind seems to leap with the speaker's mind, not only to follow faithfully but to anticipate. And the further his English progresses, so much the more excellent interpreter does he become.

My heart goes out to the large and rapidly increasing number of these youths of mixed blood in Alaska. It is common to hear them spoken of slightingly and contemptuously. There is what my mind always regards as a damnable epigram current in the country to the effect that the half-breed inherits the vices of both races and the virtues of neither. The white man who utters this saying with a chuckle at his second-hand wit has generally not much virtue to transmit, were virtue heritable. But to thoughtful men nowadays this talk of the inheritance of virtues and vices is mere folly. The half-breed in Alaska, as elsewhere, is the product of his environment. Often without legitimate father—although in an Indian community, where nothing is secret, his parentage is usually well known—he is left for some native woman to support with the aid of her native husband. He is reared with the full-blooded offspring of the couple in the frankness that knows no reserve and the intimacy that knows no restraint, of Indian life. The full extent of that frankness and intimacy shocks even the loosest-living white man when he first becomes aware of it. Where religion and decency have not been faithfully inculcated there is no bound to it at all—it is complete. Presently, as his superior intellectual inheritance begins to manifest itself, as he grows up into consciousness that he is different from, and in many ways superior to, the Indians around him, he is naturally drawn to such white society as comes his way.

THE LOW-DOWN WHITE

In this book a good deal has been said, and, it may be thought by the reader, said with a good deal of asperity, about the whites who frequent Indian communities and come most into contact with the native people; yet the more the author sees of this class, the less is he disposed to modify any of the strictures he has put upon it. "The Low-Down White" is the subject of

one of the most powerful and scathing of Robert Service's ballads, those most unequal productions with their mixture of strength and feebleness, of true and forced notes, the best of which should certainly live amongst the scant literature of the North. And, indeed, the spectacle of the man of the higher race, with all the age-long traditions and habits of civilisation behind him, descending below the level of the savage, corrupting and debauching the savage and making this corrupting and debauching the sole exercise of his more intelligent and cultivated mind, is one that has aroused the disgust and indignation of whites in all quarters of the world. Kipling and Conrad have drawn him in the East; Robert Louis Stevenson in the South Sea Islands; any army officer will draw him for you in the Philippines, which lack as yet their great delineator; Service has not overdrawn him on the Yukon.

Now, it is to this man's society, for lack of other white society open to him, that the young half-breed who feels his father's blood stirring within him is drawn and is made welcome. He finds standards even lower, because more sophisticated, than the standards of the Indians themselves. He finds that honesty and morality are a sham, religion a laughing-stock. He finds the chastity of women and the honour of men sneeringly regarded as non-existent. He is taught to curse and swear, to talk lewdly, to drink and gamble. He is taught that drunkenness and sensuality are the only enjoyments worth looking forward to, and he soon becomes as vile as his preceptors. The back room of the Indian trader's store is often the scene of this tuition—barroom, assignation house, gambling hell in one. But let that same youth be taken early in hand by one who has a care for him and will be at some personal pains to train him cleanly and uprightly, and he is as amenable to the good influences as he would be to the bad if they were his sole environment. Conscious all the time of his equivocal position, shy and timid about asserting himself amongst whites, he is easy prey to the viciously as he is apt pupil to the virtuously disposed.

What is said here of the male half-breeds applies a fortiori to the female. Unless early taken in hand by the missionary, or put under the protection of some church boarding-school—and sometimes despite all such care and teaching—the lot of the half-breed girl is a sad one; and some of the lowest and vilest women of the land are of mixed blood.

The half-breed is assuredly to be reckoned with in the future of Alaska. He is here to stay. He is here in increasing numbers. He is the natural leader of the Indian population. There seems little doubt that when he cares to assert his rights he is already an American citizen, although judicial decisions are uncertain and conflicting in this matter.

The missions in the interior have recognised, though perhaps somewhat tardily, the importance of the half-breeds, and have picked them up here

and there along the rivers and become responsible for their decent rearing. Some, assuredly, of the future leaders of the native people are now in training at the mission schools. Some, unfortunately, are in quite as assiduous training by the unscrupulous Indian trader and his coterie of low-down whites.

The skies had threatened snow since we arose, and when our diminished expedition was well upon its way the snow began to fall. For thirty-six hours it fell without cessation. Three days of good travel had put us forward seventy-five or eighty miles; now once more we were "up against" deep snow and trail breaking. An old native whom we met on his way to the potlatch later in the day spread out his hands with a look of despair and cried: "Good trail all lose'm!" All day we pushed on against the driving storm, the flakes stinging our faces and striking painfully against our eyeballs, now following a narrow steep woodland trail, now awhile along a creek bed, now across open country with increasing difficulty in finding our way, until it grew dark while yet we were some miles from our destination, and we made camp; and all night long the heavy snow continued.

So soon as we had struck our tent, crusted with ice, and had broken up our wet camp next morning there was trouble about finding the trail. Wide open spaces with never an indication of direction stretched before us. Again and again we cast about, the boy to the left, I to the right, to find some blaze or mark, but much of the course lay across open country that bore none. And then I sorely regretted having let John go back. Some miles before we came to a stop the previous evening, we passed a native encampment with naught but women and children in it—the men gone hunting. But we could not speak with them or get any information from them, for our Kuskokwim interpreter was gone. And now it seemed likely that we should lose our way in this wilderness. At last we were entirely at a loss, the boy returning on the one side and I on the other from wide detours, in which we had found no sign at all. The snow still fell heavily; there lay more than a foot of it upon the late crust; trail or sign of a trail, on the snow or above it, was not at all.

THE DOG GUIDES

Then occurred one of the most remarkable things I have known in all my journeyings. Straight ahead in the middle distance I spied two stray dogs making a direct course towards us; not wandering about, but evidently going somewhere. Now there are no such things as unattached dogs in Alaska; any dog entirely detached from human ownership and some sort of human maintenance would soon be a dead dog. The explanation, full of hope, sprang at once to the boy's mind. The dogs must belong to the native encampment some six miles back, and they had been to the road-house for what scraps they could pick up, and were returning. It was probably a daily

excursion and they had doubtless followed their accustomed trail. So it turned out. All the way to that road-house, eight miles farther, we followed the trail left by those dogs, growing fainter and fainter indeed as the new snow fell upon it, but still discernible until we had almost reached the road-house. It led across open swampy wastes, and presently across two considerable lakes, over which we should never have been able to find our way, for the trail swung to one hand or the other and did not leave the lake in the same general direction by which it had reached it. Walter cut a bundle of boughs and staked the trail out as we pursued it, lest we should return this way, but from the moment we saw the dogs there was never any question about the trail; they kept it perfectly. We were four and a half hours making the eight miles or so to Nicoli's Village and the road-house, but we might have been days making it but for those dogs. And at the road-house we learned that the boy's theory of their movements was the right one. They came across the twelve or fourteen miles every day for such scraps as they could pick up.

THE WILDERNESS POET

So here was our first white man in sixteen days, an intelligent man of meagre education, with a great bent for versifying. A courteous approval of one set of verse brought upon us the accumulated output of years in the wilderness without much opportunity of audience, as one supposes, and most of the afternoon and evening was thus spent. Amidst the overwrought sentimentality and faulty scansion which marked most of the pieces was one simple little poem that struck a true note, said its little say, and quit—without a superfluous word. Its author set no store by it at all compared with his more pretentious and meretricious work; yet it was the one poem in the whole mass. It described the writing of a letter to his father; he had spent all he had in prospecting and working a small claim, and had just realised that a year's labour was gone for naught. His father would worry if he got no word at all, but there was no use telling the old man he was broke, so he just wrote that he was well, and that was all. The old man would come pretty near understanding anyway. In simple lines that scanned and rhymed naturally, that was what the three or four stanzas said. And it was so typical of many a man's situation in this country, gave so simply and well the reason why many men cease writing to their relatives at all, that it pleased me and seemed of value. That note came from the heart and from the life's experience.

Nicoli's Village is a very small place with a mere handful of people, situated on the South Fork of the Kuskokwim some forty miles by river above the junction of the forks. Before the epidemics devastated it it had been a considerable native community. A Greek church, which the natives built entirely themselves, and which boasted a large painted icon of sorts, was the

most important building in the place, and was served by the lay minister referred to before. Thus far the Kuskokwim is navigable for vessels of light draught, and a small stern-wheel steamboat lay wintering upon the bank.

ROAD-HOUSES

Our way now left the Kuskokwim and struck across country to a point just below the junction of the forks, and then across country again to a tributary of the right bank, the Takotna; with a general northerly direction. Road-houses there indeed were, in the crudity and discomfort of their first season, and other evidences of the proximity of the white man. Here were two men camped, hunting moose for the Iditarod market, more than a hundred and twenty-five miles away, and here, at the end of the second day, near the mouth of the Takotna, was the new post of the Commercial Company in the charge of an old acquaintance who welcomed us warmly and entertained us most hospitably. After camping and road-house experience of nearly three weeks, a comfortable bed and well-spread table, and the general unmistakable ménage of a home-making woman are very highly enjoyed. That night the whole population of the settlement, fourteen persons, gathered in the store for Divine service.

Sixteen miles farther on was another settlement, the "Upper Takotna" Post, with a rival company established and some larger population. Here, also, we spent a night with old Fairbanks acquaintances. We were yet a hundred miles from Iditarod City, and the trail lay over a very rugged, hilly country, up one creek to its head, over a divide, and down another, in the way of the usual cross-country traverse.

There had not been so much snowfall in this section, but the weather began to be very severe. The thermometer fell to -45° and -50° and -55° on three successive nights, and all day long rose not above -20°, with a keen wind. The cost of transporting supplies to the road-houses on this trail justified the high prices charged—one dollar and a half for a poor meal of rabbits and beans and bacon, or ptarmigan and beans and bacon, and one dollar for a lunch of coffee, bread and butter, and dried fruit. But no such exigency could be pleaded to excuse the dirt and discomfort and lack of the commonest provision of outhouse decency at most of these places—'twas mere shiftlessness. There is not often much middle ground in Alaskan road-houses; they are either very good in their way or very bad; either kept by professional victuallers who take pride in them or by idle incompetents who make an easy living out of the necessities of travellers. One wishes that some of the old-time travellers who used to wax so eloquently indignant over the inns in the Pyrenees could make a winter journey in the interior of Alaska.

One thing pleased me at these road-houses. The only reading-matter in any of them consisted of magazines bearing the rubber stamp of Saint Matthew's Reading-Room at Fairbanks, part of a five-hundred-pound cargo of magazines which the mission launch Pelican brought to the Iditarod the previous summer; virtually the only reading-matter in the whole camp. It was pleasant to know that we had been able to avert the real calamity of a total absence of anything to read for a whole winter throughout this wide district. But, although they were brought to the Iditarod and distributed absolutely free, each of these magazines had cost the road-house keeper twenty-five cents for carriage over the trail from Iditarod City, and they had been read to death. Some of them were so black and greasy from continued handling that the print at the edges of the pages was almost unreadable.

These creeks swarmed with ptarmigan, and it was well they did, for the new camp was ill supplied with food, and we found ourselves in a region of growing scarcity as we approached the Iditarod. The ptarmigan seem to have supplemented the meagre stocks in the Iditarod during this winter of 1910-11 as effectively as the rabbits did in the Fairbanks camp in the scarce winter of 1904-5. In place after place the whole creek valley, where it was open, was crisscrossed with ptarmigan tracks, and the birds rose in coveys, uttering their harsh, guttural cry at every turn of the trail.

The summit between the head of Moose Creek and the head of Bonanza Creek is again a watershed between the waters of the Kuskokwim and the waters of the Yukon; for Moose Creek is tributary to the Takotna and Bonanza Creek is tributary to Otter Creek, which is tributary to the Iditarod River. The "summit" is high above timber-line, and when the trail has reached it it does not descend immediately but pursues a hogback ridge for a mile and a half at about the summit level. We passed over it in clear, bright weather without difficulty, but it would be a bad passage in wind or snow or fog. The rugged, broken country, with small, rounded domes of hills, stretched away in all directions, a maze of little valleys threading in and out amongst them.

PLACE-NAMES

The Bonanza Creek road-house was by far the best of any between the Kuskokwim and the Iditarod, and showed what can be done for comfort, even under adverse circumstances, by a couple who care and try. But how the names of gold-bearing creeks, or creeks that are expected to be gold-bearing are repeated again and again in every new camp! I once counted up the following list of mining place-names in Alaska: Bonanza Creeks, 10; Eldorados and Little Eldorados, 10; Nugget Creeks or Gulches, 17; Gold Creeks, 12; Gold Runs, 7. Nor is it only in creeks with auriferous deposit or expectation of auriferous deposit that this reduplication occurs; there are

Bear Creeks, 16; Boulder Creeks, 13; Moose Creeks, 13; Willow Creeks, 17; Canyon Creeks, 12; Glacier Creeks, 14.

The imagination of the average prospector is not his most active faculty, but even when his imagination is given play and he names a place "Twilight," as he did the original settlement at this base of supplies, the ineradicable prose of trade comes along the next summer and changes it to "Iditarod City." There must have been some remarkable personality strong enough to repress the "chamber of commerce" at Tombstone, Arizona, or the place would have lost its distinctive name so soon as it grew large enough to have mercantile establishments instead of stores.

IDITAROD CITY

We went through "Discovery Otter" and into "Flat City," on Flat Creek, the jealous rival of Iditarod City, and so over the hills to Iditarod City, on the wings of a storm. The wind whirled the snow behind us and drove the sled along almost on top of the dogs. In its bleak situation and its exposure to the full force of the wind, Iditarod City reminds one of Nome or Candle on the Seward Peninsula. The hills and flats that surround it are in the main treeless, and the snow drifts and drives over everything. Almost all the week that we spent in the town it was smothered up in a howling wind-storm, so that it was quite a serious undertaking to walk a block or two along the streets. Deep drifts were piled up on all the corners and on the lee side of all buildings. We reached Iditarod City on Monday, the 13th of March. Until the following Friday morning was no cessation or moderation of the wind-storm; and this, they told us, represented most of the weather since the 1st of January.

