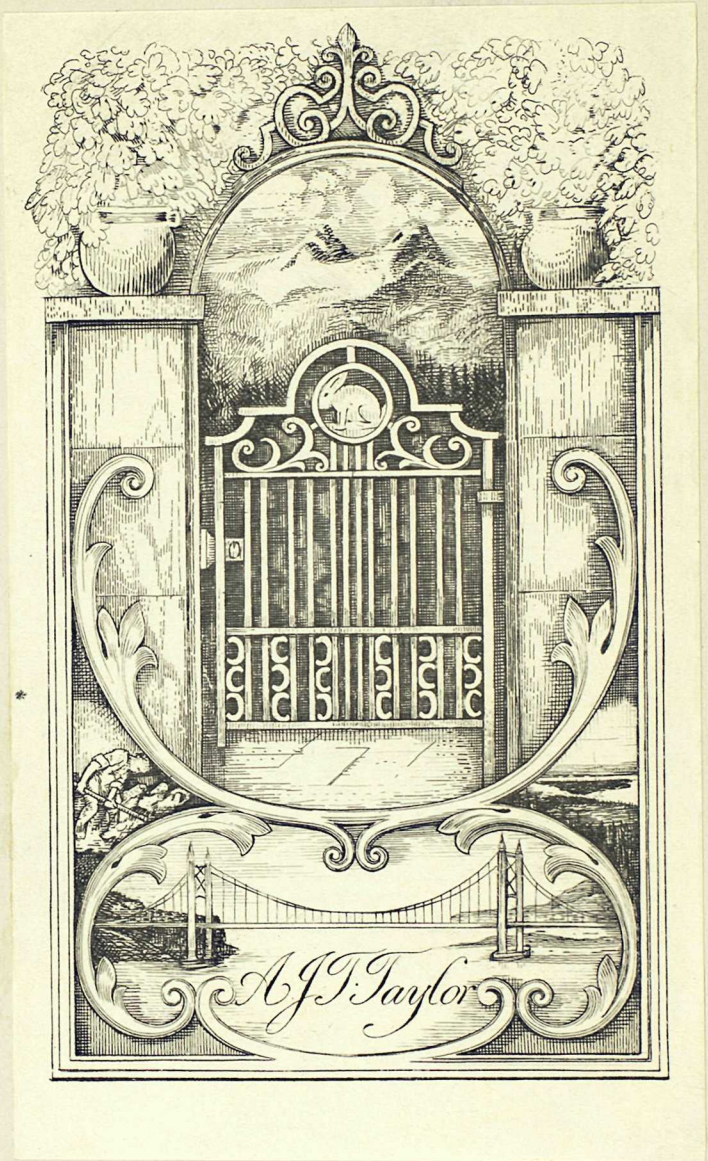

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REPORT

OF A

MILITARY RECONNAISSANCE

IN

ALASKA,

MADE IN

1883,

BY

FREDERICK SCHWATKA,
1st Lieut., 3d Regt. Cavalry, U. S. Army.

WITH MAPS AND ILLUSTRATIONS.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

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48TH CONGRESS, 2d Session. } SENATE. { EX. DOC. No. 2.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

In answer to Senate resolution of April 18, 1884, *the official report of Lieutenant Schwatka of his military reconnaissance of* 1883 *in Alaska.*

DECEMBER 3, 1884.—Referred to the Committee on Printing, and ordered to be printed.

WAR DEPARTMENT,
Washington City, December 1, 1884.

The Secretary of War has the honor to transmit to the United States Senate a copy of the official report of Lieut. Frederick Schwatka, Third Cavalry, of his military reconnaissance of 1883, from Chilkoot Inlet, Alaska, to Fort Selkirk, on Yukon River, Alaska, in compliance with the resolution of the Senate of April 18, 1884, as follows:

Resolved, That the Secretary of War be, and he is hereby, directed to transmit to the Senate the official report by Lieut. Frederick Schwatka, United States Army, of his military reconnaissance of 1883, from Chilkoot Inlet, Alaska, to Fort Selkirk, on Yukon River, Alaska.

Accompanying are two letters of the Adjutant-General of the Army, dated, respectively, April 22 and November 4, 1884, from the latter of which it will be observed that the delay in preparing a complete copy of the report of Lieutenant Schwatka was occasioned by the necessity of procuring copies of the photographic illustrations accompanying the report.

ROBERT T. LINCOLN,
Secretary of War.

The PRESIDENT PRO TEMPORE
UNITED STATES SENATE.

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, April 22, 1884.

SIR: Referring to the Senate resolution of April 18, 1884, calling for a copy of the report of Lieutenant Schwatka's reconnaissance from Chil-

koot Inlet to Fort Selkirk, Alaska, made in 1883, I have the honor to state that the report in question not having been received at this office a telegram was addressed to the commanding general Department of the Columbia calling for it.

A reply has just been received from that office, which reads as follows:

Schwatka's report not yet rendered. Will be in day or two. Very voluminous; three hundred pages manuscript; requires several days to copy.

The copy desired by the Senate will be prepared and submitted as soon as the report reaches this office.

I have the honor to be, sir, very respectfully, your obedient servant,

R. C. DRUM,
Adjutant-General.

The Hon. SECRETARY OF WAR.

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, November 4, 1884.

SIR: Referring to my communication of April 22, 1884, on the subject, I have the honor to inclose herewith a copy of the official report by First Lieut. Frederick Schwatka, Third Cavalry, of his military reconnaissance of 1883, from Chilkoot Inlet, Alaska, to Fort Selkirk, on Yukon River, Alaska, called for by Senate resolution of April 18, 1884.

The delay in furnishing a complete copy was caused by the necessity to procure copies of the photographic illustrations accompanying Lieutenant Schwatka's report, which were recently obtained by the commanding general Department of the Columbia.

I have the honor to be, sir, very respectfully, your obedient servant,

R. C. DRUM,
Adjutant-General.

The Hon. SECRETARY OF WAR.

MILITARY RECONNAISSANCE IN ALASKA.

Brig. Gen. NELSON A. MILES,
Brevet Major-General United States Army,
Commanding Department of the Columbia,
Vancouver Barracks, Washington Territory:

SIR: I have the honor to report that, in obedience to letter of instructions from your office dated April 7, 1883 (and herewith appended and marked A), I left Vancouver Barracks, Washington Territory, with a party of seven persons, all told, the following being its organization:

1. Frederick Schwatka, first lieutenant Third Cavalry, aid-de-camp to department commander, commanding.
2. George F. Wilson, assistant surgeon United States Army, surgeon.
3. Charles A. Homan, topographical assistant United States Army, topographer.
4. Sergeant Charles Gloster, Company K, First Cavalry.
5. Corporal William H. Shircliff, Company G, Second Infantry.
6. Private John Roth, Company I, Twenty-first Infantry.
7. J. B. McIntosh, citizen.

This party, styled the "Alaska Military Reconnaissance of 1883," left Portland, Oregon, May 22, 1883, on the Pacific Coast Steamship Company's collier and freight steamer "Victoria" for Alaska, touching *en route* at Astoria, Oregon; Neah Bay, Washington Territory; Victoria, Vancouver Island, British Columbia, and Port Townsend, Puget Sound, Washington Territory.

The "Victoria" crossed Dixon Entrance, the channel that separates British Columbia from Alaska Territory, early on the morning of the 29th of May, and shortly afterward entered Boca de Quadra Inlet, where freight was left for the Cape Fox Salmon Cannery, an enterprise just started this year. This cannery is in the Indian country of the Tongas and (Cape) Foxes. These bands are described under the title of "Native tribes visited." I have confined my report regarding the Alaskan Indians strictly to those bands or sub-bands that my party has visited in whole or in part, but having once opened the subject of any particular tribe, I have collected and transcribed all the available information regarding them that I considered to be reliable. Further than the "Native tribes visited"—the most important information required of my military reconnaissance—I have made no division of my

report, and all preliminary introductions, narrative of the expedition, description of the great river along which the party traveled and its adjacent country, the trade and resources of the districts visited, the astronomical determinations, magnetic observations, and topography are all embodied in this, the general report, somewhat after the manner of a journal kept by a traveler. The inland passages of Alaska extend from Dixon Entrance to Cross Sound, a distance of about 330 miles, if measured between estuaries communicating with the Pacific Ocean, or from Dixon Entrance to the head of Chilkat and Chilkoot Inlets, a distance of about 375 miles, if measured within the limiting lines of latitude. Both measures are by the usually traveled steamboat route. The islands forming these numerous inland passages are known as the Alexander Archipelago, and with its adjacent mainland contains probably two-thirds the white population of Alaska Territory. The Indians inhabiting this same district speak the Thlinkit language, and, as a whole, are spoken of as Thlinkits, although divided into many sub-bands, each receiving its own particular name as Stickeens, Sitkas, Tongas, &c., each ruled independently by its own chief or chiefs in its own limited locality, and having but little sympathy in common. Among the whites of the country they are spoken of only by these names of sub-bands or clans, and in the same sense should they be considered by the military, for the reason noted, *i. e.*, their distinct and separate sovereignty as belligerent clans. Where intertribal alliances are likely to be formed as a result of a collision with one, this is noted in the particular tribe described wherever it could be ascertained. The Thlinkits were spoken of by the Russians as the Koloshes or Koloshians, and this designation is still occasionally heard in the Territory. In the Alexander Archipelago we visited the Tongas, Foxes (or Cape Fox Indians), Kootznahoos, Hoonahs, Chilkats, Auks, Stickeens, and Sitkas, and they will be found considered separately under the proper head. The distance we traveled in this part of the Territory was 810 miles, consuming from May 29, 1883, to June 11, of the same year, and the distance traveled from Vancouver Barracks, Washington Territory, to the crossing of Dixon Entrance, by the route already indicated, was about 1,070 miles. These inland passages of the Alexander Archipelago connect with similar ones indenting the coast of British Columbia, connecting with Puget Sound, in Washington Territory, across the eastern extremity or head of the strait of Juan de Fuca, and by them, such transporting vessels as "sound boats," "bay-water boats," or even the lightest and fragile river steamers by watching favorable weather at occasional ocean entrances, can traverse this whole interior coast line from Chilkat, Alaska, to Olympia, Washington Territory, a distance of about 1,060 to 1,100 miles by the usually traveled channel. From Fort Townsend, in Puget Sound, the nearest military post to this portion of Alaskan waters, the distance to these waters at Dixon Entrance by the inland passage is a little over 600 miles, and could be made by a small but powerful

"sound steamer," with such Alaskan pilots as are usually available in Victoria or Port Townsend, in two days. The value of such a steamer, in case this portion of Alaska is reoccupied by the military as an auxiliary to their usefulness, cannot be overestimated. Experts place its cost at about $35,000. The distance, in hours, for such a steamer, estimating at 12 miles per hour, and in miles, is given from Dixon Entrance to the principal villages of each tribe described under the separate subtitle of that tribe.

The Thlinkits or Koloshians have been variously estimated at from 5,000 to 20,000, although the latter is probably the nearer correct, and besides occupying the country noted, extend along the coast to the region of the mouth of the Atna or Copper River. But little can be said in a military sense regarding them as a whole, so much do they vary in the different subtribes, which variations are there noted. They are nearly all a strictly sea-coast abiding people, the ease with which the waters furnish them with subsistence, and the great labor necessary for the same in the rough mountainous interior determining this mode of life. Their villages are mostly of a permanent or semi-permanent character, situated on the narrow beaches that occasionally occur at the foot of the mountains. They are of all quality, from fairly constructed log cabins to the most miserable shanties of rough inclined boards. The Indian village at Sitka can be taken as a typical one of the best con-

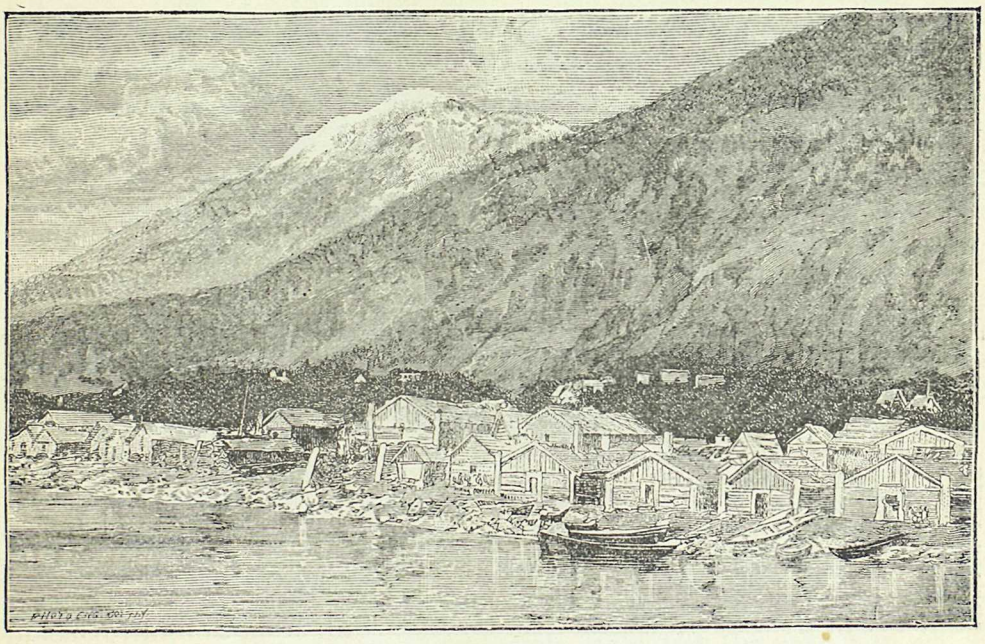


FIG. 1.

struction, and I append herewith an illustration of a limited portion of t. Villages of such substantial structures would require the lighter forms of artillery, as Hotchkiss, mountain howitzers, &c., should the resistance be stubborn, and in case of an attack upon them.

I do not believe, however, that there are over five or six villages of this construction and capacity in the whole archipelago. Where the soil would allow it, some of the Thlinkit tribes have dug cellars underneath their cabins for storage purposes, and also with an idea for defense. The moral effect on the savage mind of a few shells would make them untenable.

The subject of the supersitions of a savage race in its bearing upon military considerations of them has no importance except so far as their medicine-men, or shamans (pronounced showman), as they are called in Alaska, have power to instigate, carry on, or prevent war. In this connection the shamans are discussed in each tribe described.

The Thlinkit transportation is one that varies but little with the different tribes, although noted in each. They have two distinct sizes of canoes, the large or war canoe, which may hold from twenty-five to fifty or even seventy-five, and the smaller ones for personal use, holding one or two individuals. The former, once very numerous, are slowly becoming obsolete, or really degenerating into medium sizes used in transporting household effects from one village to another as the fisheries change their location on which they are dependent. I annex a good illustration of a war canoe taken from Lieutenant Wood's article in the Century Magazine of July, 1882, "Among the Thlinkits of Alaska."

FIG. 2.—Thlinket war canoe.

I believe that most of their boats are swifter than any that we could bring against them, not propelled by steam. They are as good masters as we of the art of sailing wherever that mode can be adopted. If the

old military posts should be reoccupied or new ones established, each one should therefore be furnished with a steam launch swift enough to run down these canoes and large enough to carry a combating force equal to any village that it may be called upon to assail within the limits of its district. Tongas, Wrangel, and Sitka were the points within the Alexander Archipelago occupied by troops before it was ordered to be abandoned; but so many new industries have developed within that time, and other changes been made that vary their usefulness, that they should not be reoccupied or new posts established without a critical examination by the proper officers for such duty. The site personally selected at Killisnoo by the late Brevet Maj. Gen. Jefferson C. Davis, U. S. Army, at one time commander of the Alaskan Department, is well situated and constantly growing in importance.

The grasses of this country are in sufficient quantities to sustain the limited number of animals that would be required at a military station for police and post duty, and the fact that the character of the country makes it impracticable to use mounted troops effectively, if at all, makes the subject of small importance. Baled hay can be readily obtained for winter forage.

Water supplies for posts are unexcelled in the numerous mountain streams emanating directly from glaciers and snowbanks on the high hill-tops, and nearly all of these can be dammed at altitudes that would give ample reservoir for fire or sprinkling purposes or to conduct water through a post by a system of pipes. Such methods have already been used in the salmon canneries lately erected in this part of Alaska.

Wood is plentiful and fuel should be obtained as reasonable as at any post in the department proper. Yellow cedar and Sitkan spruce, or balsam fir, is in ample quantities for timber, and a portable saw-mill would save considerable in the construction of a post in furnishing rough lumber, which is expensive from the high rates of freight to this part of the Territory. Coal has been found but not in proper quantity or quality.

While the hardier varieties of vegetables can be grown here with a little harder labor than in more temperate climates, I think that, in general, post gardens will be found to be failures, the limited areas of fertile soil, the ready access to Portland and Puget Sound markets, at much cheaper rates, and the uncertainty of success in a garden from year to year determining this. Such vegetables as can be grown here, and that would be more or less injured in their freshness by long transportation, would probably be raised in small gardens, while the standard varieties as potatoes, onions, &c., usually issued to troops, would be supplied by the proper department from the markets indicated, the ease with which they can be reached making the matter of post gardens of little importance compared with the isolated frontier forts.

The beef or fresh meat supply will be the hardest to meet, considering the well-known craving in the American soldier for good warm-blooded

meats. With a small steamer at the disposal of the military, as already suggested, there will be but little trouble in supplying this from Puget Sound markets at Fort Townsend rates, but in case this transportation is done by private lines the expense for any number of troops will be considerable. There are very few places in this part of the Territory where a herd of cattle could be kept even in the summer beyond the time that would be necessary for them to pick up the flesh they had lost in transportation, but meat once killed can be kept quite a while in good condition with but very little trouble. Hogs will do better, and will probably enter into the soldier's diet in a larger ration than at other army posts. A bill of fare in this part of Alaska can be varied by clams, mussels, herring, codfish, salmon, and halibut, in the way of cold-blooded meats, the latter existing in large quantities; in fact nearly all sorts of fish swarm in these waters, the principal industries being fisheries, and likely to remain so until civil law is extended over the Territory so as to protect lumbering and miniing interests, these three being the staple industries, present and prospective, of Southeastern Alaska. Venison, wild goat, mountain sheep, and black and brown bear's meat may be had occasionally. Ducks and geese are abundant in their season.

The general healthfulness of this district will compare favorably with any in the United States, only such diseases as are produced or aggravated by prolonged damp weather—the general climatic state of this country—being worthy of notice in their causation or therapeutics.

As to the general warlike tendency of the Thlinkits it must be said that they have been very peaceable since we have come into possession of the country, with but a few exceptions, although some of their belligerent acts show that they can be very combative when that faculty is aroused. The Kakes of Kuprinoff Island of the Alexander Archipelage, as late as 1857, made a hostile excursion in their war canoes as far as Puget Sound, and killed the collector of customs at Port Townsend. The Chilkats, in 1851, made a descent of over 500 miles from their country, across the mountains, down the Upper Yukon, with its lakes and rapids, in order to burn a Hudson Bay post (Fort Selkirk) that was interfering with their inland trade. Such acts do not belong to a very cowardly race, and these acts could be extended beyond those cited. The bold, rugged character of their country, the consequent severe exercise necessary to procure skins for clothing in the past generations, and the results still inherited more or less in the present, the large number of petty tribes constantly jarring about mooted matters of savage politics, all go up to give them a sort of warlike morale, not to be expected by the closest student of Indian character, who might superficially reason from their fish-eating, easily subsisted, and present indolent and quiet existence. Like all Indians, however brave, they are mortally afraid of cannon, Gatling guns, and any other large arms not used by themselves, and a single well-directed shell would have more moral effect and less fatal results in bringing them to terms than a village full

of corpses produced by weapons with which they are familiar and can meet man for man, gun for gun. The fact, already noted, that all their villages and camps are near the edge of navigable waters makes this statement of military importance in the consideration of these tribes.

The arms of these tribes are quite inferior in quality, but are gradually improving as the country is settling up, and it will be a mere matter of time when they may be equal if not superior to ours. Their sources of supply for ammunition, while adequate for present wants with muzzle-loading guns, will be more precarious as they adopt improved weapons, and doubly so in case of war. The quality of arms and sources of supply of ammunition are more minutely described with each tribe.

The most friendly feeling exists between the white people and Indians of the archipelago, and this is quite noticeable among the older and permanent residents of the former class, many of whom declare that if a war is ever occasioned it will more than likely be the fault of the whites. Such expressions, so foreign to frontier parlance, augurs well for the relation between the two elements. Through the medium of labor offered by the new industries springing up in this coast-water strip, the Indians are gradually learning the value of money and its many benefits, and where this foothold has been gained all other benefits in their behalf sink into insignificance compared with it.

Everywhere I found a sincere desire for the reoccupation of Alaska by the military, more probably in the fact that it represented some permanent form of law and order than any anticipated trouble from Indians. The unsolicited expressions conveying these desires, often the first part and burden of the conversation, were too prominent and general not to be genuine. In fact, it was their prominence and from evident desires of citizens that this paragraph finds its way into my report, for it formed no part of my instructions. The almost total lack of civil and criminal law in Alaska is also beyond my province, except so far as it might possibly affect the military if called upon; but no good citizen can visit the Territory and see the many evils resulting therefrom without at least noting them as a fact, whatever may be the object of his visit.

In closing this general account of the Thlinkits I shall give a very brief summary of the principal tribes not visited and described in full, using the best data obtainable.

The Hydas or Haidahs inhabit the southern part of the Alexander Archipelago and the northern part of the Queen Charlotte Archipelago (the northwestern outlying islands of British Columbia), and number about 500 in Alaska Territory, one-third of whom, as with the rest of the Thlinkits, may be considered warriors. There are two main villages of them, the Kaiaganies near Kaigan Harbor, and the Kliarakans near the Gulf of Kliarakan.

The Hennegas, in and around Cape Pole, number probably 350 to 400.

The Chatsinas, not far from the latter and numbering probably a trifle more. The last two are reported to be more peaceful than the former, who are credited with having murdered the crew of a small trading vessel visiting their country.

The Kakes (Kakus) already noted, who occupy the Kuprianoff Island, the greater majority of whom are concentrated on the northwestern part, in and around the village of Klukwan. There are estimated to be between 800 and 1,200 souls. They are one of the most warlike bands of the Thlinkits.

The Kous or Koos, numbering 600 to 700, are very similar to the Kakes in disposition, and occupy the shores of Kou Island, just west of the Kuprianoff Island, with their principal village (Kou or Koo) directly opposite Klukwan, the Kake village, and almost in sight of it.

The Sundowns (or Soundun) and Takos, numbering 350 to 450, who live on the mainland from about Tako River to Prince Frederick Sound, their principal villages being Shuk and Sundown or Soundun, both on Stephen's Passage.

The Hoodsuahoos, numbering 750 to 900, who live along the northern shores of Chatham Strait.

Besides these there are the Asonques and others of less importance and of whom but little is known.

We left the Cape Fox Cannery in Boca de Quadra Inlet shortly after noon of the 29th of May, and proceeded towards Wrangell, which is on the northern part of an island of the same name, arriving there at 4.30 a. m. on the 30th. Near here was Fort Wrangell, one of the three posts formerly occupied by the military. The Indians in and around this point are Stickeens, described under the head of Indian tribes. Their immediate village lies on the rocky beach just east of the town, and is of the usual stereotyped Thlinkit character, a row of log buildings between high-tide and dense timber, with gable ends facing these, and back of them the graves of the medicine-men, all others being burned, I believe, while in front are the totem poles, signifying the "family tree," of the particular cabin dweller before whose door they stand.

Wrangell itself is not much less rickety in appearance than the Indian village alongside, and is kept alive by the miners passing to and from the Cassiar mines on the Stickeen River within the British Possessions. Many of these miners also winter here, and there is much more business done than its lifeless appearance would indicate.

We left Wrangell at 8 a. m., rounded Cape Ommaney, the southern cape of Baranoff Island, between 5 and 6 p. m., *en route* to Sitka, where we arrived at 5 o'clock next morning, May 31. Baranoff Island, with Sitka on its seaward face, is the land of the Sitka Indians, a tribe described in full in the proper subhead. Sitka Harbor is one of the best in Alaska Territory, and while the channel is a little tortuous, once within it is finely protected by an outlying chain of islands and reefs. The old Russian barracks at this place were once occupied by troops

and are still kept in good order, and furnished ample shelter to the marines of the man-of-war stationed in Alaskan waters under the orders of the Treasury Department. Like all points facing directly on the Pacific coast of this continent, and which are under the influence of the deflected Japanese current, its climate is much more equable both summer and winter than corresponding points inland and on the Atlantic coast. The mean summer temperature, as shown by nearly twenty years' observations, is a little below "temperate" on the Fahrenheit scale, while the mean for the winter is about "freezing" on the same scale.

The wreck of the Eureka in Peril Straits, just north of Baranoff Island, was visited in order to leave some wrecking machinery, and a good chance was had to visit the shore and get a general idea of the character of the land. The rugged inequality of the land, its constant intersection by channels of the sea, large and small, have all been dwelt upon. Viewed from these channels nothing is seen but a dense growth of dark evergreens, covering the steep mountain-sides, and one would think from the great incline that it would be at least well drained and dry. But even here there is a thick spongy covering of moss, amply saturated with the numerous rills trickling down the hill, and which makes climbing more than doubly laborious. It covers dead logs, quaking bogs, and slippery shale or shingle, and persons cannot tell when they will receive a severe fall or sink in up to their knees, if not farther. Once on top of the hills, a few openings clear of timber are found, but if anything the bog is deeper, the moss thicker, and a luxurious growth of aquatic plants and bushes often conceal the innumerable small ponds connected by a network of sluggish channels of oozy mud. Here bear, deer, or mountain goats may be encountered, but from the difficulties presented Indians or white men do very little hunting. Every one travels by water and by water alone.

On the 1st of June, about 4 p. m., we reached Killisnoo, in Chatham Straits. Killisnoo was formerly a whaling station of the Northwest Trading Company, and has been converted into a cod-fishing station, which must be remunerative from the improvements they are making. A large pile dock, probably the finest in Alaska, gives easy access to their buildings on the land. Directly opposite this is the village of the Kootznahoo Indians (described farther on in full), and the site picked out by the late Brevet Maj. Gen. Jeff. C. Davis, colonel Twenty-third Infantry, as the best in the archipelago for a military post. Since that date its importance for such an object has become more marked by the geographical distribution of the new industries springing up in this part of Alaska. A great many of the Kootznahoo Indians had their faces blackened, a fact I noticed among a number of other tribes to a greater or less extent, which was explained as being a protection from the bright glare of the waters while fishing on them.

Twelve hours' run from Killisnoo, almost due north, brought us to Pyramid Harbor in Chilkat Inlet at the head of Lynn Channel. Here

there are two salmon canneries, recently erected, one on either side of the inlet, with good prospects that I have since heard have been fully verified. I disembarked my party at Pyramid Harbor at the large cannery of the Northwest Trading Company on the west side of the inlet, and everything was done by Mr. Carl Spuhn, its superintendent, to facilitate my movements in this vicinity, and to assure the success of my expedition in the future, and his aid was of the most serviceable character.

My instructions, "to endeavor to complete all information in each section of the country before proceeding to another, in order that should time not permit the full completion of this work it may be taken up the following season," had induced me to choose the valley of the Yukon River as that district of the most importance in the Territory and of which little or nothing was known in a military sense. The slow progress that had been made in previous explorations from its mouth, fighting its swift current, led me to think that this obstacle could be made to subserve my purpose in descending it from its head if it could be reached under favorable circumstances. Also the fact that I was in general expected to complete any chosen district in a single summer had weight in investigating the Yukon River from this end. There are some three or four passes through the coast range of Alaskan mountains leading from the inland passages of the Pacific Ocean to the sources of the Yukon River, one of which, called the Tahko, I believe had been crossed by Mr. Byrnes, a practical miner, who, employed by the Western Union Telegraph Company in 1867, made this journey as far as Lake Tahko of my map, coming down the river, marked coming in on its south side, and was here recalled by a courier sent by the company, who had abandoned the enterprise owing to the success of the Atlantic cable.

