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Wiseman
Alaska

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Dear Family et al:

And here I am, back again at Wiseman, after four ideal weeks of exploration in the jagged wilderness between here and the Artic Divide. But this is the wrong end of my tale on which to begin.

Logically it commences on the afternoon of August 25 when we took off from the Fairbanks flying field. We, meant Clara Carpenter (22 year old schoolmarm of Wiseman, returning from a visit outside), her big brother Lew (Wiseman miner), Al Retzlaf (my last year's partner), myself, Robbins (the pilot) and two goldfish which Clara was transporting to brave the Arctic winter. As I'd taken the same 225 mile flight three times before there were few fresh thrills, except flying over the Yukon Flats (a vast plain, 40 miles wide and extending as far as the eye can see from 4,000 feet above it, just filled with a myriad of glistening ponds and the mile wide silver ribbon of the Yukon River) which is a fresh thrill each time and getting lost for a short while in a country in which there are five landing fields in 300,000 square miles. Robbins had only been into Wiseman once before, and the entire region north of the Yukon is so inadequately mapped that it's very easy to get mixed up. So when we came, flying a little off course, to the place where the Jim, South Fork, Middle Fork, North Fork and Wild Rivers all come within a few miles of each other and all head in the same general direction we didn't know for a while which was which. It wasn't quite like being lost in an auto either, where you can stop and study the map at leisure, for here we were moving at 110 miles an hour and there wasn't a decent map anyway. But pretty soon Lew picked out Wild Lake for which we were heading and simultaneously Al and I recognized some of the topography of the North Fork which we had explored the summer before, so Robbins banked her sharply around and we returned to the Middle Fork of the Koyukuk which we had erroneously crossed.

The welcome awaiting us when we landed at Wiseman would seem preposterous to anyone afflicted with the conventional notions about the stolid frontiersman. The instant I stepped out of the plane Martin Slisco, jovial roadhouse proprietor ran up and threw both arms around my neck. Little Willie English, seven-year-old Eskimo boy with whom I used to have hopping races last summer, was next and he jumped up and kissed me. Old Pete Dow, hard-bitten, cynical old sourdough of 32 Arctic winters, pretty nearly pumped my hand off and his face was all cracked with smiles. And following them came all the others, for every soul in town, eskimo and white, was out at the field. They greeted me with everything from just a warm handshake and a "Well, Bob," to a regular pumping and a long conversation.

The next two days were spent in Wiseman, conversing happily with friends I had been with for 15 days the year before, but who acted as if we were lifelong acquaintances. They were so eager to pour out the events of the past year to someone to whom they were not stale stories long ago and yet who was genuinely interested in them. So I heard over and over, from a dozen different ones, each giving a slightly different slant, the chief landmarks of the past year in the life of the community: of the great lawsuit between Dubin and Hyde; of Dan Aston blowing out his brains during the dark days; of how John Laane had left Emma

Creek the August before on a 40 day prospecting trip to Blue Cloud and how never had trace of him been seen since; of the terrible tongue lashing which Joey Ulen gave Mrs. Wanamaker; of Captain Rowden clearing out with several thousands of unpaid debts; of the poor year in the diggings; of the exceptionally cold winter; of the sensational ice-jam when the river broke up in the spring.

Most the time in Wiseman, however, was spent preparing for our four weeks exploration trip to the Arctic Divide. Four weeks isn't a very long trip of exploration compared with the $2\frac{1}{2}$ years that the Lewis and Clark Expedition was gone or Steffanson's five years on the Arctic ice, but even in four weeks when you don't expect to meet a human being in all that time, when you have to be prepared for both winter and summer weather, when your work is going to be botanical, ecological, geographical, photographical and mineralogical, there is a surprising amount of preparation to be done. The worst is if you forget one little thing, for instance a whetstone, it's going to cause you a hell of a lot of inconvenience to say the very least.

I should devote a paragraph to the personnel of our expedition, which included two partners, one employee and two horses. The partners were of course Al Retzlaf and myself. Al had brought back some rock samples from just below the divide on Grizzly Creek last year and had them assayed at the college in Fairbanks. They ran so high in gold that a promoter from Texas had backed Al to the extent of $1,500. to investigate further the potentialities of the region. I had as my major ostensible objective the entirely laudable study of tree growth at northern timberline, as my minor ostensible objective the not quite so respectable study of the geography of the great unexplored drainage of the upper North Fork of the Koyukuk (an area of about 1,000 square miles), and the preliminary mapping of it, and as my most important, though not advertised objective at all, gaining the absolutely unassessable aesthetic thrill of just looking at as gorgeous natural beauty as could possibly exist anywhere. We planned to spend about two weeks in this great thousand acre wilderness of the upper North Fork, just below the Arctic Divide and a week or so more travelling each way to and from it. As the point in this tract of land closest to civilization was 75 miles from the nearest human being while the furthest point was about 115 miles away, we couldn't very well back-pack four weeks worth of our varied equipment, so as last year we hired Jack Hood's two horses to pack us in. But it was so late in the year for feed and it would be such a nuisance looking after them while we were reconnoitering that we decided to take a man with us to take them back as soon as we reached our base camp on Grizzly Creek, just under the Arctic Divide. All the way out we would leave food caches in small trees where the animals wouldn't disturb them and thus coming back we wouldn't have to be bothered toting much food along. The man we got was huge Lew Carpenter, 6 feet 3, 235 pounds, 48 years old. Lew had a reputation as a hard man to get along with but as usual in such cases I found that if one forgot the reputation and treated the man as decently as possible he turned out fine. And so Lew did. He was as genial as could be all trip, enlivened several evenings with excellent yarns, did more than his share of the work, and never growled nor grumbled once despite the numerous hardships.

Our first day out we merely followed the road seven miles from Wiseman to Nolan Creek. Here we stopped for the day and spent the remainder of the afternoon and evening visiting with another group of old friends. The Pingels had us for lunch and a most sumptuous dinner. Mrs. Pingel is a most interesting old lady, an ex-missionary with a rare sense of humor. After dinner she hitched up her dog with its pack harness and started for Wiseman to attend to some business. Seven miles of mud and a dark road before she got to town didn't phase her in the

least. Al and Lew went over to Harry Foley's to look at some rocks and old man Pingel, who is over 70 and verging on dotage, though he still works with pick and shovel in his cut every day, played on his fiddle and spun out to me a slightly misty reminiscence of his early days in the far north, of the stirring adventures from '98 to '02, of the golden days when he was a young man not yet 40 and the best of life lay ahead. Some of it was quite thrilling: storming White Pass in mid-winter, boating up the virgin waters of the Stewart River, seeing a companion clawed and bitten by a bear, breaking through overflows at 60 below, crossing the trackless wilderness from the Chandalar to Coldfoot in the dark days of December. There was also a Miss Price, a courageous schoolteacher who made the crossing with him to Coldfoot that winter, whom he brought into his narrative more often and with more emotion that he would probably have liked to admit even after 30 years, fifteen of which were spent in relatively happy marriage with an ex-missionary.