Overgrown and overdone in every way, the place presented all the features, sordid and otherwise, of a raw mining town. Prices had risen enormously on all manner of supplies, for everything that was not actually "short" was believed to be "cornered." Bacon was ninety cents a pound; butter one dollar and a half a pound; flour was twenty dollars a hundred pounds, and most things in like ratio. Some said the grub was not in the camp; others that the tradesmen had it cached away waiting for the still higher prices they believed would obtain before fresh supplies could arrive in July. There was a general feeling of disappointment and discouragement, enhanced by discomfort and actual suffering from the terrible stormy weather of the winter and the exorbitant and growing price of provisions. Many men without occupation were living on one meal a day. The saloons and the parasitical classes, male and female, seemed to flourish and to play their usual prominent part in the life of such places. The doings of notorious women whose sobriquets seemed household words, the lavish expenditures

of certain men upon them, the presents of diamonds they received, with the amount paid for them, constituted a large part of the general talk.

One is compelled to admire the vigour and enthusiastic enterprise, daunted by no difficulty, that is displayed in the wonderfully rapid upraising of a new mining-camp town. The building goes far ahead of the known wealth of the camp and commonly far ahead of the reasonable expectation. But the element of chance is so important a factor in placer mining that the whole thing partakes more of the nature of gambling than of a commercial venture. Any new camp may suddenly present the world with a new Klondike; with riches abundant and to spare for every one who is fortunate enough to be on the spot. Here was Flat Creek with a surprisingly rich deposit; why should there not be a dozen such amidst the multitudinous creeks of the district? How could any one know that it would be almost the only creek on which pay would be found at all? For there is no law about the distribution of gold deposits; there is not even a general rule that has not its notable exceptions. It is very generally believed by the old prospectors and miners that somewhere in the Bible may be found these words, "Silver occurs in veins, but gold is where you find it," which of course, is a mere misreading or faulty remembering of a verse in the Book of Job: "Surely there is a vein for the silver and a place for the gold where they fine it" (refine it). But that "gold is where you find it" is about the only law touching auriferous deposits that holds universally good.

Three long parallel streets of one and two story wooden buildings, with cross streets connecting them, made up the town. Because the country is poorly timbered, the usual log construction had yielded in the main to framed buildings, and great quantities of lumber had been brought the previous summer from Fairbanks, and even from Nome and the outside, to supplement the low-grade output of two local mills. But the price of building materials had been very high, and the average dwelling was very small and incommodious. People accustomed to the comparative luxury of the older camps had suffered a good deal from the lack of all domestic conveniences in this new will-o'-the-wisp of an eldorado.

So there the town stretched away, lumber and paper,—the usual tinder-box Alaskan construction—stores slap up against one another, with no alleyways between; in the busiest part of it and along the water-front even an adequate provision of side streets grudged; furnace-heated and kiln-dried and gasoline-lit; waiting for the careless match and the fanning wind and the five minutes' start that should send it all up in smoke. A week after we left it came; as it came to Dawson, as it came to Nome, as it came to Fairbanks, without teaching any lesson or leaving any precautionary regulations on the statute book to save men from their own competitive greed. Two or three weeks after the fire, however, it was all rebuilt, and a

plunging local bank held mortgages on most of the structures for the cost of the new material—and holds them yet.

THOUSANDS WITHOUT CHURCH

With at least a thousand people resident in the town, not to mention the thousands more out upon the creeks and at Flat City and "Discovery[G] Otter," there was no minister of religion of any sort in the whole region, nor had public Divine service been conducted since the occasion of the Pelican's visit the previous summer. Yet there were many in the place who sorely missed the opportunities of worship. Twice on Sunday the largest dancing hall in the town was crowded at service; at night it could have been filled a second time with those unable to get in.

Places like this present very difficult problems to those desirous of providing for their religious need. To occupy them at all they should be occupied at once when yet eligible sites may be had for the staking; if they prosper, to come into them later means buying at a high price. Yet what seventh son of a seventh son shall have foresight enough to tell the fortunes of them? The North is strewn with "cities" of one winter. Nor is the selection of suitable men to minister to such communities a simple matter. Amidst the overthrow of all the usual criteria of conduct, the fading out of the usual dividing lines and the blending into one another of the usual divisions, it requires a tactful and prudent man "to keep the happy mean between too much stiffness in refusing and to much easiness in admitting" variations from conventional standards. His point of view, if he is to have any influence whatever, must not exclude the point of view of the great majority; he must accept the situation in order to have any chance of improving the situation. And yet in the fundamentals of character and conduct he must be unswerving. And if on any such fundamental the battle gauge is thrown down, he must take it up and fight the quarrel out at whatever cost.

We left Iditarod City on Monday, the 20th of March, the dogs the fatter and fresher for their week's rest, resolved not to return by the Kuskokwim but to take the beaten trail out to the Yukon, and so all the way up that stream to Fort Yukon. The monthly mail had arrived a few days previously—a monthly mail was all that the thousands of men in this camp could secure—and had gone out again the very next morning, before people had time to answer their letters, before the registered mail had even been delivered. So our departure for the Yukon was eagerly seized upon and advertised as a means of despatching probably the last mail that would go outside over the ice. I was sworn in as special carrier, and a heavy sack of first-class mail added to our load as far as Tanana. The first stage of thirty miles led to Dikeman, a town at the headwaters of ordinary steamboat navigation of the Iditarod River, at which the Commercial Company had built a depot and extensive

warehouse, since in the main abandoned. Two streets of cabins lined the bank, but forty or fifty souls comprised the population, and almost all of them gathered for Divine service that night.

THE "MOVING OF THE MEAT"

From Dikeman to Dishkaket, on the Innoko River, a distance of some seventy miles, our route lay over one of the dreariest and most dismal regions in all Alaska. It is one succession of lakes and swamps, with narrow, almost knife-edge, ridges between, fringed with stunted spruce. Far as the eye could reach to right and left the country was the same; it is safe to say broadly that all the land between the Iditarod and Innoko Rivers is of this character. We passed over it in mild weather, but it must be a terrible country to cross in storm or through deep snow. For ten miles at a stretch there was scarcely a place where a man might make a decent camp. At a midway road-house was gathered the greatest assemblage of dogs and loaded sleds I had ever seen together at one time, each team with an Indian driver; they must have covered a quarter or a third of a mile. It was a freight train engaged in transporting a whole boat-load of butcher's meat to Iditarod City, the cargo of a steamboat that had frozen in on the Yukon the previous October or early November. All the winter through efforts had been made to get this meat two hundred odd miles overland to its destination; but the weather had been so stormy and the snow so deep that near the end of March most of it was still on the way, and some yet far down the trail towards the Yukon waiting for another trip of the teams.

Dishkaket was merely a native village on the Innoko River two or three years before; but since three new trails from the Yukon come together here—from Kaltag Nulato, and Lewis's Landing—and in the other directions two trails branch off here, to the Innoko diggings at Ophir and to the Iditarod, a store or two and a couple of road-houses had sprung up.

From Dishkaket, after crossing the Innoko, we took the most northerly of the three trails to the Yukon, the Lewis Cut-Off, a trail of a hundred miles that strikes straight across country and reaches the Yukon eighty miles farther up that stream than the Nulato trail and a hundred and twenty miles farther up than the Kaltag trail. The Kaltag trail is the trail to Nome; the Nulato trail is the mail trail simply because it suits the contractors to throw business to Nulato. The Lewis Cut-Off is the direct route, the shortest by about a hundred miles, but it was cut by the private individual whose name it bears, and leads out to his store and road-house on the Yukon; so a rival road-house was built close by on the river and the prestige and advertisement of the "United States mail route" thrown to the trail that covers one hundred unnecessary miles—for no other reason than to deprive Lewis of the legitimate fruit of his enterprise.

The character of the country changed so soon as the Innoko was crossed; the wide swamps gave place to a broken, light-timbered country of ridges and hollows, and the rough, laborious, horse-ruined trail across it made bad travelling. "Buckskin Bill," with his cayuses, was also engaged in "moving the meat." The measured miles, moreover, gave place to estimated miles, and the nominal twenty-five we made the first day was probably not much more than twenty.

MILLINERY

The first fifty miles of the country between the Innoko and the Yukon is much the same, and we were climbing and descending ridges for a couple of days. Then we crossed a high ridge and dropped out of Innoko waters into the valley of the Yukatna, a tributary of the Yukon, and passed down this valley for thirty or forty miles, and then across some more broken country to the Yukon. At one of the road-houses a woman was stopping, going in with three or four large sled loads of millinery and "ladies' furnishings." We were told that the merchandise had cost her twelve thousand dollars in Fairbanks, and that she expected to realise thirty thousand dollars by selling it to the "sporting" women of the Iditarod, now a whole winter debarred from "the latest imported French fashions." This woman was dressed in overalls, like a man, and the drivers of her teams, two white men and a native, cursed and swore and used filthy language to the dogs in her presence. It always angers me to hear an Indian curse; to hear one curse in the presence of a white woman was particularly disgusting and exasperating; but what could one expect when the white men put no slightest restraint upon themselves and the woman seemed utterly indifferent? I called the Indian aside and spoke very plainly to him, and he ceased his ribaldry; but the white men still poured it out as they struggled to hitch their many dogs. At last I could stand it no longer. "Madam," I said to the woman, "I don't know who you are, save that you are a white woman, and as a white woman, if I were you, I would make those blackguards treat me with more respect than to use such language before me." She flushed and made no reply. The men, who heard what I said, scowled and made no reply. Presently dispositions were done and the train moved off, but I did not hear any more foul language. This is set down here chiefly because it was the first and only time in all his travels in Alaska that the writer heard such language in such presence.

Another road-house was kept by a man who had been cook upon a recent arctic expedition off the coast of Alaska, and he gave some interesting inside information about an enterprise the published narrative of which had always seemed unsatisfactory. It was just gossip from a drunken scamp, but it filled several gaps in the book.

As we approached the Yukon we passed several meat caches where great quarters of beef sewn up in burlap were piled on the side of the trail. At one of these caches the camp-robbers had been at work industriously. They had stripped the burlap from parts of several quarters, exposing the fat, and had dug out and carried it away little by little until it was all gone. The hard-frozen lean probably defied their best efforts; at any rate, the fat offered less resistance. But where else in the world could men dump quarters of beef beside the road and go off and leave them for weeks with no more danger of depredation than the bills of birds can effect?

A few miles from the river the rival road-house signs began to appear. "Patronise Lewis; he cut this trail at his own expense," pleaded one. "Why go five miles out of your way," sneered another. Lewis's road-house is across the wide Yukon, and there was no point in crossing the river save one's determination to lend no countenance to the spitefulness of these mail runners. So across the river we went and were glad to be on the Yukon again. The next morning we encountered the same rival signs at the point where the trail from Lewis's joined the "mail trail."

"TREASURE ISLAND"

Most of our travelling was now upon the surface of the Yukon, and four hundred and fifty miles of it stretched ahead of us ere our winter's travel should end at Fort Yukon. Four hours brought us to the military telegraph station at Melozi, and we were able to send word ahead that we were safely out of the Kuskokwim wilderness. Then a portage was crossed and then the river pursued again until with about thirty miles to our credit we made camp. The days were lengthening out now, the weather growing mild, although a keen, cold, down-river breeze was rarely absent, and travel began to be pleasant and camping no hardship. We preferred camping, on several scores, when the day's work had not been too arduous, chief amongst them being that it gave more opportunity and privacy for Walter's schooling. He was reading Treasure Island aloud, and I was getting as great pleasure from renewing as he from beginning an acquaintance with that prince of all pirate stories. Kokrines and Mouse Point one day, the next The Birches; we passed these well-known Yukon landmarks, camping, after a run of thirty-eight miles, some six miles beyond the last-named place, with a run of forty-four miles before us to Tanana. I judged it too much; but the trail was greatly improved and we decided to attempt it in one stage. A misreading of the watch, so that I roused myself and Walter at 3.30 A. M. instead of 5.15 A. M., and did not realise the mistake until the fire was made and it was not worth while returning to bed, gave us a fine start and we made good progress. Gold Mountain (so called, one supposes, because there is no gold there; there is no other reason), Grant Creek, "Old Station" were passed by, and at length Tanana loomed before us while yet ten miles away. In just

eleven hours we ran the forty-four miles, making, with three additional miles out to the mission, forty-seven altogether, by far the longest journey of the winter. We reached Tanana on the 1st of April, just six weeks since we left.

AN UNTRAVELLED RIVER

We spent eight days at Tanana, including two Sundays, Passion Sunday and Palm Sunday, but I was under an old promise to spend Easter there also. Now, Easter, 1911, fell on the 16th of April, and for the three-hundred-mile journey to Fort Yukon a period of ten or twelve days at the least would be necessary, that might easily stretch to two weeks. Travelling on the Yukon ice so late in April as this would involve was not only fraught with great difficulty and discomfort, but also with actual danger, and I had to beg to be absolved of my promise. Some considerable preparation was on foot for the festival, and I was loath to leave, for Tanana was then without any resident minister, but it seemed foolish to take the chances that would have to be taken if we stayed.

Five days of almost ceaseless snow-storm during our stay at Tanana did not give prospect of good travelling, and, indeed, when we pulled out from the mission on the Monday in Holy Week there was no sign of any trail. From Tanana up to Fort Yukon there is very little travel; since the whole of this long stretch of river was deprived of winter mail a year or two before, no through travel at all. Cabins may usually be found to camp in, but there are no road-houses. What travel still takes place is local.

The journey divided itself into two roughly equal parts, a hundred and fifty miles through the Lower Ramparts, and a hundred and fifty miles through the Yukon Flats, almost all of it on the surface of the river. It was hoped to reach Stephen's Village, a native settlement just within the second half of the journey, for Easter.

Snow does not lie long at rest upon the river within the Ramparts, and particularly within the narrow, cañon-like stretch of seventy-five miles from Tanana to Rampart City. Violent and almost ceaseless down-stream winds sweep the deep defile in the mountains through which the river winds its course. In places the ice is bare of snow; in places the snow is piled in huge, hardened drifts. So strong and so persistent is this wind that it is often possible to skate over an uninterrupted black surface of ice, polished like plate glass, for twenty miles on a down-river journey. To make way over such a surface up-stream, against such wind, is, however, almost impossible. The dogs get no footing and the wind carries the sled where it listeth. The journey so far as Rampart City has been described before; it will suffice now that it took three days of toilsome battling against wind and bad surface, with nights spent upon the floor of grimy cabins. So cold was the wind that it is noted in my diary with surprise, on the 12th of April, that I

had worn fur cap, parkee, and muffler all day, as though it had been the dead of winter instead of three weeks past the vernal equinox.