No surveyed map was made of this journey or ever demanded by his employers, as near as I can learn, and if the rest is as inaccurate as the part he has furnished from memory, and which I afterwards visited in small part, this route is still open for exploration.

The Lynn Channel, at its head, divides into two deep inlets the Chilkat and Chilkoot, each receiving rivers at their heads, and from these valleys lead out trails that reach different sources of the Yukon River, and that have been known to have been traveled by the Chilkat and Chilkoot Indians, respectively, for many years in the past, the object of these expeditions being to trade with the interior Indians, the Tahkheesh, or, as the white men call them, the "Sticks."

Over the first pass (the Chilkat) to the head of the Tahkheena the only explorer to traverse it has been Dr. Krause, of Berlin, sent out by the Bremen Geographical Society to make explorations and especially ethnological collections in the Schukchi Peninsula of Siberia and Alaska. Since returning, I also learn by his report to that society that he had traversed the Chilkoot Pass. These maps, like all work done by the

Krause Brothers, were of the most excellent character and valuable for future reference. They appear in the proceedings of the Bremen Geographical Society for 1882, and should be copied and kept on file in the proper office of these headquarters. From Indian reports I understand that it takes about twelve days for them to make this Chilkat-Tahkheena portage, carrying their effects upon their backs, but once over this long portage the Tahkheena has no important falls or rapids from the lake at its head to its junction with the Yukon. The Chilkat River has also a trail at its head leading over to the stream emptying into Yukatat Bay, which the Indians make, loaded as described, in about fifteen to eighteen days. I was told by one, who is undoubtedly good authority, that these two trails were the only ones used by the Chilkats going from the inlet and river of the same name back into the interior, the Chilkoot trail being monopolized by the Chilkoot Indians, although they are a sort of independent subtribe of the Chilkats and often associated with them in descriptions and in reality closely interwoven. The Chilkoot trail leads up the inlet to a branch one called the Dayay and through it to the mouth of a river of the same name, thence to its head and across the mountains to one of the sources of the Yukon, and requires only three or four days to be made, its disdvantages being the three or four cañons, rapids, or cascades that obstruct that part of the river to which it leads. It was the route taken by my party and is described more in detail in the running account of the voyage. Over it the Chilkats were not only allowed to travel, but the Indians of the interior, the Tahkheesh or "Sticks," are permitted to cross out to the Pacific waters, a blockade once thoroughly maintained against them by both Chilkats and Chilkoots over their respective passes. Mining parties, in small numbers, had also crossed this trail in order to prospect the headwaters of the Yukon for valuable minerals, but as far as any results were obtained, outside of their imposed labors, nothing had been gained by their attempts; still their adventurous efforts should receive the highest commendation, for had they been or should they be successful in developing rich mineral in this section of the country (which must be limited in its industries to minerals and fisheries), they would do a practical good only to be measured by the value of the discoveries.

The Indian packers over these mountain passes usually carry 100 pounds, although one I had walked along readily with 127, and a miner informed me that his party employed one that carried 160. The cost of carriage of a pack (100 pounds) over the Chilkoot trail for miners has been from $9 to $12, and the Indians were not inclined to see me over at any reduced rates, despite the large amount of material required to be transported, some 2 tons. By giving them two loads, or doubling the time over the portage, a slight reduction could be had, not worth the time lost in such an arrangement, and I made contracts with enough of them to carry my effects over at once. Mr. Spuhn was also very energetic in his efforts to secure for me better terms but without avail, and

after I had crossed the trail I in no way blamed the Indians for their stubbornness in maintaining what seemed at first sight to be exorbitant, and only wondered that they would do this extremely fatiguing labor so reasonably.

The head chief of the Crow clan of the Chilkats had died about the time of my arrival, and his sumptuous funeral, conducted in a village about 15 milies above Pyramid Harbor, stretched over several days of feasting and orgies before his body was to be burned on a funeral pyre, seriously threatened to delay my expedition getting away, but I do not think we lost over a day thereby.

The party got away at 9.50 a. m., in a large skiff and nine or ten canoes towed by the launch "Louise," belonging to the Northwest Company, the latter carrying the heavy effects and the former mostly loaded with the Indians, some forty to forty-five in number, intended as packers. The course was down (south) the Chilkat Inlet around Point Seduction and up (north) the Chilkoot Inlet to the Chilkoot mission, now occupied by the Rev. Mr. Willard and family as a missionary station and school, and was formerly the trading station of the Northwest Company until their cannery was established in the Chilkat Inlet. I walked across the narrow peninsula separating the two inlets about 3 miles, I believe, and found it well wooded, the trees doing well enough for sawing timber if required. There was grass 4 and 5 feet high on the trail, and the innumerable flowers in bloom looked very much unlike the general idea of Alaska, until the mountains that surround these little valleys were brought in view with their tops and gulches buried in snow and glacier ice.

At Chilkoot mission four or five canoes with the usual complement of Indians (about twenty Chilkoots) were attached to the already long chain, and at 2.15 p. m. got away up the Chilkoot Inlet. Shortly after we entered the Dayay Inlet, an arm of the former, and at 6 o'clock p. m. reached its head where the Dayay River comes in. Here the effects were lightered ashore in the canoes and skiff, and the launch returned. Before camping, the stores and supplies were put in canoes and "tracked up" the river about a mile, the mouth of the stream being really but a complex mass of mud flats, here deposited by the river and held back by the tides and prevailing southern storms. A short distance above the new camp (No. 2) a camp of Tahk-heesh or "Stick" was found, and I employed a few to complete my quota, and also to relieve those that had brought along squaws, their wives, to do their complement of the hard work, these poor creatures receiving nothing for their labor. Also a spare one was secured in case of sickness in such a large force.

The Dayay Inlet and valley is of the same general character as the inland passages of the archipelago, a river-like inlet between high hills covered with spruce and pine nearly to the top, the latter predominating in the lower levels the former in the higher, and capped with barren

granite mountains, covered on the top and in the gulches with snow and glaciers, which furnish water for innumerable cascades and waterfalls. These glaciers on the mountain-tops become better marked as the river is ascended. One on the west tide of the Dayay may be said to commence opposite the mouth of that stream, if not before, and continue along it some 10 or 12 miles until its outline could no longer be followed in the fog and mist that nearly always cling to their faces, especially during the warm summer months, when the atmosphere charged with moisture from the warm waters of the near Pacific is driven against them by the sea breezes.

The Oregon blue grouse could be heard hooting in the woods, and in the quiet evenings a perfect chorus of them filled the air. Trout had been caught in the fish-weirs of the "Stick" Indians, and offered us for sale, although the most persistent fishing the whole length of the river with both fly and bait was unrewarded. This may be due to the discoloration of the water by a whitish mud ground off the mountain sides by the glaciers cutting through calcareous rock. The tracks of black bear, fresh and old, were very numerous, and one was seen but not secured. The valley of the Dayay, like so many in this part of Alaska, would make a favorite summer camp for those officers and men who wished to break away for a while from the routine monotony of garrison life. Mountain goats and deer can also be added to the game list. From the foot of the steep mountains on one side of the Dayay Valley to the other—about one-half to three-fourths of a mile—the river bed and the valley is filled with great bars of bowlders, sand, and coarse gravel, with here and there groves of poplars, willows of several varieties, and birch. The river is very swift, averaging from 30 to 75 yards in width to the head of canoe navigation in a cascade 10 miles from its mouth, although half as far again probably by the stream, winding from one side to the other of its narrow valley. It often breaks into many channels, and occasionally a fording place for footmen can be found in wide shallow rapids. To the head of canoe navigation most of the party's effects were "tracked" in canoes, although those Indians not having these craft were compelled to at once commence carrying their loads upon their backs, their ungenerous companions not allowing them the use of their canoes, although as far as I could see it would have entailed no extra labor to have done so. That it was mere selfishness is shown in the fact that I knew several of them even refused to ferry their loads across the stream, thus forcing the packer to a devious route to some fording place, or even over the mountain spurs to avoid it altogether. In cases of sickness of companions they are no better, stoutly demanding a share of the spoils, and I had no occasion to regret my spare packer taken along for such emergencies. These restrictions apply to the Chilkats and Chilkoots, the Tahk-heesh or "Stick" Indians forming a commendable contrast, their reasonable and humane conduct to each other being no-

ticed wherever they were encountered, from here nearly to old Fort Selkirk.

Directly at the head of canoe navigation there is no good camping place, and our camp (No. 3) was made about a mile short of the cascade that marks it. We white men had been compelled to wade the river a number of times to reach it, but our spare packer had been used as a means of transportation, his legs being more used to the ice-water just from the glacier beds on the hill-tops.

After going into camp the greater majority of the Indians spent their spare time in gambling at a game called la-hell, in which there was a free interchange of dirty clothing and prospective wealth accruing from this particular trip, their orgies and rude savage songs often lasting past midnight. This, combined with the Pompeiian pictures engraved on their rude birch-bark hats, showed that they were still open for missionary effort.

About 2½ miles beyond the head of canoe navigation on the Dayay the Nourse River comes in from the west, and although receiving a different name by the Indians (the Kut-lah-cook-ah) is really the greatest in breadth and volume of water of the two forks. The valley of the Nourse is alpine and picturesque beyond description. A large lake is found at its head according to Indian authority, a system of sources quite common among the rivers of this mountainous part of the country. A short distance beyond the mouth of this west fork camp No. 4 was established near some perpendicular blocks of basalt rock, and in view of another glacier extending down between the two rivers. Here a dense grove of small firs near the river bank kept a number of the Indians busy cutting long, slender fishing-poles, which they put away in secure places to be taken home upon their return from my expedition. These poles, when seasoned, are pointed with a double-barbed gig, like the one shown in the figure, and which is a very common fishing instrument among all the natives of sub-Arctic America.

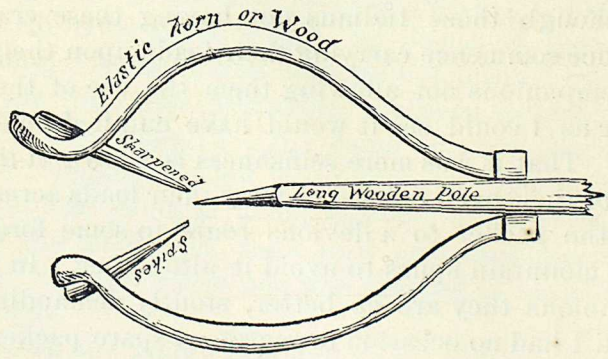


FIG. 3.

Up to camp 4 the labor had been very light, even for the packers, believing it to be a fair indication of the trail ahead, I had come

to the conclusion that their high charges were exorbitant and the portage very easy to be made.

On the 10th the party started at 7.30 a. m., the trail leaving the narrow valley, oftentimes not wider than the river bed itself, and leading up over the mountain spurs of the eastern side of the stream. The inland walking has already been described, and the present was no improvement on it in any particular. Occasionally the path would debouch into the river-bed wherever it was wide enough to give a mile or two of walking and wading, and then would strike over the mountain sides again. At places on the latter it would be very easy to lose the trail where they followed for long distances over great winrows and avalanches of broken bowlders and shattered stones varying in size from a person's head to the size of a small house. These grand barricades of bowlders, more often of crescentic shape across the course of some steep gulch or ravine, are of very recent origin, as shown by their often embedding willow and birch trees not over twenty to thirty or forty years old and still alive, half way up to their tops or 10 to 20 feet from their original stumps.

Although the distance to camp 5 was but a little over 10 miles, it was fully equal to 30 miles over an ordinary road, and consumed twelve hours in passing over it, the greater part of this time, however, being occupied in resting from the extreme fatigue incurred while traveling over short but severe stretches. The last few hundred yards was over snow banks, and with the pass through the coast mountains directly ahead of us covered with snow to our feet. This camp 5 is at what is known among the Indians traversing this pass as the "stone house," but is really only a jumbled mass of huge bowlders so thrown together that the natives can crawl under them and find sleeping places without being in contact with the snow.

Nothing could show the endurance of these Indians better than to state a fact that occurred after going into camp at this place. A mountain goat was seen on the highest ridges of the mountains to the west of the valley, some 2,000 to 2,500 feet above our position, and was immediately hunted by one of the Indian packers, who passed around him and came back upon his position, frightening him, however, before he could get a shot. He then chased the animal, almost keeping up with him, down into the valley where we camped, and up the steep mountain slopes of the eastern side, equally as high as those mentioned, and all this immediately after he had carried over a hundred pounds across the trail which has been described.

The greater portion of the Indians and white party were under way on June 11, shortly after 5 o'clock in the morning, and the pass through the mountains directly ahead at once essayed, and so steep and difficult was it that it was not before 10 o'clock that morning that we had reached the crest, 4,100 feet above the sea-level and probably 3,000 feet above camp 5, although the distance gained forward could not

have been much over 2 miles. It seemed marvelous beyond measure how these small Indians, not averaging, I believe, over 140 pounds each, could carry 100 pounds up such a precipitous mountain, alternately on steeply inclined glacial snow and treacherous rounded bowlders, where a misstep in many places could have hurled them hundreds of feet down the slope or precipices. The stunted branches of trailing vines and their roots, and even on their hands and knees, were often used in the steepest ascents. Many of them had rough alpenstocks cut in the Dayay Valley with which they steadied themselves in bad places, and on the snow covering the mountain sides trails were made by advance parties arranging footholds inclining inwards before essaying them with their packs.

I would state here for the information of the department commander that photographs taken by the dry-plate amateur process were secured at such places as were of interest and the time and method of transporting would allow. Mr. Homan, topographical assistant, acted as photographer. The plates, originally 5 by 8 inches, have been compelled to be trimmed down to the size submitted herewith, owing to some defect in the camera or lens in not extending the view fully to the edges

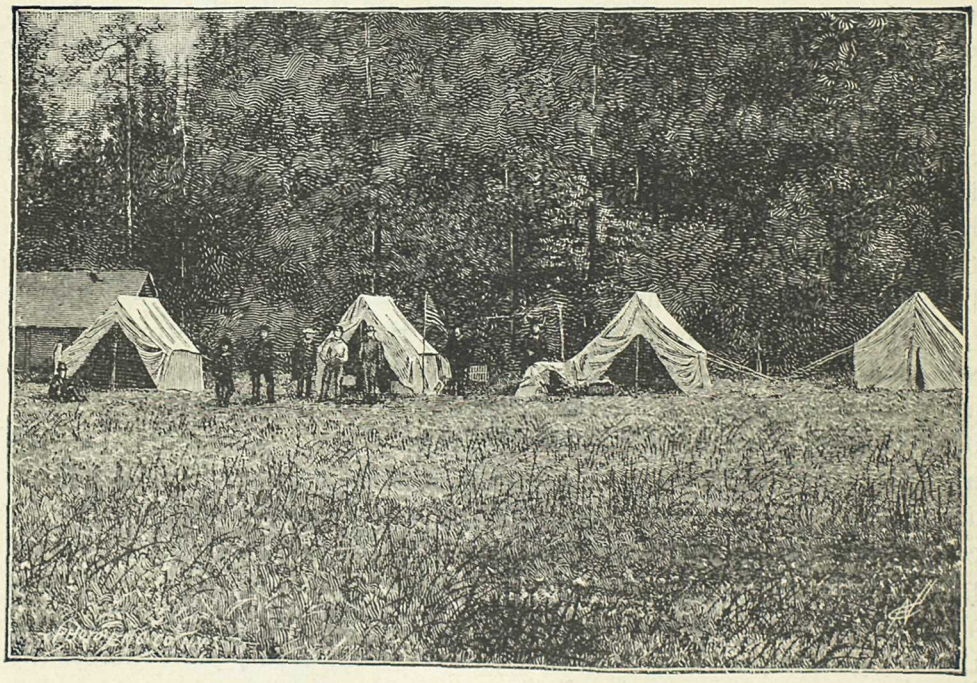


Fig. 4.

of the plate. Many of the plates are defective, as will be seen by inspection, and are only fit to be used by artists in securing accurate sketches of the country or incidents portrayed. I have since learned from a professional photographer, Mr. Davidson, of Portland, Oreg., who has developed my plates—forty-two in number—that considering the brand and reputation of the plates used, the cheap character of the pho-

tographic apparatus, and the rough nature of such an exploration, with its crude transportation, that the photographer deserves the greatest credit for doing so well under such circumstances. I would like to add that no expedition for obtaining information of any character should be sent to such an isolated and imperfectly understood country as Alaska without a photographic apparatus and accessories of the very best character, and with a good trained manager for the same if possible. The greatest good to be obtained is too evident for discussion.

Figure 4, given above, is a view of camp 1, at Chilkat Alaska, looking directly against the bold bluff back of the cannery of the Northwest Company.

After departing from Chilkat but two of the tents were used, or carried along, and a great deal of the heavier and less useful baggage left in charge of Mr. Carl Spuhn, at the cannery. Back of the center, between the two middle tents, can be seen a bank of snow (June 6, 1883), and in such protected places these can be seen the year round, even at the sea-level, and in positions well separated from glaciers, where they would be expected to be found.

Fig. 5 represents a view from same standpoint as No. 2, but looking northward up Dayay Valley. Below the mist and fog covering the glacier of the mountain can be seen a small finger of the Saussure glacier putting down a little farther than usual.

FIG. 5.

The packing over the pass (named Perrier Pass) was of the most severe Alpine character of climbing, supplemented by the immense loads already described.

After leaving the notch in the pass, the hills or mountains still tow-

ering from 1,000 to 2,000 feet on either side, as near as could be roughly estimated through the drifting fog, and buried in glacier ice, the descent for the first two-thirds of a mile is tolerably rapid on to a lake, possibly an extinct crater, which it closely resembles, called Crater Lake, of about 100 acres in extent, and which the Indians told me, and which surroundings corroborate, is the head of the Yukon River. This lake was still frozen over (June 11), and the ice covered with snow in a melting condition.

I noticed that day that the Indians in following a trail on snow up hill, or on a level, or even a slight descent always follow in each other's tracks as much as possible, so that my large packing train made a trail that could easily be accounted for by supposing that only five or six Indians had passed over it. When going down a steep descent, however, each one makes his own separate and distinct trail, and they scatter out over many yards. I thought this worth recording in estimating their numbers under such circumstances.

Some 6 to 8 miles of snow was passed over on the trail that day, the entire distance traveled being about 15 miles, reaching camp at 7 p. m., the distance being fully equal to 50 miles of walking on an ordinary road. In many places before reaching camp the snow bridge over the river had tumbled in, revealing perpendicular abutments of snow banks often 20 to 25 feet deep.

Camp 6, the first one on the waters of the Yukon River, was on a beautiful Alpine lake, over 10 miles long, and picturesque beyond description. Here the greater majority of the hired Indians were paid off between 7 and 9 p. m., many of them returning that night over the Kotusk Mountains to the head of the Dayay at "the stone houses," it being light enough at midnight, especially on the white snow, to see the trail perfectly.

It might be of importance in a military sense to know if a Government pack-train of mules could pass over the trail from head of canoe navigation on the Dayay River, or even the mouth of that stream to Lake Lindeman. As the trail now stands, or as we passed over it, I should say not; but believe one could be possibly found by a competent person inspecting this route for that particular purpose. As far as "the stone houses" a rough trail could be had by woodmen clearing it at needed intervals. From "the stone houses" to Lake Lindeman the trail would depend more on the time of year than any other function, it being better in winter when the snow would be harder than the spring or summer, although in these seasons I do not look on a trail as impracticable, if a proper search be made with that object in view. The fact that the country beyond Perrier Pass, in the Kotusk Mountains, lies in British territory (as shown by our astronomical observations and other geographical determinations when brought back and worked out) lessens the interest of this trail beyond the pass to the military authorities of our Government.

On Lake Lindeman there were a couple of very dilapidated "dug out" canoes, and the Tahk-heesh or "Stick" Indians owning them representing that the lake was but a few miles in length, in fact just around Cape Koldewey, of the map, and that they could transport all my goods in two days, I accepted their offer, knowing that the draining river of Lake Lindeman was full of rocks, rapids, and cascades, which a raft, my proposed method of navigation, would not pass according to their testimony, and not desiring to build two within such a short distance. A continuous gale of several days from the south effectually put a stop to their contract, the consequent waves on the lake being sufficient to swamp them should they venture in such rough water. Accordingly, the 13th of June, about noon, the party commenced building the raft, which was finished the next evening, on a plan of 15 by 30 feet, and one deck of pine poles amidships, Mr. Homan deserving considerable credit for its plan and superintending its construction, all the white men doing well, and the Indians as good as could be expected from their well known aversion to monotonous work of routine character.

The morning of the 15th of June the raft was tested by eleven persons of the party on its deck and found to be inadequate for carrying all the effects and party, owing to the small logs of dwarf spruce and contorted pine with which the builders had been constrained to construct it. About half the effects were placed on board, and three of the white party put in charge, a wall-tent spread for a sail, and at 9.20 a. m. she was cast loose to sail the length of the lake, which she did by 3.15 in the afternoon, so strong was the wind blowing. Although waves fully 2 feet high were running, so well were the effects protected by canvas above and below, and so high was the pole deck, that nothing was injured by the water that constantly broke across the raft. Mr. Homan, Mr. McIntosh, and Corporal Shircliff had been in charge of her during this day. The remainder of the party walked overland by the eastern shore, the journey being very fatiguing, although a pack-train trail could be made here with a little work in shape of woodcraft. The remainder of the effects were brought by canoes in the hands of my own Indians.

I might add here that from the Kotusk Mountains, along the part of the Yukon River we traveled, as far as its junction with the Pelly, or at old Fort Selkirk, there is but one tribe of Indians, the Tahk-heesh or "Sticks," and these are described in their proper places. Therefore that much of the journey, nearly 500 miles, if described, would be of more value to geography than the military, and I shall try and confine myself to that part of this section which will illustrate my raft journey, that being important in this country as a means of transportation, the swiftness of the rivers and their general freedom from obstructions being conducive to the employment of this primitive craft in traveling in one way.

A view on Lake Lindeman, looking backward from Payer Portage, or southward towards the Kotusk Mountains, the higher ridges of which,

covered with glacier ice, have condensed a fog upon their slopes so as to be invisible. About half the length of the lake is visible. The draining river is to the right lower corner of the picture.

FIG 6.

Through the river that drains Lake Lindeman, about a mile and a quarter long, before it empties into another lake, we shot the raft, June 16, losing the side logs and giving it a general shaking up that

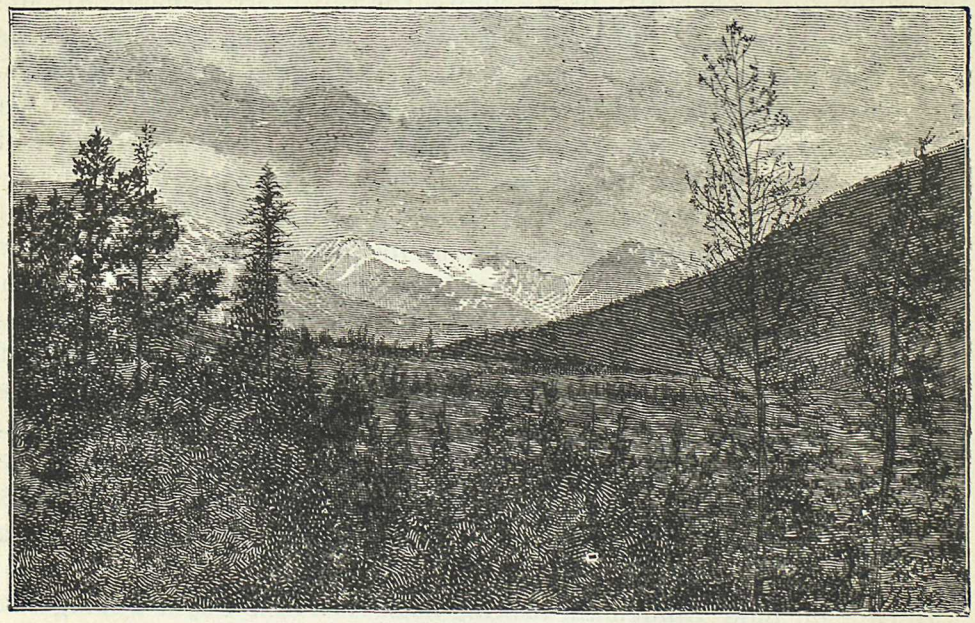


FIG. 7.

loosened many of the pins and lashings, in the rapids, cascades, and over the rocks and bowlders, on one of which it stuck and had to be pried off.

The next two days were consumed in repairing the raft on a plan of 15 by 40 feet (really about 16 by 42, counting projections not included in plan) instead of 15 by 30 feet as formerly, while two pole decks were constructed with a rowing space between for side oars, the bow and stern oars being retained, however; larger and more bouyant logs were placed in, but unfortunately none could be secured of sufficient size to go the whole length of the craft and give it that solidity which would be so much desired in striking sand, gravel, and mud bars, or water-logged timber in swift currents, or sailing across lakes in rough weather.

The portage connecting the two lakes was called Payer Portage, and Fig. 7 is a view looking from this portage westward into a valley of a river (Homan River) coming in from that direction, and is given as a good representation of the valleys in this particular part of the country.

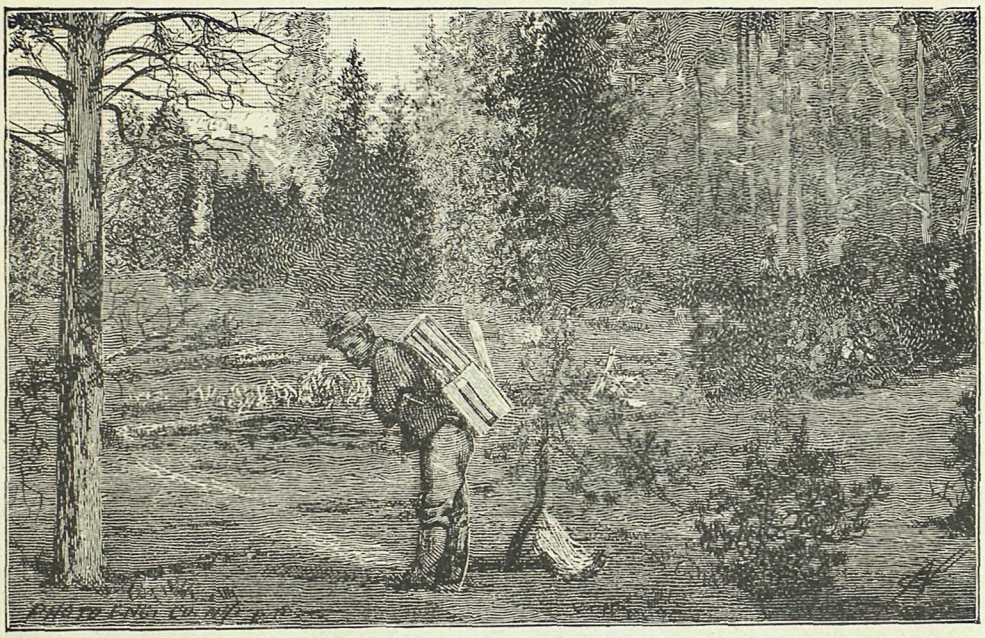


FIG. 8.

Fig. 8 is a view on Payer Portage (looking north along the trail) and represents a Chilkat Indian with two ammunition boxes going over the portage. The amount some of these packers will carry seems marvelous and makes estimates for pack mules or trails therefor seem superfluous. Their only packing gear is a couple of bands, one passing over the forehead, where it is flattened out into a broad strip, and the other over the arms and across the breast; the two meet behind on a level with the shoulder, and are there attached to lashings more or less intricate, according to the nature of the material to be transported. If a box or

stiff bag, the breast-band is so arranged in regard to length that when the elbow is placed against it (the box) the strip fits tightly over the extended forearm across the palm of the hand bent backwards. The head-band is then the width of the hand beyond this. At least I saw a few Indians arranging their packs and their harness according to this mode. The harness proper will not weigh over a pound, and the lashing according to its length. The strip across the head and breast is of untanned deer-skin about 2 inches wide, with holes or slits in the ends protected from tearing out by spindles of bone or ivory.