We all went up to old George Eaton's to spend the night. He put Al and Lew in his bunkhouse and got me to share his double bed with him. Then he talked to me from ten till long after midnight, the steady, rambling monologue of an old bachelor who has lived alone too long. Some I had heard before when I bunked with him last year, of his wife who divorced him for desertion when he joined the rush to Alaska, of his daughter, whom he loved above everyone else in the world, drowned on a Sunday school picnic. I was very sleepy and dozed through most of it, but I followed enough to know it was largely the re-airing of years of grievances and especially the recounting of various very splendid things he imagined he had said to people who had used him badly. "I said to him, 'Alright, I'll pay you but by the God, I'll break you inside of a year.' And by Jesus, inside a year he'd gone broke." The last thing I remember before falling asleep was: "I said to her, 'You're nothing but an old whore, that's what you are.' I said that right to her face and her man standing there too."

Next morning at 7:30 we set out for our month's vacation from the rest of humanity. George and Pingel and Smithy Wanamaker postponed starting their day's work long enough to see us off. Al went ahead and picked the route, leading Brownie. Lew followed with Bronco and also carried his gun. I had nothing to lead but carried my gun and a 30-pound pack, walking sometimes in the middle, sometimes behind and sometimes going ahead to reconnoiter. We swapped jobs occasionally but in general maintained this formation all the way to the Arctic Divide.

Of our first four days out from Nolan there is no need to go into detail for we followed the same course we had taken last summer. Scenically the chief difference was that the valleys instead of being dark green and light green where the needles of the spruce blended with the broader leaves of cottonwood and willow, were now dark green and brilliant gold. Along the valley of the North Fork, which extended without turnings for many miles, it was glorious to look down from some promontory over this bi-colored sea walled in by snow-capped mountains.

The third afternoon out, as we were laboriously leading the horses above the bluffs opposite the mouth of the West Fork we were startled by a voice shouting to us from the other side of the river. I ran down to the shore and saw a man poling a boat across the stream. In a few moments he landed and introduced himself as Ernie Johnson. Of course I knew about Ernie, most illustrious hunter and trapper of the far North, a sort of a Daniel Boone among the pioneers of this arctic frontier, unanimously admitted by the exceptionally competent woodsmen of the Koyukuk to be their peer.

Though Ernie spends practically all his time in the woods, and is

alone most of his days, he is not an anchorite by preference but merely because he can seldom find anyone to share his difficult life. When Lew and Al got down to the river's edge he fairly insisted that we go no further that day. So we pitched our camp a little ways upstream among the willows, hobbled the horses and left them to feed and crossed the unfordable North Fork in Ernie's boat, all the while his four dogs barked vociferously. Ernie had a very comfortable and spacious tent with a Yukon stove and a bunk built in. The tent was at the river's edge and back about 100 yards was a winter cabin (like all winter cabins, no good in summer because the dirt roof leaks in rain) and a cache for his food, snowshoes, sleds, magazines, etc.

While Al fished and Lew started supper, Ernie wanted to show me the West Fork. He thought we might see a moose so we took our guns, but Ernie talked such a blue streak that any moose within rifle range must have pulled out of the district before we came near. We talked principally about geography - compared notes on our observations in the country at the head of the Anatovic Pass Creek which no one except Al and we two had ever seen. Ernie told me of low passes leading from one drainage to another, pointed out some of them to me from a hill we climbed, explained about sloughs which cut off tedious passages over niggerheads. It was the vital information of the wilderness. He also told me quite a bit about his life. He had been 50 in July; came to Alaska in 1910 via Minnesota and Sweden. He had been a carpenter by trade but loved the woods so much he came north to the greatest wilderness of the continent. Here he spends all but about two weeks in the year out in the hills, away from the "cities" of Wiseman and Bettles, with populations of 80 and 20 respectively. He traps and hunts, averaging about $2,500. a year income. "But the only reason I stay out here isn't for that at all, because I can make better money being carpenter, but because I like it out here among these ruggedy mountains better than anything else in the world."

Ernie and I hit it off fine right from the start and before we got back from our "hour and a half hunt" it was practically arranged that we were to make an exploration of the upper Alatna River country next July, a country which Ernie stated was "the most ruggedy I've ever seen in all Alaska."

After supper Ernie took us back to our camp. He seemed loath to say goodbye. He was floating downstream next day toward Bettles while we were moving up, but for one night the only two camps in 100,000 square miles of wilderness were just across the river from each other.

Next day we travelled north in an intermittent rain which turned into snow during the afternoon. A fierce wind howled out of the North and we had to push ourselves against it as we crossed the high ridge where the river takes its big loop to the west and back again. Here Al dropped behind to fish in a lake about which Ernie had told us and caught 35 grayling in as many minutes. They gave pleasant variety to our menu. When we made camp that night after seven it was snowing hard, we were chilled through and it seemed like anything but the right time to be setting out on an exploration of the Arctic Divide.

But next morning we were awakened by the sun shining through the tent. We rushed outside to find a crystal clear day. There was not a cloud in the sky. Every mountain was covered with snow, every peak showed a clean white edge set against a pure blue background. Almost everything in life seems to be at least somewhat blurred and misty around the edges and so little is ever

absolute that there was a genuine exultation in seeing the flawless white of those summits and the flawless blue of the sky and the razor edge sharpness with which the two came together.

In the whole sparkling panorama the most exhilarating sight of all was the view due north toward what the summer before I had christened the Gates to the Arctic. Ten miles away rose the two gigantic white posts, Frigid to the left towering 3,000 feet above the valley floor with half its height sheer, Boreal to the right jutting up over 5,000 feet. Between was a deep gap about a mile wide through which the wintry summits of the Arctic Divide could be seen 25 miles further away. All day we travelled up the floor of the North Fork Valley toward these massive Gates. In order to avoid the severe going of the sidehills we kept to the gravel bars which lay first on one side of the river and then on the other. Thus we were forced frequently to ford the swift and icy current. At one place where the crossing was especially difficult we could only make it by walking on the upstream side of the horses and using them for support. As it was Lew was almost swept away, and it was rather an agony to be forced to watch him without being able to lift a finger in aid. We stopped for lunch at Fishless Creek and dried out.

After lunch we continued up the valley of the North Fork. Wandering through the falling gold of the cottonwood and willow leaves would have been joy enough, but then there were those snowcovered mountains which hemmed us in on every side, and far in advance our goal of the Arctic Divide. As we drew closer to the Gates they appeared more and more rugged and bristling with unscalable crags. On Frigid I counted 27 separate pinnacles in three miles. Boreal had fewer but they were even more immense.

At the very center of the grand chasm we found our old camp of last year. Al and I were just reminiscing by the dead coals of the old fire when suddenly we saw two grizzlies about 300 feet ahead. They reared up but then ran away before we could hobble the horses so that Al might take a shot.

We camped a mile beyond at Fish Creek, building a big bonfire by which to dry out. There was a brilliant aurora that night. The thermometer dropped to 24 next morning and the weather was still sparklingly clear. We travelled eight miles upstream to the junction of the North Fork with Anatovic Pass Creek. We made camp for the day at noon. I spent the afternoon snapping pictures in every direction, for whichever way one looked rose exceptionally rugged summits. There were so many unexplored chasms, such an infinitude of barely scalable mountains, that a person could spend many summers tripping from this center and still have fresh territory to explore. I predicted to Al that there would be a summer hotel here inside of 15 years catering to airplane tourists. It certainly would make the most ideal mountaineering center I have ever seen.