On Wednesday night there was Divine service at Rampart, and on Maundy Thursday, after four miles upon the river, we took the portage of eleven miles that cuts a chord to the arc of the greatest bend of the river within the Ramparts and so saves nine miles. Three miles more took us to the deserted cabin at the site of the abandoned coal-mine opposite the mouth of the Mike Hess River, here confluent with the Yukon, and in that cabin we spent the night, having had the high, bitter wind in our faces all day. We hated to leave the shelter of the wooded portage and face the blast of the last three miles.

WIND AND SNOW

We woke the next morning to a veritable gale of wind and snow, and lay in the cabin till noon, occupied with the exercises of the solemn anniversary. The wind having then abated somewhat and the snow ceased, we sallied forth, still hopeful of making Stephen's Village for Easter. But when we got down upon the river surface it became doubtful if we could proceed, and as we turned the first bend we encountered a fresh gale that did not fall short of a blizzard. The air was filled with flying snow that stung our faces and blinded us. The dogs' muzzles became incrusted with snow and their eyes filled with it so that it was hard to keep them facing it. I could not see the boy at all when he was a hundred feet ahead of the team. We struggled along for four miles, and, since it was then evident that we could not go much farther without useless risk, we turned to a spot on the bank where Walter knew another deserted cabin to stand; for he knows every foot of this section of the river and once spent a summer, camped at the coal-mine, fishing. The spot was reached, but the cabin was gone. The fish rack still stood there, but the cabin was burned down. There was nothing for it but to return to the coal-mine cabin; so, for the first and only time in all my journeyings, it was necessary to abandon a day's march that had been entered upon and go back whence we had come. We ran before the gale at great speed and were within the cabin again by 2.30 P. M. All the evening and all night the storm raged, and I was in two minds about running back to Rampart before it for Easter, since it was now out of the question to reach Stephen's Village. If the season had not been so far advanced this is what I should have done, but it would set us back three days more on the journey, and on reflection I was not willing to take that chance with the break-up so near.

So on the morning of Easter Eve we sallied up-stream again, snow falling and driving heavily, and the wind still strong but with yesterday's keen edge blunted. By the time we had beaten around the long bend up which we had

fought our way the day before, the snow had ceased, and by noon the wind had dropped and the sun was shining, and in a few moments of his unobscured strength all the loose snow on the sled was melted—a warning of the rapidity with which the general thaw would proceed once the skies were clear. That night saw us in the habitable though dirty, deserted cabin at Salt Creek (so called, one supposes, because the water of it is perfectly fresh) at which we had hoped to lodge the previous night.

ALASKAN "FORTS"

Buoyed by the hope of doing a double stage in a clear, windless day and thus reaching Stephen's Village for service at night, we made a very early start that beautiful Easter morning. But it was not to be. Such trail as there was ran high up on the bank ice—level, doubtless, when it was made much earlier in the season, but now at a slope towards the middle of the river through the falling of the water, and seamed with great cracks. Such a trail, called a "sidling" trail in the vernacular of mushing, is always difficult and laborious to travel, for the sled slips continually off it into the loose snow or the ice cracks, and often for long stretches at a time one man must hold up the nose of the sled while the other toils at the handle-bars. In one place, while thus holding the front of the sled on the trail, Walter slipped into an ugly ice crack concealed by drifted snow, and so wedged his foot that I had difficulty in extricating him. The last two bends of the river within the Ramparts seemed interminable and it was 6.30 P. M., with twelve hours' travel behind us, when we reached old Fort Hamlin, on the verge of the Yukon Flats. These "forts," it might be explained, if one chose to pursue the elucidation of Alaskan nomenclature in the same strain, are so called because they never had any defences and never needed any. As a matter of fact, in the early days, when the Hudson Bay Company made its first establishments on the upper river, there was supposed to be some need of fortification, and Fort Selkirk and Fort Yukon were stockaded. Fort Selkirk, indeed, was sacked and burned sixty years ago, but not by Yukon Indians. The Chilkats from the coast, indignant at the loss of their middle-man profits by the invasion of the interior, crossed the mountains, descended the river, and destroyed the post. It thus became customary to call a trading-post a "fort," and every little point where a store and a warehouse stood was so dignified. Hence Fort Reliance, Fort Hamlin, Fort Adams.

For years Fort Hamlin had been quite deserted, but now smoke issued from the stovepipe and dogs gave tongue at our approach, and we found a white man with an Esquimau wife from Saint Michael and a half-breed child dwelling there and carrying a few goods for sale. With him we made our lodging, and with him and his family said our evening service of Easter, and so to bed, thoroughly tired.

TRAVELLING BY NIGHT

A mile beyond Fort Hamlin the Ramparts suddenly cease and the wide expanse of the Yukon Flats opens at once. Ten miles or so brought us to Stephen's Village, where we had been long expected and where a very busy day was spent. A number of Indians were gathered and there were children to baptize and couples to marry, as well as the lesson of the season to teach. It was a great disappointment that we had been unable to get here before, and matter of regret that, being here at such labour, only so short a time could be spent. But the closing season called to us loudly. A mild, warm day set all the banks running with melting snow and made the surface of the river mushy. There was really no time to lose, for the next seventy-five miles was to give us the most difficult and disagreeable travelling of the journey. Here, in the Flats, where is greatest need of travel direction on the whole river, was no trail at all beyond part of the first day's journey. Within the Ramparts the river is confined in one channel; however bad the travelling may be, there is no danger of losing the way; but in the Flats the river divides into many wide channels and these lead off into many more back sloughs, with low, timbered banks and no salient landmarks at all. Behind us were the bluffs of the Ramparts, already growing faint; afar off on the horizon, to the right, were the dim shapes of the Beaver Mountains. All the rest was level for a couple of hundred miles.

A local trail to a neighbouring wood-chopper's took us some twelve miles, and then we were at a loss. The general direction we knew, and previous journeys both in winter and summer gave us some notion of the river bends to follow, but we wallowed and floundered until late at night before we reached the cabin we were bound for, the snow exceeding soft and wet for hours in the middle of the day.

The time had plainly come to change our day travel into night travel, for freezing was resumed each night after the sun was set, and the surface grew hard again. So at this cabin we lay all the next day, with an interesting recluse of these parts who knows many passages of Shakespeare by heart, and who drew us a chart of our course to the next habitation, marking every bend to be followed and the place where the river must be crossed. But there is always difficulty in getting a new travel schedule under way, and we did not leave until five in the morning instead of at two as we had planned. This gave us insufficient time to make the day's march before the sun softened the snow, and moccasins grew wet, and snow-shoe strings began to stretch, and the webbing underfoot to yield and sag—and we had to content ourselves with half a stage. By nine P. M. we were off again and did pretty well until the night grew so dark that we could no longer distinguish our landmarks. Then we went to the bank and built a big fire and made a pot of tea and sat and dozed around it for a couple of hours or so until the brief

darkness of Alaskan spring was overpast, and the dawn began to give light enough to see our way again.

When our course lay on the open river, the snow had crust enough to hold us upon our snow-shoes; but when it took us through little sheltered sloughs, the crust was too thin and we broke through all the time, and that makes slow, painful travel. At last we came to a portage that cuts off a number of miles, but the snow slope by which the top of the bank should be reached had a southern exposure and was entirely melted and gone. The dogs had to be unhitched, the sled to be unloaded, the stuff packed in repeated journeys up the steep bank, and the sled hauled up with a rope. Then came the repacking and reloading and the rehitching; and when the portage was crossed the same thing had to be done to get down to the river bed again. Twice more on that day the process was gone through, and each time it took nigh an hour to get up the bank, so that it was around noon, and the snow miserably wet and mushy again, when we reached Beaver and went to bed at the only road-house between Fort Yukon and Tanana.

"Beaver City" owes its existence to quartz prospects in the Chandalar, in which men of money and influence in the East were interested. The Alaska Road Commission had built a trail some years before from the Chandalar diggings out to the Yukon, striking the river at this point, and on the opposite side of the river another trail is projected and "swamped out" direct to Fairbanks. The opening up of this route was expected to bring much travel through Beaver, and a town site was staked and many cabins built. But "Chandalar quartz" remains an interesting prospect, and the Chandalar placers have not proved productive, and all but a few of the cabins at "Beaver City" are unoccupied. If "the Chandalar" should ever make good, "Beaver City" will be its river port.

LAST DAY

We left Beaver at eleven P. M. on Friday night, hoping in two long all-night runs to cover the eighty miles and reach Fort Yukon by Sunday morning. Here was the first trail since we left Stephen's Village and the first fairly good trail since we left Tanana, for there had been some recent travel between Fort Yukon and Beaver. Here for the first time we had no need of snow-shoes, and when they have been worn virtually all the winter through and nigh a couple of thousand miles travelled in them, walking is strange at first in the naked moccasin. It is a blessed relief, however, to be rid of even the lightest of trail snow-shoes. We stepped out gaily into a beautiful clear night, with a sharp tang of frost in the air, and even the dogs rejoiced in the knowledge that the end of the journey was at hand. All night long we made good time and kept it up without a stop until eight o'clock in the morning, when we reached an inhabited but just then unoccupied cabin and ate

supper or breakfast as one chooses to call it and went to bed, having covered fully half the distance to Fort Yukon. About noon we were rudely awakened by one of the usual Alaskan accompaniments of approaching summer. The heat of the sun was melting the snow above us, and water came trickling through the dirt roof upon our bed. We moved to a dry part of the cabin and slept again until the evening, and at nine P. M. entered upon what we hoped would be our last run.

But once more our plans to spend Sunday were frustrated. The trail led through dry sloughs from which the advancing thaw had removed the snow in great patches. Sometimes the sled had to be hauled over bare sand; sometimes wide detours had to be made to avoid such sand; sometimes pools of open water covered with only that night's ice lay across our path. By eight o'clock in the morning we estimated that we were not more than seven or eight miles from Fort Yukon. But already the snow grew soft and our feet wet, and the dogs were very weary with the eleven hours' mushing. It would take a long time and much toil to plough through slush, even that seven or eight miles. So I gave the word to stop, and we made an open-air camp on a sunny bank, and after breakfast we covered our heads in the blankets from the glare of the sun, and slept till five. Then we ate our last trail meal, and were washed up and packed up and hitched up an hour and more before the snow was frozen enough for travel. A couple of hours' run took us to Fort Yukon, and so ended the winter journey of 1910-11, on the 23d of April, having been started on the 17th of November. We were back none too soon. Every day we should have found travelling decidedly worse. In a few more days the river would have begun to open in places, and only the middle would be safe for travel, with streams of water against either bank and no way of getting ashore. Seventeen days later the ice was gone out and the Yukon flowing bank full.

CHAPTER XI

THE NATIVES OF ALASKA

WHEN one contemplates the native people of the interior of Alaska in the mass, when, with the stories told by the old men and old women of the days before they saw the white man in mind, one reconstructs that primitive life, lacking any of the implements, the conveniences, the alleviations of civilisation, the chief feeling that arises is a feeling of admiration and respect.

What a hardy people they must have been! How successfully for untold generations did they pit themselves against the rigour of this most inhospitable climate! With no tool but the stone-axe and the flint knife, with no weapon but the bow and arrow and spear, with no material for fish nets but root fibres, or for fish-hooks or needles but bone, and with no means of fire making save two dry sticks—one wonders at the skill and patient endurance that rendered subsistence possible at all. And there follows quickly upon such wonder a hot flush of indignation that, after so conquering their savage environment or accommodating themselves to it, that they not only held their own but increased throughout the land, they should be threatened with a wanton extermination now that the resources of civilisation are opened to them, now that tools and weapons and the knowledge of easier and more comfortable ways of life are available.

The natives of the interior are of two races, the Indian and the Esquimau. The Indian inhabits the valley of the Yukon down to within three or four hundred miles of its mouth; the Esquimau occupies the lower reaches of the Yukon and the Kuskokwim and the whole of the rivers that drain into the Arctic Ocean west and north. These inland Esquimaux are of the same race as the coast Esquimaux and constitute an interesting people, of whom something has been said in the account of journeys through their country.

THE ATHABASCANS

The Indians of the interior are of one general stock, the Athabascan, as it is called, and of two main languages derived from a common root but differing as much perhaps as Spanish and Portuguese. The language of the upper Yukon (and by this term in these pages is meant the upper American Yukon) is almost identical with the language of the lower Mackenzie, from which region, doubtless, these people came, and with it have always maintained intercourse. The theory of the Asiatic origin of the natives of interior Alaska has always seemed fanciful and far-fetched to the writer. The same translations of the Bible and the Book of Common Prayer serve for the lower Mackenzie and the upper Yukon and are in active use to-day through all that wide region, despite minor dialectical variations.

Near the lower ramparts of the Yukon, at Stephen's Village, the language changes and the new tongue maintains itself, though with continually increasing dialectical differences, until the Indians overlap the Esquimaux, six hundred miles farther down.

Fort Yukon is the most populous place on the river, and the last place on the river, where the upper language, or Takhud, is spoken. A stretch of one hundred and fifty miles separates it from the next native village, and the inhabitants of that village are not intelligible to the Fort Yukon Indians—an unintelligibility which seems to speak of long ages of little intercourse.

The history of the migrations of the Indians from the Athabascan or Mackenzie region is impossible to trace now. It is highly probable that the movement was by way of the Porcupine River. And it would seem that there must have been two distinct migrations: one that passed down the Yukon to the Tanana district and spread thence up the Tanana River and up the Koyukuk; and long after, as one supposes, a migration that peopled the upper Yukon. A portion of this last migration must have gone across country to the Ketchumstock and the upper Tanana, for the inhabitants of the upper Tanana do not speak the Tanana tongue, which is the tongue of the Middle Yukon but a variant of the tongue of the upper Yukon.

How long ago these migrations took place there is not the slightest knowledge to base even a surmise upon. The natives themselves have no records nor even traditions, and the first point of contact between white men and the natives of the interior is within three quarters of a century ago. It may have been two or three families only which penetrated to this region or to that and settled there, and what pressure started them on their wanderings no one will ever know. Perhaps some venturesome hunter pursuing his game across the highlands that separate the Mackenzie from the Yukon was disabled and compelled to remain until the summer, and then discovered the salmon that made their way up the tributaries of the Porcupine. The Mackenzie has no salmon. Or a local tribal quarrel may have sent fugitives over the divide.

When first the white man came to the upper Yukon, in 1846 and 1847, no one knew that it was the same river at the mouth of which the Russians had built Redoubt Saint Michael ten or twelve years before. The natives of the upper river knew nothing about the lower river. It is an easy matter to float down the Yukon for a thousand miles in a birch-bark canoe, but an exceedingly difficult matter to come up again. It was not until the voyageurs of the Hudson Bay Company, in their adventurous fur-trading expeditions, met at the mouth of the Tanana River the agents of the Russian Fur Company, come up from Nulato on the same quest, that the identity of the Yukon and Kwikpak Rivers was discovered; and that seems to have been

well past the middle of the century. In the map of North America that the writer first used at school, the Yukon flowed north into the Arctic Ocean, parallel with the Mackenzie.