Mosquitoes now commenced getting very numerous, and from here to the mouth of the river they may be said to have been the worst discomfort the party was called on to endure. They often made many investigations, usually carried on in explorations, impossible of execution, and will be the great bane to this country should the mineral discoveries or fisheries ever attempt to colonize it. I have never seen their equal for steady and constant irritation in any part of the United States, the swamps of New Jersey and the sand hills of Nebraska not excepted. It was only when the wind was blowing and well out on a lake or wide portion of the river that their abominable torment ceased.

Fig. 9.

Fig. 9 is a view from the northern end of Payer Portage northward into the second lake, named Lake Bennett, about one-sixth or one-seventh of the length of the lake being seen, it being about 30 miles long. The draining river from Lake Lindeman comes in on the lower left portion of the view. The "Iron Capped Mountains" on the right being covered with glaciers are hidden in the mist these always pro-

duce this time of the year, especially a day that would be favorable for taking a photograph.

On the 19th of June, with a favorable wind along Lake Bennett, we started from Payer Portage at 9.20 a. m., and by 3 in the afternoon the wind had increased to a gale, and by 5 the waves were running so high that the raft threatened to break in two, there being no logs running clear through the whole length, and at that time we sailed for the beach on the eastern side and finding a protected cove went into camp. There being a number of large logs at this place the next day was spent in putting four of them the length of the raft, and the 21st the journey was resumed. Eighteen miles from the head of the lake a large river comes into Lake Bennett from the west, which I named Wheaton River, after Brevet Major-General Wheaton, in temporary command of the department when the reconnaissance was organized, and to whom the expedition is indebted for many favors in putting it on a good footing for the accomplishment of its ends.

Lake Bennett was ended that day, the 21st, through a draining river called "Caribou Crossing" by the Indians, nearly 2 miles long, which empties into a small lake named Lake Nares, a little over 3 miles long. This lake turns square to the east, and the steady south wind was now so baffling on our new course that progress was very slow and annoying. After passing through the short draining river of Lake Nares, probably a couple of hundred yards long, another lake (Bore) 8 miles long, still trending toward the east, is entered, and around its eastern limiting cape (Point Perthes) Lake Tahk-o is entered, 18 miles long, and by the time its outlet is reached the northern course is resumed. My map shows the Tahk-o River coming in from the south, and to this part of that river a white man (Mr. Byrnes) has explored, although the remainder of the Yukon to Fort Selkirk is placed in full lines (the topographical significance of which is that it has been passed over by explorers engaged in map-making) on many maps, notably the latest Coast Survey map by W. H. Dall, and a map in the same author's book entitled "Alaska and its Resources," although no white person has yet passed over this route until the present expedition and taken cognizance of its geography. All Alaska is filled up in this way with rivers and their branches, even on Government maps, that have yet to be traversed by white men in any capacity, let alone topography and survey. Probably the parlor authors of these maps think they are doing no more harm than giving way to a too eager desire of "making out a full map;" but in this connection I desire to state briefly an incident that will show this in another light: A party of miners being on this river, and discouraged at the prospects, had almost determined on returning, and one person, relying on the maps in their possession, had equally determined to go on, as the chart showed three or four Indian villages on the river, and by taking advantage of these he thought he could reach old Fort Selkirk, and from thence prospect at

will. The party did not return, however, but on continuing their journey they found no relevancy between the map and the country traversed; and the single person referred to particularly noticed the absence of all Indian villages, and, worse than all, of all Indians even, and had he continued his journey alone, would more than likely have perished, or at the very least have undergone severe and unexpected hardships.

On the 26th of June, in passing out of Lake Tahk-o, we entered the first considerable stretch of river we had met—a little over 9 miles long—and were nearly three hours in floating through, although we remained stuck a short time on a mud flat in its current. Its down-stream entrance is full of bowlders, forming a serious obstruction to navigation, but one that is possible with care and judgment. It is about 300 to 400 yards wide. On its right bank was a deserted Tahk-heesh house, which, with one about 20 miles above the site of Fort Selkirk, are the only signs of permanent habitations from the Kotusk Range to the Yukon junction with the Pelly. Along the narrow river bank or lake shore between these two points are often seen three poles forming a tripod—one of them much longer than the other two—which indicates the camping places of the few persons of this abject tribe. A dirty piece of canvas, or an old caribu skin riddled with holes, thrown over the longer pole, makes their tent, and this makes their residence for the greater part of the year.

The next lake, which I named Lake Marsh, after Professor Marsh of Yale College, is nearly 30 miles long, noticeably wider than any of the previous ones, and so full of mud banks extending out from the shore

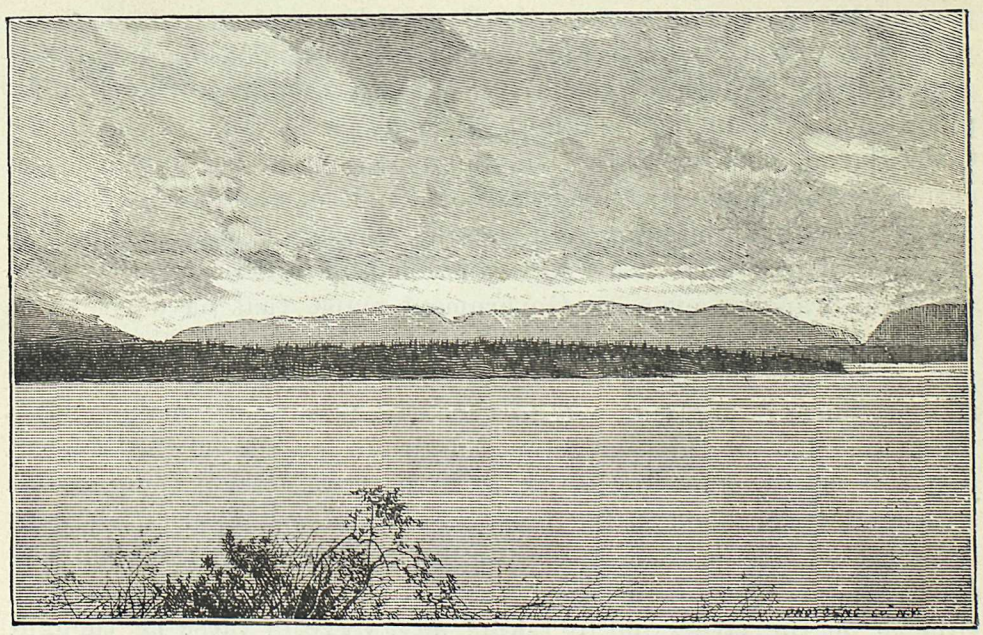


FIG. 10

that the raft which drew from 20 to 22 inches could seldom get nearer the beach than 50 to 100 yards and through the soft mud for that distance the camping effects had to be packed on our backs at each of such places.

Fig. 10 represents a limited view on Lake Marsh looking to the southwest from camp 14 of the reconnaissance. Directly over the point of land in the right of the picture is seen the gap where the Yukon empties into Lake Bove, and the next gap over the left center is the one made by the Tahk-o coming in from the south.

FIG. 11.

Fig. 11 is a view looking north along the same lake from the same stand point, about one-fifth the length of the lake being under the eye in the two photographs.

Thus far it had been noticed that the trees leaned in more or less conspicuous inclinations towards the north, thus plainly showing the prevailing direction of the stronger winds, and this is of importance in calculations leading to expeditions down this part of the river in any sort of craft needing sails for propulsion.

The heavy growth of last year's grass shows undoubtedly good grazing, but the mosquitoes in the summer and the intense cold in the winter would not warrant this industry—cattle or sheep-raising—being undertaken in this part of the country until all stock ranges in every other part of the world had been exhausted. The many tracts of yellow grass looked not unlike the stubble-fields in more temperate climates.

The afternoon of the 28th of June, from 12.15 until 2.15 o'clock, we experienced a very decided thunder shower coming from the east, and

which is the first, I believe, ever chronicled on the Yucon River, they being unknown on the lower part of this great stream.

That date, the 28th, we sailed past midnight, so important did we deem it to take advantage of every breath of wind in the right direction, especially on the lakes, and at that hour of the night we were close enough to the Arctic Circle to read type the size of ordinary newspapers, and but one star, Venus, was visible in the unclouded sky.

The 29th of June we passed out of Lake Marsh into the river, past the mouth of a river, the McClintock, that we took to be the outlet. The river valley was now wooded to the water's edge, and it was often hard work to find a good camping place in the dense growth of willows that lined the bank. Muskrats were numerous in this part of the river.

Early in the morning of July 1st, we approached the great rapids of the Yucon and the only ones of importance in the navigable part of that great stream.

An inspection of them showed them to be nearly five miles long and extremely dangerous for any sort of a craft in going through them. The first three-quarters of a mile the stream narrowed to nearly one-tenth its preceding average width, rushes and boils through a cañon with upright basaltic columns for its sides, the center of this cañon, in its length, widening into a whirlpool basin where the water's edge could be reached on the western shore.

FIG. 12.

Fig. 12 is a view from the mouth of the cañon, about one third the length of it. It then widens out into nearly its original breadth, but running swiftly over shoals, bars, and drifts of watter-logged timber much more dangerous than the cañon itself for any sort of a navigable

craft, though probably not so in appearance. I named this cañon (the only one on the Yukon River) and its appended rapids after the department commander, and it so appears on the maps submitted. Just before the rapids reach their termination the river-bed again contracts and flows through basaltic columns from 15 to 20 feet high, and finally rushes through a narrow cascade with ascending banks, and so swift is the current and so narrow the chute that the water is forced up the banks on the sides and pours in sheets over these into the cascades below, making a perfect funnel formidable to behold.

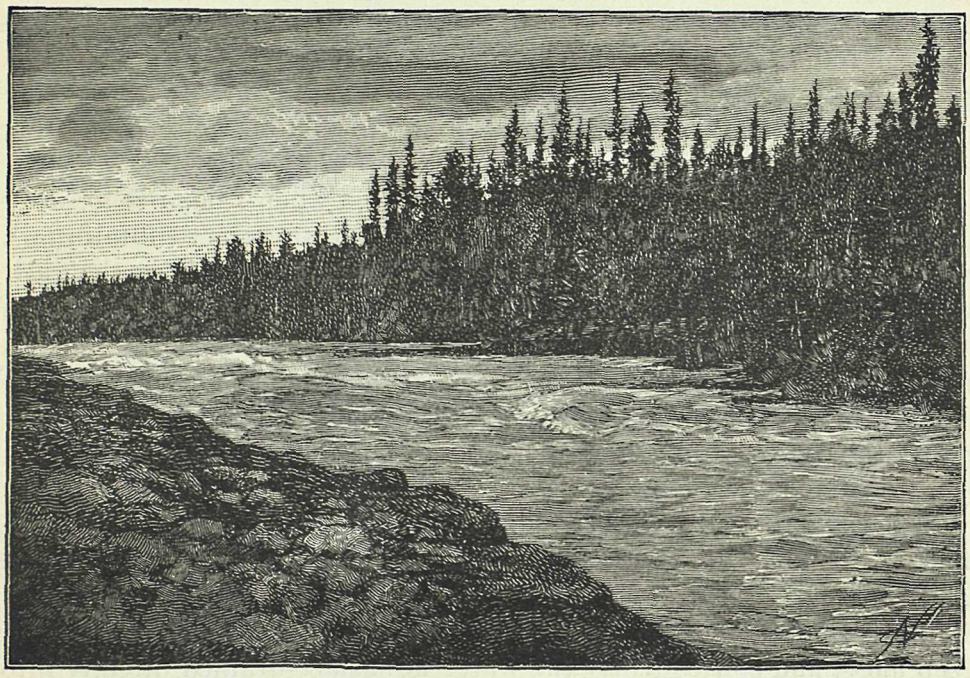


FIG. 13.

Fig. 13 is a very imperfect photograph looking back (southward) at these cascades, an instantaneous view having been undertaken during very unfavorable weather.

Through the Miles' Cañon and Rapids the raft was "shot" July 2, and although the side-logs were torn off in a collision with the basaltic columns of the cañon, no further damage was done, and she was beached about half a mile below the cascades where a couple of days were occupied in repairing the injury and putting on new decks from the fine, straight, and seasoned poles found in the vicinity.

Fine grayling were caught in large numbers in all the rapids near the cañon, and a considerable sized party could subsist on them if provided with proper tackle for securing them.

On the 5th of July we got under way again, and a little after noon passed the mouth of the Tahk-heen-a, a stream about two-thirds the size of the Yukon, where they join. By it the Chilkats used to seek the Tahk-heesh country for trading purposes as already narrated, and

yet return by it at times, as they say it is not obstructed by any rapids or cascades of considerable size, or that will compare with those of Miles' Cañon. Its waters were very muddy, and while evidently smaller than the Yukon, the general characteristics of the valley of the Tahkheen-a are continued on down the former stream. That evening, on the 5th, we camped on the head of the last lake (about 36 or 37 miles long), called Kluk-tas-si by the natives, and this name is still retained on the maps, although there is a lake called Labarge on Dall's maps, above old Fort Selkirk, which I cannot identify by any of his topography, it being generally so erroneous. Except being a little larger in size, it resembles Lake Marsh, already described. Its eastern bank or shore is backed by large rolling and conspicuous rounded hills of gray limestone, the gullies between being wooded with spruce or pine, and forming a picturesque contrast with the light-colored hills. I named them after General Hancock of the Army.

On the 9th we passed out of Kluk-tas-si, and when I desired to camp that evening I found the current so swift and the river so uniformly wide and canal-like that no eddy could be found to slacken the gait, and it was with difficulty that we secured the raft to the shore. In this part of the river we usually grounded once or twice a day on sand, mud, or gravel bars, and I think I have given them in the inverse order of the difficulty experienced in getting off them, sand being the worst and gravel the easiest from which the raft can be liberated. That day, the 9th, we passed the mouth of the Newberry River, coming in from the right (east), about 125 yards wide at its mouth, and flowing a deep volume of clear but dark colored water, evidently drainings from tundra land, or land in which the lower strata of winter-formed ice in the moist earth does not melt owing to its protection by the dense forests and deep moss, and consequently the water is surface-drained directly into the rivers and their tributaries after having been impregnated with the dyes of the leaves and moss, which would have been lost could they have percolated through earth. A large grizzly or grizzly-colored brown bear was seen on the bluff marked with that name on the map, but we were unable to secure him.

Nearly 40 miles farther on another large river, the D'Abbadie, comes in from the east, and probably 150 to 175 yards wide at its mouth.

Another 40 miles and the Daly River, a little over 100 yards wide, comes in from the east.

Fifty miles beyond the Daly the Nördenskiold comes in from the west, and is probably 150 yards wide at its mouth.

With the accession of all these rivers the Yukon becomes over half a mile wide, and near the Nördenskiold becomes very tortuous, Tantalus Butte of the map being seen directly ahead of the raft some six or seven times on as many different stretches of the river. Islands also become freely interspersed in its bed, and their up-stream ends are often piled over with drift timber of all sorts in barricades from 5 or 10 to 20 feet high.

On the 12th of July we "shot" the last rapids of importance on the Yukon River (the Rink Rapids), and although the river is very much contracted at their site and pours in several channels through towers

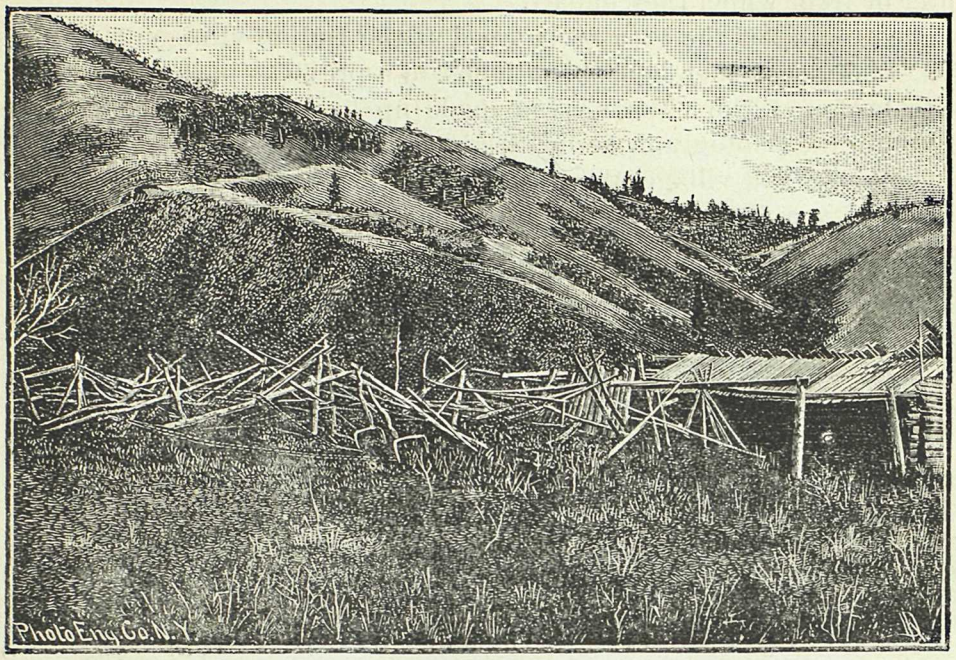


FIG. 14.

FIG. 15.

of rock, I think the eastern channel could be ascended by a light-draught steamboat with a powerful steam windlass, so favorable is the bank on this side of the stream, just above the rapids, for such an un-

dertaking. If Rink Rapids can be ascended then the cascades in Miles' Rapids is the head of navigation on the Yukon, making this river navigable 1,866 miles from the Aphoon mouth, the only one that boats now enter or from which they depart.

The evening of the 12th we camped at the Indian village of Kitl-ah-gon, where the other house mentioned in a previous part of the report is to be found, the village being made up by brush-wood houses, as shown in the photograph herewith given as Fig. 14.

The house and village were deserted when we visited it.

Fig. 15 is a view looking up the Yukon from Kitl-ah-gon.

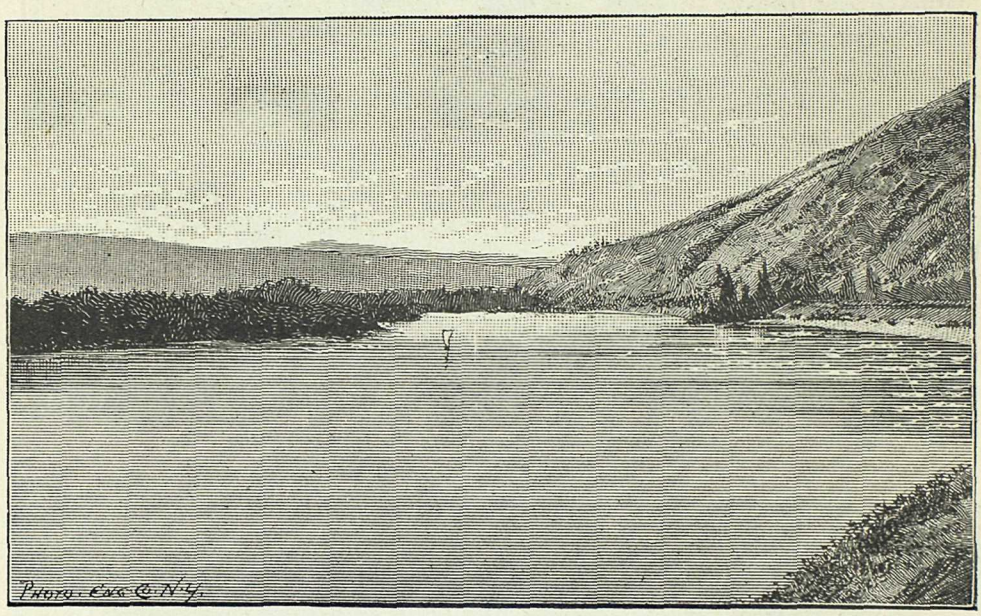


FIG. 16.

Fig. 16 is a view down the Yukon from Kitl-ah-gon. The view back into the valley of the small stream (Von Wilczek Valley) is also very picturesque and pretty, and is much more conspicuous than the valley of the Pelly some 20 miles farther on.

From Kitl ah-gon to the site of old Fort Selkirk the Yukon runs through a network of islands (Ingersoll Islands), so intricate that it was seldom that both banks were in sight from the raft at the same time In Fig. 16 the lower ends of three and the center of one beyond are in sight.

July 13 the site of old Fort Selkirk was made out by the conspicuous chimneys that could be seen from the raft on the river, being a little below the junction with the Pelly and on the western or left-hand bank, despite the fact that all the maps in our possession placed it between the two rivers.

The fate of Fort Selkirk, a Hudson Bay trading post, has already been alluded to—burnt in 1851 by a party of Chilkat Indians because it interfered with their trade with the Tahk-heesh and other Indians. It has never been rebuilt, and its chimneys, three in number, are all

that is left to mark the spot, and these are buried in a poplar grove that almost overtops them.

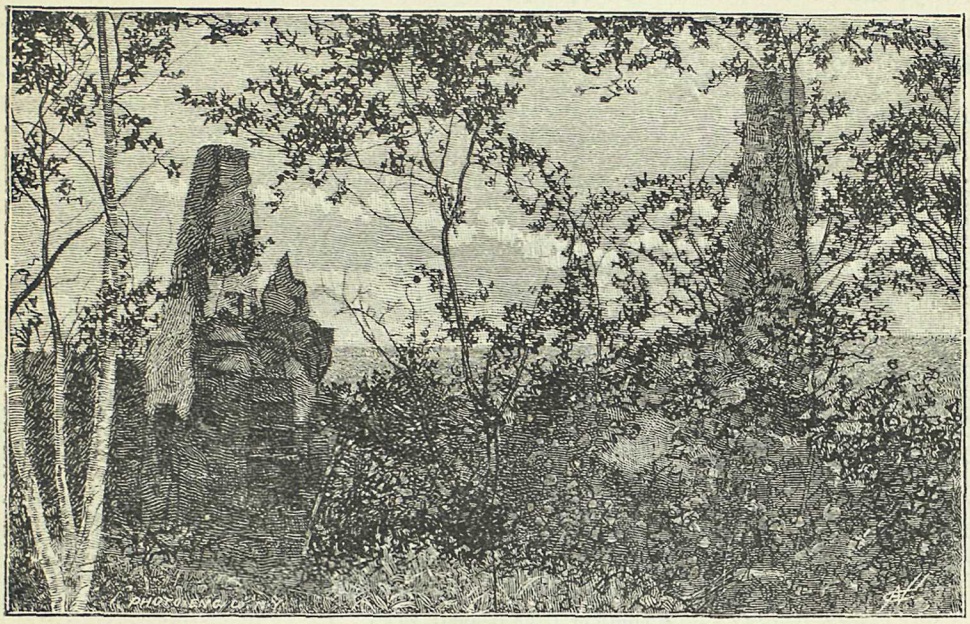


FIG. 17.

We remained near the site of the old fort until shortly after noon of the 15th, getting astronomical observations, which placed this site in latitude 62° 45′ 30″ N. and longitude 137° 22′ 45″ W. of Greenwich.

I had also determined to make close estimates on the relative sizes of the Pelly coming in near this point from the east and the river down which we had just descended, and which was called the Lewis River by the old Hudson Bay traders, to see which was the Yukon proper, although a short inspection made it evident that no close measurements were needed, the Lewis River preponderating over the Pelly in width and volume of water, noticeably to the eye.

This position on my map is very important, although in a manner partially outside of my instructions, in that it marks the point where my explorations cease, and from the spot near Lake Lindeman where Dr. Krause turned back on his trail to old Fort Selkirk, a distance of nearly 500 miles. Geographical science is under obligations to this reconnaissance, for mapping a region worse than unknown, worse in that a region, improperly mapped by guesswork and other equally unreliable data, is as much worse than no map than no map is worse than a good one. I feel confident that these charts, submitted as a part of my report, although in no way claiming perfection, will render unnecessary any more minute surveys until some industry may open up this section, should that event ever come to pass. Fisheries and minerals are the only possible incentives for such industries. Except the astronomical observations, the map work was in the hands of Mr. Homan, and the credit for the same belongs to him.

My investigations, reaching the whole length of the Yukon River, over 2,000 miles, were necessarily of such an extended nature, geographically, that I have deemed it proper to subdivide the same for convenience, and have done so into three parts, fully described on the appended itinerary of Part 1.

Itinerary of Part 1 of the map of the route of the Alaska military reconnaissance of 1883, Lieutenant Schwatka, U. S. Army, commanding, from data compiled by Topographical Assistant Charles A. Homan, U. S. Army, topographer of the reconnaissance.

Locality.	Statute miles.
From Chilkoot Mission to mouth of Dayay River	16.1
From thence to head of canoe navigation on Dayay River	9.9
From thence to mouth of Nourse River (west)	2.3
From thence to Perrier Pass in Kotusk Mountains (4,100 feet)	11.0
From thence to Crater Lake (head of Yukon)	0.6
From thence to camp on Lake Lindeman	12.1
(Length of Lake Lindeman, 10.1.)	
From thence to Cape Koldewey (Lake Lindeman)	3.7
From thence to north end of Lake Lindeman	5.8
From thence to south end of Lake Bennett, or length of Payer Portage (here Homan River comes in from the west)	1.2
From thence to Prejevalsky Point (mouth of Wheaton River) (west side)	18.1
From thence to Richard's Rock (east side)	1.2
From thence to north end of Lake Bennett (Watson Valley is drained by two rivers here come in from the west)	10.0
(Length of Lake Bennett, 29.3.)	
From thence to west end of Lake Nares (through river called Caribou Crossing)	1.7
From thence to east end of Lake Nares (or length of lake)	3.2
From thence to Perthes Point (or length of Lake Bove, with bay, and possibly river coming in from south)	8.8
From thence to mouth of Tah-ko River (south)	7.8
From thence to north end of Lake Tah-ko	10.3
(Length of Lake Tah-ko, 18.1.)	
From thence to south end of Lake Marsh (or length of connecting river)	9.1
From thence to north end of Lake Marsh or length of Lake Marsh (McClintock River coming in from east)	28.8
From thence to upper end of Miles Cañon on Yukon River	50.9
From thence to length of Miles Cañon and rapids	4.6
(Head of navigation on Yukon.)	
From thence to mouth of Tahk-heen-a River (west)	23.1
From thence to north end of Lake Kluk-tas-si (possibly Lake Labarge)	17.8
From thence to Richthofen Rocks (and probably river) (west side)	14.4
From thence to north end of Lake Kluk-tas-si	22.1
(Length of Lake Kluk-tas-si, 36.5.)	
From thence to Maunoir Butte (east)	16.2
From thence to Red Butte (west)	3.2
From thence to Grizzly Bear Banks (west)	9.4
From thence to mouth of Newberry River (east)	8.9
From thence to mouth of D'Abbadie River (east)	38.0
From thence to mouth of Daly River (east)	41.6
From thence to Eagle's Nest Butte (east)	10 7
From thence to Nördenskjold River (west)	39.1
(Tautalus Butte is in this vicinity approached six or seven times.)	
From thence to Rink Rapids on the Yukon	25.4
From thence to Hoot-che-koo Bluff (east)	25.8
From thence to Von Wilczek Valley (east)	17.0
From thence to Fort Selkirk (through archipelago called Ingersoll Islands) (west)	21.3
Total length of Part 1 or the part explored and surveyed by reconnaissance*	538.8
Total length of raft journey on Part 1 (from camp on Lake Lindeman to Fort Selkirk)	486.8
Total length of raft journey on Yukon River, from Lake Lindeman to Nuklakayet (being the longest raft journey in the interest of geographical science)	1,303.2
Total length of Yukon River	2,043.5

*Part 2 extends from Fort Selkirk to Fort Yukon, being the part surveyed by reconnaissance, having been explored by Mr. Campbell, Hudson Bay Company.