Ernie Johnson has a cabin around here, about a mile above the junction. I believe it must be the most northerly in interior North America, being situated at about 68° 15' north latitude. It is surrounded by a good stand of spruce. One tree I measured was 16 inches in diameter at breast height and about 60 to every acre ran 10 inches or more, notwithstanding the fact that the northern timberline was only four miles away. Near the cabin Al and Lew fixed up a cache with four days food supply, while I bored into and made growth measurements on a dozen trees.

The next day was also perfect. There wasn't a cloud in the sky from morning to night. It was 27 when we got up and remained cold while a fierce wind howled from the direction of the North Pole. By 8:25 we were on the march, facing the harshness of Boreas. But it was harshness easy to face with a warm sun shining and snow-capped peaks rising on every side. Behind us was that mammoth range comprising the Matterhorn of the Koyukuk, Hanging Glacier and Boreal, a lofty snowclad boundary to the vision. To the west were all the piled up mountains which culminated in the unscalable pinnacles of the Six Darning Needles. North, as imposing as ever after a year of memories of it, was the 3,000 foot shear cliff which marked the entrance to the Valley of Precipices. And beyond its stupendous dark face, a little to the right, the snow covered pinnacles of the Continental Divide.

After lunch we proceeded up the most superlatively precipitous of all gorges which I have ever seen, the Valley of Precipices. So sheerly did the cliffs to the west rise that by one o'clock the valley was shaded as evening. From a steeply sloping base of about a thousand feet the black rocks towered straight up into the air for two or three thousand feet more. The strata were tilted at all angles, sometimes dipping north, sometimes south, occasionally being nearly horizontal. On the east the mountains were less abrupt but they rose for about 3,000 feet with strata tilted at 30 degrees. Between the mountains on this side were four deep chasms leading back between lofty cliffs and great peaks of tumbled conglomerate.

As I travelled up this great gorge of the north I lost all sense of time. It was like walking out of a sleep when we suddenly burst into full sunlight and found that the sun, shining down the gentler valley of the West Fork of Anatovic Pass Creek, was still four hours high.

A mile further we stopped at our old 101 mile campsite of last year, so named because we estimated we were that far from the closest human beings at Nolan. It was rather a blow to find that bears had dug up all the cans I had buried so carefully the year before, but it gave Al, who has the true prospector's indifference to the sight of old tin all over the landscape, a great laugh. Al and I immediately set to work rustling enough dry wood to last us a few days from the meagre willow growth, the last spruce having been left 12 miles behind. Lew fixed up a site for the tent. By six o'clock we were all set up in our remote home. At about that time the sun dropped behind the mountains to the west and it got so cold that water froze in the pots almost as soon as we dipped it from the river.

There followed a week of explorer's heaven, the sort of thing a person of adventuresome disposition might dream about for a lifetime without ever realizing. Each day I set out to climb some fresh peak or explore some fresh valley which apparently no human being had ever visited. Often as when visiting Yosemite or Glacier Park or the Grand Canyon or Avalanche Lake or some other famous natural scenery of surpassing beauty, I had wishes egotistically enough that I might have had the joy of being the first person to discover this grandeur. I had read Captain Lewis' glowing account of the discovery of the Great Falls of the Missouri and was completely thrilled. At about the ages of 11 to 20 I used to feel that I had been born a century too late, that though I might have some good times I would never enjoy anything as glorious as I would have known had I lived in the days of Lewis and Clark. Later I changed these notions as I became more realistic and appreciated that, statistically viewed, I would probably have been bumped off by Indians or died of fever before having many good times, and that anyway background is much less important than psychological processes in determining how

happy a person can be. Later still I realized that though the field for geographical exploration was giving out, the realm of mental exploration -- aesthetic, philosophical, scientific -- was limitless. Nevertheless, I still maintained a suppressed yearning for geographical discovery which I never seriously hoped to realize. And then I found myself here, at the very headwaters of the mightiest river of the north, at a place where only three other human beings aside from myself had ever been and with dozens of never visited valleys, hundreds of unscaled summits still as virgin as during their paleozoic creation.

The first day in this heaven was blessed, perfect weather. Lew decided to stay over a day and hunt sheep. Al was going to prospect near camp, where he had picked up his gold bearing rock the summer before. I wanted to take advantage of the weather to climb one of the highest peaks on the Arctic Divide the summit of which was only about four miles from camp.

The ascent commenced over gently rising, sod covered slopes at the bottom of Grizzly Creek valley, but after 500 feet or so of this I found myself among hugh conglomerate boulders over which I had to pick my way with great care to avoid smashing an ankle. In a little basin among the boulders I scared out three sheep. Above the conglomerate came a slope of yellow rock fragments so steep that I was continually starting juvenile landslides, likewise so steep that I could not climb more than 75 steps without stopping for breath. But when I reached the top of this incline I was on the very divide. Above me rose the last thousand feet of my mountain, just a great gray stack of limestone, from which fact I called the peak Limestack Mountain.

The view from the summit showed a myriad of tumbled mountains rising out of deep valleys, cut up by great clefts and chasms, commencing in green vegetation and river bars, rising into rocks stratified at times and chaotically jumbled at others, culminating in unbroken snow and framed always by the pure blue of the sky. There were so many mountains it was positively bewildering. I could pick out Blue Cloud, 70 miles airline to the south, but from it clear over to the summits far north toward the Arctic Ocean there wasn't another one among all the thousands of peaks I could see which had ever been climbed or even mapped.

I spent $3\frac{1}{2}$ bright hours up there on top of the continent, looking in every direction over 70 miles of complete wilderness in which, aside from Lew and Al, I knew there wasn't another human being. This knowledge, this sense of independence which it gave, was second only to the sense of perfect beauty extending on all sides. My time on the summit was divided into three phases: first, just pure aesthetic enjoyment such as another person might get listening to Beethoven's Fifth Symphony played by some dreamed-of super-Philadelphia Orchestra; second, taking pictures; and third making sketch maps of the topography in every direction. I had to be rather careful on top because, though the side from which I climbed Limestack was gentle enough, the opposite side fell off about 1,500 feet perfectly vertically.

When I got back to camp Al was cooking supper and a sheep was hanging from a tripod. He had been prospecting about two hours and in that short time had found that his rock was only of sporadic occurrence in the conglomerate and absolutely hopeless to exploit 1600 miles from the end of the railroad. Then he saw a sheep moving along the skyline on the mountain across the creek. He grabbed up the gun, rushed up the mountain, which rises perhaps

2,000 feet above camp, and when almost on the summit came upon a band of a dozen sheep. He knocked over two easily enough and then, just to see how well the gun shot, aimed at a third about 200 yards away and killed him too. It was wilful waste but we forgot all about woeful want that evening as we consumed heaping platefuls of fresh lamb stew.