AN INOFFENSIVE PEOPLE

The Indians of the interior of Alaska are a gentle and kindly and tractable people. They have old traditions of bloody tribal warfare that have grown in ferocity, one supposes, with the lapse of time, for it is very difficult forone who knows them to believe that so mild a race could ever have been pugnacious or bloodthirsty. Whether it were that the exigencies of subsistence under arctic conditions demanded almost all their energies, or that a realisation of their constant dependence upon one another checked the play of passion, they differ most widely and, it seems certain, always differed most widely in character from the Indians of the American plains. A personal knowledge of the greater part of all the natives of interior Alaska, gained by living amongst them and travelling from village to village during seven or eight years, furnishes but a single instance of an Indian man guilty of any sort of violence against another Indian or against a white man—except under the influence of liquor.

It is true that there are unquestioned murders that have been committed—murders of white men at that; but in the sixty years from the Nulato massacre of 1851, over the whole vast interior, these crimes can be counted on the fingers of one hand. They are not a revengeful people. They do not cherish the memory of injuries and await opportunities of repayment; that trait is foreign to their character. On the contrary, they are exceedingly placable and bear no malice. Moreover, they are very submissive, even to the point of being imposed upon. In fact, they are decidedly a timid people in the matter of personal encounter. In all these characteristics they differ from the North American Indian generally as he appears in history.

They are capable of hard work, though apparently not of continuous hard work; they will cheerfully support great privation and fatigue; but when the immediate necessity is past they enjoy long periods of feasting and leisure. Having no property nor desire of property, save their clothes, their implements and weapons, and the rude furnishings of their cabins, there is no incentive to hard and continuous work.

After all, where is the high and peculiar virtue that lies in the performance of continuous hard work? Why should any one labour incessantly? This is the question the Indian would ask, and one is not always sure that the mills of Massachusetts and the coal-mines of Pennsylvania return an entirely satisfactory answer. As regards thrift, the Indian knows little of it; but the average white man of the country does not know much more. There is little difference as regards thrift between wasting one's substance in a "potlatch,"

which is a feast for all comers, and wasting it in drunkenness, which is a feast for the liquor sellers, save that one is barbarous and the other civilised, as the terms go.

It would seem that the general timidity of the native character is the reason for a very general untruthfulness, though there one must speak with qualification and exception. There are Indians whose word may be taken as unhesitatingly as the word of any white man, and there are white men in the country whose word carries no more assurance than the word of any Indian. The Indian is prone to evasion and quibbling rather than to downright lying, though there are many who are utterly unreliable and untrustworthy.

SEXUAL MORALITY

In the matter of sexual morality the Indian standards are very low, though certainly not any lower than the standards of the average white man in the country. One is forced to this constant comparison; the white man in the country is the only white man the Indian knows anything about. To the Indian a physical act is merely a physical act; all down his generations there has been no moral connotation therewith, and it is hard to change the point of view of ages when it affects personal indulgence so profoundly. The white man has been taught, down as many ages, perhaps, that these physical acts have moral connotation and are illicit when divorced therefrom, yet he is as careless and immoral in this country as the Indian is careless and unmoral. And the white man's careless and immoral conduct is the chief obstacle which those who would engraft upon the Indian the moral consciousness must contend against.

The Indian woman is not chaste because the Indian man does not demand chastity of her, does not set any special value upon her chastity as such. And the example of the chastity which the white man demands of his women, though he be not chaste himself, is an example with which the native of Alaska has not come much into contact. Too often, in the vicinity of mining camps, the white women who are most in evidence are of another class.

GOVERNMENT SCHOOLS

The Indian is commonly intelligent and teachable, and in most cases eager to learn and eager that his children may learn. Here it becomes necessary to deal with a difficult and somewhat contentious matter that one would rather let alone. The government has undertaken the education of the Indian, and has set up a bureau charged with the establishment and conduct of native schools.

There are five such schools on the Yukon between Eagle and Tanana, including these two points, amongst Indians all of whom belong to the

Episcopal Church, and five more between Tanana and Anvik, amongst natives divided in allegiance between the Episcopal and the Roman Catholic Churches. Below Anvik to the river's mouth the natives are divided between the Roman and the Greek Churches, and they are outside the scope of this book. On the tributaries of the Yukon the only native schools are conducted by the missions of the Episcopal Church, on the Koyukuk and Tanana Rivers, and have no connection with the government.

When, somewhat late in the day, the government set its hand to the education of the natives, mission schools had been conducted for many years at the five stations of the Episcopal Church above Tanana and at the various mission stations below that point. The Bureau of Education professed its earnest purpose of working in harmony with the mission authorities, and upon this profession it secured deeds of gift for government school sites within the mission reservations from the Bishop of Alaska.

It cannot be stated, upon a survey of the last five or six years, that this profession has been carried out. The administration of the Bureau of Education has shared too much the common fault of other departments of the government in a detached and lofty, not to say supercilious, attitude. Things are not necessarily right because a government bureau orders them, nor are government officials invested with superior wisdom merely by reason of their connection with Washington. It is just as important for a government school as for a mission school to be in harmony with its environment, to adapt itself to the needs of the people it designs to serve; and that harmony and adaptation may only be secured by a single-minded study of the situation and of the habits and character, the occupations and resources of the people.

To keep a school in session when the population of a village is gone on its necessary occasions of hunting or trapping, and to have the annual recess when all the population is returned again, is folly, whoever orders it, in accord with what time-honoured routine soever, and this has not infrequently been done. Moreover, it is folly to fail to recognise that the apprenticeship of an Indian boy to the arts by which he must make a living, the arts of hunting and trapping, is more important than schooling, however important the latter may be, and that any talk—and there has been loud talk—of a compulsory education law which shall compel such boys to be in school at times when they should be off in the wilds with their parents, is worse than mere folly, and would, if carried out, be a fatal blunder. If such boys grow up incompetent to make a living out of the surrounding wilderness, whence shall their living come?

The next step would be the issuing of rations, and that would mean the ultimate degradation and extinction of the natives. When the question is

stated in its baldest terms, is the writer perverse and barbarous and uncivilised if he avow his belief that a race of hardy, peaceful, independent, self-supporting illiterates is of more value and worthy of more respect than a race of literate paupers? Be it remembered also that many of these "illiterates" can read the Bible in their own tongue and can make written communication with one another in the same—very scornful as the officials of the bureau have been about such attainment. One grows a little impatient sometimes when a high official at Washington writes in response to a request for permission to use a school building after school hours, for a class of instruction in the native Bible, that the law requires that all instruction in the school be in the English language, and that it is against the policy of Congress to use public money for religious instruction! When the thermometer drops to 50° below zero and stays there for a couple of weeks, it is an expensive matter to heat a church for a Bible class three times a week—and the schoolhouse is already cosy and warm.

But the question does not reduce itself to the bald terms referred to above; by proper advantage of times and seasons the Indian boy may have all the English education that will be of any service to him, and may yet serve his apprenticeship in the indispensable wilderness arts. And, given a kindly and competent teacher, there is no need of any sort of compulsion to bring Indian boys and girls to school when they are within reach of it.

The Indian school problem is not an easy one in the sense that it can be solved by issuing rules and regulations at Washington, but it can be solved by sympathetic study and by the careful selection of intelligent, cultured teachers.

After all, this last is the most important requisite. Too often it is assumed that any one can teach ignorant youth: and women with no culture at all, or with none beyond the bald "pedagogy" of a low-grade schoolroom, have been sent to Alaska. There have, indeed, been notable exceptions; there have been some very valuable and capable teachers, and with such there has never been friction at the missions, but glad co-operation.

The situation shows signs of improvement; there are signs of withdrawal from its detached and supercilious attitude on the part of the bureau, signs which are very welcome to those connected with the missions. For the best interest of the native demands that the two agencies at work for his good work heartily and sympathetically together. The missions can do without the government—did do without it for many years, though glad of the government's aid in carrying the burden of the schools—but the government cannot do without the missions; and if the missions were forced to the re-establishment of their own schools, there would be empty benches in the schools of the government.

THE THREAT OF EXTINCTION

That the Indian race of interior Alaska is threatened with extinction, there is unhappily little room to doubt; and that the threat may be averted is the hope and labour of the missionaries amongst them. At most places where vital statistics are kept the death-rate exceeds the birth-rate, though it is sometimes very difficult to secure accurate statistics and to be sure that they always cover the same ground. The natives wander; within certain territorial limits they wander widely. Whenever a child is born it is certain that if it lives long enough it will be brought to a mission to be baptized, but a death often occurs at some isolated camp that is not reported till long after, and may escape registration altogether.

Certain diseases that have played havoc in the past are not much feared now. For the last seven years supplies of the diphtheritic antitoxin have been kept at all the missions of the Episcopal Church, and in the summer of 1911, when there was an outbreak of smallpox at Porcupine River, almost every Indian of interior Alaska was vaccinated, mainly by the mission staffs. Diphtheria has been a dreadful scourge. The valley of the upper Kuskokwim was almost depopulated by it in 1906. A disease resembling measles took half the population of the lower Yukon villages in 1900. In the last few years there have been no serious epidemics; but epidemic disease does not constitute the chief danger that threatens the native.

DWELLING AND CLOTHING

That chief danger looms from two things: tuberculosis and whisky. Whether tuberculosis is a disease indigenous to these parts, or whether it was introduced with the white man, has been disputed and would be difficult of determination. Probably it was always present amongst the natives; the old ones declare that it was; but the changed conditions of their lives have certainly much aggravated it. They lived much more in the open when they had no tree-felling tool but a stone-axe and did not build cabins. The winter residence in those days was, it is true, a dark, half-underground hut covered with earth and poles, but the time of residence therein was much shorter; the skin tent sheltered them most of the year. Indeed, some tribes, such as the Chandalar, lived in their skin tents the year round. Now an ill-ventilated and very commonly overcrowded cabin shelters them most of the year. It is true that the cabins are constantly improving and the standard of living within them is constantly rising. The process is slow, despite all urgings and warnings, and overcrowding and lack of ventilation still prevail..

Perhaps as great a cause of the spread of tuberculosis is the change in clothing. The original native was clad in skins, which are the warmest clothing in the world. Moose hide or caribou hide garments, tanned and smoked, are impervious to the wind, and a parkee of muskrat or squirrel, or,

as was not uncommon in the old days, of marten, or one of caribou tanned with the hair on, with boots of this last material, give all the warmth that exposure to the coldest weather requires. Nowadays fur garments of any sort are not usual amongst the natives. There is a market, at an ever-growing price, for all the furs they can procure. A law has, indeed, gone recently into effect prohibiting the sale of beaver for a term of years, and already beaver coats and caps begin to appear again amongst the people. It would be an excellent, wise thing, worthy of a government that takes a fatherly interest in very childlike folks, to make this law permanent. If it were fit to prohibit the sale of beaver pelts for a term of years to protect the beaver, surely it would be proper to perpetuate the enactment to protect the Indian. It would mean warm clothing for man, woman, and child.

THE INDIAN TRADER

The Indian usually sells all his furs and then turns round and buys manufactured clothing from the trader at a fancy price. That clothing is almost always cotton and shoddy. Genuine woollens are not to be found in the Indian trader's stock at all, and in whatever guise it may masquerade, and by whatever alias it may pass, the native wear is cotton. Yet there is no country in the world where it is more imperative, for the preservation of health, that wool be worn.

However much fur the Indian may catch and sell, he is always poor. He is paid in trade, not in cash; and when the merchant has bought the Indian's catch of fur he straightway spreads out before him an alluring display of goods specially manufactured for native trade. Here are brilliant cotton velvets and sateens and tinselled muslins and gay ribbons that take the eye of his women folk; here are trays of Brummagem knickknacks, brass watches, and rings set with coloured glass, gorgeous celluloid hair combs, mirrors with elaborate, gilded frames, and brass lamps with "hand-painted" shades and dangling lustres; here are German accordions and mouth-organs and all sorts of pocket-knives and alarm-clocks—the greatest collection of glittering and noisy trash that can be imagined, bought at so much a dozen and retailed, usually, at about the same price for one. And when the Indian has done his trading the trader has most of his money back again..

The news that an Indian has caught a black fox, the most exciting item of news that ever flies around a native village, does not give any great pleasure to one who is acquainted with native conditions, because he knows that it will bring little real benefit to the Indian. There will be keen competition, within limits, of course, amongst the traders for it; and the fortunate trapper may get three or four hundred dollars in trade for a skin that will fetch eight hundred or a thousand in cash on the London market; but if his wife get the

solid advantage of a new cooking-stove or a sewing-machine from it she is doing well.

Food the Indian never buys much beyond his present need, unless it is to squander it in feast after feast, to which every one is invited and at which there is the greatest lavishness. If a son is born, or a black fox is caught, or a member of the family recovers from a severe illness, custom permits, if it do not actually demand, that a "potlatch" be given, and most Indians are eager, whenever they are able, to be the heroes of the prandial hour.

So he, his women, and his children go clad mainly in cotton, and there is abundant evidence that the tendency to pulmonary trouble, always latent amongst them, is developed by the severe colds which they catch through the inadequate covering of their bodies, and is then cherished into virulent activity by the close atmosphere of overcrowded, overheated cabins.

The missions help the Indians, especially the women and children, in this matter of clothing as much as possible. Every year large bales of good though left-off under and over wear are secured through church organisations outside, and are traded to the natives at nominal prices, usually for fish or game or a little labour in sawing wood. And this naturally does not ingratiate missions with the trading class. One's anger is aroused sometimes at seeing the cotton-flannel underclothes and "cotton-filled" blankets and the "all-wool" cotton coats and trousers which they pay high prices for at the stores. The Canadian Indians, who are their neighbours, buy genuine Hudson Bay blankets and other real woollen goods, but the Alaskan Indian can buy nothing but cotton.

But far and away beyond any other cause of the native decline stands the curse of the country, whisky. Recognising by its long Indian experience the consequences of forming liquor-drinking habits amongst the natives, the government has forbidden under penalty the giving or selling of any intoxicants to them. A few years ago a new law passed making such giving or selling a felony. These laws are largely a dead letter.