Part 3 extends from Fort Yukon to Aphoon mouth, being part explored by Glasunoff, Malakoff, Zagoskin, Kennicott, and Strachan Jones, and surveyed by Captain Raymond, U. S. Army.

Therefore with the reaching of Fort Selkirk the account of Part 1 becomes complete.

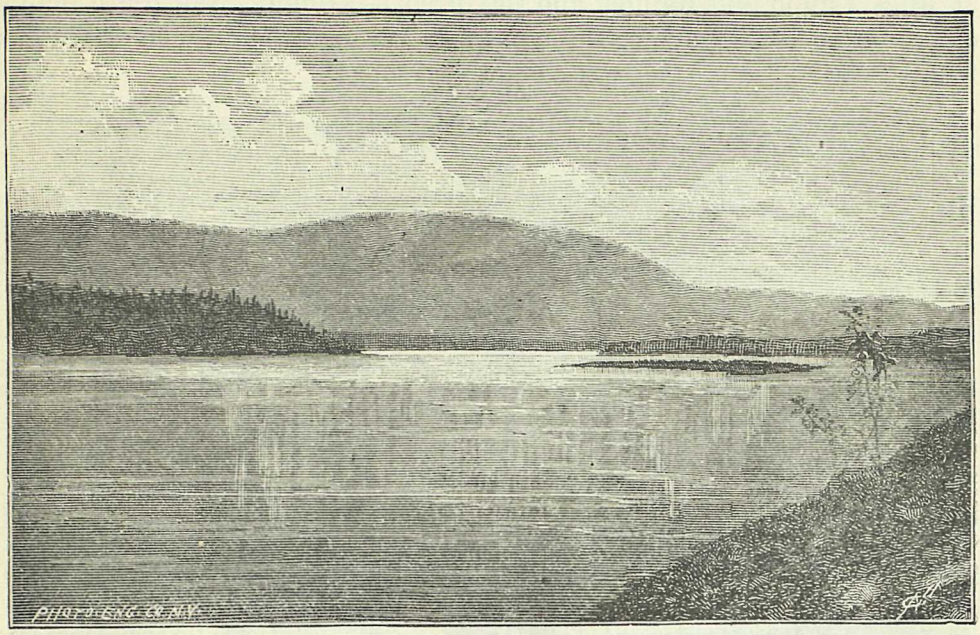


FIG. 18.

Fig. 18 is a view of old Fort Selkirk, looking up the Yukon River, or southward.

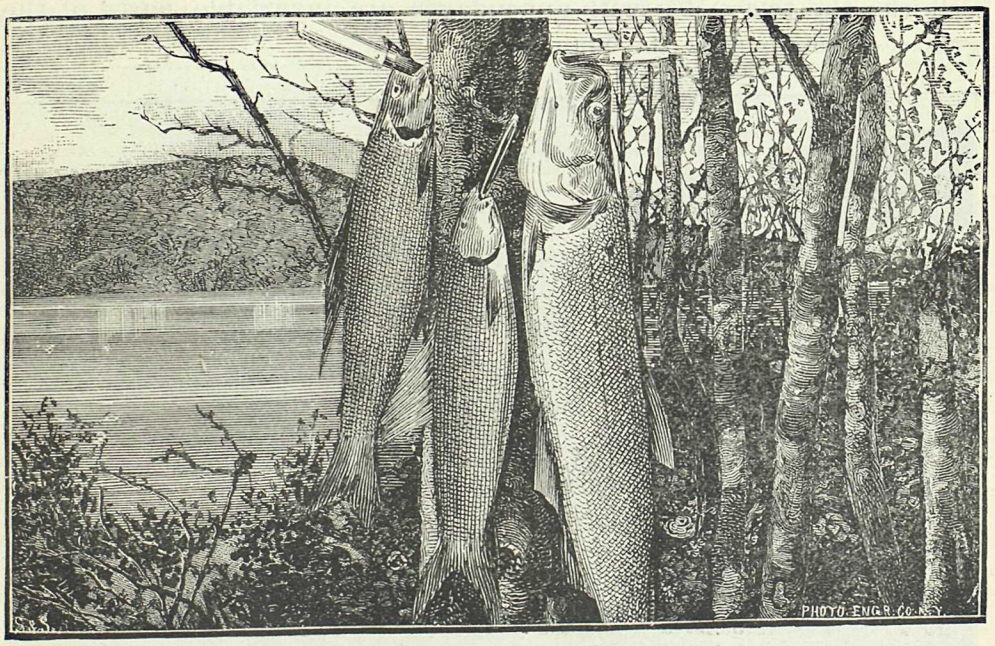


Fig. 19.

Fig. 19 represents some of the fish caught near old Fort Selkirk, the smaller ones being the grayling caught in such immense numbers at Miles' Cañon and Rapids, and the other a salmon trout, both being caught from Lake Bove to the mouth of White River, about 90 miles below Selkirk.

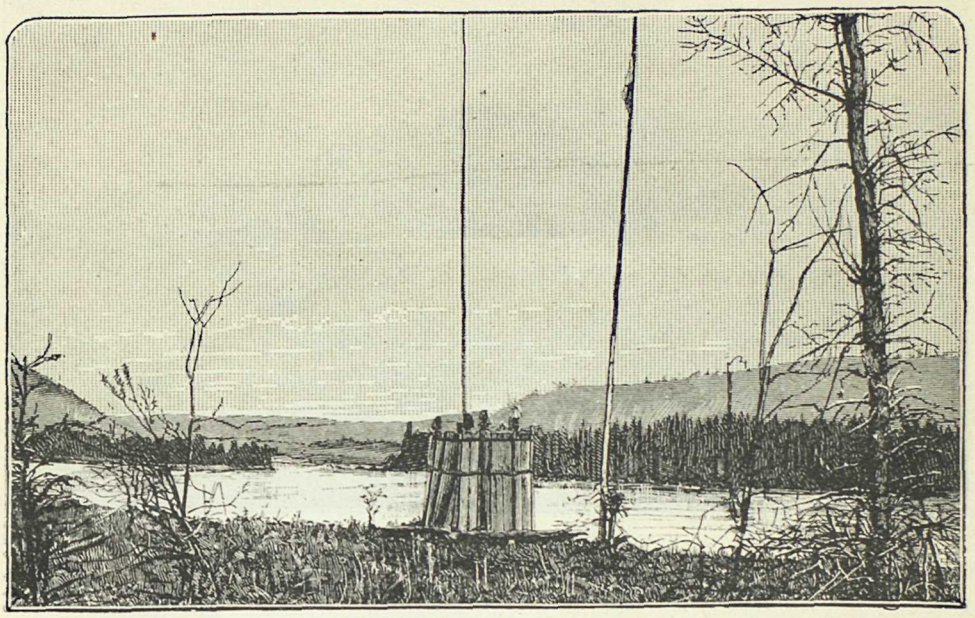


FIG. 20.

Fig. 20 is a view of an A-yan, or I-yan, Indian grave near old Fort Selkirk; the two poles with appendages are invariable parts of the graves of this part of the country.

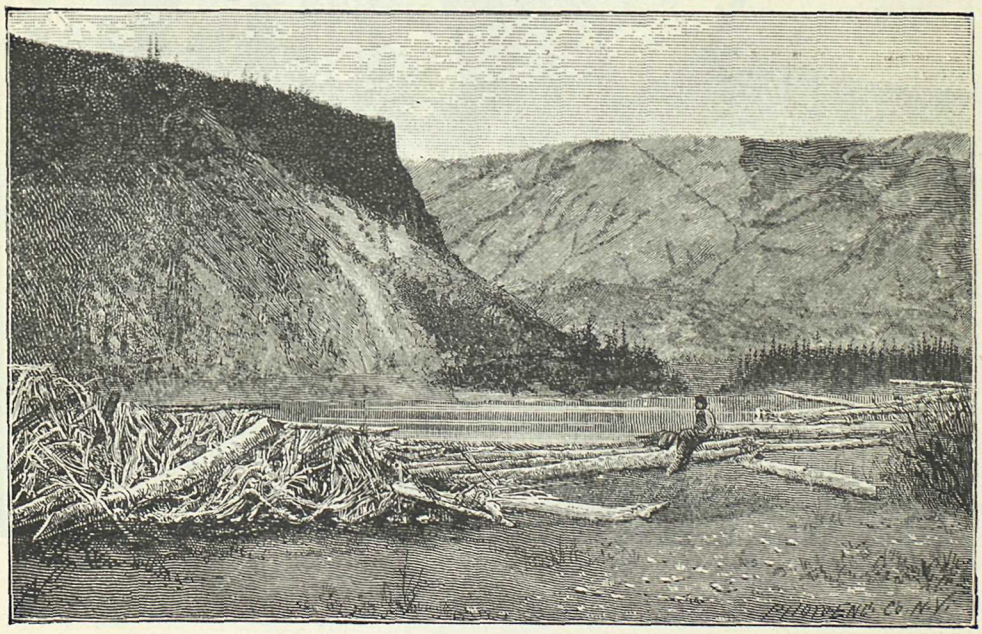


FIG. 21.

FIG. 22.

Fig. 22 represents a number of A-yan, or I-yan, Indians in their birch-bark canoes. This view was taken at old Fort Selkirk, looking down the river, the Indians having come up to visit us from their village, 12 miles below. Descending the Yukon, they are the first tribe to use the birch-bark canoe, a means of navigation that extends from here to the mouth.

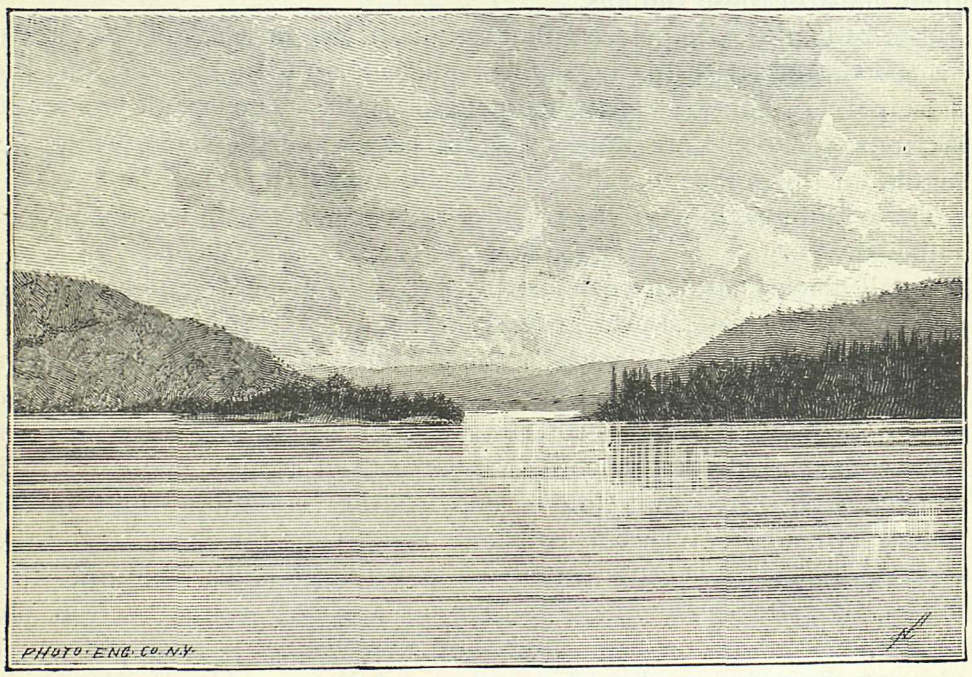


FIG. 23.

Fig. 23 is a view down the Yukon River from the site of Selkirk.

The rafting party left Selkirk at 1.15 p. m. on the 15th of July, having waited past noon to get a meridian observation of the sun for latitude and a morning observation for longitude; the days as far as particular hours were concerned being of but little importance, so light was it even up to 10 and 11 o'clock at night.

The half dozen A-yan Indians that had visited us at Selkirk spoke to us of a larger village a little below, but from the appearance of those we had seen on the Yukon River above we were in no way prepared to see such a large camp as we met on the southern bank at 4.15 p. m., numbering from 175 to 200 souls, and the largest either permanent, semi-permanent, or temporary that we met on the whole length of the river. It is of a semi-permanent character. No doubt apprised of our approach by runners, the entire camp congregated on the river bank to meet us, and as the swift river threatened to sweep us by them without allowing us to make a landing, their excitement became intense, and their shouts and gestures to us, of the most lively character, plainly showed that they were extremely desirous of a closer acquaintance, evidently taking us for a party of traders loaded with tea and tobacco, the two standard requests in all their many and constant solicitations. Camping near their village an inspection of it showed it to be more squalid than we had expected from the bright, intelligent faces of the few we had seen and the superior workmanship of their light birch-bark canoes, the finest on the river. This village was wholly made of brush, and evidently only used for a summer camp while the salmon were to be caught. The Hebrew cast of countenance was very noticeable in a great many of these Indians.

Fig. 24 is a very imperfect photograph of the old chief of the A-yan (in the center), with the heriditary chief, his son, on his left, and the principal medicine man of the tribe on his right. They would not stand in front of the camera unless a white man was with them, which accounts for the other portrait. (Cut could not be reproduced.)

These Indians, in a military sense, are considered under the proper subhead.

Small black gnats now commenced getting noticeably numerous, and a mosquito-bar was no protection from them.

The 16th we drifted 47 miles, a number of A-yan graves being seen on both banks of the river, resembling, in general, the one photographed near Selkirk. In the afternoon the country became quite hilly and even mountainous, but the river-bed still very full of islands, many of which are densely covered with tall spruce, looking very picturesque in the almost cañon-like river bottom, there being very few such large trees on the hill-sides. During the day we saw a large black bear and three mountain goats on the hill-sides, but our mode of navigation was not favorable for hunting them and they were passed unmolested. We also ran through a number of recurring and disagreeable thunder show-

ers in the afternoon, alternating with the most blistering heat, from which we could not escape while on the raft.

Very early on the morning of the 17th four A-yan Indians in as many canoes, from the village we left the morning before, came up with us, having left the village shortly after we had and having camped just above us during the night. We kept passing each other for the next three days, until Reliance trading station was reached, and judge from their movements and the opinion of our Indians that white men rafting and Indians canoeing on this part of the river are about the same in rapidity of traveling. The constant stopping of canoemen to hunt everything in the way of game, or at mid-day to cook a warm lunch, and remaining in their cramped positions but for five or six hours per day, it is easy to see that it would no more than equal the steady drifting of a raft for twelve or fourteen hours if carefully kept in the stronger currents.

During the 17th a heavy fog hung over the river during the whole day, cutting the hill-sides at an elevation of about 400 to 500 feet from the level of the stream. These fogs are very common on this part of the river during this time of the year, and are almost constantly present with the winds from the south, the prevailing ones of the summer. It is probable that they are caused by the supersaturated moist air from the warm Pacific being conveyed across the glacier-topped coast range of Alaska and thrown down into this part of the Yukon Valley in the shape of rain and fog.

At 1.30 p. m., the 17th, we passed the mouth of the White River coming in from the south, its waters seemingly liquid mud, from whence it probably derives its name. It is called by the "Sticks" the Yukokon Heenah (Yu-ko-kon) or Yukokon River, and by the Chilkats another name, meaning Sand River, from the immense number of sand bars and banks which they say exists along its course. Its waters mingle at once with the Yukon (although in Dall the contrary is erroneously stated), it emptying squarely into the latter with a current so swift as to pack its muddy waters nearly directly across to the opposite bank.

About 4 p. m. we passed the mouth of the Stewart River, its mouth so covered with islands that it was impossible to recognize it except by its valley which was very conspicuous. Its mouth, however, is of a deltoid nature, but the many islands made their accurate establishment very uncertain.

On the 18th, 47½ miles were made from 8.30 in the morning to 9.40 p. m. At 1.30 we passed a number of Tahk-hong Indians on right bank, with sixteen canoes, and seemed to be much neater than any we had met so far. They were probably a trading party, there being one for each canoe and no women with them.

At 8.30 p. m. we passed an Indian camp on the left bank, which we at first took to be miners, as they apparently had such good tents, and from them ascertained that there was a white man's deserted store (of which

we had heard several times farther up the river in a more or less definite manner) but a few miles farther on, but that he had left some time ago, going down to the salt water, as they say. That evening we camped at the mouth of a swift fair-sized river coming in from the east which we afterwards ascertained of the traders to be Deer River, and is so marked on the map. Here the Yukon narrows to 200 to 250 yards in breadth and runs swiftly between high hills.

Believing I was near the British boundary, as shown by my Selkirk observations, I waited to get another set at this point, but the weather was so tempestuous that I only succeeded in a very imperfect way, and not waiting for a noon observation, got away at 11.10 a. m.

Just before 1 o'clock in the afternoon we passed the abandoned trading post of the Alaska Commercial Company, Fort Reliance, on the right bank of the river, and directly opposite was the semi-permanent Indian village of Noo-klahk-o, numbering apparently one hundred and fifty souls. Our approach was saluted by the firing of fifty to seventy-five discharges of guns, to which we replied by a much smaller number. I found this method of heralding to be universal from here to the mouth of the river, and I understand arises from a custom brought among them by the Russian traders, and that has slowly traveled inland at least as far as this point. These Indians are further described in the appendix.

Fort (?) Reliance is a dilapidated looking place of two or three houses, a main store nailed up, and three others, cellar-like and semi-subterranean in character.

Less than 30 miles was made that day—the 19th—owing to our grounding on a gravel bar at the head of an island, where we delayed over 2 hours, and finally had to "lighter" our effects ashore and camp in order to free the raft. Such occurrences were not rare.

On the 20th we started shortly after 8 in the morning, and at 11.30 a. m. passed the mouth of a large river coming in from the west, which I named the Cone Hill River, from a conspicuous conical hill in its valley near the mouth. Every one of the party that attempted it found it absolutely impossible to identify any incoming stream in this part of the river by the maps or descriptions now in existence. Just beyond Cone Hill River three or four bears, both black and brown, were seen on the side-hills to our left, and about 300 to 400 yards distant, and although the most persistent firing was kept up by nearly the whole party until we floated out of sight none of them were secured.

About 2.30 in the afternoon we passed a remarkably conspicuous rock, looming up out of a flat valley on the east side of the river, and closely resembling Castle Rock on the Columbia, although only about half the size of the latter. I gave it the name of Roquette Rock, as I saw no allusion to it on any map of this part of the river.

On the 21st, having started at 9 a. m., at 12.30 we came upon a small permanent Indian village on the left bank, of six houses, and from 75 to

100 souls. About a mile and a quarter below, on the same side of the river, was a white man's abandoned trading house, near which we camped. From the Indians we learned that the trader's name was Mercer, and that he had gone down the Yukon. This station, we afterwards learned, had been called by the traders Belle Isle Station. (Fig. 25 is left out in the compiler's report.)

The Indian village is called Johnny's Village, and at the time of our visit the chief was away in a canoe. His English sobriquet of "Johnny" is the only one he is recognized by in his own country, though the Indian name of the village was Klat-ol-klin, and the Indians, as we understood our interpreters, call themselves Tah-kong or Tahk-hong. A photograph of the village is shown in Fig. 26.

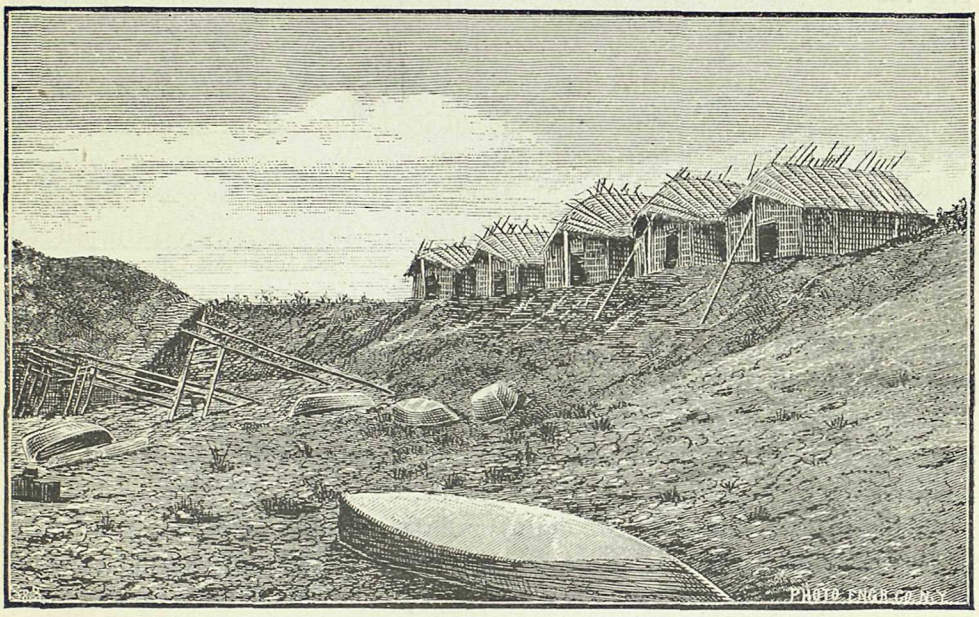


FIG. 26.

Further information concerning this small band is given in the appendix devoted to Indian tribes.

Fig. 27 is a view looking down the Yukon River from the village, about southwest. It may be interesting to note the high grass fairly shown in Fig. 25.* From here to the mouth of the river it may be said to be equally luxuriant. Underneath it in many places there is a mossy or peat-like bed so tough that when the river undermines its banks in these places the turf holds on to that of the bank's crest, keeping it covered with a blanket of the moss. In wooded places, however, this falling in of the banks drags the turf with it into the water. Between camps 35 and 36 the soil, for the first time descending the river, seems to be thick and black, and continues so in a varying degree until the lower ramparts are again entered.

On the 23d of July we reached another Indian village, called Char-

* See explanation in regard to figure 25.

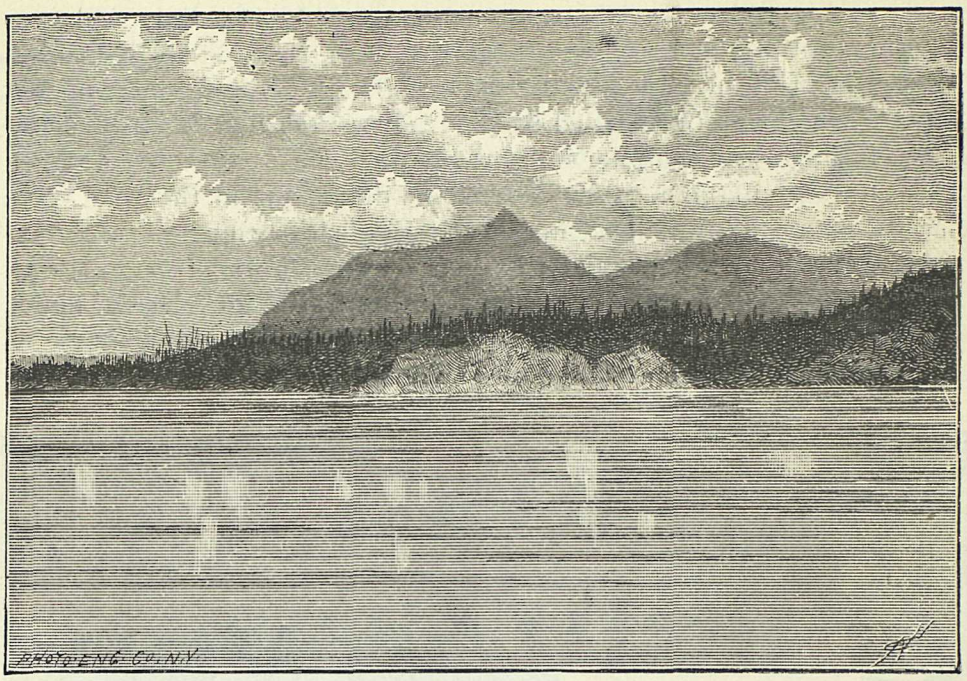


FIG. 27.

ley's Village, which is an exact counterpart of the one called Johnny's, even to number of houses (6) and side of the river (western bank). We met a Canadian voyageur among them who calls them and Johnny's village the Tadoosh Indians, and says they are the most friendly and best natured Indians on this part of the river.

After leaving Camp 37 the country flattens out noticeably, and from about Camp 38 to old Fort Yukon it spreads out over many miles in width (said to be 7 miles wide at Fort Yukon by a trader who was stationed there for several years) and so full of islands that it was about impossible to tell when we were near the main banks. Most wonderful of all in this wide extent of spreading the current seems to slacken but very little in all the many intricate channels that were between, and evidently shows the deep character of the river before these numerous subdivisions commence and its shallowness afterwards, as no stream of importance helps to account for the relations between the two volumes in any other way. On the evening of the 24th we camped (No. 38) alongside of a small river steamer called the "St. Michaels," which, during the spring freshet while descending the river, had grounded on this bar, and being unable to get off was abandoned, her keel being now some 6 or 7 feet above the level of the present stage of water.

This boat belonged to the Western Fur and Trading Company, organized in San Francisco as an opposition to the Alaska Commercial Company of the same city. They had recently been bought out by the latter company after having existed for several years at a loss to them-

selves. This opposition had some direct bearing on the Indian question in that during its prevalence prices were put down to absurd figures, the Indians really getting for their furs, in some instances, more

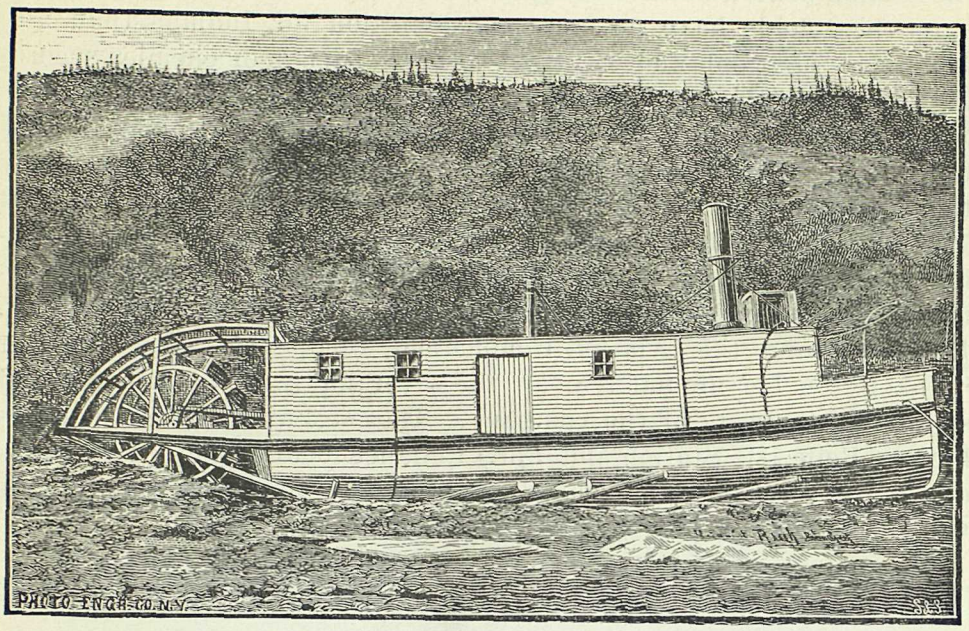


FIG. 28.

than they could have done probably in San Francisco itself. When this opposition ceased, although the former rates were not entirely resumed, a great step had been taken in that direction and the consequence is a great majority of the Indians are dissatisfied with the present prices, as it is simply impossible for them to believe that the previous low rates were not renumerative to the companies, or that any one would sell anything for less than it is worth, and consequently the present prices are exorbitant, and as Indians have but one way of correcting even mistakes, a sort of strained feeling exists in many places which could lead to more serious trouble. The traders on this river, however, are all men of good judgment, I believe, and this fact will make collisions less probable than would generally be supposed. Again, traders dependent upon Indians wholly for their trade, do much more to conciliate them in all cases than any class of people with whom they can come in contact. If hostilities are threatened they will avoid them, knowing full well that if no blood is shed that the matter will be conciliated in a short while and they will be able to resume their trade, and that should such an unfortunate circumstance occur they would for years compromise all chances for such a desirable termination. This, coupled with the object traders have in keeping such ruptures hidden from both the public and other Indian tribes, has led to the well-known but erroneous opinion that the Hudson Bay Company have succeeded so admirably in their contact with Indian tribes. If

the Yukon River offers no field for industry but that which the Indian trader monopolizes, it might well be doubtful whether a military force would ever be needed along its course; but from the present prospects the salmon fisheries and mining may not be far distant, and men that enter these fields have no more consideration for Indians than any other class of people and will treat them as friends or enemies according to the way that they themselves may elect.