It was eight o'clock, almost dark, before Lew dragged in packing a grizzly hide and several big chunks of grizzly steak. He had crossed over to the Arctic side of the divide and tramped for hours without seeing a fresh sign of sheep. Just as he was about to turn back he saw on a ledge of rock above him a grizzly, pacing back and forth like a tiger in a cage. The bear didn't see him so Lew detoured and came out above the bear and a couple of shots ended his pacing.

Next morning Lew pulled out with the horses, his bear skin, most of the sheep Al had brought down the mountain the day before and all our superfluous equipment, including the 8 x 10 tent which we had used all along. This left us with a little 5 x 7 one which contained room for little besides ourselves. Consequently, Al and I packed our stuff about 300 yards up the valley where an overhanging schist bluff furnished fine shelter for everything we didn't take into the tent. It also protected us from the north wind. Al rigged up a fly for the tent out of an old tarp and we soon had the new camp rigged up in a way we felt could withstand the worst the Arctic might bring us.

In the afternoon we climbed up to the summit of the mountain on which Al had killed his sheep. We took choice cuts from the two remaining ones; also opened their stomachs and found that they had been feeding exclusively on reindeer moss and sphagnum. Though the perfect weather had ended, and the sky was heavily clouded, the air was still very clear, the mountains just as rugged from here as from the Divide. If we did not have as extensive a view as the day before, we had added the Divide itself, about two miles away airline across the valley of Grizzly Creek. It was capped by a limestone palisade from one to two thousand feet sheer and extending for about five miles. It did not show a solid front but a vast series of columns chiselled out by the uneven weathering of the limestone. From the grooves between the bases of the columns the crumbled limestone debris spread out in fan-shaped formation for another 1,500 feet of elevation. The bottom 500 to 1,000 feet of the valley might have been the bottom of any glacial valley except that there was no vegetation larger than dwarfed willows.

We could look right over the low Anatuvik Pass at the very head of Anatovic Pass Creek. Across it the Anatuvik River flowed through a broad, gently rolling valley. It looked so greenish-brown and peaceful it might have been some Montana valley, - the Gallatin, Deerlodge, Missoula or Bitterroot - except that the snow-covered limestone crags beyond were too rugged for even Montana.

We returned to camp by a rocky, unexplored hanging valley on the east side of the mountain and the steep south wall of the Grizzly Creek Canyon.

Next day, despite an intermittent drizzle, we followed the middle of the three main forks of Grizzly Creek to its source. Just before we came to the first fork, 5½ miles above camp, the river flowed over a solid bar

of bed rock. This, Al informed me fervidly, was the prospector's dream for if there was any gold at any point above, some of it would surely be washed down and would lodge in the crevices of the rock. It was in just such places that all the great historic strikes had been made. Why holy mackeral, if this were Bonanza or El Dorado Creek in the Dawson country, one claim in such a place would yield several millions. It was glorious - but unfortunately after Al had panned for half an hour he did not raise enough gold to fill one tooth of a rotifer.

A mile above the first fork the middle branch came in from the right, tumbling down 200 feet of cascades from a lofty valley just below the clouds. We headed up this fork and soon were climbing great steps of some basaltic rocks. It was a giant stairway rising 200 feet and then suddenly it ended and we found ourselves in a strange, flat valley from which the glacier had departed so recently that the stream had not yet had time to gouge out anything from the valley floor. This perfectly flat bottom was about 400 feet wide and covered with gravel and small rocks which had shattered as they tumbled from a black mountain to the right, the crest of which was lost in fog. But partly hidden in the mist we could discern huge boulders which seemed to be just poised to tumble over on us. As we followed the valley up the half mile to where it turned at almost right angles there was the delicious feeling of searching where we knew no mortal had ever searched before and a half spooky sensation that some supernatural phenomenon might lie just ahead.

But if this half mile seemed unearthly, what lay around the bend was even more so. Here was absolutely nothing at all but rocks, always dull colored rocks, conglomerate rocks, basaltic rocks, limestone rocks, schist rocks, even one granite rock from god knows where - for all we could see the whole cosmos might have been rock and fog. We had felt below that we were heading the advance of mankind into the valley, but here we were leading life itself for there was no faintest sign of any animal existence in this rocky world and not a single bit of green vegetation, nothing but a few dry, black lichens desperately clinging to the dry, black rocks.

At the head of the valley was what appeared from the distance like a great dam. When we reached the base we found it to be solid conglomerate bed rock about 60 feet high. We climbed up the face which was so steep we could barely make the grade and found ourselves at the end of our valley, almost on the continental divide and almost in the clouds. Looking down the valley through the fog we could make out the lower slopes of many other jagged mountains, always leaving a sense of mystery where they were cut off by the clouds. The whole country seemed to stand on end, and where in most parts of the world you would think it splendid to have one deep gorge in 100 miles, here they would be separated often by only a narrow ridge.

The following day we set out in the opposite direction from camp to follow the west fork of Anatovic Pass Creek to its source. About a mile above the mouth of this stream a series of cascades about 1,500 feet high, culminating in one straight plunge of 200 feet drop, down from a hanging basin on the left. Thus far Al had been the year before panning gold, thus far Ernie hunting sheep, but beyond all was untrammelled ground. For about 6 miles it was surprisingly mild untrammelled country too. The river cut through well worn slate mountains, meandering now to one side of the valley, now to the other.

But I wasn't disappointed for I had not anticipated any sensational scenery.

The river curved around the high, flat topped mountain, and then suddenly we found ourselves out of the mild country, in a recent glacial valley flanked on the south by a most astounding series of knife edge ridges. Their black igneus faces rose more than a thousand feet sheer from the valley floor, while between them were deep hanging gorges which ended where they emerged, high up above the main valley, in waterfalls and cascades. One slender fall must have been 500 feet high. Across the valley, in complete contrast, the mountains sloped quite gradually and there were no deep gorges cutting them.

We followed up the broad, rapidly rising valley floor for three more miles to where the river dropped in great leaps for quarter of a mile through a canyon which it had cut for itself in the rock. Here we separated, Al to pan vainly for gold, I to explore the head of the valley. I climbed steeply along a ridge northwest of the canyon, getting a glorious view down the rugged valley whenever I turned around. Far below me to my left the river was tumbling its initial two miles through a deep V gorge. Across it a mountain rose almost straight up for probably 2,500 feet. Its face was a patchwork of black rock and white snow. Chunks of rock were continually breaking off and rumbling down into the valley so I called it the Rumbling Mountain.

When I crossed the highest point on the ridge I could look down into a big glacial cirque forming the very head of the West Fork of Anatovic Pass Creek. The floor of the cirque was covered with gravel and mud, and amazingly for this region there were scarcely any rocks. To my right nestled a little lakelet, probably 200 by 400 feet in size, bluish-green in color. It is perhaps the loftiest body of water in the whole Brooks Range, being at least 6,000 feet above sea level.