UNPAID COMMISSIONERS

The country is a very large one, very sparsely populated; the distances are enormous, the means of transportation entirely primitive, and the police and legal machinery insufficient to the end of suppressing this illicit traffic, especially in view of the fact that a considerable part of the whole population does not look with favour upon any vigorous attempt to suppress it. Great areas of the country are without telegraphic communication, and in parts mail is received only once a month. One stretch of two hundred and fifty miles of the Yukon receives no mail at all during the winter months—more than half the year. In that instance, as in many others, the country has gone

distinctly backward in the past few years. The magistrates—"commissioners" they are called, receive no salary, but eke out a precarious and often wretched existence on fees, so that it is frequently impossible to get men of character and capacity to accept such offices.

One would have supposed that amongst all the legislating that has been done for and about Alaska in the last year or two, one crying evil that the attention of successive administrations has been called to for twenty years past would have been remedied. That evil is the unpaid magistrate and the vicious fee system by which he must make a living. It is a system that has been abolished in nearly all civilised countries; a system that lends itself to all sorts of petty abuse; a system that no one pretends to defend. No greater single step in advance could be made in the government of Alaska, no measure could be enacted that would tend to bring about in greater degree respect for the law than the abolition of the unpaid magistracy and the setting up of a body of stipendiaries of character and ability.

The anomalies of the present situation are in some cases amusing. At one place on the Yukon it is only possible for a man to make a living as United States commissioner if he can combine the office of postmaster with it. A man who was removed as commissioner still retained the post-office, and no one could be found to accept the vacant judgeship. In another precinct the commissioner was moving all those whom he thought had influence to get him appointed deputy marshal instead of commissioner, because the deputy marshal gets a salary of two thousand dollars a year and allowances, which was more than the commissionership yielded. One is reminded of some comic-opera topsyturvyism when the judge tries in vain to get off the bench and be appointed constable. It sounds like the Bab Ballads. The district court is compelled to wink at irregularities of life and conduct in its commissioners because it cannot get men of a higher stamp to accept its appointments.

LIQUOR AND POLITICS

The only policemen are deputy United States marshals, primarily process-servers and not at all fitted in the majority of cases for any sort of detective work. Their appointment is often dictated and their action often hampered by political considerations. The liquor interest is very strong and knows how to bring pressure to bear against a marshal who is offensively active. They are responsible only to the United States marshal of their district, and he is responsible to the attorney-general, the head of the department of justice. But Washington is a long way off, and the attorney-general is a very busy man, not without his own interest, moreover, in politics. An attempt to get some notice taken of a particular case in which it was the general opinion that an energetic and vigilant deputy had been removed, and an elderly

lethargic man substituted, because of too great activity in the prosecution of liquor cases, resulted in the conviction that what should have been a matter of administrative righteousness only was a political matter as well.

The threatened extinction of the Alaskan native was referred to as wanton, and the term was used in the sense that there are no necessary natural causes fighting against his survival.

Here is no economic pressure of white settlers determined to occupy the land, such as drove the Indians of the plains farther and farther west until there was no more west to be driven to. If such delusion possess any mind as a result of foolish newspaper and magazine writings, let it be dismissed at once. No man who has lived in the country and travelled in the country will countenance such notion. The white men in Alaska are miners and prospectors, trappers and traders, wood-choppers and steamboat men. Around a mining camp will be found a few truck-farmers; alongside road-houses and wood camps will often be found flourishing vegetable gardens, but outside of such agriculture there are, speaking broadly, no farmers at all in the interior of Alaska. Probably a majority of all the homesteads that have been taken up have been located that the trees on them might be cut down and hauled to town to be sold for fire-wood. A few miles away from the towns there are no homesteads, except perhaps on a well-travelled trail where a man has homesteaded a road-house.

All the settlements in the country are on the rivers, save the purely mining settlements that die and are abandoned as the placers play out. Yet one will travel two hundred and fifty miles up the Porcupine—till Canada is reached—and pass not more than three white men's cabins, all of them trappers; one will travel three hundred and fifty miles up the Koyukuk before the first white man's cabin is reached, and as many miles up the Innoko and the Iditarod and find no white men save wood-choppers. There are a few more white men on the Tanana than on any other tributary of the Yukon, because Fairbanks is on that river and there is more steamboat traffic, but they are mainly wood-choppers, while on the lesser tributaries of the Yukon, it is safe to say, there are no settled white men at all. As soon as one leaves the rivers and starts across country one is in the uninhabited wilderness.

The writer is no prophet; he cannot tell what may happen agriculturally in Alaska or the rest of the arctic regions when the world outside is filled up and all unfrozen lands are under cultivation. Still less is he one who would belittle a country he has learned to love or detract in any way from its due claims to the attention of mankind. There is in the territory a false newspaper sentiment that every one who lives in the land should be continually singing extravagant praises of it and continually making

extravagant claims for it. A man may love Alaska because he believes it to have "vast agricultural possibilities," because, in his visions, he sees its barren wilds transformed into "waving fields of golden grain." But a man may also love it who regards all such visions as delusions.

FOOD AND FURS

The game and the fish of Alaska, the natural subsistence of the Indian, are virtually undiminished. Vast herds of caribou still wander on the hills, and far more are killed every year by wolves than by men. Great numbers of moose still roam the lowlands. The rivers still teem with salmon and grayling and the lakes with whitefish, ling, and lush. Unless the outrage of canneries should be permitted at the mouths of the Yukon—and that would threaten the chief subsistence of all the Indians of the interior—there seems no danger of permanent failure of the salmon run, though, of course, it varies greatly from year to year. Furs, though they diminish in number, continually rise in price. There are localities, it is true, where the game has been largely killed off and the furs trapped out; the Koyukuk country is one of them, though perhaps that region never was a very good game country. In this region, when a few years ago there was a partial failure of the salmon, there was distress amongst the Indians. But the country on the whole is almost as good an Indian country as ever it was, and there are few signs that it tends otherwise, though things happen so quickly and changes come with so little warning in Alaska that one does not like to be too confident.

The Indian is the only settled inhabitant of interior Alaska to-day; for the prospectors and miners, who constitute the bulk of the white population, are not often very long in one place. Many of them might rightly be classed as permanent, but very few as settled inhabitants. It is the commonest thing to meet men a thousand miles away from the place where one met them last. A new "strike" will draw men from every mining camp in Alaska. A big strike will shift the centre of gravity of the whole white population in a few months. Indeed, a certain restless belief in the superior opportunities of some other spot is one of the characteristics of the prospector. The tide of white men that has flowed into an Indian neighbourhood gradually ebbs away and leaves the Indian behind with new habits, with new desires, with new diseases, with new vices, and with a varied assortment of illegitimate half-breed children to support. The Indian remains, usually in diminished numbers, with impaired character, with lowered physique, with the tag-ends of the white man's blackguardism as his chief acquirement in English—but he remains.

It is unquestionable that the best natives in the country are those that have had the least intimacy with the white man, and it follows that the most hopeful and promising mission stations are those far up the tributary

streams, away from mining camps and off the routes of travel, difficult of access, winter or summer, never seen by tourists at all; seen only of those who seek them with cost and trouble. At such stations the improvement of the Indian is manifest and the population increases. By reason of their remoteness they are very expensive to equip and maintain, but they are well worth while. One such has been described on the Koyukuk; another, at this writing, is establishing with equal promise at the Tanana Crossing, one of the most difficult points to reach in all interior Alaska.

This chapter must not close without a few words about the native children. Dirty, of course, they almost always are; children in a state of nature will always be dirty, and even those farthest removed from that state show a marked tendency to revert to it; but when one has become sufficiently used to their dirt to be able to ignore it, they are very attractive. Intolerance of dirt is largely an acquired habit anyway. In view of their indulgent rearing, for Indian parents are perhaps the most indulgent in the world, they are singularly docile; they have an affectionate disposition and are quick and eager to learn. Many of them are very pretty, with a soft beauty of complexion and a delicate moulding of feature that are lost as they grow older. It takes some time to overcome their shyness and win their confidence, but when friendly relations have been established one grows very fond of them. Foregathering with them again is distinctly something to look forward to upon the return to a mission, and to see them come running, to have them press around, thrusting their little hands into one's own or hanging to one's coat, is a delight that compensates for much disappointment with the grown ups. In the midst of such a crowd of healthy, vivacious youngsters, clear-eyed, clean-limbed, and eager, one positively refuses to be hopeless about the race.

CHAPTER XII

PHOTOGRAPHY IN THE ARCTIC

THERE is no country in which an anastigmatic lens is of more use to the photographer than Alaska, and every camera with which it is hoped to take winter scenes should have this equipment. During two or three months in the year it makes the difference in practice between getting photographs and getting none. In theory one may always set up a tripod and increase length of exposure as light diminishes. But the most interesting scenes, the most attractive effects often present themselves under the severest conditions of weather, and he must be an enthusiast, indeed, who will get his tripod from the sled, pull out its telescoped tubes, set it up and adjust it for a picture with the thermometer at 40° or 50° below zero; and when he is done he is very likely to be a frozen enthusiast.

With an anastigmatic lens working at, say f. 6-3, and with a "speed" film (glass plates are utterly out of the question on the trail), it is possible to make a snap-shot at one twenty-fifth of a second on a clear day, around noon, even in the dead of winter, in any part of Alaska that the writer has travelled in. There are those who write that they can always hold a camera still enough to get a sharp negative at even one tenth of a second. Probably the personal equation counts largely in such a matter, and a man of very decided phlegmatic temperament may have advantage over his more sanguine and nervous brother. The thing may be done; the writer has done it himself; but the point is it cannot be depended on; at this speed three out of four of his exposures will be blurred, whereas at one twenty-fifth of a second a sharp, clear negative may always be secured.

It may be admitted at once that at extremely low temperatures the working of any shutter becomes doubtful, and most of them go out of any reliable action altogether. After trying and failing completely with three or four of the more expensive makes of shutters, the writer has for the last few years used a "Volute" with general satisfaction, though in the great cold even that shutter (from which all trace of grease or oil was carefully removed by the makers) is somewhat slowed up, so that a rare exposure at 50° or 60° below zero would be made at an indicated speed of one fiftieth rather than at one twenty-fifth, taking the chance of an under-exposed rather than a blurred negative. To wish for a shutter of absolute correctness and of absolute dependability under all circumstances, arranged for exposures of one fifteenth and one twentieth as well as one tenth and one twenty-fifth, is probably to wish for the unobtainable.

CARE OF FILMS AND CAMERAS

The care of the camera and the films, exposed and unexposed, the winter through, when travelling on the Alaskan trail, is a very important and very simple matter, though not generally learned until many negatives have been spoiled and sometimes lenses injured. It may be summed up in one general rule—keep instrument and films always outdoors.

One unfamiliar with arctic conditions would not suppose that much trouble would be caused by that arch-enemy of all photographic preparations and apparatus—damp, in a country where the thermometer rarely goes above freezing the winter through; and that is a just conclusion provided such things be kept in the natural temperature, outdoors. But consider the great range of temperature when the thermometer stands at -50° outdoors, and, say, 75° indoors. Here is a difference of 125°. Anything wooden or metallic, especially anything metallic, brought into the house immediately condenses the moisture with which the warm interior atmosphere is laden and becomes in a few moments covered with frost. Gradually, as the article assumes the temperature of the room, the frost melts, the water is absorbed, and the damage is done as surely as though it had been soused in a bucket. If it be necessary to take camera and films indoors for an interior view—which one does somewhat reluctantly—the films must be taken at once to the stove and the camera only very gradually; leaving the latter on the floor, the coldest part of the room, for a while and shifting its position nearer and nearer until the frost it has accumulated begins to melt, whereupon it should be placed close to the heat that the water may evaporate as fast as it forms.

Outdoors, camera and films alike are perfectly safe, however intense the cold. Indeed, films keep almost indefinitely in the cold and do not deteriorate at all. One learns, by and by, to have all films sent sealed up in tin cans, and to put them back and seal them up again when exposed, despite the maker's instructions not to do so. The maker knows the rules, but the user learns the exceptions. When films are thus protected they may be taken indoors or left out indifferently, as no moist air can get to them.

The rule given is one that all men in this country follow with firearms. They are always left outdoors, and no iron will rust outdoors in the winter. Unless a man intend to take his gun to pieces and clean it thoroughly, he never brings it in the house. The writer has on several occasions removed an exposed film and inserted a new one outdoors, using the loaded sled for a table, at 50° below zero; taking the chance of freezing his fingers rather than of ruining the film. It is an interesting exercise in dexterity of manipulation. Everything that can be done with the mittened hand is done, the material is

placed within easy reach—then off with the mittens and gloves, and make the change as quickly as may be!

There is just one brief season in the year when high speeds of shutters may be used: in the month of April, when a new flurry of snow has put a mantle of dazzling whiteness upon the earth and the sun mounts comparatively high in the heavens. Under such circumstances there is almost, if not quite, tropical illumination. Here is a picture of native football at the Allakaket, just north of the Arctic Circle, made late in April with a Graflex, fitted with a lens working at f. 4.5, at the full speed of its focal-plane shutter—one one-thousandth of a second. In five years' use that was the only time when that speed was used, or any speed above one two-hundred-and-fiftieth. Commonly, even in summer, many more exposures are made with it at one fiftieth than at one one-hundredth, for this is not a brightly lit country in summer, and nearly all visitors and tourists find their negatives much under-timed.

The Graflex, though unapproached in its own sphere, is not a good all-round camera, despite confident assertions to the contrary. It is too bulky to carry at all in the winter, and its mechanism is apt to refuse duty in the cold. The 3A Graflex cannot be turned to make a perpendicular photograph, but must always be used with the greatest dimension horizontal. Except in brilliant sunshine it is difficult to get a sharp focus, and, even though the focus appear sharp on the ground glass, the negative may prove blurred. Then the instrument is a great dust catcher and seems to have been constructed with a perverse ingenuity so as to make it as difficult as possible to clean.

The writer uses his Graflex almost solely for native portraits and studies, for which purpose it is admirable, and has enabled him to secure negatives that he could not have obtained with any other hand camera. Even in the summer, however, he always carries his 3A Folding Pocket Kodak as well, and uses it instead of the Graflex for landscapes and large groups. If he had to choose between the two instruments and confine himself to one, he would unhesitatingly choose the Folding Pocket Kodak.

The difficulties of winter photography in Alaska do not end with the making of the exposure. All water must be brought up in a bucket from a water-hole in the river, and though it be clear water when it is dipped up from under the ice, it is chiefly ice by the time it reaches the house, during any cold spell. One learns to be very economical of water when it is procured with such difficulty, learns to dry prints with blotting-paper between the successive washings, which is the best way of washing with the minimum of water. Blotting-paper is decidedly cheaper than water under some circumstances.