On the 27th of July we made old Fort Yukon about noon, the distance from the site of Fort Selkirk being 490.2 miles after correction by the astronomical observations, showing an error or correction of but 10.6 miles in the whole course or .0212 per cent., or more clearly speaking about 1 mile in 50, showing that the intermediate points determined by dead reckoning can be relied upon within that possible limit. Here we found the Alaska Commercial Company's river steamer "Yukon" on her annual trip up the river for trading purposes and supplying the posts of the company. These excursions were made as high as Belle Isle Station and Fort Reliance before they were abandoned, but are now made wholly with reference to where the Indians will be found.

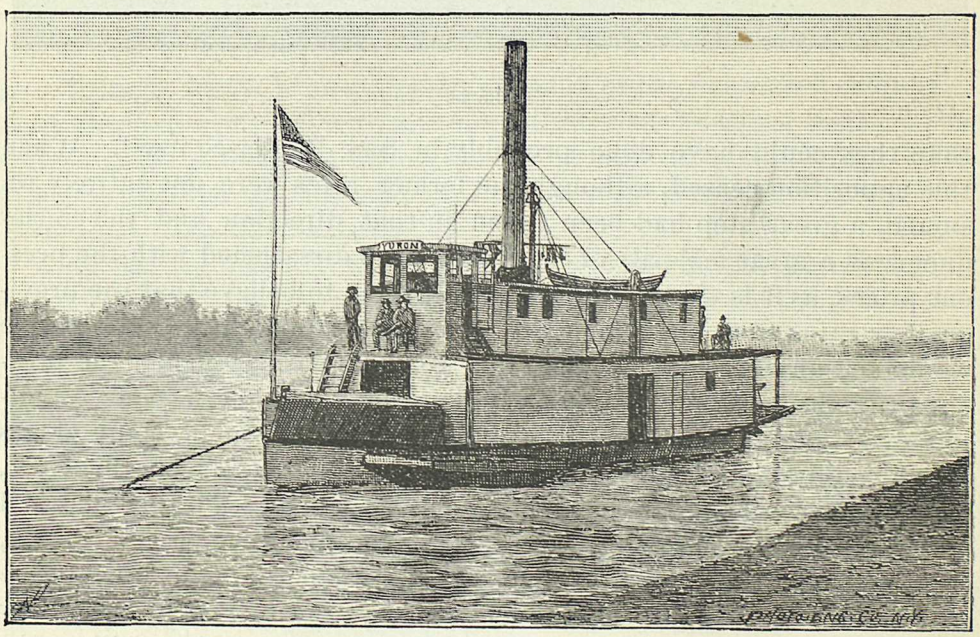


FIG. 29.

Fig. 30 is a view of the interior of the old Fort Yukon stockade, nearly all of this part having been removed by the river steamer for fuel, it being handy and already cut in lengths. Two bastions are seen with the stockade between, and the two buildings in the foreground are the store-house (nearest) and some of the officers' old quarters, both roofed with spruce bark held down by battens. The history of

this Hudson Bay trading post is too well known to repeat here. Passing into the hands of the Alaska Commercial Company it was for a long time the farthest post they possessed up the great river until Reliance was established. Fort Yukon was abandoned three or four

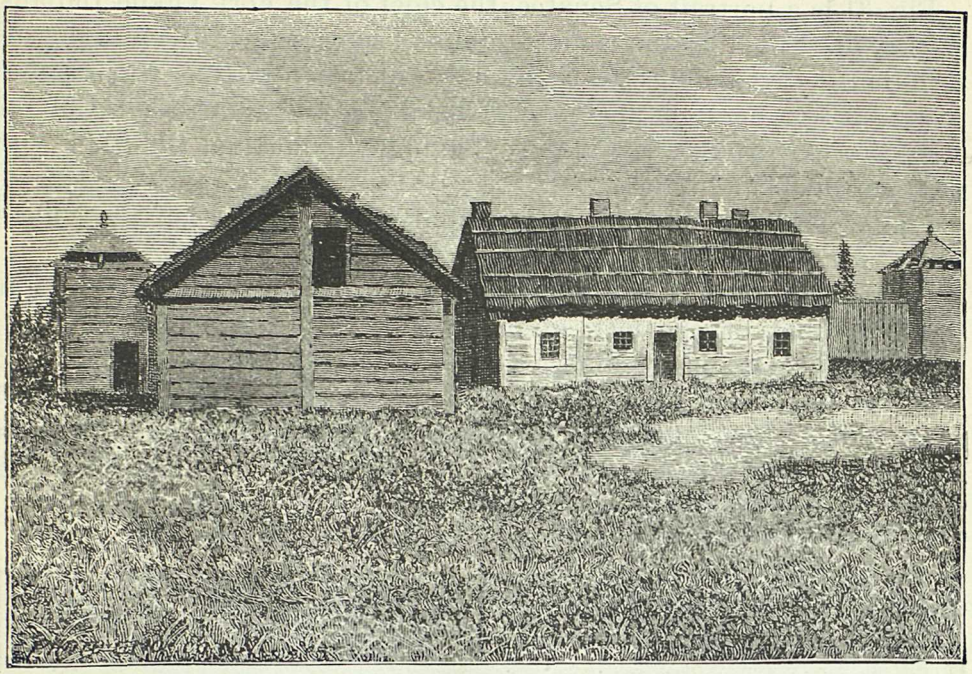


FIG. 30.

FIG. 31.

years ago as not remunerative, and Reliance and Belle Isle were then established, and these two were again abandoned recently (the former on account of expected Indian troubles growing out of the opposition) and Nuklakayet, about 300 miles below Fort Yukon, is now their frontier trading station on the stream.

Fig. 31 is a portrait of Senatee, the chief of the Fort Yukon Indians, as they are called by the traders, and as I have named them in my description of the tribe. He is the only chief on the river having that power, as we generally understand it, among Indian tribes, all of the others, to a greater or less degree, having but nominal influence with their subchiefs and tribes.

I have spoken so much of the peculiarly flat character of the Yukon Valley for some 80 or 90 miles above old Fort Yukon, that I give herewith a photograph (Fig. 32) looking southwestward across from the shore in front of the fort, giving clearly the easternmost channel, which is but one in several of greater or less width. Mr. McQuestion, who was for several years trader at the old fort, says that it is about 7 miles wide at this point, and he believes there are places on this flat part of the river where it may attain double that width. The following is the itinerary of the second part:

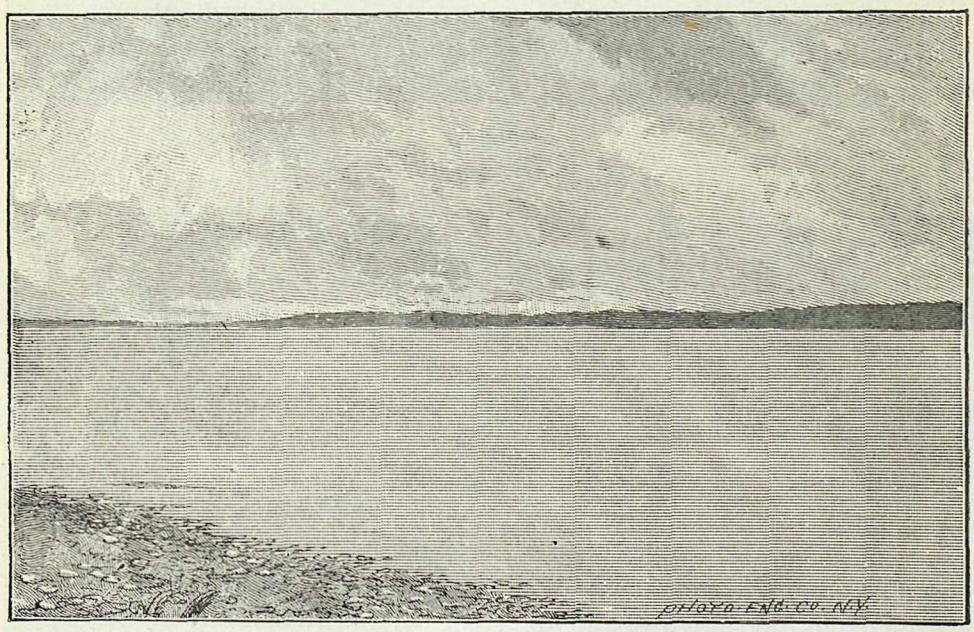


FIG. 32.

Itinerary of Part II of the map of the route of the Alaska military reconnaissance of 1883, *Lieutenant Schwatka, U. S. Army, commanding, from data compiled by Topographical Assistant C. A. Homan, U. S. Army, topographer of the reconnaissance.*

Locality.	Statute miles.
From Fort Selkirk, B. C., to mouth of Selwyn River	33.6
Thence to mouth of White River	62.1
Thence to mouth of Stewart River	9.7
Thence to mouth of Deer River	65.6
Thence to Fort Reliance	6.5
Thence to mouth of Chandindu River	12.0
Thence to mouth of Cone Hill River	27.5
Thence to Roquette Rock	13.0
Thence to John's Village	33.0
Thence to Belle Isle Station	1.1
Thence to boundary line 141° west*	20.3
Thence to mouth of Totondu River	10.0
Thence to mouth of Tahkandik River	22.4
Thence to Charlie's Village	29.0
Thence to St. Michael's Island	47.4
Thence to Fort Yukon	97.0
From Fort Selkirk, B. C., to Fort Yukon, Alaska	490.2

* Length of Yukon River in British America, 783.3; length of Yukon River in Alaska, 1,260.2.

Part I, or the part explored and surveyed by reconnaissance, 538.8.
Part III extends from Fort Yukon to Aphoon mouth, being the part explored by Glasunoff, Malakoff, Zagoskin, Kennicott, and Strachan Jones, and surveyed by Captain Raymond, U. S. Army.

The party remained at old Fort Yukon during the 28th of July to determine rate and errors of chronometers, and on the 29th the journey was resumed, and between 7 a. m. and 8.45 p. m. drifted 50½ (geographical) miles, or over 4 statute miles per hour, plainly showing no diminution in the current despite the wide-spread character of the channel. At 11.30 a. m. we passed an Indian village of 5 or 6 tents, on one of the many islands in the channel, of probably 20 to 30 souls, although very few appeared, being probably absent hunting and fishing. On the beach were 7 or 8 birch-bark canoes, and lounging around was the usual high number of Indian dogs. This day, the 29th, was an exceedingly hot, blistering day on the river and almost unbearable on the raft, as we had no means of counteracting it on such a craft. To put up an awning of canvas was to seriously obstruct the view of the stern oarsman, who was responsible for the raft, and who needed this view to distinguish the swift from the slow currents, the sand, mud, and gravel bars where the vessel was likely to be delayed, and many and the worst of which were just under water even in the middle of the river, also snags, and landing places after camping hours. Again, an awning of canvas caught considerable wind, and if this was considerable and any other direction than fore and aft, steering was almost impossible. Here, within the limited part of the Yukon River in and near the Arctic zone, our greatest discomforts were the blistering heat and dense swarms of gnats and mosquitoes that met us at every turn. The night of the 29th–30th but very few of the party slept well, owing to the gnats, the mosquito-bars being no protection from the diminutive pests, and we consequently got an early start on the 30th, shortly after 6 in the morning, the day contrasting strangely with the one before. A cold and

disagreeable wind with heavy clouds made the contrast, and gave us difficult work in steering clear of the lee banks, the small amount of bulky baggage on the raft forming a sufficient surface to the wind to determine this. The 30th the raft drifted 44 geographical miles in thirteen hours and ten minutes to Camp 43 of the map. The wind had its compensating feature, however, in keeping away the mosquitoes and gnats at night, so that one could sleep.

The 31st of July the raft drifted 45 miles in thirteen hours to Camp 44 of the map, and that evening commenced raining so hard and so continued the next day, the 1st of August, that we remained in camp. The femur and molar tooth of a mastodon were found in the gravel bar near Camp 44, the remains of these animals having been found in large numbers in the valley of the Yukon River, and especially this flat level portion of 300 miles extending between the upper and lower ramparts. At old Fort Yukon an Indian who showed us a tooth said that it came from a complete skeleton about two days' journey away that the river was exposing by undermining action.

The 2d of August we drifted but 26 miles in twelve hours, a strong wind keeping us against the left bank so as to impede our progress. We were forced into one slough by it that was so sluggish in current that, although but 2 miles long, we were over two hours drifting through. A number of such slack-water places were encountered that could easily have been avoided in less stormy weather. At 3 p. m. we passed a double log-house on the right bank, with two or three small elevated log caches, peculiar from this point to the mouth of the river, two graves, &c., all of which seemed very new, although the place was deserted, very recently however. Many signs of Indians were noticed as we approached the "lower ramparts," as the hilly country is called. On camping at 7.30 p. m. we were but a short distance from the entrance to these hills, and it was with the greatest satisfaction that we approached them and left behind the flat country which we had traversed for 300 miles, and was tedious and irksome beyond measure in its monotonous flat scenery. The whole length of this flat country there are but very few Indians, the mosquitoes driving the game out of its domain, and the innumerable number of wide shallow channels into which the river divides making fishing for them less certain than in the hilly districts. The establishment of Fort Yukon at the mouth of the Porcupine induced many to congregate around this spot, as is usual with frontier trading posts, and although it has been abandoned a number still reside at the spot as a sort of trading point with the river steamer in its annual visits, and possibly the reluctance with which people abandon their homes of long standing despite their unfavorable positions.

On the 3d of August the raft was started at 7.30 a. m., and entered the "ramparts" shortly after. Through this part of the ramparts the country and river looks very much like the Columbia River near the Cascades. A few Indians were now visible, and old and permanent

signs of them quite numerous. About 6 p. m. we passed a well-built Indian house on right bank of the river, with log and stake steps up the steep river bank.

We camped at 8.30 p. m. near several Indian graves, about a mile or two above the mouth of the Whymper River, one of which graves is shown in Fig. 33, where several had been buried during the raging of an

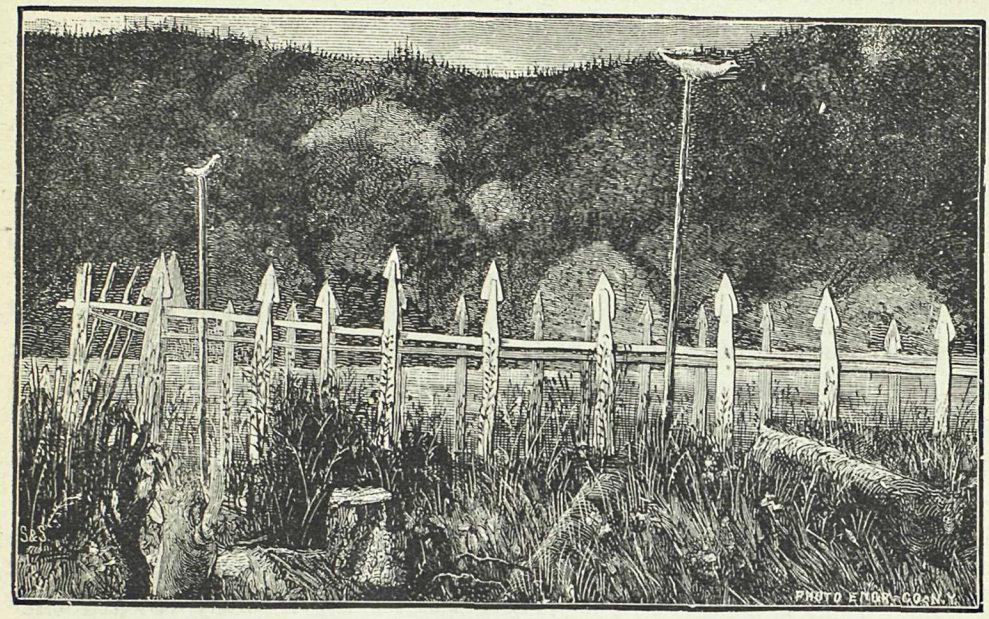


FIG. 33.

epidemic some two or three years before. The fence around is the result of Christian influence, but their other superstitions cannot be wholly overcome, as shown by the poles with the symbolic totems of geese, ducks, bears, &c., on their tops. The ramparts on the 3d so closely resembled portions of the ramparts of the Middle Yukon between Selkirk and Belle Isle that the conviction seemed irresistible that they are identical chains stretched like a bow string across the great arc of the Yukon, bending northward into the flat Arctic tundra land. At Camp 46 I found several varieties of berries, not only edible but very acceptable, despite the general dwarfed and stunted condition of most of them.

The 4th of August we made 47 miles through the ramparts. At 7.50 a. m. we passed the concealed mouth (as going down stream) of the Whymper River coming in from the left. Through this part of the river between Camps 46 and 47 were many signs of Indians, as caches, old camping places, &c., along both banks, but singularly enough no Indians were visible, and the presence of wolves around these positions made me think that their absence had been for some little time. That day we had a most disagreeable gale of wind, hardly worth noticing except for the fact that with the exception of a very few days it continued unceasingly to the mouth of the river, and the observations

of previous explorers and observers make certain the fact that such weather is the prevailing nature during the summer season. Many of the small creeks that put into this part of the river, and draining through the swampy tundra land, while so clear that their bottoms may be seen even in deep places (6 and 7 feet deep) are highly colored with a port-wine hue, which contrasts strongly with the muddy waters of the Yukon, where they join. This may be caused by iron, as outcroppings of that character were seen.

Twenty-seven miles were made next day, August 5, rain showers in the morning delaying our start until 8.55 a. m. At 2.10 p. m. we drifted past the spot known as "the rapids of the Yukon," being, until the present expedition surveyed the whole length of the river, known as the worst impediment on the river. We had been anxiously expecting them, and had some fears that they might prove disastrous to our rough means of navigation, but it was not until we were past them that we observed them at all, being represented by a bar of white bowlders around which the waters flowed as placidly as around any bar in the river. At high water the river may flow over this bar with some commotion, for it is here constricted into 300 or 400 yards in width, but during the greater part of the time navigation would be essayed it certainly is not worth considering.

About half a mile below the "rapids," on the right bank of the river, is the first considerable sized Indian village encountered after leaving the flat country described. It consisted of two tents and four birch-bark houses with from forty to fifty souls. Eight canoes put off to meet us and fresh salmon were procured from them, the first we had had for several days. This part of the Yukon River, is quite picturesque, equal to that for 100 or 200 miles below the site of old Fort Selkirk, and superior in grand outline to any scenery from here to its mouth.

On Monday, the 6th of August, having started at 8.30 a. m., at 6.10 p. m. we made Nuklakyet, the fartherest outlying trading station of the Alaska Commercial Company on the Yukon River, and were glad enough to meet permanent civilization, and part with our raft, on which we had navigated the river for over 1,300 miles. Nuklakyet station was in charge of Mr. Harper, an old employé in these regions, and, like all such, seemingly content with his isolated lot. A small garden was attached to his station on a bank with a southern exposure and good drainage, and here he cultivated the rougher varieties of hardy vegetables. Turnips were grown that weighed six and a half pounds, and other varieties of vegetables were equally surprising, considering the high latitude, within less than 100 miles of the Polar Circle.

Fig. 34 is a view of Mr. Harper's trading station looking westward, with the little garden in the foreground.

It is typical of the fact that when fisheries line this great river, as they are sure to do, and mining camps dot its tributaries, as indications show they may, that with such rough vegetables as may be grown and

such varieties as will bear transportation, that life may be made more bearable than one would think from its extreme isolation.

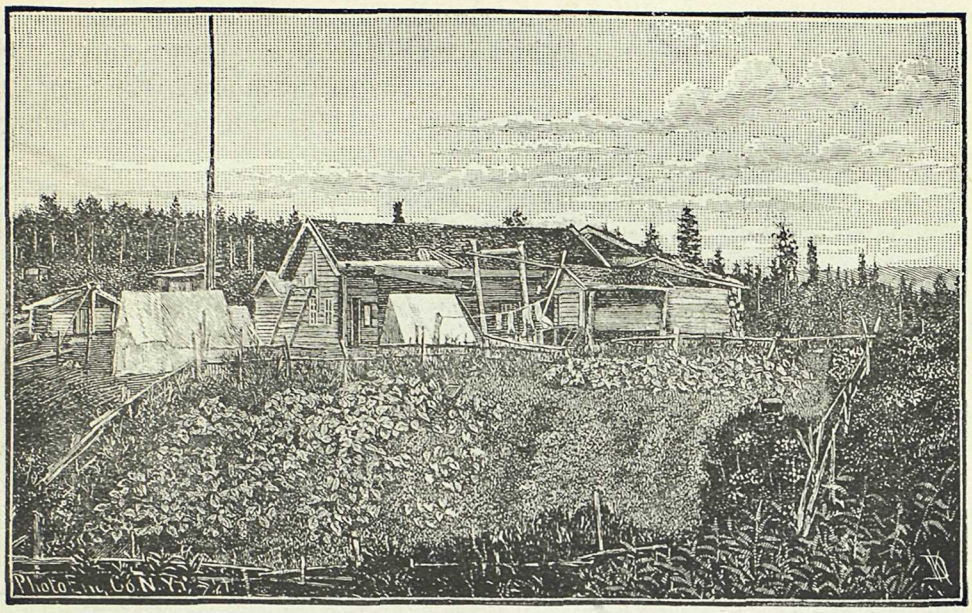


FIG. 34.

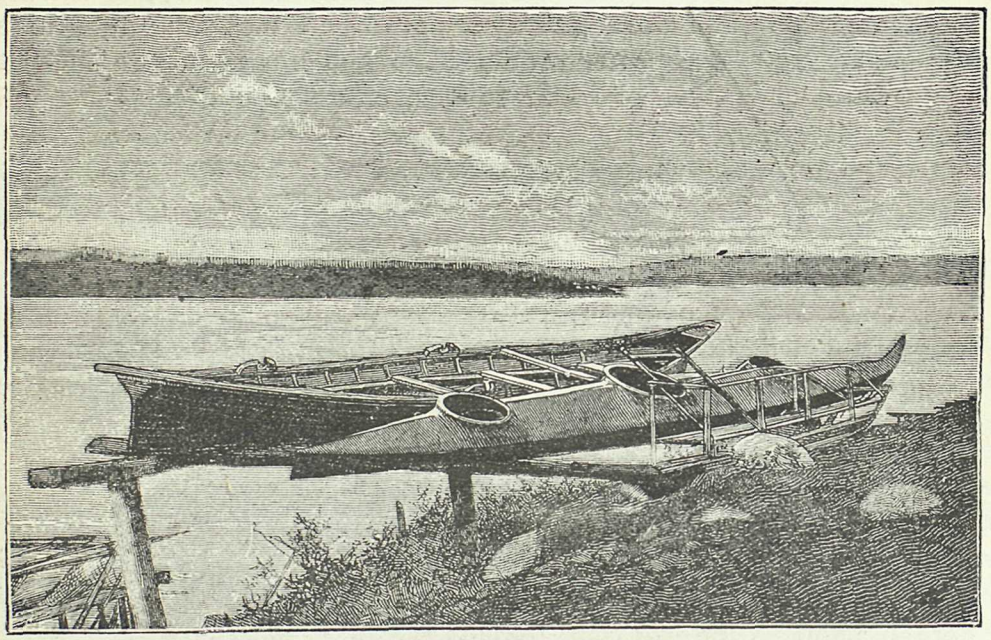


FIG. 35.

Fig. 35 is a view of the means of transportation used in this part of Alaska both in summer and winter, the two boats explaining themselves by the figures, while in the foreground is the usual sledge of this part of the Yukon Valley to its mouth. At this point also commences

the Esquimaux dogs used with the sledges, all those previous being of the Indian variety, a smaller, but, I believe, a hardier variety.

FIG. 36.

Fig. 36 is a view of a group of these dogs, there being over 50 at this station, having been collected by Mr. Ed. Schieffelin, a mining capitalist prospecting on the river, for his winter's use in sledging.

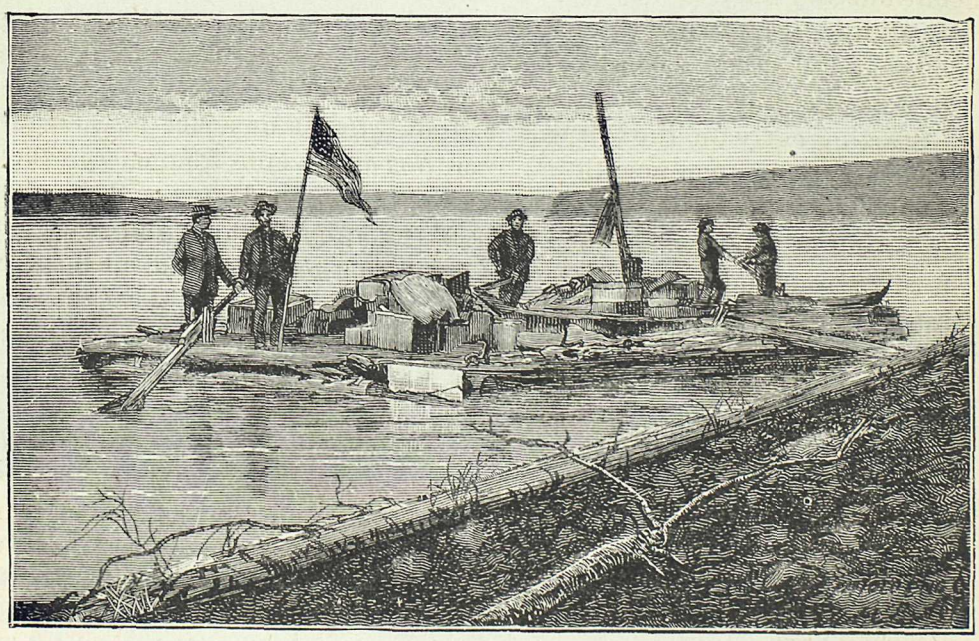


FIG. 37.

The subject of procuring sufficient food for so large a force of animals was a serious one, and Mr. Harper informed me that he expected to kill a number before winter. Their sustenance is wholly dried salmon, for which the white traders pay a cent apiece in trade. Among these fish so furnished is found the king salmon, the variety well known as the best for general canning purposes.

Fig. 37 is one taken of the raft at the point where it was abandoned. At Nuklakayet we obtained a 12-ton "barka" (as it is called by the traders of the river), which is really but a small decked schooner of that capacity. There were no sails except a small flying-jib, and it was my intention to float down the river with the current as I had with the raft, except such small aid as I might get from the jib when the wind should be favorable. I might here add, however, that the usual wind was from the general direction we desired to go, and, as already stated, of a steady tempestuous character.

We remained over at Nuklakayet the 7th of August, transferring from the raft to the "barka" and preparing the latter for her drift.

The 8th the voyage was resumed, and made 37 miles by drifts, being aided on occasional bends of the river by the jib. Private Roth of the party was a good sailor, and his services were in much demand in this hybrid system of navigation. We found it much harder to get near shore in the "barka" so as to go into camp than it had been on the raft. It was also much more cramped, but in compensation for this we could keep dry during the rainy weather and to a great extent protect our more valuable property from the same, and we certainly needed this protection, for the weather during the rest of the month was the most continuously bad of any summer weather I have ever experienced. Mosquitoes were still very numerous, and we were either getting so used to them that they appeared so or they were really less aggravating than on the upper half or two-thirds of the river.