Beyond the cirque was a low, curving ridge which I took to be the Arctic Divide. It was only eight or more hundred feet above the cirque and the slope was not too steep so I decided to clamber up. About half way I heard a great noise like an explosion above me and looked up to see a big rock, probably 6 feet through, plunging down the mountainside in my general direction. I started to run but slipped and sprawled flat. When I looked up again it seemed to be coming straight for me and it was too late to move. For an instant it was like a horrible nightmare I used to have about semi-annually in childhood, of a great rock about to crush me and I being unable to move. I lay just as flat as I could, knowing that junks like this as they go bounding down the mountainside only hit the ground now and then. Fortunately the spot where I was lying was neither now or then, so I was soon travelling on my way once more, possibly a bit shakily, to the top of the ridge.

I had been correct, it was the Arctic Divide. About 300 feet above me was a low mountain at the very head of the cirque and this I easily ascended. From its summit there extended down the valley to the east and north perhaps the most impressive view I have ever gotten. It was of the great knife-edge south wall of the valley extending in semi-circular front for eight miles from the Rumbling Mountain to Flat Mountain. Within these eight miles I counted ten different knife-edge ridges, each faced with a giant precipice where it broke off into the main valley, each rising two or three thousand feet from the gorges which separated it from the neighboring knife-edge ridges. These gorges lay about a thousand feet above the valley floor. Through this the river meandered back and

forth with many old channels marking it with varied patterns.

I named this remarkable valley and the river which drained it Keenunga, which is the eskimo for knife-edge, thus putting myself in the same shady class as a nomenclator with Charles Fenno Hoffman who nearly a century before had taken the Seneca word Tahawus and placed it on a mountain the Senecas had never seen.

To the southwest, about two miles along the divide on which I stood, was a very high mountain which I imagined must be at the junction of the major rivers, the Anatuvik, North Fork and John. I decided, even though a cap of fog rested on its summit and the way seemed exceptionally precipitous, to try it. I followed the ridge for a gently rising mile to its base, then swung over to the north side and scaled up its very jagged summit by some rather stiff rock work. The fog was so dense that I got very little view but topographically, I was able to verify my surmise. The southeast face of the mountain was a sheer precipice 1,500 feet high, dropping into a snowfilled hanging valley. I descended into this high valley, but not by the direct route, and then dropped down another thousand feet by a frozen cascade to the very head of the Keenunga River. From here I hastened back to Al and we returned the 10 additional miles to camp without event. That evening we feasted sumptuously on fried tenderloin of wild sheep and grizzly bear stew with potatoes, vegetables and dumplings.

But this is getting tedious and I must skip over our last three days in paradise with not more than a paragraph apiece. The first one we followed up Grizzly Creek $3\frac{1}{2}$ miles to where a deep gorge cut back between the limestone pinnacles of Tabletop and Limestack. For a mile we climbed up along the sides of the creek which came down too steeply for comfortable walking. Then the slope tapered off and we found ourselves in a great ampitheatre about a mile long and nearly half a mile wide. It was capped by pillars of limestone 200 to 1500 feet high, the base of one pillar resting on the capital of the one below. Underneath the pillars were steeply sloping banks of limestone debris where the spectators might have sat, to see the spectacle of the creek tunneling under permanent ice or cutting through a chasm 20 feet deep and only four feet wide. But here, let alone spectators, there were not even dried lichens, only snow and crumbled limestone and above that sheer precipices of the same rock.

The next morning it rained so much I stayed in camp studying Spurr's Geology and reading Anna Karenina. After luncheon, as there was a temporary cessation in the rain, I set out to explore the Hanging Basin above the waterfall and cascade near the mouth of the Keenunga River. When I had climbed the 1,500 feet to the top of the falls I was surprised to find myself in a gently rolling valley which might have been set down anywhere in the Adirondacks or even northern Massachusetts without anachronism. The back side of the mighty west wall of the Valley of Precipices was only a mild hillside. I climbed it easily without stopping once for breath and marvelled from the summit of the mountain at the contrast between the seemingly overhanging view into the Valley of Precipices, 3,000 feet below to the east, and the gentle slope of an agricultural country dipping into the Hanging Basin on the west. It was only at the very head of the basin, where there was a permanent icefield, that there was any ruggedness at all. While following the valley up to this icefield I saw ten very tame sheep. They merely looked at me placidly and didn't even start to run away.

The last day a high fog settled down and we couldn't see more than 50 yards from the tent. More studying of Spurr and reading of Anna. About four o'clock, chiefly for exercise, we set out to walk to the center of Anatuvick Pass, about three miles to the north. The fog had lifted by this time. The going to the pass was over gently rising, sod covered hills which afforded easy walking. The center of the pass was over a mile wide without a steep climb on either side. Just before the pass one of the forks on Anatuvick Pass Creek flowed in from the right, tumbling down with great velocity. It cut through quite a rugged canyon which looked interesting enough to follow down to where it joined the valley of Grizzly Creek. It was mild scenery compared to what we had seen, yet there were brown slate and schist bluffs rising 100 feet sheer from the edge of the water. Besides these bed rock formations there was a great rabble of miscellaneous rock, some of which as limestone and conglomerate had tumbled from the divide. But most, including a brown diorite, a diabasic porphery and a black diabase had obviously been carried by the glacier.

During odd moments around camp I started an ecological experiment to throw light on the validity of my theory that the northern timberline in Alaska is not due to unfavorable environment for tree growth, but simply due to the fact that there hasn't been time since the last ice sheet receded for the forest to migrate further north. According to my theory, the spruce stands eventually will extend clear to the Arctic Divide and cross over into the sheltered valleys north of the divide. If this is so it should be possible simply by sowing seeds to extend the timberline far north of where it now is. This is precisely what I did. I collected spruce cones about four miles south of the last timber, extracted the seeds and sowed them on two plots of ground on Grizzly Creek, 12 miles north of the present timberline. One plot was covered with the natural vegetation of Sphagnum, Cladonia (reindeer moss), Dryas octopetala, Salix artica, Carex and a plant the eskimos call Angowuk. On the other I scraped this away and sowed my seeds directly on the black soil. If my experiment gives positive results I will have advanced the timberline about 3,000 years according to my estimate of spruce migration rates.

On the morning of the eighth day in our camp below the Arctic Divide it was still raining, our tent was commencing to leak and the prospects of clearing seemed so remote that we decided to pull out. We shouldered what we fortunately thought were 60-pound packs apiece, though later it turned out they weighed 70, and started down the long 17 mile grind to the mouth of the Anatovic Pass Creek. Before starting we ditched a week's food supply, including about 8 pounds of sugar which nearly broke my heart, and only held out about 12 pounds of the most concentrated food to take with us. The packs felt so heavy at first, especially to Al who hadn't as much experience in back packing as I, that when after 200 yards I let out a loud cheer at the completion of one one-thousandth part of our journey home Al only answered by a disgusted grunt. We stopped about three times to the mile, sitting down always on a sloping bank or rock so that we could rest the packs without removing them. Shoulders straining, back straining, head straining against the headstraps, we scarcely even appreciated the grandeur of the Valley of Precipices. On the whole the going was pretty good except for the last five miles when we hit quite a lot of niggerheads, but nevertheless it made a substantial installment on the required payment for our one week in heaven.