While the rivers run perfectly clear and bright under the ice in the winter, in summer the turbid water of nearly all our large streams introduces another difficulty, and photographic operation must sometimes be deferred for weeks, unless the rain barrels be full or enough ice be found in the ice-house, over and above the domestic needs, to serve.

EFFECT OF COLD ON EMULSIONS

It seems certain that the speed of the sensitive emulsions with which the films are covered is reduced in very cold weather. To determine whether or not this was so, the following experiments were resorted to. The camera was brought out of the house half an hour before noon, at 50° below zero, and an exposure made immediately. Then the camera was left in position for an hour and another exposure made. There was little difference in the strength of the negatives, and what difference there was seemed in favour of the second exposure. Evidently, if the emulsion had slowed, the shutter had slowed also; so opportunity was awaited to make a more decisive test. When there remained but one exposure on a roll of film, the camera was set outdoors at a temperature of 55° below zero and left for an hour. Then an exposure was made and the film wound up and withdrawn; while a new film, just brought from the house, was as quickly as possible inserted in its place and a second exposure made. The latter was appreciably stronger. Even this test is, of course, not entirely conclusive; one would have to be quite sure that the emulsions were identical; but it confirms the writer's impression that extreme cold slows the film. It would be an easy matter for the manufacturers to settle this point beyond question in a modern laboratory, and it is certainly worth doing.

There is much sameness about winter scenes in Alaska, as the reader has doubtless already remarked; yet the sameness is more due to a lack of alertness in the photographer than to an absence of variety. If the traveller had nothing to think about but his camera, if all other considerations could be subordinated to the securing of negatives, then, here as elsewhere, the average merit of pictures would be greater. Sometimes the most interesting scenes occur in the midst of stress of difficult travel when there is opportunity for no more than a fleeting recognition of their pictorial interest. "Tight places" often make attractive pictures, but most commonly do not get made into pictures at all. The study of the aspects of nature is likely to languish amidst the severe weather of the Northern winter, and the bright, clear, mild day gets photographed into undue prominence. Snow is more or less white and spruce-trees in the mass are more or less black; one dog team is very like another; a native village has to be known very well, indeed, to be distinguishable from another native village. Yet there is individuality, there is distinction, there is variety, there is contrast, if a man have but the grace to recognise them and the zeal to record them. Snow itself has infinite

variety; trees, all of them, have characters of their own. Dogs differ as widely as men and Indians as widely as white men.

INDIANS AND PHOTOGRAPHS

The fear of the camera, or the dislike of the camera, that used to affect the native mind is gone now, save, perhaps, in certain remote quarters, and these interesting people are generally quite willing to stand still and be snapped. They ask for a print, and upon one's next visit there is clamorous demand for "picter, picter." A famous French physician said that his dread of the world to come lay in his expectation that the souls he met would reproach him for not having cured a certain obstinate malady that he had much repute in dealing with; so the travelling amateur in photography sometimes feels his conscience heavy under a load of promised pictures that he has forgotten or has been unable to make. He feels that his native friends whom he shall meet in the world to come will assuredly greet him with "where's my picture?" The burden increases all the time, and the Indian never forgets. It avails nothing even to explain that the exposure was a failure. A picture was promised; no picture has been given; that is as far as the native gets. And the making of extra prints, in the cases where it is possible to make them, is itself quite a tax upon time and material.

Just as it is true that to be well informed on any subject a man must read a great deal and be content not to have use for a great deal that he reads, so to secure good photographs of spots and scenes of note as he travels, he must make many negatives and be content to destroy many. The records of a second visit in better weather or at a more favourable season will supersede an earlier; typical groups more casual ones. The standard that he exacts of himself rises and work he was content with contents him no more. Sometimes one is tempted to think that the main difference between an unsuccessful and a successful amateur photographer is that the former hoards all his negatives while the latter relentlessly burns those which do not come up to the mark—if not at once, yet assuredly by and by. So the surprise that one feels at many of the illustrations in modern books of arctic travel is not that the travellers made such poor photographs but that they kept them and used them; for there can be no question that poor photographs are worse than none at all.

CHAPTER XIII

THE NORTHERN LIGHTS

THE Northern Lights are a very common phenomenon of interior Alaska, much more common than in the very high latitudes around the North Pole, for it has been pretty well determined that there is an auroral pole, just as there is a magnetic pole and a pole of cold, none of which coincides with the geographical Pole itself. All the arctic explorers seem agreed that north of the 80th parallel these appearances are less in frequency and brilliance than in the regions ten or fifteen degrees farther south. It may be said roundly that it is a rare thing in winter for a still, clear night, when there is not much moon, to pass without some auroral display in the interior of Alaska. As long as we have any night at all in the early summer, and as soon as we begin to have night again late in the summer, they may be seen; so that one gains the impression that the phenomenon occurs the year round and is merely rendered invisible by the perpetual daylight of midsummer.

A GENERAL AURORA

The Alaskan auroras seem to divide themselves into two great classes, those that occupy the whole heavens on a grand scale and appear to be at a great distance above the earth, and those that are smaller and seem much closer. Inasmuch as a letter written from Fort Yukon to a town in Massachusetts describing one of the former class brought a reply that on the same night a brilliant aurora was observed there also, it would seem that auroras on the grand scale are visible over a large part of the earth's surface at once, whereas the lesser manifestations, though sometimes of great brilliance and beauty, give one the impression of being local.

One gets, unfortunately, so accustomed to this light in the sky in Alaska that it becomes a matter of course and is little noticed unless it be extraordinarily vivid. Again, often very splendid displays occur in the intensely cold weather, when, no matter how warmly one may be clad, it is impossible to stand still long outdoors, and outdoors an observer must be to follow the constant movement that accompanies the aurora. Moreover, there is something very tantalising in the observing, for it is impossible to say at what moment an ordinary waving auroral streamer that stretches its greenish milky light across the sky, beautiful yet commonplace, may burst forth into a display of the first magnitude, or if it will do so at all.

The winter traveller has the best chance for observing this phenomenon, because much of his travel is done before daylight, and often much more than he desires or deserves is done after daylight; while, if his journeys be protracted so long as snow and ice serve for passage at all, towards spring he will travel entirely at night instead of by day.

It is intended in this chapter merely to attempt a description of a few of the more striking auroral displays that the writer has seen, the accounts being transcribed from journals written within a few hours, at most, from the time of occurrence, and in the first case written so soon as he went indoors.

This was on the 6th of October, 1904, at Fairbanks, a little removed from the town itself. When first the heavens were noticed there was one clear bow of milky light stretching from the northern to the southern horizon, reflected in the broken surface of the river, and glistening on the ice cakes that swirled down with the swift current. Then the southern end of the bow began to twist on itself until it had produced a queer elongated corkscrew appearance half-way up to the zenith, while the northern end spread out and bellied from east to west. Then the whole display moved rapidly across the sky until it lay low and faint on the western horizon, and it seemed to be all over. But before one could turn to go indoors a new point of light appeared suddenly high up in the sky and burst like a pyrotechnic bomb into a thousand pear-shaped globules with a molten centre flung far out to north and south. Then began one of the most beautiful celestial exhibitions that the writer has ever seen. These globules stretched into ribbon streamers, dividing and subdividing until the whole sky was filled with them, and these ribbon streamers of greenish opalescent light curved constantly inward and outward upon themselves, with a quick jerking movement like the cracking of a whip, and every time the ribbons curved, their lower edges frayed out, and the fringe was prismatic. The pinks and mauves flashed as the ribbon curved and frayed—and were gone. There was no othercolour in the whole heavens save the milky greenish-white light, but every time the streamers thrashed back and forth their under edges fringed into the glowing tints of mother-of-pearl. Presently, the whole display faded out until it was gone. But, as we turned again to seek the warmth of the house, all at once tiny fingers of light appeared all over the upper sky, like the flashing of spicules of alum under a microscope when a solution has dried to the point of crystallisation, and stretched up and down, lengthening and lengthening to the horizon, and gathering themselves together at the zenith into a crown. Three times this was repeated; each time the light faded gradually but completely from the sky and flashed out again instantaneously.

For a full hour, until it was impossible to stand gazing any longer for the cold, the fascinating display was watched, and how much longer it continued cannot be said. It was a grand general aurora, high in the heavens, not vividly coloured save for the prismatic fringes, but of brilliant illumination, and remarkable amongst all the auroras observed since for its sudden changes and startling climaxes. Draped auroras are common in this country, though it has been wrongly stated that they are only seen near

open seas, but their undulations are generally more deliberate and their character maintained; this one flashed on and off and changed its nature as though some finger were pressing buttons that controlled the electrical discharges of the universe. Yet it was noticed that even in its brightest moments the light of the stars could be seen through it.

A LOCAL AURORA

The next aurora to be described was of a totally different kind. It occurred on the 18th of March, 1905. The writer, with an Indian attendant, was travelling on the Koyukuk River from Coldfoot to Bettles, and, owing to a heavy, drifted trail, night had fallen while yet the road-house was far away. There was no moon and the wind-swept trail was wholly indistinguishable from the surrounding snow, yet to keep on the trail was the only chance of going forward at all, for whenever the toboggan slid off into the deep, soft snow it came to a standstill and had to be dragged laboriously back again. A good leader would have kept the trail, but we had none such amongst our dogs that year. Thus, slowly, we went along in the dark, continually missing the trail on this side and on that. We did not know on which bank of the river the road-house was situated, for it was our first journey in those parts. We only knew the trail would take us there could we follow it. All at once a light burst forth, seemingly not a hundred yards above our heads, that lit up that trail like a search-light and threw our shadows black upon the snow. There was nothing faint and fluorescent about that aurora; it burned and gleamed like magnesium wire. And by its light we were able to see our path distinctly and to make good time along it, until in a mile or two we were gladdened by the sight of the candle shining in the window of the road-house and were safe for the night.

Now, one does not really know that this was an aurora at all, save that there was nothing else it could have been. It was a phenomenon altogether apart from the one first described; not occupying the vault of heaven, streaming from horizon to zenith; not remote and majestic. There was really little opportunity to observe it at all; one's eyes were fixed upon the trail it illumined, anxious not to set foot to the right or left. Save for an occasional glance upward, we saw only its reflected light upon the white expanse beneath. It was simply a streak of light right above our heads, holding steadily in position, though fluctuating a little in strength—a light to light us home, that is what it was to us. And it was the most surprising and opportune example of what has been referred to here as the local aurora that eight winters have afforded. The most opportune but not the most beautiful; the next to be described, though of the local order, was the most striking and beautiful manifestation of the Northern Lights the writer has ever seen. It was that rare and lovely thing—a coloured aurora—all of one rich deep tint.

A RED AURORA

It was on the 11th of March, 1907, on the Chandalar River, a day's march above the gap by which that stream enters the Yukon Flats and five days north of Fort Yukon. A new "strike" had been made on the Chandalar, and a new town, "Caro," established;—abandoned since. All day long we had been troubled and hindered by overflow water on the ice, saturating the snow, an unpleasant feature for which this stream is noted; and when night fell and we thought we ought to be approaching the town, it seemed yet unaccountably far off. At last, in the darkness, we came to a creek that we decided must surely be Flat Creek, near the mouth of which the new settlement stood; and at the same time we came to overflow water so deep that it covered both ice and snow and looked dangerous. So the dogs were halted while the Indian boy went ahead cautiously to see if the town were not just around the bend, and the writer sat down, tired, on the sled. While sitting there, all at once, from the top of the mountainous bluff that marked the mouth of the creek, a clear red light sprang up and spread out across the sky, dyeing the snow and gleaming in the water, lighting up all the river valley from mountain to mountain with a most beautiful carmine of the utmost intensity and depth. In wave after wave it came, growing brighter and brighter, as though some gigantic hand on that mountain top were flinging out the liquid radiance into the night. There was no suggestion of any other colour, it was all pure carmine, and it seemed to accumulate in mid-air until all the landscape was bathed in its effulgence. And then it gradually died away. The native boy was gone just half an hour. It began about five minutes after he left and ended about five minutes before he returned, so that its whole duration was twenty minutes. There had been no aurora at all before; there was nothing after, for his quest had been fruitless, and, since we would not venture that water in the dark, we made our camp on the bank and were thus two hours or more yet in the open. The boy had stopped to look at it himself, "long time," as he said, and declared it was the only red aurora he had ever seen in his twenty odd years' life. It was a very rare and beautiful sight, and it was hard to resist that impression of a gigantic hand flinging liquid red fire from the mountain top into the sky. Its source seemed no higher than the mountain top—seemed to be the mountain top itself—and its extent seemed confined within the river valley.

A GRAND GENERAL DISPLAY

There is only one other that shall be described, although there are many mentioned with more or less particularity in the diaries of these travels. And this last one is of the character of the first and not at all of the second and third, for it was on the grand scale, filling all the heavens, a phenomenon, one is convinced, of an order distinct and different from the local, near-at-hand kind. There was exceptionally good opportunity for observing this

display, since it occurred during an all-night journey, the night of the 6th of April, 1912, with brilliant starlight but no moon while we were hastening to reach Eagle for Easter.

We had made a new traverse from the Tanana to the Yukon, through two hundred miles of uninhabited country, and had missed the head of the creek that would have taken us to the latter river in thirty miles, dropping into one that meandered for upward of a hundred before it discharged into the great river. It was one o'clock on Good Friday morning when we reached a road-house on the Yukon eighty miles from Eagle. The only chance to keep the appointment was to travel all the two remaining nights. So we cached almost all our load at the road-house, for we should retrace our steps when Eagle was visited, and thus were able to travel fast.

Both nights were marked by fine auroral displays, so extensive and of such apparent height as to give the impression that they must be visible over large areas of the earth. Both continued all night long and were of the same general description, but the second night's display was emphasised in its main features and elaborated in its detail, and was the more striking and notable and worthy of description.

It began by an exquisite and delicate weaving of fine, fluorescent filaments of light in and out among the stars, until at times a perfect network was formed, like lace amidst diamonds, first in one quarter of the heavens, then in another, then stretching and weaving its web right across the sky. The Yukon runs roughly north and south in these reaches, and the general trend of the whole display was parallel with the river's course. For an hour or more the ceaseless extension and looping of these infinitely elastic threads of light went on, with constant variation in their brilliance but no change in their form and never an instant's cessation of motion.