Starting early on the 9th with a light wind in our face we had just reached a wide open part of the river, not over a mile from camp, when this breeze increased to a gale, with white-capped waves 3 or 4 feet high, and so strong as to hold the "barka" almost at a stand-still even in this strong current. We were compelled to run for an anchorage, and here remained until 4 p. m., when we drifted some 7 or 8 miles, the wind dying to a calm, and the mosquitoes consequently as numerous as ever. I found that day that the "barka," turned broadside to a head wind, drifted much faster than when head or stern on, and this fact afterwards saved us many miles in our navigation. I afterwards ascertained that the traders on the river secured this without effort by suspending a heavy anchor or large bucket or basket of stones from the sprit so as to hang in the water. We secured the same result by constant work at the stern oar, aided by the hatchways used as sails near the stern.

The 8th and 9th we passed very few Indian indications, and, in gen-

eral, it may be well to remark that for some distance on either side of a trading station the Indians seldom are very numerous, being more so at the station itself and at the remotest points from them.

The 10th was a repetition of running ashore and poling off, as the wind came up or died down. About a mile below Camp 51 we passed an Indian village of log-houses and tents on the north bank, holding probably fifty to sixty, there being a large fish-weir or trap on the head of the island directly opposite. These Indians, even after many years' intercourse with the Russians previous to our possession of the country, seem to know nothing of the method of catching salmon by gill-nets and the ease and rapidity of the same. Again, about 2 o'clock in the afternoon, another village of about the same size was met on the head of one of the numerous islands, engaged, as before, in fishing.

On the 11th we drifted to Camp 53, the weather disagreeable in the extreme, and but few Indian locations being noticed.

On the night of the 11th–12th a small river steamer came to our camp, having put up below a few miles and then steamed up to our position, upon hearing of our presence. It proved to be a small river boat built by the Scheiffelin party of miners, and as they were leaving the country it had been purchased by three of the traders of the Alaska Commercial Company, who had become dissatisfied with their treatment by that company, and were proposing to start a trading company of their own. It is called the "New Racket," and, with the "Yukon" and "St. Michaels" forms the entire steam fleet on the river. The latter is, however, comparatively worthless.

All day on the 12th we were passing Indian villages, houses, graves, encampments, &c., probably representing 250 to 300 or 400 people, the greater majority of whom seem indisposed to stir, owing to the inclement weather. At 3.30 we passed the Indian village of Sakadelontin of the map. It was preceded by a number of coffins in trees, the first of this character seen on the river. Heavy gloomy weather prevented photographs on a most interesting part of the river.

On the 13th we passed the mouth of the Koyukuk, the largest northern tributary of the Yukon River, I believe, although little or nothing is known any great distance beyond its mouth. The Indians on its shores have the worst reputation of any from Fort Yukon to its mouth, but as they have uniformly brought vast numbers of furs to the nearest trading posts, the traders have been perfectly willing to leave their country unexplored and allow them an unmolested possession. Some of the outrages of the Koyukuks are spoken of more in detail in the subject of Indians. I do not believe, however, that they would resist a force of twenty or twenty-five well-armed men attempting to explore and investigate their country.

The night of the 13th–14th raged one of the severest gales we encountered on the river.

The 14th we reached Nulato, a point of considerable importance with

reference to the history of the old Russian Fur Company, it being their furtherest outlying permanent trading station on the Yukon River. It has been the scene of a number of massacres and murders spoken of under the head of Koyukuk Indians, and at the date of our visit was abandoned, owing to a murder of a Russian trader that had occurred some two or three years before, and that had unsettled the peaceful relations between the whites and natives. Nulato shows much finer construction in its buildings, erected by the whites, than any encountered on the river so far, but they were rapidly being torn to pieces by the natives since their abandonment.

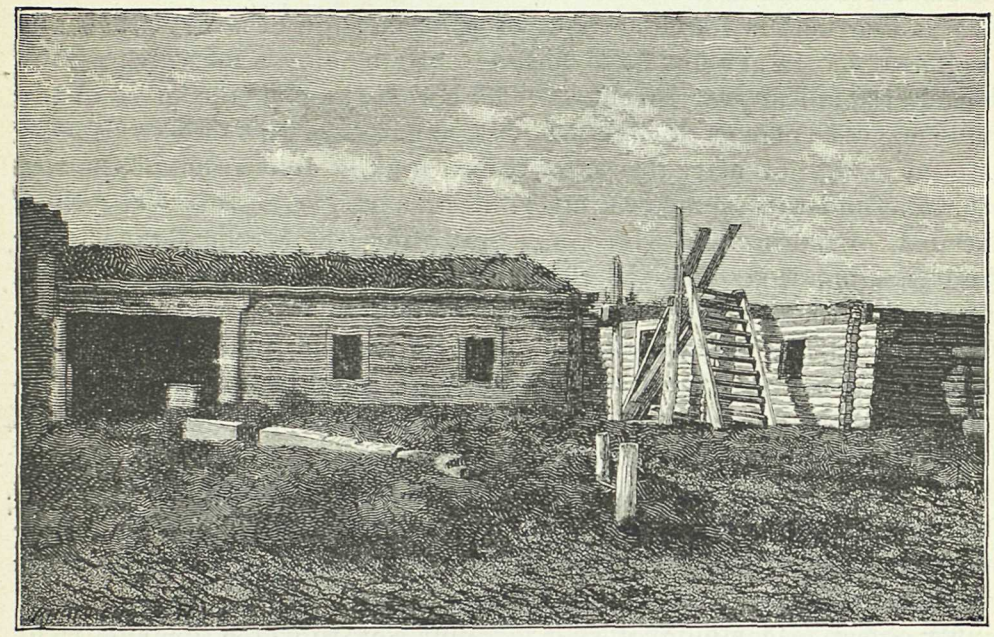


FIG. 38.

The 15th of August we left Nulato. On the same side of the river, and about a mile below this point, is a large permanent Indian village of about twenty-five or thirty houses and caches, and inhabited by probably sixty to one hundred people when the trading stores were running, but now nearly deserted. A number of Indian villages were passed during the day in making Camp 57, but most of them seemed thinly populated. The despicable weather, the removal of the trading stores, and the hunting season, may all be charged with this apparent discrepancy between houses and people. From about this general section of the river to its mouth the influence of Bering's Sea, and even the Pacific Ocean, commences to be felt. The ground does not freeze to such great depth, and in many places, especially southern exposures, the thawing of the summer is equal to the depth of frost in winter, which insures partial drainage, and the tundra land, though still existing, becomes less marshy and impassable to walking, and travels into the interior becomes possible. From the Koyukuk band, already spoken of,

on down the stream Indians are found who make annual inland hunts in summer time to secure reindeer and other game, instead of remaining religiously on the river, as may be said to be the case above these points in that season.

From near Kaltag to the mouth there is no high land on the southern bank, except that that can be seen in the distance in the way of low, isolated peaks and short mountain ranges, while, with the exception of a few short stretches at the mouth of a small creek, the land on the north bank was high and often precipitous even to the water's edge. I think it not improbable that Kaltag was an ancient mouth of the Yukon, and it has since filled in the shallow shores to the present delta. So shallow is Behring's sea on its eastern or Alaskan shores that the *débris* and sediment of the Yukon have formed outlying shoals for a distance of nearly 100 miles from the beach, and across these shoals of sand and mud no vessel of even the lightest draught can pass with safety. During storms of any intensity the water lashes up the mud from the bottom so near, and this serves as a useful warning to vessels when most needed. It is this fact which has forced the port of the Yukon River nearly a hundred miles to the north in Norton Sound (Fort Saint Michaels), where vessels of reasonable tonnage can have ready access, and to reach this they pass in and out of the Aphoon, or northern mouth. I believe, however, that a much better port could be found somewhere on the Kusiloak or main mouth of the river, which has never been given a proper hydrographic and topographical survey.

The 16th of August the wind and rain were so strong from ahead that I remained over, being at a point on the river where the whole channel was in sight, obstructed by no islands, and which I might mention as being an unusual occurrence.

My object in camping at such a point was to watch for the river steamer "Yukon" to take the "barka" in tow, she being unable to proceed out to sea, having, as already stated, no sails.

On the 17th we drifted about 25 miles, there being but little of interest to chronicle.

The 18th we made Camp 59, and the 19th drifted but nine hours, owing to the heavy head gale, which, continuing next day, we remained over.

The 21st of August we camped (No. 61) at Hall's Rapids of Raymond's map, but beyond a few ripples near the northern bank and an increase of rapidity in the current where the river narrows, there was nothing to indicate them.

The 22nd we reached Anvic, a trading station of the Alaska Company, kept by Mr. Fredericksen, who treated us very kindly. He had had a good deal of trouble with the Shagelook Indians recently, and was talking of abandoning his station if it continued. A number that had come down to be baptized by the priest had cut open a couple of skin boats to show their feeling, and had it not been for the friendly tribes at the

station he thought he would have been robbed, and possibly murdered, in case he made any resistance.

The 23d the steamer "Yukon" overtook us and took us in tow, the remainder of the voyage being uneventful, but the survey of the river being kept up to the Aphoon mouth.

On the 30th of August Saint Michaels was reached and on the 8th of September the schooner "Leo," that had relieved Lieutenant Ray's meteorological station at Point Barrow, came into Saint Michaels and through the kindness of that officer passage was secured to San Francisco, where the party arrived October 5. On September 17 the party landed at Oonalaska, in the Aleutian Islands, and remained several days studying and compiling data regarding the Aleuts, which will be found in the proper subhead.

It might be proper in closing this report to speak of those to whom I found myself under obligations from time to time in the prosecution of the enterprise.

Of course to the members of the party itself for their untiring devotion in their several departments is due the greatest praise. The part of this report devoted to Indians, the most important in a military sense, is due almost wholly to Dr. Wilson, the surgeon.

Beyond these I should like to mention Brevet Maj. Gen. Frank Wheaton, colonel Second Infantry; Lieut. C. A. Williams, Twenty-first Infantry; Collector Morris, at Sitka, Alaska; Wm. King Lear, Wrangell, Alaska; Captain Vanderbilt, Killisnoo, Alaska; Mr. Carl Spuhn, Killisnoo, Alaska; Mr. Downing, purser, "Idaho," P. C. S. S. Co.; Captain Carroll, commanding Idaho, P. C. S. S. Co.; Mr. Greenberg, of Portland, Oregon; Mr. G. J. Mitchel, of Portland, Oregon; Mr. Robert Habersham, of Portland, Oregon; Captain Petersen, commanding Alaska Company's river steamer "Yukon;" Mr. Henry Neumann, agent Alaska Company's Station, Saint Michaels.

Respectfully submitted.

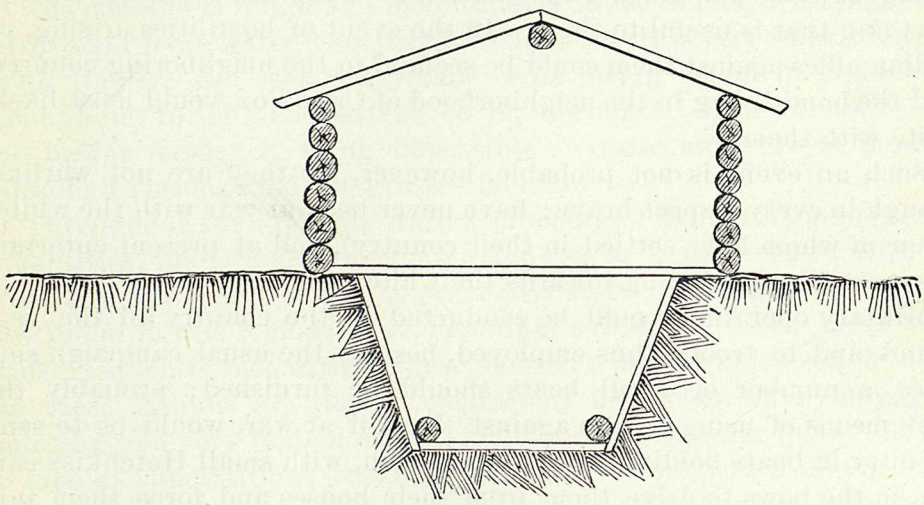
FRED'K SCHWATKA,
First Lieutenant, Third Cavalry, Aid-de-Camp.

DESCRIPTION OF INDIAN TRIBES.

TONGAS INDIANS.

This tribe of Indians, subdivided into two bands, the "Crows" and "Wolves," inhabits that portion of Alaska situated about 40 miles north of the boundary line of British Columbia, along the so-called "inland passage." They live on Tongas Island and on the north side of Portland Channel, the principal village being on the island. From Dixon Entrance to their villages would be a run of about three hours for a moderately fast steamer. The habitations are permanent and situated near the water, and as the neighboring country is mountainous, rough, and mainly composed of islands, any approach, except by water, would be impracticable. A free communication, however, is kept up throughout the adjacent waters by means of canoes, propelled by paddles and sails, and of various sizes; those used in war having an average capacity of about three tons.

The houses themselves, which are built after the cross section as shown here, are provided with a cellar about 6 feet deep and 20 feet



square, used principally for storage purposes, but sufficiently commodious to afford the inhabitants protection against rifle bullets in case of an attack.

The tribe numbers about 600 souls altogether, about 200 being warriors, of whom the greater majority can be called able-bodied, and are

provided with some description of fire-arm. These arms are for the most part Hudson Bay Company muskets, part flint-lock and part percussion, only a few being the more mo lern magazine-gun. The supply of ammunition is poor, and at present obtained from the English at Fort Simpson and the salmon cannery at Boca Inlet.

In case of war with this Government it could be obtained from Fort Simpson and vicinity.

Their country is well timbered, producing a variety of berries and sufficient grass for military stock in summer but not in winter. It presents fair prospects of gold and silver, and abounds in mountain sheep, mule deer, black and brown bears, while the waters adjoining furnish large quantities of salmon, halibut, clams, mussels, and sea-weed. These last named articles—the fish being eaten both fresh and dried—are the principal articles of food; the supply of which is secured mainly during the summer, and, with the addition of a few clams and mussels, affords them a means of subsistence in winter. In case of war, during the summer they would have to rely on the game in the mountains, while in winter, as they have no domestic animals except the dog, which would furnish them food for only a few weeks at the longest, the question of starvation would soon prove a serious one. White men's clothing is universally worn by the tribe, who would be compelled to use furs should the supply of clothes be cut off, and these could not be obtained in sufficient quantities to last any length of time.

Ka-too-nah, now calling himself "Ebbitts," after the old chief, who died about two years ago, is their head chief, and exerts considerable influence, not so much, indeed, though as the two "medicine men," Nah-goot-klane and Kach-wan, who can be easily bribed, however, with anything that is useful to them. In the event of hostilities arising, no Indian allies against them could be secured in the neighboring country, and the band living in the neighborhood of Cape Fox would most likely unite with them.

Such an event is not probable, however, for they are not warlike, though in every respect brave; have never been at war with the whites (none of whom have settled in their country), and at present entertain the most friendly feeling towards the white people.

Military operations could be conducted in the country all the year round, and to troops thus employed, besides the usual campaign supplies, a number of small boats should be furnished; probably the best means of using a force against them, if at war, would be to send infantry in boats holding from 20 to 25 men, with small Hotchkiss cannon in the bows to drive them from their houses and force them into the mountains, where they would be unable to secure sufficient food to keep them long. A small steam launch, to overtake and capture their canoes, which are as fast or even faster than small boats, would be an effective auxiliary.

CAPE FOX INDIANS.

Kast-wan is the head chief of these Indians, both in time of war and in peace, and exerts a powerful influence over the subchiefs and the entire people. At present they have no "medicine man," the old one having died only a short time ago and no one yet appointed. When the services of such an individual are necessary, however, one is called in from their neighbors, and his opinions are eagerly listened to and his suggestions observed. The tribe numbers about 250 souls altogether, with nearly 100 warriors, most of whom are able-bodied and provided with some sort of fire-arm. The flint and percussion lock musket introduced by the Hudson Bay Company is the pattern of gun most frequently met with, only very few of the men having the improved rifles now generally in use. Ammunition is poorly supplied, and obtained from Fort Simpson and the trader at Boca Inlet. In event of war with the United States, Fort Simpson would be the only source.

Their principal village was situated until quite recently in the immediate neighborhood of Cape Fox, but since the establishment of a fishing industry by white men at Boca Inlet this has been moved there, only a short distance from the cannery. The distance from the village to Dixon Entrance can be made by a good steamer in about four hours.

The region of country occupied by the tribe is in the southern portion of Alaska, not far from the northern boundary of the British possessions on the Pacific coast. It consists mainly of islands and headlands, with small channels intervening and intersected by numerous salt-water inlets.

The country is rough and mountainous in character, with numerous streams of fresh water emptying into the sea. It is very thickly covered with timber; the so-called yellow cedar being found in abundance, though not to the same extent as further north. The soil itself is by no means fertile; it being impossible to raise any sort of produce, although various kinds of grasses flourish.

Throughout the adjoining waters salmon and halibut abound in great quantities, the former to such an extent as to have recently attracted the attention of white men, as previously stated. Various wild animals are found in this region; deer, mountain sheep, and black bears being most frequently met with. These, however, are not much sought after, as these Indians are almost exclusively fishermen. They engage in hunting to a very limited extent, and rarely venture far inland, having a kind of superstitious dread of the dense forests, which they imagine are peopled with strange creatures. As a rule they are industrious, many being employed now by the whites, and eager to improve their condition. Many appeals have been made for schools, the benefits of which having been seen and appreciated through their intercourse with the natives at Fort Simpson and vicinity, where indeed many good results have been accomplished. The dwellings of this tribe are permanently

situated along the salt water, and so similar in construction to those used by the Tongas Indians as to require no repetition.

The principal article of food besides fish is a variety of sea-weed, which is gathered during the summer, carefully dried in the sun, and pressed into slabs and cakes. This is combined with fish oil when eaten, and not only supplies the place of our many varieties of food, but is considered quite a delicacy, notwithstanding the fact that its odor alone would warn a civilized individual, and one not over-fastidious, against even tasting it. Besides these articles of diet various other supplies, such as are used by miners and others out of civilization, are obtained from traders. No domestic animals are found among them, except the dog, which is not employed in any useful capacity, and as food, in the event of their being obliged to abandon their usual sources, would not serve them long. The style of clothes worn by the whites has been universally adopted by this tribe, these articles being obtained from the same sources as their ammunition and other supplies. Should these sources be cut off, no little difficulty would be experienced in finding suitable garments as a substitute. Communication overland through the country is never resorted to, the only means of transportation being in canoes, which are built of cedar, and not only beautifully modeled, but very light and swift. These are propelled by means of paddles and sails, and so skillfully as to enable these people to venture on considerable journeys.

The feeling of these Indians toward the white people is in every respect most friendly; they have never been at war with the Russian Government or with our own, and hardly realize that such a thing exists. An active campaign against them could be conducted all the year through unassisted though by any neighboring Indians as allies, for the Tongas tribe would undoubtedly unite with them. As the country differs in so few particulars from that occupied by the Tongas, the only unusual campaign supply, in case of war, would be likewise a number of small boats. These should be sufficiently large to accommodate about 20 men and a small cannon in the bows to force them from their houses, and by guarding against an escape by water it would be difficult for them to hold out long.

STICKEEN INDIANS.

This tribe for many years in direct intercourse with the white people, has, as is usual, not only derived many lasting benefits therefrom, through a keen desire to learn and improve their condition, but on the other hand many of the vices and corruptions of civilization have likewise been acquired.

The various whites who have entered the country, except perhaps miners, have invariably been attracted by trade, so that as a protection to themselves these Indians were forced to become shrewd and sharp-

witted, which traits are very apparent in their character with only a short acquaintance. As a rule they are of a very superior intelligence, and have always manifested great eagerness to acquire civilized improvements, both in the manner of living and in working. Civilized clothes are generally worn, and the plain varieties of food indulged in by frontiersmen accepted.

The territory which they occupy lies near the western boundary of British Columbia, distant about a fourteen-hours' run from Dixon Entrance. It is limited to Wrangell Island and the district of country along the Stickeen River, which stream has its source in British Columbia, and flows thence in a southwesterly direction through the American possessions into the sea. The country is very generally mountainous, and well timbered throughout, the yellow cedar flourishing luxuriantly. The soil itself is not fertile, but more so than the country to the south, and the season too short for any except the hardier varieties of vegetables to mature. Potatoes can be grown here, and in fact are cultivated in considerable quantities by the Indians. A few years ago gold was discovered near the headwaters of the Stickeen River in such quantities as to attract universal attention and draw many men to the vicinity. Fort Wrangell, situated on the island, and at present unoccupied by troops, was the depot for supplies and the starting-point for the mines. Here many prospectors, industrious and otherwise, spent the winters, awaiting the approach of warm weather, so that a marked impression has been left on the Indians by their presence. In those most susceptible, and these are largely in the majority, the taste for alcoholic stimulants was not only given a great impetus, but has actually become a craving. As a remedy for this, restrictions were instituted against the introduction of liquor into the country, which answered in a measure, but when the Indians found it impossible to procure a supply they began the manufacture of a compound of their own, from molasses, called "hoochenoo," which has necessitated customs regulations against this article as well.

The principal village of the tribe adjoins Fort Wrangell, and consists of a number of well-built houses. These are made of planks about 3 inches thick, and each plank as a rule shaped from a log by hand.

They are then set on edge and nicely fitted together, while a roof of bark, with a hole for the smoke, protects the inmates from the weather. The floor is of dirt, and in consequence uninjured by the fire in the center, over which the simple diet of the household is cooked.

Their principal article of food is fish of various kinds, such as halibut, salmon, codfish, and herring, all of which are found in abundance in the adjacent waters. Besides these, they also employ the inner soft bark of a species of cedar, large quantities of which are collected and stored away for winter consumption. Many of the plainer articles of food, such as are consumed by frontiersmen, are sold them by traders, as stated before.

The tribe numbers about 800 souls altogether, with probably 300 men who would be capable of bearing arms in the event of an universal outbreak. The fire-arms which they use are generally the old Hudson Bay musket, but many are supplied with the modern repeating rifles, though not of the latest patterns. The number of these improved rifles found among this tribe is far greater than any other along this part of the Territory on account of their long intercourse with miners and the close proximity of the Cassiar mines, where many of the Indians were employed and paid, directly and indirectly, with arms.

In 1876 an Indian from Fort Simpson started a school at Wrangell and very soon gathered about him almost 100 pupils. At this time the post was occupied, and a soldier, impressed with the eagerness of the people to learn, made an appeal for a competent teacher. This, after some delay, was responded to, and a good school opened shortly afterwards, which has continued to prosper and increase in average attendance to such an extent as to require the services of two or three additional teachers. Many good results are manifest, through the influence of the school and teachers, for in many cases the young girls have been taken away from their mothers, who, according to their customs, consider them an article of trade, and frequently sold them to white men. Cleanliness, a virtue so little thought of and cultivated by most Indians, has likewise been instilled into the minds of the attendants by the same means.

The tribe is not warlike, and at present is very friendly toward the whites, although a number of years ago they captured a trading schooner and murdered the crew. A general outbreak against the whites has never occurred, and the only difficulties have been occasioned either through disagreements in matters of trade or on account of a too free indulgence in liquor.

The presence of a gun-boat has always inspired them with great awe, and they have the greatest respect for weapons of warfare superior to those employed by themselves. In the event of actual hostilities boats of some description would be necessary, as they are very generally provided with large and well-constructed canoes, and are thorough masters in the art of navigating them. No refuge could be obtained away from the sea-shore where they could secure sufficient food and other necessities for existence, so that a campaign against them would in consequence be very near, if not wholly, on the water. In regard to the name of this tribe and river, several who have had occasion to mention them in writing, have seen fit to adopt different ways of spelling, and some go so far as to spell the name of the river different from that of the tribe, although the pronunciation in no case is affected. It is variously written as Stakhin, Stakhine, Stikine, and Stickeen, the last being adopted here as giving the most exact idea of the sound.

SITKA INDIANS.

Sitka or New Archangel, as it was called by the Russians before the purchase of the territory by our Government, contained about 1,000 inhabitants, one-third of whom were Russians. It was then the great center of trade and commerce for the country, but since the transfer of the fur interests to Americans the place has been abandoned as a prominent commercial point. It is situated on the western side of Baranoff Island in a picturesque harbor leading out to the open sea, distant about fifteen hours' run from Dixon Entrance by the outside passage, and from twenty-five to thirty hours by the Inland Passage through Peril Straits.

These Indians, who have given their name to the town and harbor, have their principal village adjoining the town, and, like their brethren who live further south, have always given evidence of a superior intelligence and independence. They are naturally indolent, however, and fond of dress, and exert themselves to hunt and trade in order to gratify this fancy. Their houses, as a rule, are well and substantially constructed of logs, and through the influence and suggestions of different naval officers, of late the sanitary condition of the surroundings has been much improved by the digging of gutters, which carry off the accumulating filth and water. At first this tribe was opposed to the change of governments, as Sitka became immediately quite insignificant, but they were soon afterwards reconciled and have been since very friendly.

Having the Russians for so long a time in such close proximity has left its impress on this people in several ways. There were intermarriages, and the offspring of these unions have generally remained in the country, so that now there is a very marked trace of Russian blood throughout the tribe. As these foreigners were not always the very best class of citizens, the manners, customs, and habits acquired of them by the natives are not those to be most admired. On the other hand, schools were established very early in this century, but did not amount to much until 1820, when they were taken in charge by a naval officer, who superintended them for fifteen years. After this they became very efficient, under a creole by the name of Etolen. All educational advantages were taken away at the time of the Russian exodus, and for about ten years afterwards no attention was given to the subject; in fact it was not until 1880 that a school was established on a firm basis. This has continued to prosper, and now, as a better means of securing attendance and removing the boys from bad influence at home, a boarding department has been established. The tribe numbers now about 1,000 souls in all, of whom about 450 are capable of bearing arms in case of a general disagreement. They are, however, not warlike in disposition, though brave enough when occasion arises, and like all their neighbors, have acquired an inordinate taste for alcohol in some shape or other.

Before the strict regulations against the introduction of liquor were instituted, no event could be celebrated, no ceremony complete, or expedition undertaken without the interested party first indulging in such quantities of liquor as to render the party wholly unfit for anything. The native drink of "hoochenoo" supplied the necessary stimulation for some time after the customs regulations were instituted, but as the principal ferments for the manufacture of this have recently been prohibited as well, drunkenness is not so prevalent. As a result of this inclination and their long intercourse with traders as well, honor is not considered an attribute sufficiently worthy of cultivation, and, indeed, never enters into the mind of most of them. No insult can be offered them so deadly that cannot be atoned for by a pecuniary recompense of some nature.

The fire-arms employed by them are as a rule the same as those mentioned before, namely, the old Hudson Bay Company muskets, some flint and some percussion, with very few improved rifles. The supply of ammunition, obtained from traders, is poor in quality and in quantity, and, as it is only purchased when needed, would be entirely cut off in the event of war with this country, except, perhaps, by making the journey to Fort Simpson. This source could hardly be taken into account, however, as the distance is considerable, and their only means of transportation is by canoes, which, indeed, are large, well built, and ably managed by their owners.

Civilized clothes, except, perhaps, shoes, are worn by this tribe, and they likewise purchase many articles of food from traders. Fish is their principal food, halibut, cod, and herring being found abundantly, the last in such quantities as to be secured by means of a simple implement similar to a rake. They merely whip the water with this and rarely fail securing a fish on every prong. The country adjoining does not differ much from that already spoken of, being a net-work of islands with salt water channels and inlets intervening. It is generally mountainous and thickly covered with timber, and produces only the hardier varieties of vegetables and other produce.

The principal animals hunted are deer, mountain sheep, and mountain goat, the horns of which furnish them material for the manufacture of ladles and spoons, which are oftentimes very curiously carved, while the wool affords them material for making blankets.