We pitched our tent near Ernie Johnson's cabin at the Forks and used his stove for cooking. The cabin was too damp and dirty for sleeping. As it alternately rained and snowed the next day we stayed pretty close to camp but I spent much of the time making growth measurements and stand tables in the timber adjacent to the cabin. The following day we were off before seven for a two days' exploration of the Upper North Fork, Al's exploration to be largely by pan and shovel, mine by mapping and camera. We took no sleeping bags or tent, planning to siwash out for the night. Thus we had very light loads, just my photographic and Al's prospecting equipment, a little food, a pot and frying-pan and the gun. We covered the 11 miles to the first junction of the Upper North Fork in about 4 hours. The scenery all along the way is superb - on the left a high, gray stone ridge cut by six deep gulches; on the right the multi-pinnacled summits of three mountain masses rising five to six thousand feet above the valley floor and divided by the great Gorge of the Waterfalls and the Gorge of the Silver Plunge. In the center the river itself was in continual foam as it twisted back and forth across the valley. We picked a campsite about half a mile above the forks and after an abbreviated lunch started on our way, Al to pan and I to explore.

Five more miles of rugged river valley brought me to a second forks. On the way the river cut right through Graystone Ridge and on either side straight gray walls rose sheerly from the valley. At the second forks one branch of the river swung in a general northerly direction to the divide, only about seven miles away. About a mile up it issued from a deep canyon. It was near the mouth of this fork that Ernie and Charlie Irish saw 22 wolves at one time. The other branch diverged at nearly right angles heading from a due easterly direction. No human being apparently had ever been up it, so of course I determined to explore this fork.

A mile and a half brought me to a small permanent icefield across which I slipped gaily. Just beyond I crossed a little knoll and suddenly found myself not 500 feet from a band of 17 sheep. They all ran away up the mountainside while I snapped three times at them. As I continued up the valley I observed that the north divide consisted of an unusual group of almost equally high peaks in perfect alignment which I had marvelled at from Limestack. Each peak was only a little over a mile apart; there were seven of them in the ten miles between Twentytwo Wolf Creek and the final fork of the branch I was following, which I named Alignment Creek. Between each rocky, snow-capped summit, a deep gulch with quite a flow of water descended. These numerous breaks in the topography added excitement to the pursuance of this unknown river, for it was always a mystery as to just what would be in the deep draw ahead. At very least there was sure to be a pretty series of cascades. Nevertheless, on the whole the valley of Alignment Creek was much less precipitous than the Valley of Precipices or the Grizzly or Keenunga Creek valleys. But for a change the less awe-inspiring scenery was a relief from the bleak rock walls at the head of Anatovic Pass Creek, and anyway the country was enough on end to suit the most precipitously inclined. But best of all it was fresh, gloriously fresh. At every step there was the exhilarating feeling of breaking new ground. There were no musty signs of human occupation, not even the psychological depression that nothing could be new. For this, beyond a doubt, was an unbeaten path.

But for a few seconds I suddenly wished it were a whole lot more beaten. The river kept boiling down the narrow valley, now sharp up against one steep side, now flush against the other. Occasionally it was so flush I had to leave the bed and climb over high cliffs. But usually by careful footwork I could pick my way around at the base. At one such place, where a schist ledge came down straight to the edge of the river, the rock near the base had fragmented and due to its right angled cleavage it was possible to pick a precarious footing.

There was a stretch of about forty yards that way in which I was totally absorbed in watching where I was placing my feet.

When I had gotten around the bluff I looked up and my heart stood still, as the books all say. About 150 feet ahead were three grizzlies! One hundred and fifty feet may seem like a long distance to a catcher trying to throw a man out stealing second, but between three bears and a human being, 11 miles from the closest gun, 106 from the first potential stretcher bearers, and 300 air-line from the nearest hospital it dropped to the realm of the microscopic. The closest bear was small, probably a two-year-old, the second was of medium size, the third appeared about like two elephants and a rhinoceros. Suddenly my heart stood stiller, for they reared up, one after the other, from little to gigantic, just like so many chorus girls going through some sprout in sequence.

But I must leave my bears on end to digress for a minute on the subject of neuroses. I commend to future treatises on psychoasthenia that they use my case as an excellent example of ursaphobia. They could say: "Statistically speaking probably not one grizzly bear in twenty bothers anyone and it is doubtful if one in 200 encountered actually hurts the unarmed traveller. Nevertheless, due to the fact that in two of the first three encounters which R. M. had with grizzlies there were rather startling associations - the necessity of taking to a tree in one case, of shooting in the other - R. M. simply cannot get over his bear complex and seems to become panicky every time, unarmed, he comes upon a grizzly."

Quicker than you have read this psychological discourse the bears got down off their hind legs and disappeared, fast as they could travel into the willows.

The bears safely "eluded", I continued upstream. As the water from each deep gulch was subtracted from the volume of the main creek it became noticeably smaller. Finally I came to the last forks and there was only a little brook left. Here, virtually at the head of the North Fork, 110 miles from the nearest person other than Al, I reluctantly turned around.

The 15 miles back to Al and our siwash camp were made at a straight four mile an hour clip. The feeling of striding through untrammelled terrain was only a little less keen than going out, the scenery looking back even finer. It had also cleared up considerably and the spectacle at the Wolf Creek Forks was one of the most rugged grandeur imaginable. Downstream, framed by the sheer cliffs where the river cut through Graystone Ridge rose a jagged rock wall more than 4,000 feet high and three miles long. Directly across the 22 Wolf Fork was the paired pinnacle of Two Prong Mountain, each prong jutting straight up into the sky. Upstream was the dark canyon from which 22 Wolf Creek emerged and over the canyon was the massive Inclined Mountain, with its dark, tilted strata, so conspicuous on its opposite flank from the Valley of Precipices. The Alignment peaks, one after the other, seemed almost living as the late afternoon sun played queer pranks around their snowy tips, while real life was added to the scene by five sheep feeding peacefully on one of the low, grassy hills near the forks.

When I reached our siwash camp I found that Al had made the best possible preparations for a cold night without blankets. He had cut willow and spruce bows to lie upon, inclined slightly toward the fire, and had collected a great quantity of dried wood. In addition he had a delicious macaroni and

vegetable dinner awaiting me. The night passed as nights without blankets usually do when there is no cut bank to reflect the fire's heat, alternately roasting and chilling, with little sleep. But we were fairly comfortable as such nights go.

About two o'clock quite a wind came up and this was shortly followed by snow. By 5:30, when we were ready to start, visibility was so limited that we decided further exploration for the day was useless so we returned through a considerable snowstorm to our camp near Ernie's cabin. We just stopped once to examine the deep gorge separating the Matterhorn of the Koyukuk from Noel Wien Mountain. There was a big creek in this gorge which came down out of the clouds in two sheer leaps of 500 and 200 feet. The upper fall was the largest and most impressive single plunge I have seen in this whole far northern country.

Had the weather been even tolerably good the next day we would have climbed Hanging Glacier Mountain. But it was storming all around us, showed absolutely no indications of clearing, so it seemed to be time to get out. We shouldered our packs once more, now reduced to 65 pounds each, and set out on the long trek to Wiseman, 91 miles away. For the first 84 miles to Nolan the route was trailless and uninhabited.