Then the familiar feature of the draped aurora was introduced, always a beautiful sight to watch. Slowly and most gracefully issued out of the north band after band, band after band of pale-green fire, each curling and recurling on itself like the ribbon that carries the motto under a shield of arms, and each continually fraying out its lower edge into subdued rainbow tints. Then these bands, never for a moment still, were gathered up together to the zenith, till from almost all round the horizon vibrant meridians of light stretched up to a crown of glory almost but not quite directly overhead, so bright that all the waving bands that now assumed more the appearance of its rays paled before it. Then the crown began to revolve, and as it revolved with constantly increasing speed, it gathered all its rays into one gigantic spiral that travelled as it spun towards the east until all form was dissipated in a nebulous mist that withdrew behind the mountains and glowered there like a dawn and left the skies void of all light save the stars. It was a fine

instance of the stupendous sportiveness of the aurora that sometimes seems to have no more law or rule than the gambolling of a kitten, and to build up splendid and majestic effects merely to "whelm them all in wantonness" a moment later. A particularly fine and striking phase of an aurora is very likely to be followed by some such sudden whimsical destruction. It was as though that light hidden behind the mountains were mocking us.

Then from out the north again appeared one clear belt of light that stretched rapidly and steadily all across the heavens until it formed an arch that stood there stationary. And from that motionless arch, the only motionless manifestation that whole night, there came a gradual superb crescendo of light that lit the wide, white river basin from mountain top to mountain top and threw the shadows of the dogs and the sled sharper and blacker upon the snow,—and in the very moment of its climax was gone again utterly while yet the exclamations of wonder were on our lips. It was as though, piqued at our admiration, the aurora had wiped itself out; and often and often there is precisely that impression of wilfulness about it.

All night long the splendour kept up, and all night long, as the dogs went at a good clip and one of us rode while the other was at the sled's handle-bars, we gazed and marvelled at its infinite variety, at its astonishing fertility of effect, at its whimsical vagaries, until the true dawn of Easter swallowed up the beauty of the night as we came in sight of Eagle. And we wondered with what more lavish advertisement the dawn of the first Easter was heralded into the waste places of the snow.

SOUND AND SMELL

There are men in Alaska, whose statements demand every respect, who claim to have heard frequently and unmistakably a swishing sound accompanying the movements of the aurora, and there are some who claim to have detected an odour accompanying it. Without venturing any opinion on the subject in general, the writer would simply say that, though he thinks he possesses as good ears and as good a nose as most people, he has never heard any sound or smelled any odour that he believed to come from the Northern Lights. Indeed, he has often felt that with all the light-producing energy and with all the rapid movement of the aurora it was mysterious that there should be absolutely no sound. The aurora often looks as if it ought to swish, but to his ears it has never done it; so much phosphorescent light might naturally be accompanied by some chemical odour, but to his nostrils never has been.

Queer, uncertain noises in the silence of an arctic night there often are—noises of crackling twigs, perhaps, noises of settling snow, noises in the ice itself—but they are to be heard when there is no aurora as well as when there is. It is rare to stand on the banks of the Yukon on a cold night and

not hear some faint crepitating sounds, sometimes running back and forth across the frozen river, sometimes resembling the ring of distant skates. Without offering any pronouncement upon what is a very interesting question, it seems to the writer possible that, to an ear intently listening, some such noise coinciding with a decided movement of a great auroral streamer might seem to be caused by the movement it happened to accompany.

CHAPTER XIV

THE ALASKAN DOGS

MALAMUTE, HUSKY, AND SIWASH

THERE are two breeds of native dogs in Alaska, and a third that is usually spoken of as such. The malamute is the Esquimau dog; and what for want of a better name is called the "Siwash" is the Indian dog. Many years ago the Hudson Bay voyageurs bred some selected strains of imported dog with the Indian dogs of those parts, or else did no more than carefully select the best individuals of the native species and bred from them exclusively—it is variously stated—and that is the accepted origin of the "husky." The malamute and the husky are the two chief sources of the white man's dog teams, though cross-breeding with setters and pointers, hounds of various sorts, mastiffs, Saint Bernards, and Newfoundlands has resulted in a general admixture of breeds, so that the work dogs of Alaska are an heterogeneous lot to-day. It should also be stated that the terms "malamute" and "husky" are very generally confused and often used interchangeably.

The malamute, the Alaskan Esquimau dog, is precisely the same dog as that found amongst the natives of Baffin's Bay and Greenland. Knud Rasmunsen and Amundsen together have established the oneness of the Esquimaux from the east coast of Greenland all round to Saint Michael; they are one people, speaking virtually one language. And the malamute dog is one dog. A photograph that Admiral Peary prints of one of the Smith Sound dogs that pulled his sled to the North Pole would pass for a photograph of one of the present writer's team, bred on the Koyukuk River, the parents coming from Kotzebue Sound.

There was never animal better adapted to environment than the malamute dog. His coat, while it is not fluffy, nor the hair long, is yet so dense and heavy that it affords him a perfect protection against the utmost severity of cold. His feet are tough and clean, and do not readily accumulate snow between the toes and therefore do not easily get sore—which is the great drawback of nearly all "outside" dogs and their mixed progeny. He is hardy and thrifty and does well on less food than the mixed breeds; and, despite Peary to the contrary, he will eat anything. "He will not eat anything but meat," says Peary; "I have tried and I know." No dog accustomed to a flesh diet willingly leaves it for other food; the dog is a carnivorous animal. But hunger will whet his appetite for anything that his bowels can digest. "Muk," the counterpart of Peary's "King Malamute," has thriven for years on his daily ration of dried fish, tallow, and rice, and eats biscuits and doughnuts whenever he can get them. The malamute is affectionate and faithful and likes to be made a pet of, but he is very jealous and an incorrigible fighter. He has little of the fawning submissiveness of pet dogs "outside," but is

independent and self-willed and apt to make a troublesome pet. However, pets that give little trouble seldom give much pleasure.

His comparative shortness of leg makes him somewhat better adapted to the hard, crusted snow of the coast than to the soft snow of the interior, but he is a ceaseless and tireless worker who loves to pull. His prick ears, always erect, his bushy, graceful tail, carried high unless it curl upon the back as is the case with some, his compact coat of silver-grey, his sharp muzzle and black nose and quick narrow eyes give him an air of keenness and alertness that marks him out amongst dogs. When he is in good condition and his coat is taken care of he is a handsome fellow, and he will weigh from seventy-five to eighty-five or ninety pounds.

The husky is a long, rangy dog, with more body and longer legs than the malamute and with a shorter coat. The coat is very thick and dense, however, and furnishes a sufficient protection. A good, spirited husky will carry his tail erect like a malamute, but the ears are not permanently pricked up; they are mobile. He is, perhaps, the general preference amongst dog drivers in the interior, but he has not the graceful distinction of appearance of the malamute.

The "Siwash" dog is the common Indian dog; generally undersized, uncared for, half starved most of the time, and snappish because not handled save with roughness. In general appearance he resembles somewhat a small malamute, though, indeed, nowadays so mixed have breeds become that he may be any cur or mongrel. He is a wonderful little worker, and the loads he will pull are astonishing. Sometimes, with it all, he is an attractive-looking fellow, especially when there has been a good moose or caribou killing and he has gorged upon the refuse and put some flesh upon his bones. And if one will take a little trouble to make friends with him he likes petting as much as any dog. Most Indian dogs "don't sabe white man," and will snap at one's first advances. On the whole, it is far better to let them alone; for, encouraged at all, they are terrible thieves—what hungry creatures are not?—and make all sorts of trouble with one's own team. The pure malamute and the pure husky do not bark at all, they howl; barking is a sure sign of an admixture of other strains.

DOG BREEDING

Here it may be worth while to say a few words about the general belief that dogs in Alaska are interbred with wolves. That the dog and the wolf have a common origin there can be no doubt, and that they will interbreed is equally sure, but diligent inquiry on the part of the writer for a number of years, throughout all interior Alaska, amongst whites and natives, has failed to educe one authentic instance of intentional interbreeding, has failed to

discover one man who knows of his own knowledge that any living dog is the offspring of such union.

While, therefore, it is not here stated that such cross-breeding has not taken place, or even that it does not take place, yet the author is satisfied that it is a very rare thing, indeed, and that the common stories of dogs that are "half wolf" are fabulous.

Indeed, it seems a rare thing when any sort of pains is taken about the breeding of dogs. In a country where dogs are so important, where they are indispensable for any sort of travel during six or seven months in the year over by far the greater portion of it, one would expect that much attention would be paid to dog breeding; but this is not the case. Here and there a man who takes pride in a team will carefully mate the best available couple and carefully rear their offspring, but for the most part breeding seems left to chance. A team all of malamutes or all of huskies, a matched team of any sort, is the exception, and excites interest and remark.

The market for dogs is so uncertain that it is doubtful if there would be any money in scientific breeding for the trail. When a stampede to new diggings takes place, the price of dogs rises enormously. Any sort of good dog on the spot may be worth a hundred dollars, or a hundred and fifty, and the man with a kennel would make a small fortune out of hand. But at other times it is hard to get twenty-five dollars for the best of dogs.

The cost of maintenance of a dog team is considerable. When the mail-routes went all down the Yukon, and dogs were used exclusively, the contracting company estimated that it cost seventy-five dollars per head per annum to feed its dogs; while to the traveller in remote regions, buying dog feed in small parcels here and there, the cost is not less than one hundred dollars per head. Of course, a man engaged in dog raising would have his own fish-wheel on the Yukon and would catch almost all that his dogs would eat. Fish is plentiful in Alaska; it is transportation that costs. Dogs not working can do very well on straight dried fish, but for the working dog this ration is supplemented by rice and tallow or other cereal and fat; not only because the animal does better on it, but also because straight dried fish is a very bulky food, and weight for weight goes not nearly so far. Cooking for the dogs is troublesome, but economical of weight and bulk, and conserves the vigour of the team. In the summer-time the dogs are still an expense. They must be boarded at some fish camp, at a cost of about five dollars per head per month.

The white man found the dog team in use amongst the natives all over the interior, but he taught the Indian how to drive dogs. The natives had never evolved a "leader." Some fleet stripling always ran ahead, and the dogs followed. The leader, guided by the voice, "geeing" and "hawing," stopping

and advancing at the word of command, is a white man's innovation, though now universally adopted by the natives. So is the dog collar. The "Siwash harness" is simply a band that goes round the shoulders and over the breast. In the interior the universal "Siwash" hitch was tandem, and is yet, but as trails have widened and improved, more and more the tendency grows amongst white men to hitch two abreast; and the most convenient rig is a lead line to which each dog is attached independently by a single-tree, either two abreast, or, by adding a further length to the lead line, one behind the other, so that on a narrow trail the tandem rig may be quickly resorted to.

THE DOCKING OF TAILS

One advantage of the change from single to double rig is the decay of the cruel custom of "bobbing" the dogs' tails. When dogs are hitched one close behind the other (and the closer the better for pulling) the tail of the dog in front becomes heavy with ice from the condensation of the breath of the dog behind, until not only is he carrying weight but the use of the tail for warmth at night is foregone. So it was the universal practice to cut tails short off. But sleeping out in the open, as travelling dogs often must do, in all sorts of weather, with the thermometer at 50° or 60° below zero sometimes, a thick, bushy tail is a great protection to a dog. With it he covers nose and feet and is tucked up snug and warm. It is the dog's natural protection for the muzzle and the thinly haired extremities. A few years ago almost all work dogs in the interior were bobtailed; now the plumes wave over the teams again.

Five dogs are usually considered the minimum team, and seven dogs make a good team. A good, quick-travelling load for a dog team is fifty pounds to the dog, on ordinary trails. The dogs will pull as much as one hundred pounds apiece or more, but that becomes more like freighting than travelling. On a good level trail with strong big dogs, men sometimes haul two hundred pounds to the dog. These, however, are "gee-pole propositions," in the slang of the trail, and the man is doing hard work with a band around his chest and the pole in his hand. For quick travelling, fifty pounds to the dog is enough.

The most useful "outside" strains that the white man has introduced into the dogs of the interior are the pointer and setter and collie. The bird-dogs themselves make very fast teams and soon adapt themselves to the climate, but their feet will not stand the strain. The collie's intelligence would make him a most admirable leader, did he not have so pronouncedly the faults of his good qualities; he wants to do all the work; he works himself to death. It is the leader's business to keep the team strung out; it is not his business to pull the load. But the admixture of these strains with the native blood has

produced some very fine dogs. The Newfoundland and Saint Bernard strains have been perhaps the least successful admixtures. They are too heavy and cumbersome and always have tender feet; their bodies and the bodies of their mongrel progeny are too heavy for their feet.

DOG LOYALTY

The last statement, with regard to Newfoundland and Saint Bernard dogs, has an interesting exception. There is a dog, not uncommon in Alaska, that by a curious inversion of phrase is known as the "one-man-dog." What is meant is the "one-dog-man dog," the dog that belongs to the man that uses only one dog. Many and many a prospector pulls his whole winter grub-stake a hundred miles or more into the hills with the aid of one dog. His progress is slow, in bad places or on up grades he must relay, and all the time he is doing more work than the dog is, but he manages to get his stuff to his cabin or his camp with no other aid than one dog can give. It is usually a large heavy dog—speed never being asked of him, nor steady continuous winter work—often of one of the breeds mentioned, or of its predominant strain. The companionship between such a man and such a dog is very close, and the understanding complete. Sometimes the dog will be his master's sole society for the whole winter.

Indeed, any man of feeling who spends the winters with a dog team must grow to a deep sympathy with the animals, and to a keen, sometimes almost a poignant, sense of what he owes to them. There is a mystery about domestic animals of whatever kind. It is a mystery that man should be able to impose his will upon them, change their habits and characters, constrain them to his tasks, take up all their lives with unnatural toil. And that he should get affection and devotion in return makes the mystery yet more mysterious.

The dog gets his food—often of poor quality and scant quantity—and that is all he gets. Yet the life of a work dog that has a kind and considerate master is not an unhappy one. The dog is as full of the canine joy of life as though he had never worn a collar, and not only sports and gambols when free, but really seems to like his work and do it gladly. He will chafe at inaction; he will come eagerly to the harness in the morning; often will come before he is called and ask to be harnessed; and if for any reason—lameness or galled neck or sore feet—a dog is cut out of the team temporarily, to run loose, he will try at every chance to get back into his place and will often attack the dog that seems to him to be occupying it; while a dog left behind will howl most piteously and make desperate efforts to break his chain and rejoin his companions and his labour. And the wonderful and pitiful thing about it is that no sort of severity or brutality on his master's part will destroy that

zealous allegiance. The dog in Alaska is absolutely dependent upon man for subsistence, and he seems to realise it.