The influence and popularity of a chief among these Indians depends largely on his liberality, it being a custom among them to give what is known as "potlatch" when an individual desires to secure favor. This is a kind of feast where each guest receives a present, and as much as $500 worth of blankets are known to have been distributed at such a gathering.

Many outbreaks have been threatened by this tribe, arising mainly through the influence of liquor and the natural viciousness of some influential man with the idea of bettering his condition. In 1877, after

the withdrawal of the troops, considerable excitement was occasioned by the threats of a chief, known as "Sitka Jack," but the appearance of a gun-boat quieted this without any bloodshed. As friendship, unaccompanied by any prospect of reward, is by no means a characteristic trait of these Indians, bribes of some kind judiciously made would at least prevent the neighboring tribes joining as allies, provided they did not feel aggrieved themselves, and perhaps secure them as a valuable aid to the whites.

The medicine man, or "shaman," as he is more generally called, exerts a strong influence with the people, and as his skill is exerted more especially against evil spirits, and in determining important questions, than in curing disease, it would be a great aid, in the event of war, if he could be inspired by a spirit who would at least not be an enemy of the white people. This tribe of Indians have always had the reputation of being the worst of all the Thlinkets, and although it has never engaged actively against the Americans as a tribe, nevertheless, to the Russians, it was for a long time a discordant element and the cause of many bloody feuds. The natives looked with hostility upon the erection of the first permanent post in this region, Fort Archangel Gabriel, near the present site of Sitka, and in less than two years afterwards called a council on one of the islands for the purpose of devising means of driving out the Russians.

In May, 1802, the fort was attacked, the inmates driven out, and over thirty people killed. The remainder took to the woods and were only saved by the opportune arrival of an English vessel. Later in this same year many Aleuts and Russians were attacked in one of the numerous bays and only the commander and some few Aleuts escaped. A sensational story is told, partly true, no doubt, of the Indians fortifying themselves on a rock, the present site of Sitka, defending it with two cannon previously captured, and only evacuating it, without surrendering, however, after exhausting their supply of ammunition. This occurred in 1804, and the Indians are said to have killed a number of dogs and even infants to prevent them giving an alarm, and before leaving their position succeeded in killing and wounding many Russians. This hostile feeling was very embarrassing to the new settlers, not only on account of their being constantly in imminent danger of losing their lives, but the natives also could not be induced to trade, and even maintained this determination until about 1815, after which a more friendly feeling arose. As the country occupied by these Indians is so similar to that previously mentioned, the character of a campaign and the unusual supplies needed would be essentially the same, and as there are likewise very few trails inland such a campaign would undoubtedly be near, if not on, the water.

KOOTZNAHOO INDIANS.

In regard to the spelling and pronunciation of the name of this tribe various ways are employed, arising from a difference in the interpretation of the sound by different individuals, owing to the extreme difficulty of learning the language. It has been variously spelled Kootznahoo, Koutznou, Kootznoo, and Kooshnoo, which, in almost each case, would convey nearly the same sound. The tribe is divided into two bands, the Kootznahoos proper and the Neltooskins, each of which is composed of many families, and occupies a separate village on the western shore of Admiralty Island between Point Gardner and Point Retreat. The Kootznahoos have their principal village near Kootznese Head, at the mouth of Hood's Inlet, while the Neltooskins, about two hundred and fifty in number, live about 12 miles south of this. The country, like that previously described, is mountainous and rough, thickly covered with timber, and surrounded in every direction by water. The run from Dixon Entrance could be made by a moderately fast steamer, in from eighteen to twenty hours. This region abounds in various kinds of game, the ones principally hunted by the natives being deer and bears. The soil is generally moist, thickly covered with moss, and not especially adapted to the cultivation of the ordinary garden produce, notwithstanding which, however, the Indians raise considerable quantities of potatoes and turnips.

The houses occupied by them are built permanently near the water's edge, of logs and hewn timber. Most of them are provided with cellars, and, as a rule, are absolutely bullet proof, but would necessarily be abandoned if the attacking force were provided with the lightest forms of artillery. Regular streets, lanes, and alleys separate the different houses, which are generally surrounded by small gardens, planted in well heaped-up rows, to allow of ample drainage, as the rainfall in this region is very considerable.

Strips of bark are stretched across from the fence on each side so as to present the appearance of a net or snare to the ravens, which are very numerous and, unless some such device is resorted to, prove very destructive to anything like a garden. The adjoining waters abound in many varieties of fish, those found in greatest abundance being salmon, halibut, cod, and herring. At Killisnoo quite an extensive establishment is in operation for the curing and packing of cod and herring, and has not only proved a pecuniary success to the originators, but has given the Indians employment, and has thrown them more intimately in connection with the white people. These Indians have seen and appreciated the advantages of education, and have made numerous requests for the establishment of a school in their neighborhood, but up to this time one has not been opened.

As a rule they are industrious and willing to work, although very prone to dictate their own terms of pay, and especially apt to stop work

when injudiciously paid beforehand or when they have their employers at a disadvantage and see an opportunity of improving the terms. Their ideas of anything like a business contract, notwithstanding a pledge be given, are very crude indeed.

Besides furnishing them food, they have to rely on the water for communication with their neighbors, through the medium of their large and well built canoes, as there are very few trails inland, and these are not made use of except perhaps by hunting parties. The various kinds of fish already mentioned, grease and oil obtained therefrom, pressed seaweed, the inner bark of the spruce and a certain edible root, together with potatoes, which they raise, are their chief articles of food, independent of the white people; but they also rely on the trading stores for various other articles. Ample provision is made for the long winters by securing quantities of these same articles which are stored up in their houses. The clothes which they wear are such as are used by the whites and are universally preferred to those made of skins, notwithstanding the fact of their being well versed in the art of tanning, and could manage to get along in this way, though indifferently, in the event of their supply being cut off.

The tribe numbers from 600 to 800 souls, with from 250 to 300 men who could be considered as able-bodied. The old flint and percussion lock musket of the Hudson Bay Company is the pattern of gun most generally in use, together with quite a number of percussion revolvers and very few, if any, magazine rifles. Ammunition, as well as the various other useful articles which they buy, is obtained from Killisnoo, which place would be shut off should trouble occur with this Government, and then their nearest source would be at Fort Simpson. Each of the two subdivisions of the tribe has a separate chief, Kanalkoo being the head chief of the Kootznahoos, over whom he has not a great deal of influence, while Kahchutka occupies the same position among the Neltooskins, who, with the subchiefs as well, have great respect for his opinions and suggestions. In the event of hostilities these two bands would in all probability unite, although they might not, as a difficulty occurred between them some twenty years ago, since which time there has not been the greatest friendship manifested. The head chiefs in such an event might likewise be changed, for, in a quarrel which occurred a few years ago with the Stickeens, the tribe was led by a Kootznahoo woman, known as "Feather Legs."

In regard to the medicine men, each band has one or two, and their influence, though almost lost among the Kootznahoos proper, is very strong with the Neltooskins. These shamans are supposed to be inspired, but nevertheless are essentially mortal, and resemble the rest of the tribe so closely that a well-directed bribe, should occasion occur, would not fail in producing happy results.

This tribe of Indians, as a distinct band, have never been at war with the Russian Government, and have had but one serious difficulty with

the United States, which happened a little over a year ago. Several of the men were employed by the Northwest Trading Company on a small steam launch in catching whales, and one man was killed by the accidental discharge of a bomb-gun, used for hurling the lance. The Indians, instigated by a woman, it is said, saw in this an opportunity of gratifying their avarice, and immediately demanded two hundred blankets as a consolation for their grief and recompense for the death of this member, and, in order to make their demand more emphatic, took forcible possession of two white men, held them as hostages, and threatened to kill them unless their demands were complied with. These claims were, of course, considered absurd in every respect, and the Indians were informed that their villages would be destroyed unless the men were given up. This threat was looked upon in the light of a joke by the tribe, who had no real appreciation of the character of a gun-boat and the guns with which one is ordinarily provided, consequently they showed no inclination at all to comply. A small tug-boat was then equipped with a crew and arms from a Government vessel, and soon afterwards opened fire upon the village. At first the shots were well directed entirely over the houses, so as to allow the occupants ample time to escape, after which several of the houses were destroyed, more for the moral effect than from any desire to injure their property. After this the Indians were only too glad to listen to reason, and notwithstanding the many adverse criticisms and slurs cast upon the proceeding by numerous papers throughout the country, the general result, as attested by the white men in the neighboring country, has proved most salutary.

The Indians, without sustaining any loss of life or serious loss of property, which would necessarily have occasioned a certain amount of bitterness, now appreciate fully what the white people are capable of accomplishing against them, and since that time have not only conducted themselves more respectfully, but also now entertain a higher regard and a more friendly feeling toward the Government and the white men living in the country.

At this time the tribe threatened to abandon their houses and stores and retreat inland, but manifested no tendency to carry it into effect, which shows that such a proceeding was at least thought of, and at the same time its difficulties fully appreciated. None of the neighboring tribes joined them in this difficulty, and, in all probability, would not do so should occasion occur again, and further, would not unite with the whites as allies unless sufficient inducement were offered in the way of reward. Military operations can be conducted all the year through by water, and as all their belongings are situated so near the sea, a campaign against them, to be successful, would undoubtedly require a number of boats as an unusual campaign supply.

HOONAH INDIANS.

This tribe of Indians, whose name is variously spelled Hoonah, Hunna, Hoonyah, and Hooneak, numbers in all from 600 to 800 souls, with from 250 to 300 so called-warriors.

They have not been thrown so intimately with white men as many of the other tribes of this large family, but through intercourse with other Indians and a few traders, who have been in the neighboring country for many years, civilized improvements in manners and customs have been very generally acquired. They are naturally bright, and from their long experience in matters of trade have become very shrewd; combining this quick wit with an entire lack of scruple, a merchant with no lack of business tact would find himself sadly worsted in a trade unless acquainted with their character. In bringing about a trade all sorts of devices are employed to enhance the value of their furs, and it is said that skins of small value have even been dyed so as to represent a more valuable variety of the same animal. As a rule, they are quite industrious and willing to work for the whites, if paid sufficiently well to suit their own ideas of justice, but if provided with all the necessary comforts in the way of food and clothing they are not greatly distressed on being out of employment. During the summer of 1881 a school was established at their principal village, which was immediately well attended, its advantages being fully appreciated by the older members of the tribe, who had made many requests for one previous to this time. The tribe is separated into two villages, the larger of which is situated on the northeastern shore of Chicagoff Island, at Port Frederick, while the smaller is on the mainland directly opposite. This point is distant from Dixon Entrance a run of about twenty-five hours Their houses are well built of roughly hewn timber, near the water's edge. and, as a rule, substantial enough to prevent the passage of bullets, but would necessarily have to be abandoned should any weapons carrying larger missiles be used against them. The character of the country does not differ from that further south, being mountainous near the water and hilly inland. It is everywhere thickly covered with timber, and generally unproductive unless great labor be expended in clearing and draining. The Indians, however, do cultivate gardens and raise considerable quantities of potatoes, which vegetable holds a very important place among them as an article of food. Deer and bears are found throughout the country, and are hunted for their skins and meat. Besides this game, their chief reliance for food, except what they obtain from traders, is in fish, cod, herring, halibut, and salmon being found in abundance. Many seals are also caught in the adjacent waters, the flesh of which is likewise used as food. The fire-arms found among them are the Hudson Bay Company muskets, flint and percussion lock, also some percussion pistols of a very old pattern, but very few improved

breech-loading rifles. Ammunition, together with other useful articles, both of food and raiment, is obtained at Killisnoo, which source in the event of war with this Government would be denied them, and as there is no other point near at hand it would be very difficult for them to find another source. Traders furnish them with material for their clothes, which are, in pattern and kind, such as are worn by white men and only purchased when needed, so that, like their ammunition, would be cut off in the event of hostilities. Wealth among them is not reckoned in dollars and cents, but according to the number of blankets an individual possesses, and as these are often bought and stored away, would in consequence prove of great service could they manage to preserve them from harm during a difficulty of any kind.

Communication by land is rarely resorted to, on account of the character of the country and the paucity of trails, so that when they have occasion to make any journeys at all their main reliance is in their canoes. As with all the other Thlinket tribes the custom of holding slaves was formerly very much in vogue, but is now kept up to a very limited extent on account of the influence brought to bear against it by the whites and the difficulty of obtaining them. Formerly the struggles between the neighboring tribes being of such frequent occurrence, the unfortunate captives furnished sufficient numbers, but as these difficulties rarely ever occur at the present time, wherever the custom is maintained, slaves are secured by trade. This method was employed to a large extent, too, as testified by the Indians found among them from tribes far removed. In former times these slaves had very few rights; they could not acquire property or even marry without the consent of their masters, and were distinguished from free men by the absence of certain ornaments generally worn by the tribe. At certain festivals it was the custom to make human sacrifices, the victims for which were generally selected from among the old and feeble slaves, as the younger ones were considered too valuable, and although favorites were often brought forward, yet in almost every instance were afforded an opportunity to escape, and after the festival was over could return without fear of being punished. At the present time such sacrifices are rarely, if ever, made, and slaves enjoy almost the same privileges as others of the tribe.

Kensetl is the head chief of the tribe and exerts a powerful influence, not only over the subchiefs but the entire people. His feeling towards the whites in general is very friendly, and especially so toward the very few who live in the country. These Indians have never been at war with the Russian Government or with our own, but some time in 1860 they are said to have captured a steamer belonging to the Hudson Bay Company.

In time of war the two villages mentioned before would unite together against an opposing force, and although there are no Indians in the neighborhood who would be liable to unite with them, yet, on the other hand, would not join the whites, as allies against them, unless suffi-

cient prospect of reward be offered. A campaign could be carried on in this section all the year round, although many difficulties and hardships would be experienced on account of the cold winters. Considering the fact of their supply of food being obtained chiefly from the sea, and their homes being almost at the water's edge since the earliest times, they would experience great difficulty in sustaining themselves if compelled to abandon their houses, consequently would not retreat inland, only as a very last resort. Their canoes, in an event of this kind, would be of great service to them, so that a number of small boats would be absolutely indispensable as an unusual campaign supply.

AUK INDIANS.

A short time ago very good prospects of gold were discovered on Douglas Island, situated directly opposite the winter village of this tribe, which created the usual excitement in such cases, and served to bring into the neighborhood the same class of men who ordinarily respond to rumors and reports of like nature. Some of these men are, of course, hard-working, sober, and industrious, but the majority, as a rule, are idle, visionary, and devoid of principle, and being disinclined to work are thrown more intimately with the residents. Such was the case, in this instance, with these Indians. Living very near at hand and being attracted still nearer by the presence of the whites, they had nothing to do except to provide for the absolute necessities of life, and besides were not disinclined or in any way slow in imitating the habits of the whites; so that among other things the desire for alcohol, though perhaps not initiated, was quickly nourished, and many disturbances between individuals occurred in consequence. Gold was not obtained in the large quantities at first anticipated, so that many of the men returned. But the effect of their presence is very apparent on the tribe; some remained, however, and still occupy themselves in mining. The rush of people to this quarter of course called attention to the Indians living near at hand, so that an effort was made, in the right direction, to improve their condition by opening a school, which, however, has not yet been permanently established. Douglas Island is in the northeastern extremity of the Alexander Archipelago, separated from the mainland by a narrow salt-water channel, and distant from Dixon Entrance a run of about thirty hours.

A small town was established at the time of the gold excitement which now affords these Indians a convenient place to obtain the useful articles which traders generally offer for sale.

The country surrounding is mountainous near the water, well covered with timber, and about as productive as that situated to the south and already spoken of. It is capable of cultivation, in a measure, with considerable care and labor, so that the hardier vegetables only do well.

Game of various kinds, such as deer, bears, both black and grizzly,

mountain sheep and mountain goats, is found in moderate quantity throughout this section, and is hunted by the Indians for meat and skins. The tribe, however, is more inclined to gain a living by fishing, and indeed do depend on the water for most of their food, as many varieties of fish are caught in the adjoining waters. Salmon, halibut, and cod abound in large quantities, and are the principal articles of diet.

On account of the few trails running through the country, long journeys into the interior are rarely ever undertaken, and when occasion arises to communicate with any neighboring places, canoes furnish them their only means of transportation. These are built well and strong, and of various sizes, the largest being capable of carrying two or three tons. A canoe, in fact, almost takes the place of some one of the domestic animals which are so useful to other tribes of Indians, and to civilized races. No horses, cows, or other animals, except the dog, are found among them, and this last-named animal is employed in no useful way, except perhaps in hunting. As an article of food, were they deprived of their usual supply, it would not serve them for any length of time, so can hardly be regarded as in any way indispensable.

The tribe, whose name is variously spelled Auk and Awk, is divided into numerous separate families, each with its subchief, and numbers in all about 700 souls. Of these, from 200 to 250 are capable of bearing arms, and most of them are provided with some sort of gun, bows and arrows having long since fallen into disuse. The old style of musket formerly sold by the Hudson Bay Company is almost the only pattern of gun found among them, besides a few cap revolvers, and perhaps three or four improved rifles. The main winter village, as stated before, was formerly on the mainland 7 miles distant from Juneau, but as many of the Indians have found employment among the whites, a considerable number now live in the neighborhood of the town. Their houses, as a rule, are well and substantially built, many being provided with windows, and except for the extremely uncleanly condition which usually abounds would be far from uncomfortable.

Ammunition and the plainer articles of food, such as flour, meal of various kinds, tea, coffee, sugar, etc., are obtained from traders near at hand, which sources would necessarily be denied them in the event of trouble, unless they took forcible possession of the stores at the very commencement of any difficulty.

The head chief and two or three medicine men of the tribe exert considerable influence over the people, and are listened to with attention and respect when a difficulty of any sort occurs. They have not, however, the interests of the tribe so much at heart as to be utterly regardless of the value of presents, especially if applied judiciously for their individual use. Their feeling, as well as that of the entire tribe, is at present very friendly towards the whites living in the country, and instead of manifesting any jealousy at the approach of strangers seem very much pleased to have them come in. No time is mentioned of

their ever being at war with the Russians, and no serious difficulty has occurred with the United States, the only disturbances arising being between individuals as a rule, and generally growing out of a too free indulgence in some preparation of alcohol. In the event of actual warfare there are no Indian tribes in the neighborhood who would unite with this people, unless they themselves happened to be offended, nor are there any who would join the whites as allies unless sufficient compensation be offered for their services, and then they would be of doubtful value, as all of the adjoining tribes in this section of country live on very friendly terms. There are enough white men in the country to make a very firm and determined resistance against a general outbreak, and there are said to be one hundred Springfield rifles at Juneau, deposited by the United State Treasury Department, which would necessarily be of great service. A campaign could be carried on in the country all the year round, but many hardships would be experienced on account of the cold. Such a campaign should be provided with boats, as the Indians would keep to the water as long as possible, and would only retreat inland as a very last resort; for, unless able to carry with them supplies of dried fish, &c., they would experience the greatest difficulty in existing, especially so if in the winter time.

CHILKAT INDIANS.

The name of this tribe is variously spelled, but as regards the true way, it would be very hard to give a decided opinion, or claim one as more correct than any other; for, in that case, the same idea of the true pronunciation might not be conveyed to different individuals. A fair idea of the sound is given in the orthography used at the beginning of this description, but various other methods besides are in use, such as Chilcot, Chilcat, Chilkaht, and Chilcate. These Indians, until a comparatively recent date, have kept themselves away from any civilizing influences, and on account of the ill-feeling which they have always expressed toward white men entering the country, have always been regarded as extremely independent and warlike, on account of their leading a more active life, and venturing inland on long journeys. They are undoubtedly more warlike in their character than others of the same family, who have always lived entirely along the water's edge; and this accounts in part for their unfriendly feeling; but the fear of having their trade with the interior Indians interfered with was the prominent reason for their behavior. As traders they are equal in every respect to civilized men, and as honesty is by no means a prominent or characteristic trait among them, to deal with them successfully requires the closest attention. Trade with them has always been eagerly sought after by white men, as they are by far the wealthiest of all these Indians previously described, and through their great energy have the best furs to dispose of. Formerly all trade between the whites on the

coast and the Indians living in the interior had to be conducted through this tribe, as they would not allow white men to venture inland over their trails, which were the only ones, nor would they allow the interior natives to even come to the sea-coast. In this way they had a complete and absolute monopoly of the trade, and could dictate almost any terms they chose to both parties. Only a few years ago a party of prospectors started out from Sitka, and desiring to go into the interior toward the headwaters of some of the numerous rivers, were forbidden to proceed, and had they persisted would undoubtedly have been subject to insults, if not to positive injury. Recently, however, many whites have settled directly in the country, and although very few if any have made any journeys inland for trading purposes, still many miners have gone over the trails, being even aided by the tribe; and the so-called "Stick" Indians of the interior are seen in the villages near the trading stores.

This change of feeling was due probably to the establishment of different industries in the country by the whites, thus giving the Indians a less laborious but at the same time as lucrative an employment, and the gradual breaking up of the monopoly of trade. This trade with the interior is not yet abandoned, however, as these Indians still continue to make their journeys of fifteen to twenty days' duration, going up to the very head of navigation in their canoes, then strapping the trading material on their backs, and walking until water is reached on the eastern slope of the divide. Here again they use rafts and canoes to carry them to the different villages, and come back loaded with furs. As a rule they are somewhat below the average height, and generally of a frail build; yet with all this they carry a load of 100 pounds without difficulty, and travel over 15 miles during the day. In disposition they are cheerful, being generally fond of jokes, especially so when directed against a single member. They are very avaricious and selfish, even among themselves, no favor being done for each other without sufficient remuneration be made. The territory which they occupy is situated in the extreme northeastern extremity of the Alexander Archipelago. It is on the mainland and at the head of a long salt water inlet called Lynn Channel. This point is distant from Dixon Entrance, for a moderately fast steamer, a run of about thirty-five or forty hours. Near the head of Lynn Channel several small streams find an outlet in the sea, and along these streams were formerly built the permanent villages of the tribe.

Since the arrival of whites among them many of the Indians, as is usually the case, have moved their houses near the trading stores, &c., so as to be more conveniently situated, being employed in many different capacities by the white men.

During the past year two salmon canning establishments were started at Pyramid Harbor, situated near the head of the channel, and a great number of the Indians, though not yet employed in the more skilled branches

of this industry, have found work of various kinds. They can hardly be considered as faithful workers, for they resort to every possible plan to lessen the quantity of work, and at the same time command the same reward; and have been known to steal wood after selling it, and then dispose of the same again as a new lot.

The surrounding country is very mountainous near the sea and hilly inland; everywhere thickly covered with timber, and as a rule very moist, so that in order to cultivate any gardens at all great labor has to be expended in clearing and draining; with all the labor only the few common and hardy varieties of vegetables can be raised, owing to the short season of warm and dry weather. Considerable game is found throughout this region, such as deer, bears, and mountain sheep, and are hunted by the Indians not only for their meat but for their skins as well. From the wool of the mountain sheep very handsome blankets are made by the women of the tribe, which, besides being warm and comfortable, are dyed in bright colors and prove very attractive to the eye. This art is not peculiar to this tribe alone, but they are said to be much more expert, not only in the manufacture of these, but in carving and working in silver, than many of the other branches of this family. Various kinds of fish are found in considerable quantities in the adjoining waters, salmon being caught in such quantities as to have attracted the attention of white men as stated before, though the venture has not, as yet, proved entirely successfull. Trading stores are in operation at these places, however, so that the tribe has every opportunity of providing itself with the various useful and necessary articles, both of food and clothes.

The supply of ammunition and the many other articles obtained in trade are secured from the stores at Pyramid Harbor, which sources would be denied them in the event of an outbreak against this Government. Civilized clothes have been universally adopted by these people, who as a rule buy the material and then cut out the different garments themselves. Should they be denied the opportunity of securing their usual supply of cloth, very little inconvenience would be experienced after a little time, as they have an abundance of furs and are masters in the art of tanning; and besides, many of the different members of the tribe reckon their wealth by the great number of blankets which they have stored away and could make use of in an emergency.

As regards communication between neighboring places, these Indians, though thoroughly versed in the art of building and managing their canoes, do not depend so much upon them for transportation as the other tribes previously mentioned, on account of their journeys taking them inland, where other means have necessarily to be employed. The dog is their only domestic animal, and besides being useful in hunting is occasionally made use of as a pack animal, though by no means to such an extent as among the more northern tribes. The trails which they make use of in these journeys already spoken of, are not very well

marked or by any means free from obstacles, so that in the transfer of a considerable number of men with their belongings a guide would be needed, and considerable work be required in improving the way. As many or all of them cross quite a high range of mountains, a portion of the distance is covered with more or less snow all the year around, which changes in amount according to the season of the year; consequently only after making several trips at the different periods is one capable of stating exactly where the best road is to be found. These Indians are divided into two separate branches, as it were, with a distinct chief over each, but in manners, customs, habits, &c., are exactly alike, and in time of war would both unite against an opposing force. The Chilkats proper have three permanent villages, which are situated in the immediate neighborhood of Pyramid Harbor and at no great distance from each other. The Chilkoots, the other division of the tribe, have one village situated permanently in the Chilkoot Inlet, which is a continuation of Lynn Channel, and affords ample water for the accommodation of very large steamers even. Several of these villages are built near a flat shore, and although the ebb and flow of the tide is not excessive, yet at low water an approach is impossible except for canoes of the very lightest draught. This is a wise provision whether brought about with a motive or not, for the shallow water would prove very embarrassing to the successful management of boats either in approaching or even retreating should occasion demand.

The entire tribe numbers about 1,000 souls, or exactly 981 according to a census of Lieutenant Symons, United States Navy. Among these there are between 300 and 400 able-bodied men, capable of bearing arms and prosecuting an active attack or defense in case of hostilities. The old Hudson Bay Company musket is the pattern of gun most universally found among them, yet quite a number are provided with double-barreled shot-guns, loading at the muzzle and of a very small caliber, so that a bullet can be used with almost the same freedom as shot.

With these very poor weapons these men are very successful in securing game, which can be accounted for by their great energy and an apparent ignorance, certainly a disregard, of any feeling of fatigue, even after climbing the highest and steepest hills, mountains, and cañons in the shortest space of time imaginable. The two divisions of this tribe, though at present friendly, have not always been on such intimate terms; in fact some years ago each had separate trails into the interior, the use of which was refused members of the opposite branch. Each division as previously stated has its own head chief, who individually exerts a great influence over the subchiefs and the many members of the tribe. Shotrich, signifying "hard to kill," is the name of the Chilkat chief, a very dignified and venerable old man, who ordinarily dresses well, but on important occasions puts on a very excellent suit of blue clothes with brass buttons. These, together with quite a large scar on his cheek, give him an air of great importance and quite

a military bearing. The head chief of the Chilkoots is Don-nah-wauk, signifying "silver eye;" he also is considerably advanced in years but is greatly respected by his entire people. The feeling of these two men, as well as that of the entire tribe, towards the whites in the country is in every respect friendly, and at present do not seem at all opposed to their coming in. On account of their superior numbers, however, and the very few whites dwelling in the region, their behavior is not always what would be desired. Especially is this the case when they are under the influence of liquor, when they become at times very insolent. These Indians have never had any serious difficulties with the United States, the only disputes which have occurred being in regard to matters of trade, and as their power and intention of doing injury was respected by the whites, no great effort was made to enter their territory when they refused admittance. Since the refusal to allow the prospectors to enter the interior country, they have not only allowed several other parties to go through, but have hired themselves out as packers of the numerous and heavy stores generally carried by parties seeking the interior.