There is no need to go into the details of our seven day journey back to civilization. It can be summarized by three words, damn hard work. Please repeat them 91 times, once for each mile. This, however, would be an invalid procedure at that, for there was a vast difference between the miles. Some of them, along gravel bars, we hardly noticed at all. But there were others when I really believed all of Lizzie's and Putey's contentions concerning my malaclustic nature. It seems the most ridiculous thing in the world that anyone of his own free will should put himself to such grinding effort. I remember opposite Moose Quandary Gulch it took us 55 minutes to make half a mile. We had to take a very steep side hill where even without packs a person would have had a hard time worming his way through the tangled alder thickets. With packs it was simply a case of brute strength, tearing your way through the brush for half a mile. There was also a very hard stretch where the river takes its great loop to the west. We had to climb uphill for four miles through niggerheads and over half frozen moss into which we would sink at every step almost to the ankles. It was snowing steadily that day and this made our rests very chilly and uncomfortable and our progress very slippery. As I looked dimly through the storm up the North Fork, frozen along the shore and completely surrounded by the snowcovered landscape, I was ready to believe that this really was the Arctic. The worst going of all was at Jack Delay Pass. Here the niggerheads were three feet high and grew so close together it was impossible to walk between them. But it was also impossible to walk on top of them for any distance for they would roll over, plunging you off into the muck between them. This would probably happen about once in every 20 steps and as we took about 2,000 steps to the mile I think it conservative to say that at least 100 times in each of three endless miles we would find ourselves sitting on the ground, a 65 pound pack anchoring us firmly in the mud, while above us would tower an overhanging cliff of sedge formation nearly waist high. Then we'd grit our teeth and gather up all our energy and pull ourselves up the necessary three feet and in about 20 paces it was all to do over again.

But it was done and there was a genuine exhilaration in coming through the toughest conceivable travel in triumph. Tired we would be but never worn out; difficult as the going was we always had plenty of reserve. It was precisely the stimulation I've gotten from such varied activities as climbing the five slashed summits of the Dix Range in one day with Herb and George; racing with Gerry Kempff through 29 stormy Idaho days out of 30 in November, 1927, in order to finish a tremendous program of essential experimental work, coming home from the woods each night soaked and chilled through, changing clothes and eating and then doing office work with Gerry and Lily until long after midnight; staying up 40 consecutive hours without sleep on my water relations study at Hopkins; or suddenly, after hard concentrated study, getting a glimmer of the significance of the quantum theory. A hundred other examples could be given but the principle in all is the same. It's the great stimulus for mental and physical adventure alike - the joy of triumphing over something which you know few people are capable of conquering. All this is pure egotism of course, but then I consider egotism one of the most commendable sources of happiness.

There were two very pleasant half day interludes on our journey. In the first we climbed the Red Star Mountain, 20 miles below the junction of the North Fork and Anatovic Pass Creek. This mountain had excited our interest on all three previous passages by it, for it was capped by a red, star-shaped blotch, probably 2,000 feet across. We had always been too rushed or too wet to stop before, but this time, though snow-flurries were all around, we determined to investigate the source of this brilliant coloration. The ascent proved very easy, only about 2500 feet and four miles in distance with just the last 400 feet of elevation really steep. We found the entire top of the mountain as well as of the higher peaks immediately north was an igneous upthrust, the only one we had seen in this vicinity. The red, really a vermilion, was only superficial, the interior of the rock under its coating being a steel gray. There was much of the vermilion substance, all pulverized, scattered in the rock crevices and over a large area of ground. Just what the red substance is mystifies us as much as ever, but Al is bringing it back to the College in Fairbanks to be analyzed.

The second interlude came on the fifth afternoon out from the Forks when I shot a moose. The first shot at about 700 feet tore off a hind leg and the rest was simple. Like the Indians, we make camp right where the moose died, dressed him, cached the meat (except for a few pounds we used) and cooked a feast which included the entire tongue and two hugh T-bone steaks. The moose was a young bull which Al estimated to weigh about 450 pounds dressed. When the first snow comes George Eaton and I are going after him with George's dog-team. Shooting the moose gave me a dual pleasure. First, I never tasted more delicious meat than the tongue, the steaks we ate at four meals and the liver which we enjoyed every meal for two days. Second, in the future when certain of my friends chide me for not being a more enthusiastic nimrod and it is too complicated to explain that a living wild animal is very much more beautiful to me than a dead one, it will be very handy for me to be able to elevate my nose just a trifle and remark with a trace of ennui: "Oh, deer (or elk, or goats as the case may be) seem too tame after moose."

The last night out the thermometer dropped to 15. It remained so cool all morning we didn't even perspire staggering up the steep mountainside to Pasco Pass. Once through it our last real difficulty was over and the remaining 11 miles to Wiseman were all downhill. We reached Pingels' house on Nolan Creek in time for a noon dinner as well as a most enthusiastic reception. We spent most the afternoon around Nolan, telling our tales, hearing the latest news and just enjoying the company of other human beings, after four weeks of wilderness. After 101 trailless miles of back-packing from Grizzly Creek to Nolan the 7 miles of road to Wiseman seemed very easy, even though excessively muddy. I sat down flat once. When we hit the last mile from the foot of the big hill into Wiseman we were going strong and we struck a four mile an hour pace into town. Of course everybody in town dropped around to the roadhouse that evening and it was very pleasant to talk with them. Very pleasant too it was to find the first installment of mail awaiting me, some 17 dandy letters.

And thus ended a glorious trip. It contained no thrilling adventures like last year - no bears driving the horses out of camp, no 3;15 A.M. escapes from drowning, no necessity of building rafts, no all night marches to evade the mosquitos. There were no days on end of soaking, no continual nervous strain whether we would come out. Whereas last year I felt toward the end as if I would be content to sit by a stove for the rest of my life if only I ever reached Wiseman, this year I didn't feel the slightest eagerness to get back. There was much hard work but never any real discomforts and we really travelled remarkably efficiently. It was just a comfortable, unexciting trip physically, but by far the most thrilling I have ever had in my life aesthetically.

Our record of exploration included the following:

6 unclimbed mountains ascended, including 3 peaks on the Arctic Divide
3 major valleys, never before visited by man, explored.
6 minor valleys, gulches and chasms first visited.
42 miles of untraversed valley walked and mapped.

Our record of ambulation included:

108 miles leading horses
108 miles carrying heavy packs
170 miles of side trips with just light packs

Our scientific record included:

6 stands of timber studied for growth
4 sample plots laid out to determine size of trees and number per acre
1 experiment inaugurated in relation to tree establishment beyond timberline.
4 stomachs cut open to determine feeding habits.
11 rock samples brought back for identification

Daily temperature readings taken.