There is a great deal of cruelty and brutality amongst dog drivers in Alaska. At times, it is true, most dogs need some punishment. Dogs differ as much as men do, and some are lazy and some are self-willed. The best of them will develop bad trail habits if they are allowed to—habits which will prove hard to break by and by and be a continual source of delay and annoyance until broken. But a very slight punishment, judicially administered at the moment, will usually suffice just as well as a severe one, and the main source of brutality in the punishment of dogs is sheer bad temper on the part of the driver, and has for its only possible end, not the correction of the animal's fault but the satisfaction of its owner's rage. To see some hulking, passionate brute lashing a poor little dog with a chain, or beating him with a club; to see dogs overworked to utter exhaustion and their lagging steps still hastened by a rain of blows, these are the sickening sights of the trail—and they are not uncommon. The language of most dog drivers to their dogs consists of a mixture of cursing and ribaldry, excused by the statement that only by the use of such speech may dogs be driven at all. But there is little point in the excuse; such speech is, to an extent not far from universal, the speech of the country. Swedes who have little and Indians who have none other English will yet be volubly profane and obscene; in the latter case often with complete ignorance of the meaning of the terms. Yet it must be recorded not ungratefully by the impartial observer that the rare presence of a decent woman or a clergyman will almost always put a check upon blackguardly speech, even that of a dog driver; women and clergymen being supposed the only two classes who could have any possible objection to foulness of mouth. To refer continually to the excrements of the body, to sexual commerce, natural and unnatural, all in the grossest terms, and to mix these matters intimately with the sacred names, is "manly" speech amongst a large part of the population of Alaska.

REINDEER

REINDEER AS DRAUGHT ANIMALS

It has been claimed with justice that the introduction of the reindeer into Alaska has been highly successful; yet there is much misconception amongst people "outside" as to the nature of that success. Stimulated by the example of the United States Government, and urged thereto by Doctor Wilfred Grenfell and others, the Canadian Government is now introducing reindeer into Labrador; and the distinguished missionary physician, whose recent decoration gives lustre to the royal bestower as well as to the recipient, has publicly announced his hope that these domesticated herbivora will "eliminate that scourge of the country, the husky dog." To

announce such a hope, based upon any results in Alaska, is to announce misconception of the nature of the success which has attended Doctor Sheldon Jackson's "reindeer experiment." There is not a dog the less in Alaska because of the reindeer, nor ever will be; in so far as similarity of conditions warrant us in expecting similar results, it is safe to predict that the reindeer will never "eliminate the husky dog" in Labrador.

But before discussing the success of the reindeer experiment and its lack of any bearing upon the number or the usefulness of the dog, the writer would pause to take strong exception to the description of the husky dog as the "scourge" of Labrador, and would insist that any such wholesale condemnation is a boomerang that returns upon the head of the Labradorian who uses it. For, as the dog is one of the most adaptable of all domestic animals, and is, to an amazing extent, what his master makes him, to bring a railing accusation against the whole race of dogs is in reality to accuse those who breed and rear them.

Why should the dog have richly earned the gratitude and affection of all the world except Labrador? Why should he be called the "Friend of Man" everywhere except amongst these particular people? Far to the north of them the Esquimaux prize and cherish their dogs. Throughout the whole wide region to the west and northwest of them the dog is man's indispensable ally and faithful servant. The same husky dog has made good his claim upon man in Alaska. It is he and his brother, the malamute, that have opened up Alaska so far as it has been opened; without whom to-day the development of the country would suddenly cease. And to the question that is often asked "outside," as to whether the Alaskan dog is not a savage beast, it is justly replied: "Not unless he happens to belong to a savage beast." Is it really otherwise anywhere? Instead of the reindeer eliminating the dog, there is far greater likelihood of the dog eliminating the reindeer; and the professed dog lover, indignant at the opprobrious term applied to a whole race of dogs, may be disposed to echo Lady Macbeth's wish: "May good digestion wait on appetite."

So far as substituting another draught animal for the dog is concerned, if the whole equine tribe, even down to Manchurian ponies should for some strange reason be out of the question, the Canadian Government had better import the polar ox or the yak. It is only amongst a nomadic people, whose main quest is pasturage, that the reindeer is a satisfactory draught animal. When introduced into Alaska there was doubtless expectation that he would be generally useful in this capacity. For a while certain mail-routes on the Seward Peninsula were served by him, and here and there a deluded prospector put his grub-stake on a reindeer sled. It is safe to say that no reindeer are so employed to-day. They were soon abandoned on the mail

trails, and the prospector, after one season's experience, slaughtered his reindeer and traded its meat and hide for a couple of dogs.

Consider that the reindeer feeds upon one thing alone, the moss that is named after him, and that while this moss is very widely distributed indeed, throughout Alaska, it is not found at all in the river valleys or the forests, but only upon the treeless hills at considerable elevation. Now the rivers are the highways. It is on their frozen surface, or on "portage" trails through the woods, that the greater part of all travelling is done and, in particular, that established routes of regular communication are maintained. To leave the trail after a day's journey, to wander miles into the hills, to herd the deer while they browse from slope to slope, digging the snow away in search of their provender, is wholly incompatible with any sustained or regular travel. The reindeer is a timid and almost defenceless creature. Wolves and lynxes prey upon him. One lynx is thought to have killed upward of twenty head in one season out of the herd that was stationed at Tanana, leaping upon the backs of the creatures, cutting their throats, sucking their blood, and riding them until they dropped and died. A few dogs will soon work havoc in a herd. So the reindeer must be constantly protected and at the same time must have range over a considerable scope of country. The care of reindeer is a business in itself, not a mere detail of the business of transportation or travel.

DOG FOOD

On the other hand, the dog's ration for many days is carried on the sled he hauls. There is a definite limit to it, of course, and knowledge of this limit made every experienced dog driver incredulous, from the first, of Doctor Cook's claim to have travelled some eleven hundred miles, from Etah to the North Pole and back, with a team of dogs hauling their own food. It is possible, however, on fair trails, with rigid economy, to travel five hundred miles and haul dog food and man food and the other indispensables of a long journey; and that is twice as far as it is ever necessary to travel in the interior of Alaska without reaching a supply point, the northern slope to the Arctic Ocean excepted.

Perhaps it would be putting it better to say that a team of seven dogs can haul their own and their driver's food and the camp equipment, all, of course, carefully reduced to a minimum, for a month. Dog food of one sort or another can be bought at any place where anything whatever is sold. Almost any Indian village will furnish dried fish, and it is often possible, with no other weapon than a .22 rifle, to feed dogs largely on the country through which they pass. The writer's team has had many a meal of ptarmigan, rabbits, quail, and spruce hen, while to enumerate other articles, on which at times and in stress for proper food, his dogs have sustained life

and strength for travel, would be to enumerate all the common human comestibles. Aside from the usual ration of fish, tallow, and rice boiled together, corn-meal, beans, flour, oatmeal, sago (though that is poor stuff), tapioca, canned meats of all kinds, canned salmon, even canned kippered herring from Scotland, seal oil, seal and whale flesh, ham and bacon, horse flesh, moose and caribou and mountain-sheep flesh, canned "Boston brown bread," canned butter, canned milk, dried apples, sugar, cheese, crackers of all kinds, and a score of other matters have at times entered into their food. Dogs have been "tided over" tight places for days and days on horse oats boiled with tallow candles, working the while. Anything that a man can eat, and much that even a starving man would scarcely eat, will make food for dogs. At the last and worst, dog can be fed to dog and even to man. When a dog team reaches a mining camp where supplies of all sorts are scarce—and that is not an uncommon experience—it is sometimes an exceedingly expensive matter to feed it; but something can always be found that will serve to keep it going until the return to a better-stocked region. In the winter of 1910-11, when there was such scarcity in the Iditarod, it cost the writer thirty-nine dollars and fifty cents to feed seven dogs for a week, and he has more than once been at almost a similar charge in the Koyukuk. But in all his travels he has never yet been unable to procure some sort of food for his dogs. At times they have been fed for days on rabbits straight; at times on ptarmigan straight.

THE REINDEER'S USEFULNESS

Speaking broadly, the reindeer is a stupid, unwieldy, and intractable brute, not comparing for a moment with the dog in intelligence or adaptability. The common notion that his name is derived from the use of reins in driving him, thus putting him in the class with the horse, is a mistake; the word comes from a Norse root which refers to his moss-browsing habit. The "rein" with which he is driven is a rope tied around one of his horns. He has no cognisance of "gee" and "haw," nor of any other vocal direction, but must be yanked hither and thither with the rope by main force; while to stop him in his mad career, once he is started, it is often necessary to throw him with the rope. In Lapland there are doubtless individual deer better trained; the Lap herders tell of them with pride; but in the main this is a just description of reindeer handling. All the chief herders in Alaska are Laps, brought over for their knowledge of the animals, and the writer has repeatedly ridden behind some of their best deer.

Wherein, then, lies the success of the reindeer experiment in Alaska? Chiefly in the provision of a regular meat supply by which the natives and whites in the vicinity of a herd are relieved from the precariousness of the chase or the rapacity of the cold-storage butcher company. The Esquimau, having served his allotted apprenticeship of five years and entered upon possession of a

herd, can at any time kill and dress a "kid of the flock" for his family or for the market. The price of butcher's meat has been kept down all over the Seward Peninsula by the competition of the numerous reindeer herds, to the comfort of the population and the exasperation of the butcher company, and many an Esquimau has become passably rich. The skin of the animal also furnishes a warm and much-needed material for clothing and finds a ready sale at a good price.

This success is, however, confined so far to the coast. The herds have not thriven in the interior and have now all been withdrawn to the coast. Beasts of prey killed them; a hoof disease destroyed many; others are supposed to have died from eating some poisonous fungus. In five or six years the herd at Tanana had not increased at all, but rather diminished, and the same is true of the other herds on the Yukon. The Indian, moreover, does not take to herding as the Esquimau does, and can hardly be induced to the segregation of himself and his family from his tribe which reindeer herding involves. The "apprentices" on the Yukon were nearly all of them Esquimaux from the coast.

It may be that the salt of the coast region is essential to the well-being of the reindeer; it is not so with the caribou—and the reindeer is nothing but a domesticated caribou—many herds of which, in the interior of Alaska, never visit the coast at all; but all caribou herds have their salt-licks, and one wishes that the oft-recommended plan of furnishing salt for the herds in the interior had been adopted by the government for a season before their removal was determined upon.

Like most other "resources" of Alaska, the imported reindeer, at first decried and ridiculed, has now become the slender foundation for extravagant speculations of prosperity. The "millions of acres waiting for the plough" in the interior have lately been supplemented in this visionary treasury by the capitalisation of the vast tundras of the coast, the golden wheat-fields of the one finding counterpart in the multitudinous herds of the other. The growing dearth of cattle-range in the United States offers, it seems, to Alaska the opportunity of supplying the American market with meat, and the kindling fancy of the enthusiastic "booster" sees trains loaded with frozen reindeer meat rolling into Chicago.

While the reindeer will never supersede the dog as a draught animal anywhere, the horse is rapidly superseding him on good trails in the more settled and peopled regions. In the Fairbanks and Nome districts, in the Circle and Koyukuk districts, in the Fortymile and in the Iditarod—in all districts where any extensive mining is carried on—heavy freights are moved by horses, and this tendency will doubtless increase rather than diminish. The dog team cannot compete with the horse team when it comes to moving

heavy loads over good trails. The grain that the horse eats is imported, and in the main will probably always be imported, but oats cut green and properly cared for make excellent fodder, and the native hay, while not nearly as nutritious as the imported timothy, will sufficiently supplement grain.

We hear a great deal nowadays of the benefits which are to come to Alaska from the railroad which the United States is expected to build from tide-water to the Yukon, and the clamorous voices of the journalist and the professional promoter and politician, which seem the only voices which ever reach the ear of government, are insistent that this is the one great thing that will bring prosperity to the country. Yet the writer is confident that he expresses almost the unanimous opinion of those who live in the country, outside of the classes mentioned, when he says that if the amount of money which this railroad will cost were expended upon good highways and trails the benefit would be much greater. It is means of intercommunication between the various parts of the country that is the great need of Alaska; some of its most promising sections are almost inaccessible now or accessible only at great trouble and expense. Access to the country itself, for the introduction of merchandise, is furnished easily enough during three or four months of the year by its incomparable system of waterways. Good highways, well engineered and well maintained, over which horse teams could be used summer and winter, would remove much of what at present is the almost prohibitive cost of distributing that merchandise from river points. Such roads would give an enormous stimulus to prospecting, and would render it possible to work gold placers all over the country that are of too low grade to be worked at the present rates of transportation. A really good highway from Valdez to Fairbanks and the making of the long-ago begun Valdez-Eagle road; a good highway from Fairbanks to the upper Tanana as far as the Nabesna, connecting with the one from the Copper River country and the coast; another from the Yukon into the Koyukuk and the Chandalar; another from Fairbanks into the Kantishna, connecting with one from the lower Kuskokwim and one from the Iditarod; a road from Eagle across the almost unknown region (save for the line of the 141st meridian) between the Yukon and the Porcupine Rivers; two or three roads between the Yukon and the Tanana; a road from the Koyukuk to Kotzebue Sound—these would constitute main arteries of travel and would open up the country as no trunk railroad will ever do. The expense would be great, both of construction and maintenance, but it would probably not be greater than the cost of constructing and maintaining the proposed railroad. Twenty or thirty ordinary freight trains a year would bring in all the goods that Alaska consumes. Before that amount can be very greatly increased there must be

a large development of the means by which it is to be distributed throughout the country.

Some day, perhaps, these roads will be made, and the horse, not the dog, will be the draught animal upon them. Yet it would be a rash conclusion that even then the time will be at hand when there will be no longer use for the work dog in Alaska. Away from these main arteries of travel he will still be employed. So long as great part of the land remains a noble arctic wilderness; so long as the prospector strikes farther and farther into the rugged mountains; so long as quick travel over great stretches of country is necessary or desirable; so long as the salmon swarm up the rivers to furnish food for the catching; so long as the Indian moves from fishing camp to village and from village to hunting camp—so long will the dog be hitched to the sled in Alaska; so long will his joyful yelp and his plaintive whine be heard in the land; so long will his warm tongue seek his master's hand, even the hand that strikes him, and his eloquent eyes speak his utter allegiance.