Our mineralogical record included:

6 creeks prospected
0 creeks discovered with gold in them

Our zoological record included:

58 sheep seen
7 grizzly bears seen
2 moose seen
1 black bear seen

Our record of living off the country included:

3 sheep killed and partly eaten
1 moose killed and partly eaten (ultimately will be entirely consumed)
1 grizzly bear killed and partly eaten
112 grayling caught and entirely eaten
1 mess of huckelberries entirely enjoyed
2 messes of cranberries partly enjoyed

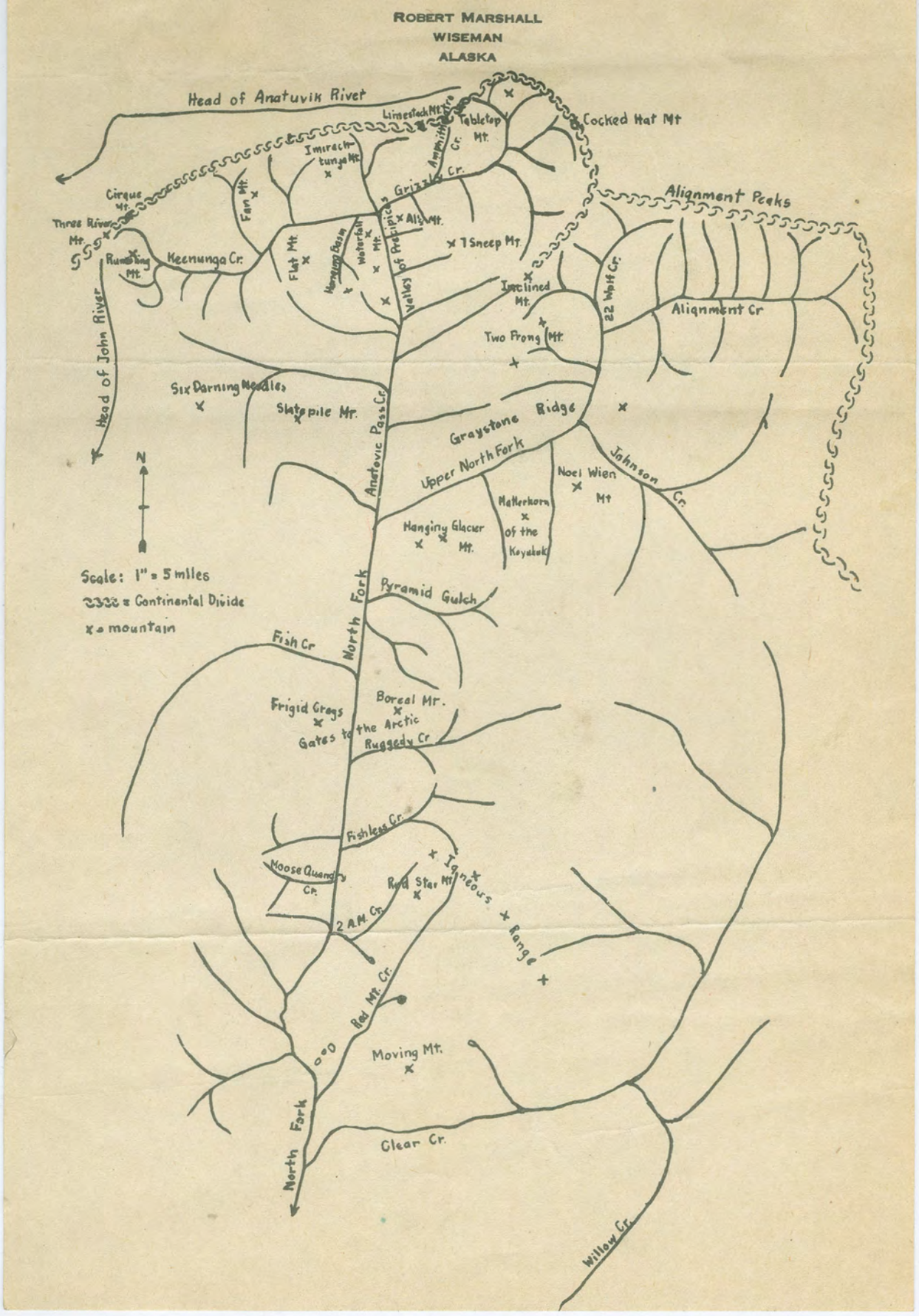
I must end this long-drawn account with a eulogy of my partner. Although we had no important interests in common aside from the often rather all-absorbing interest of making this particular journey, he was so considerate, so affable, so eager to help me in accomplishing purposes in which he had no vital concern, that we didn't have even the remotest semblance of a harsh word between us. Some of you, who know how incompetent I am in all manual and culinary manipulations, will appreciate fully what a sublime disposition this must imply in Al. But it wasn't only in a negative way that Al was so good. He was the most resourceful person you can imagine. He could do everything from patching up the split hoof of a horse to repairing my camera when the back broke. He could do every one of the many activities of our trip better than I except for walking, backpacking, mapping and photographing; of the work around camp he did twice as much as I. Yet never by the faintest hint did he imply that he was doing more than his share of the work nor was he disgruntled that my objectives were entirely realized while his ended in total failure.

Bob.

P.S. I must explain this unusual method of writing letters. I have so many friends to whom I want to tell the same story about the events and life up here that if I wrote to each one individually I would have my entire winter occupied and no chance to write any personal letters. So my sister has kindly consented to have this letter mimeographed and sent to each of you and the same thing will be done with other general letters. That will give me a chance to answer all of your letters in a more personal way.

P.P.S. Just as an example of what may be expected of the mails in here, a letter from Putey written August 21 arrived here by airplane September 20, while one written June 22 to greet me when I arrived here came in by boat on Sept. 25. Similarly the letter Helen Smith wrote me August 28 got here Sept. 20 and the one she sent July 28 arrived September 25. This boat brought the people some of their last year's Christmas presents. So for heaven's sake, don't send me any packages, for no parcel post, freight or express comes in here between September and June.

H. T. Gisborne


ROBERT MARSHALL
WISEMAN
ALASKA
Head of Anatuvik River
Limestock Mt.
Tabletop Mt.
Cocked Hat Mt
Amphitheater Cr.
Imuruchtunga Mt.
Grizzly Cr.
Alignment Peaks
Cirque Mt.
Three Rivers Mt.
Fan Mt.
Running Mt.
Keenunga Cr.
Flat Mt.
Hanging Basin
Waterfall Mt.
Valley of Precipices
Ali Mt.
7 Sheep Mt.
Inclined Mt.
22 Wolf Cr.
Alignment Cr
Two Prong Mt.
Head of John River
Six Darning Needles
Slatepile Mt.
Anaktuvic Pass Cr.
Graystone Ridge
Upper North Fork
Noel Wien Mt
Johnson Cr.
Matterhorn of the Koyukuk
Hanging Glacier Mt.
N
Scale: 1" = 5 miles
= Continental Divide
x = mountain
North Fork
Pyramid Gulch
Fish Cr
Frigid Crags
Boreal Mt.
Gates of the Arctic
Ruggedy Cr
Fishless Cr.
Moose Quang Cr.
Red Star Mt
Igneous Range
2 A.M. Cr.
Red Mt. Cr.
Moving Mt.
North Fork
Clear Cr.
Willow Cr.