As early as the year 1851 a difficulty occurred with the English, who had established a trading post a great many miles distant from their homes, in the interior of the country. This trouble is said to have been instigated by the Russians, which is not very probable, however, as the Indians had a motive in acting as they did, on account of jealousy in matters of trade. They had been, and were carrying on a trade with the Indians living along the Yukon River, even below the mouth of the Pelly, when the Hudson Bay Company established a trading station at Fort Selkirk. This of course presented a serious opposition to their trade, and instead of resorting to the civilized method of reducing rates the Indians considered a confiscation of the goods and demolition of the buildings the best and quickest way of again asserting their monopoly. At this time a Mr. Campbell was the agent for the company, who, with a few men under his employ, were tied while the store was being plundered, and allowed to depart unharmed after the Indians were satisfied. The buildings were then set on fire and completely destroyed, and have never been rebuilt by the English. As will be seen, most all their troubles have occurred in consequence of an interference with their trade, but now, having seen the advantages of intercourse with the whites, they not only conduct themselves more respectfully but do not deserve the reputation of being so warlike or bloodthirsty in disposition. They have the utmost respect for a naval vessel, many of the men having served short enlistments, and are willing to listen to any terms dictated by the commander thereof. In the event of a universal outbreak against the Government these Indians have the will and power to not only make a very determined resistance, but commit considerable damage before any successful operations could be carried on against them.

In carrying on a campaign against them, their villages would necessarily be first considered. These they would have to abandon if artillery were used against them, and, unlike most of the Indians previously spoken of, they would very probably retreat inland, where it would be very difficult to follow on account of a lack of transportation. The trail ordinarily followed being too difficult in places to permit the employment of pack animals, provision should be made at first to prevent a retreat in that direction.

There are no Indians in the neighborhood who would unite with them as allies, nor, indeed, with the whites, unless well rewarded.

TAHK-HEESH INDIANS.

Very little has been known of these Indians until a very recent date, on account of whites being prevented from entering their country and they themselves being kept away from the sea-coast by the Chilkats, with whom, as previously stated, they carry on a considerable trade. It was supposed that they must be in considerable numbers, not only because represented as such by the Chilkats, but on account of the quantities of furs which were brought out in the trading trips undertaken at different times during the year. As no definite idea could be formed of the length of the journeys except from the number of days consumed, it was, of course, not known whether one village or several were visited, or whether several distinct tribes did not furnish the furs. On account of this great lack of reliable information the name given to this tribe by the Chilkats, namely "Stick," is the one by which they are most generally designated; in fact, this apellation is used when speaking of any of the interior Indians. Another name, though less frequently employed, is Si-him-E-na. Among themselves they are known by the name employed at the heading of this description, which circumstance is the authority for its use in this connection.

The tribe, as such, can hardly be said to exist, for instead of being united into one or more villages, it is divided into a number of families, each of which is far removed from another, very much as settlers in a frontier country. As far as is known they never unite for the performance of any ceremonies or dances, and have apparently no bond of union whatever, each member of the tribe being as important as any other. To show to what extent the different members of the tribe are removed from each other, it may be stated that they were first met at the Chilkoot village, previously mentioned, and last seen only a short distance above Fort Selkirk. At this last-named place is a small village, unoccupied at certain seasons of the year, which is considered as belonging to this same tribe. Between these two places, so far removed, only a few habitations were met with, none of which were large enough to accommodate more than two families at the most. On the stream which unites Lake Tahko and Lake Marsh is a substantial looking house built

of logs and hewn timber, with a roof made of bark, presenting quite a civilized appearance in every respect, and evidently the work of an Indian who has had more or less intercourse directly or indirectly with white men. The country over which these Indians wander is very mountainous throughout its entire extent, and presents generally a very barren appearance. About the only timber found is a variety of pine, which can hardly be said to flourish, especially along the chain of lakes, for it grows up a certain height, and then dies, apparently from lack of nourishment, on account of the very rocky nature of the soil. Immense forests of these small dead pines can be seen stretching everywhere in the distance. At certain points they attain a larger size, but are rarely ever seen alive of any great diameter. Very little underbrush exists except close to the water, and there is a great scarcity of all sorts of berries. Game seems almost unknown throughout this region, except bears, principally of the black variety, mountain sheep, and small birds, such as ducks, grouse, &c., which indeed do not abound in any quantities. As the lakes are passed the country presents a less barren appearance; the trees grow larger, and other varieties besides the pine are found. Besides bears and the small game mentioned before, moose are also found in considerable numbers. Very little, if any, fish are caught up near the beginning of the chain of lakes, but down farther, more especially in the streams connecting the different larger bodies of water, salmon abound and are caught in considerable quantities by the natives, who apparently subsist almost entirely on them, the winter supply being dried in the sun without salt, and stored up for use when needed. Besides salmon quantities of grayling abound, which are disregarded by the Indians, who take no pains to secure them, being unfamiliar with hooks, and they are too small to be captured with the spears which are employed by them in catching the salmon. These spears consist of three points, the middle one of which is made of iron, straight and sharpened at the point, while the two on each side are of bone, and barbed with an old nail or other small scrap of iron. These are all separate from each other, and when in use are fastened to the end of a long pole cut especially for the purpose. Small seines are also used in addition to the spears. The appearance of the Indians correspond very closely with the character of the country, for they are the most abject looking beings imaginable. They are clothed in a combination of civilized and native clothes; the shirt generally has the appearance of having been made in accordance with the plan used by the whites, while the pants are of buckskin, the covering for the foot being continuous with the rest of the garment.

In stature they are not much below the average, but invariably present a most cadaverous appearance, as if only half nourished. Notwithstanding this apparently weak condition, they are capable of carrying large packs, equal in amount to those borne by the Chilkats.

Whatever they obtain in trade, such as cloth and articles of food, comes to them through the Chilkats, and they themselves also make journeys to the trading stores at Pryamid Harbor. When an Indian trader comes into the country he gives notice of his presence by building a large fire, the smoke of which can be seen at a considerable distance, and if there are any Indians in the neighborhood they respond to the signal in the same manner. The old flint-lock musket, formerly sold by the Hudson Bay Company, with a few pistols of equal crudeness of make, are their only fire-arms; and as their ammunition is obtained in the same manner as their other necessary supplies an outbreak of their entire number would not be very formidable, unless there are numerous families of this tribe, living elsewhere than along the headwaters of the Yukon River, which is not very probable. Their entire number does not certainly exceed fifty altogether. Communication is confined almost entirely to water and is effected by means of rafts and canoes. The last named, on account of the scarcity of timber, are very poorly constructed. The log being originally too small to make a canoe of sufficient size, a piece has to be bound along the rim to give greater depth.

In a military sense, this tribe could be almost disregarded, being so few in numbers and having so little union as to be unable to cause any serious difficulty.

A-YAN OR AI-YAN INDIANS.

Before leaving Fort Selkirk several of this tribe came to meet us with the information that their village was only a few miles below, and that we would be perfectly welcome. It is situated just 12 miles below the mouth of the Pelly River and is apparently very temporary indeed, for the least possible work seemed to have been expended on the houses, which were made of brush and covered above with moose skins.

The tribe lived here, or in the immediate neighborhood, during the warm season, when the salmon are running in the river, and scatter out during the winter, subsisting on game, which abounds in great quantities. As well as could be determined, no provision is made for winter by drying and storing away fish, as is the custom with many other tribes. But the fish, though secured in abundance in the early summer, are generally entirely consumed before the village is vacated. The tribe numbers about two hundred souls altogether, and is divided into numerous families with several members each. The men are almost universally provided with fire-arms, which are mostly double-barreled shotguns of small caliber, which carry shot and bullet with almost the same accuracy. Bows and arrows have not been given up entirely, though in use chiefly among the younger members of the tribe, who are not able to obtain guns.

The Indians are of medium size and apparently good natured and kindly disposed towards the whites, none of whom have settled in their

country, or even venture there for trading purposes, although two years ago a steamboat went within a few days' run of their village. As long as the white men comply with their demands there would be no difficulty experienced, but as they are almost the worst beggars in the world these requests have necessarily to be often disregarded. The chief of this people, called "Kon-itl," is an old and dried-up individual, who probably begs more than any other member of the tribe, and would resign his authority over the people for a large sized piece of tobacco. Civilized clothes are in use almost universally, although leg coverings of moose skin are generally worn instead of trowsers. The supply of useful articles, such as ammunition, plain articles of food, &c., is obtained from several different sources.

The Chilkats, since the earliest times, have traded with these Indians, and obtained from them their best furs. The English up the Pelly River, furnished them formerly with many articles; and during the past few years there has been a trader, who has lived during the winter about 150 miles further down the river. They do not buy many articles of food, but live almost entirely on fish, meat, and a sort of wild pea, which grows quite abundantly throughout this section of country. As long as they have plenty to eat nothing seems to disturb them at all, and they rarely ever manifest any desire to improve their condition by adopting civilized methods of living and working. Considerable journeys are made by them, both up and down the river in their canoes, which are made of birch bark, and as a rule perfectly modeled, being very light and at the same time quite strong. The great skill displayed in the construction of their canoes seems to be entirely exhausted there, for throughout their camp were no useful articles whatever, except an occasional wooden spoon or birch basket of the rudest make.

The adjacent country is mountainous, and abounds in game of different varieties, such as mountain sheep, deer, bears, both black and brown, and moose. The last named animal is found all along the river and furnishes almost all the meat that is eaten by these Indians. The only domestic animal found among them is the dog, which in the summer is of comparatively little use, but during the winter his services are not only employed in hunting, but in drawing sledges, and in even packloads on his back. As a rule, however, a number are hitched to a sled and considerable journeys made over the frozen river, so that their dogs are almost as valuable to them as their canoes, and especially so when the severity and length of the winter are taken into consideration.

As far as is known these Indians have never been at war with the neighboring tribes, with whom at present very friendly relations exist, and as white men have never ventured into their country for any length of time no difficulties have occurred with them. They are not what might be considered as honorable or even brave men, for they would not dare to approach a white man with the intention of doing him an injury, un-

less in considerable numbers, but would not hesitate to take advantage of one when he least expected it.

They are very superstitious, and have almost implicit confidence in the sayings and predictions of the "shaman," who, as a rule, is a good for nothing individual who gains an easy living by thus taking advantage of their fears.

The territory occupied by this tribe and the Tahk-heesh as well lies entirely in the English possessions; consequently they are of importance, in a military sense, only in respect to the aid they might furnish other tribes who live near the boundary line. The native name of the summer village spoken of before is Ka-Tun.

TAKON INDIANS.

Directly opposite Fort Reliance, a trading post of only two or three log houses, and situated near the boundary line between Alaska and British America, and in the latter, is an Indian village of considerable size. The houses are not substantially built, being of logs and brush piled up, and are placed almost at the water's edge. This point is distant from the A-yan village, mentioned before, about 150 miles, and as the current in the river is quite rapid the journey down stream can be made in less than twenty-four hours without much exertion with oars or other propelling power. If occasion required a trip in the opposite direction not only much more labor would be necessary but much more time would be consumed, as boats would have to be "tracked," the current running about 3½ to 4 miles an hour. The Indians, in their light canoes, keep well towards the shore, in fact as near land as possible, and push themselves along by means of two small sticks held in the hands and used like poles. In this way quite a fair speed is maintained, but not a great distance accomplished during the day, as these Indians, like many others, are generally opposed to violent exercise of any kind in which there is any element of work.

During the past few years a trader in the employ of the Alaska Commercial Company has lived among this tribe, and a steamboat has likewise made several trips to their village, so that they have had opportunities of providing themselves with the many useful articles of food and clothing, and have thus been thrown in direct intercourse with civilizing influences.

The tribe numbers about 100 souls altogether, with from 30 to 35 able-bodied men who are capable of bearing arms. The gun used by them is the double-barreled shotgun, spoken of before, and most of the men have from one to three of these, while some are provided with Henry rifles, although there are very few of these. They are poorly supplied with ammunition, having very little on hand at one time, and their only possible sources are the steamer and trader previously mentioned, the Chilkats, and Hudson Bay Company post on the Porcu-

pine River. During the winter these Indians wander about, occupying temporary houses of moose skins, which they carry with them, and move from place to place according to the amount of game found.

The country is quite well timbered, but the soil is everywhere covered with a thick moss, which protects the ground beneath, so that only a little distance down the ground remains frozen all the year round.

Caribou and moose abound in quantities throughout this region, and furnish the tribe almost their only means of subsisting, except the root of a small vine, containing considerable sugar, which is largely eaten. Quantities of rabbits are also found during the winter and in sufficient numbers to sustain a few men, or at least furnish sufficient fresh meat to guard against any chance of disease, if due care be observed in other respects. Salmon is about the only fish caught to any extent in the river, and as the season only lasts during July and August of each year they are not depended on for food only during those months, and are not dried and stored away for consumption during the winter.

Communication by water is effected by means of canoes, as stated, and also by rafts in going down stream, and by land by dogs, which are made to pack loads during the summer and draw the sleds in winter. White men's clothing has been pretty generally adopted by these Indians, who obtain the cloth and other material from traders. If their supply should be denied them they would experience no embarrassment, as skins of different kinds would then be used and no trouble would be found in obtaining them in sufficient quantities.

The head chief of the tribe is called Chil-tah, who has always manifested a friendly feeling towards the whites and has considerable influence over the tribe. Although this should not always be relied on, these Indians are more under the influence of Christian religion than most others on the river, Indian missionaries having been among them from time to time, and they would have great influence both in preventing war and securing peace. There are several of the so-called "shamans" among them, two of whom have acquired considerable notoriety on account of their influence. One called Ee-nuk is especially well known on account of his vicious temper and his great inclination to stir up the remainder of the tribe into committing various wrongs against the trader wintering at their village. "Joseph" is the name of the other man, but he does not have as bad a character as the first one. The influence of these individuals over the tribe is very strong, but as they practice this art as a means of living the interests of the tribe are by no means foremost in their hearts, consequently well directed bribes would not fai in good results.

In the event of difficulties arising with these Indians the only allies liable to unite with them is a band of this same tribe, not included in this description, who number about sixty and live over towards the headwaters of the Tananah River. Allies against them would be very difficult to secure in this section of country.

In character these Indians are not at all brave or manly, but on the contrary are great cowards, and notwithstanding their many expressions of contempt for the white man and his way of living, yet they have great respect for his power. One determined man could awe a crowd of them if they considered him capable of inflicting injury, but instead of making any resistance at such a time they would wait until he was off his guard. As a rule they are willing and very glad to have the whites come into the country on account of convenience in trading their furs; but last year, on account of their idleness, sufficient game was not secured to satisfy their desires, so that their demands became so frequent for charity and with such insolence that the trader considered it more prudent to remain away this winter.

To carry on a campaign against them troops would have to be brought in by the way of the mouth of the Yukon, and among the unusual supplies needed would be clothing for winter wear, such as is made by the natives living near the mouth, and for use in summer small-meshed mosquito bars as a protection against the myriads of gnats and mosquitoes which swarm about constantly, and to a man weakened in any way as by wounds or sickness, would very much lessen his chances of recovery.

In regard to the name of this tribe, "Takon," which is adopted at the beginning of this description, is, as well as was determined through our interpreter, the name by which they are known among themselves. Among the Ingalik tribes, living further down the river, they are called "Tchi-cargut-kotan."

The native name of the village itself is Nu-kla-ko, consisting of about twelve houses, which seem hardly capable of holding all the Indians; for although the number as counted by Mr. John McQuestion, a trader, was between eighty and eighty-five only, there were evidently many others from the Tonanah country visiting at the time of our meeting them.

KLAT-OL-KLIN INDIANS.

This is a name given to this tribe of Indians by a trader's half-breed Russian interpreter who has lived among them for several years; on what authority is not known, for, although our interpreter could not be considered entirely reliable, yet, as well as could be learned, they, like the Indians just described, call themselves Takon. In manners, customs, and language, they resemble the Takons very closely, but as a rule seem rather more particular in regard to their personal appearance, being somewhat cleaner and better dressed. The village itself, consisting of seven very rudely-built houses, is about 85 miles below Fort Reliance, the river between the two places cutting through a mountain range, and confined generally to one channel, being unlike the country above and below, where many islands and gravel bars present serious obstacles to the successful navigation of steamboats and other craft. About a mile

below this point are several well-built log houses formerly occupied by traders, but have since been abandoned as unprofitable, it being considered wiser, if possible, to make the Indians come to a store rather than locate it in their midst, on account of the inherent tendency among them to covet everything they see. Among the whites the Indian village is known as "Johnny's" after the head chief, while the site of the trading station is known as Bell Isle; at present their ammunition and other articles of food and raiment are obtained from traders who ascend the river in the early summer, and until this winter one has remained in the immediate neighborhood, so that the bad behavior of the Indians at Fort Reliance will interfere with the general welfare of all the tribes living in this section. They were either well supplied with ammunition, or very prodigal of their small store, on account of their expecting the speedy arrival of the steamer, for our approach, as was general all along the river, was hailed by a perfect fusilade of blank shots.

Among other customs of the whites, which are imitated by all these Indians, is that of shaking hands; a small matter in itself, but one that is sincerely regretted when required by every man, woman, and child in the village. In winter these Indians leave the river and scatter out in different directions in quest of game, principally moose and caribou, which, in reality, provide them with their only food. Besides these, however, great numbers of bears are found, particularly of the black variety; also deer, mountain sheep, and rabbits.

While the salmon are running in the river, they settle down at their village, which is situated close to the water's edge, and do nothing but fish. Great skill in the management of their canoes, and keenness of sight are required in order to obtain the supply of fish as they do. A dip net attached to an oval-shaped frame, and the whole fastened to a pole about 10 feet long, is their only means of taking the salmon. One of the family, generally a woman, stands up on the bank, and observing some sort of ripple, or disturbance in the water, which would be totally disregarded by an inexperienced eye, points out the spot to the man, ready, at the water's edge, to start out in his canoe. He then paddles quickly out to the place, sinks his net well down in the water, and generally manages to secure the fish. Whether successful or not he returns to the shore ready for the next fish to appear in sight.

These Indians number about 100 souls altogether, with from 35 to 40 men, who are what might be called able-bodied. They are as a rule all armed with double barreled shotguns, of small caliber, such as have been spoken of before. A very few of the men have the improved rifle, but as the introduction of cartridges into the territory is prohibited, much difficulty would be and is experienced in obtaining a sufficient supply, consequently these guns are very little sought after.

The country along this portion of the river is quite mountainous and well covered with timber, principally birch, spruce, and poplar, both of which grow to a considerable height. The soil is everywhere covered

with a thick moss, which stays moist and boggy through the summer. About the houses at Belle Isle, where the trees had been cleared away, several kinds of grass were growing luxuriantly, reaching a length of about 2½ feet, which would show that with due care and labor certain hardy varieties of produce can be raised.

This band of Indians are very kindly disposed toward the whites, and seem delighted to have them visit their village, more on account of what they can procure from them than from any other reason, as they, like most of their brethren in this part of the country, are continually begging. Anything in the shape of useful articles is acceptable to them, and such things are preferred in every instance to beads and like ornaments.

Tea and tobacco are the articles generally asked for, so that if every demand were responded to for those articles a large enough supply could not be carried into the country. In the event of trouble with this band the only Indians liable to unite with them are those living at Fort Reliance, and likewise a small village below them on the river. The only difficulty that could occur, however, would be through some misunderstanding in trade, or on account of the avariciousness of the Indians, who besides many other faults are very improvident indeed, and when their supply of food is not very accessible, the trader, if one is living in the neighborhood, is expected to provide for them. No white men have settled in the country, and the only intercourse which these Indians have had with civilized men has been with a few traders and some miners. The last-named individuals have not stopped long with them, however, as the prospects of rich discoveries were never so flattering as to warrant any very lengthened stays. The discovery of gold in paying quantities is probably the only incentive for men to enter the country, and were it not that indications are seen all along the river white men would probably never venture in.

To carry on a campaign against this band, troops would have to be brought in by the mouth of the river, and should be well provided with some sort of protection against mosquitoes.

TADOOSH OR CHARLEY'S INDIANS.

The village occupied by this band of Indians is known among the whites, who ascend the river to trade, as "Charley's" village, and is situated directly on the river, about 75 or 80 miles from the village previously spoken of as "John's;" it consists of only five or six houses, which are built after the general plan of all the native houses on this portion of the river, of sticks and brush; and with just enough room to accommodate the various members of the family, including the dogs, which are by no means few in numbers; had they any other domestic animals to provide for, doubtless an entirely different style of structure would be adopted.

The dog is to them what the horse and other beasts of burden are to the civilized races; and is not only used to pack on his back, and draw sleds in winter, but is employed like the proverbial canal mule in drawing their canoes up stream, not, however, when a single member wishes to go on a journey, but when any number of the family moves, with the various household goods, &c. These Indians number in all from 40 to 50, and undoubtedly belong to the same tribe as those living at Belle Isle and Reliance, for they resemble them in almost every particular, and have separated doubtless on account of some difficulty which occurred years ago. All the men are armed with the same kind of shot-gun as other Indians along this part of the river, and their ammunition is obtained from the same source, which is principally the steamboat, which makes the annual trips already spoken of. This point on the river is about 130 miles from Fort Yukon, and is at the limit, as it were, of the hilly country; for only a few miles beyond the country flattens out, and the river divides up into almost countless channels, with islands of various size between. Considerable game is found in this section, moose predominating in numbers, and furnishing to these Indians as well their main supply of food during the winter. In summer they live in their village on the river and devote themselves to catching salmon, which run in sufficient quantities to feed them at this time, but their means of catching them are too primitive to admit of their being caught in such quantities as to furnish them a winter's supply.

In regard to the timber of this region, it is the same as that spoken of previously, the birch being the only wood used in the manufacture of any useful articles, principally in the construction of their canoes, which are very light, durable, and beautifully shaped. A frame work is made of a light wood, generally birch, which is securely fastened together with moose-skin string or roots of the spruce, split. A covering is then made of birch bark, fastened, wherever joints occur, with stitches made by splitting small spruce roots, which are very flexible, and the cracks are then closed with pitch, put on with a firebrand, in the same way that solder is used. White men's clothes are universally worn by these people, who buy the cloth from traders; but should the supply be cut off, no great difficulty would be experienced in finding a substitute, as they can procure sufficient furs to answer every purpose of dress without very great exertion.

The head chief of this band is known among the traders as "Charley," and his feeling toward white men is very friendly. His influence over the tribe is as a rule quite strong, but generally these men are quite independent and only consult their own individual interests, consequently any bribe or reward which would improve the pecuniary condition of single members would be accepted without regard to the general welfare of the remainder of the tribe. They hold very friendly relations with the bands of Indians living above and below them on the river, and are particularly pleased to have white men come among

them. At the time of our meeting them there was a miner living at their village waiting for the arrival of the steamboat, and he spoke of having been very kindly received and hospitably entertained.

This, as well as the other tribes of this section, have peculiar ideas of right and honor, for while apparently never hesitating for an instant about making away with anything which happens to please them, provided it be not stored away, yet if "cached," as it is called, away from the owner, they will not touch it, and are said to regard this with such respect as to almost starve before helping themselves to any food so cached.

In a military sense these Indians are of little importance on account of their small numbers, and even should they join any neighboring tribes as allies, they, as is shown, would not swell their ranks very largely.

In regard to the name which is used at the heading of this description, it is one employed on the authority of a white man, who had lived among them some time; but this name is not very generally in use, especially among the whites, who generally speak of them as Charley's Indians.

FORT YUKON INDIANS.

The principal village of this band of Indians is at Fort Yukon, an old station of the Hudson Bay Company, which was abandoned shortly after the purchase of the territory from the Russian Government—as soon, indeed, as it was determined that the site was on American soil. All that remains of the old post are three of the bastions and a portion of the stockade, with a few of the buildings, all of which are slowly disappearing as firewood for the steamboat. This is the only portion of the river within the Arctic circle, the few miles on each side of the old post, and would hardly have been recognized as in such a latitude, at the time of our visit, for the weather was extremely warm, in every respect like that of the temperate region in summer. In reality these Indians have not what might be called a principal village, for they rarely stay any length of time in one place, but wander over the country between the Porcupine and Yukon Rivers.

When the trading steamer is expected, they come into Fort Yukon in considerable numbers to dispose of their furs and obtain various useful articles. This section of country is entirely different from that previously drained by the river, for instead of being mountainous in every direction, is absolutely flat, with not a single hill in sight anywhere. The river spreads out into numerous narrow channels and sloughs, with a width in some places of almost 7 miles. It has the appearance of the delta at the mouth of a large river, and unless one is familiar with the different channels, different places on either bank may be passed by without in any way discovering the error.

The number of Indians of this tribe is reckoned by men who have had considerable intercourse with them, as between 100 and 110 and although much less than this number were assembled at Fort Yukon when the steamer passed, many villages, though small, were encountered above and below, the inhabitants of which belonged to this same tribe.

All the men are provided with guns of some description, the prevailing pattern being a long double-barreled shotgun of small caliber. Some few of the old Hudson Bay Company flint and percussion lock muskets are seen, however.

The country about abounds in game of various kinds, such as deer, bear, caribou, and moose, the last-named animal furnishing the natives their chief article of food. Especially is this true in winter, when the river is frozen over, and indeed no fish running up stream in any quantities. During the summer this tribe occupies villages at different points either on the mainland or on islands in the river, and devote their time to catching salmon, which is about their only food.

Civilized clothes have been very generally adopted by these Indians, who prefer such garments, when able to obtain them, to their own, which were made of moose skin and ornamented in different places with bright colored pieces of cloth and beads. Their supply of cloth and other necessary articles such as ammunition, cooking utensils, plain food, &c., is obtained from traders who ascend the river from stations below, and also from the Hudson Bay Company, which has a station some distance up the Porcupine River. In former times, before the Territory passed into the hands of the United States, Fort Yukon was one of the most important if not the largest post on the river. Certainly more trading was done here than at any other point, for Indians from different tribes came from every direction to trade, and boat-loads of goods were sent down the river as far as the mouth of the Tananah River. At the present time it is not a desirable point for a trading station, consequently is not occupied, so that this tribe, though formerly thrown very intimately with the whites, is now almost completely removed from any civilizing influences. At the time of the English occupation an effort was made to improve the condition of the tribe by teaching them the rudiments of knowledge and instilling into their minds the precepts set forth in the Bible. Not much progress was made in this direction, however, other than teaching them a few hymns, which were sung with great energy by the Indians, who had not the faintest idea of what it all meant. Being naturally fond of music they are very ready and willing to embrace any such opportunity of exercising their voices.

The English are said to have had gardens and have been very successful in raising certain kinds of vegetables during the brief but hot season. Their example has not been imitated by the Indians, however, who have apparently made very little progress in this direction. The head chief of this tribe, called Senatee, as will be seen by his photo-

graph, is quite a dignified and old individual, with a countenance by no means prepossessing. He not only has great influence over his immediate tribe, but is known by all the Indians in every direction at considerable distances up and down the river, and what he suggests is respected by the various tribes. Even the traders appreciate his power, have been in the habit of allowing him a certain amount of goods to trade for them, receiving in return a very small equivalent for their value, as the idea was not for pecuniary gain but to propitiate this man. As there are at present no white men who are living permanently in the country no difficulties of any sort can occur, but should they enter and settle for any reason these Indians would receive them kindly, for their feeling is in every way friendly. Senantee, though apparently very proud of his authority, is very kindly disposed in every respect and seems glad to deal with white men.

In speaking of small villages above and below Fort Yukon, temporary fishing villages were meant, as throughout this flat country Indians are not found at all permanently established, and the only idea the English had in establishing a post in this section was to get as far west as possible without encroaching on Russian territory. As it was, they were some distance within the boundary, as determined by Capt. Charles W. Raymond, of the Engineer Corps, United States Army. In the event of a campaign being necessary against this tribe troops would have to be brought in by the mouth of the river and should be provided with proper clothing, such as can be obtained from the natives living near the coast, and some sort of protection against the myriads of gnats and mosquitos which render existence almost unbearable during the hot summer months. In fact just as quick as the snow begins to melt they appear and do not leave until after one or two frosts.

There are no Indians who are liable to unite with these men as allies, as all the tribes throughout this region have a separate and independent existence, though a grievance of an individual tribe is generally a common one, and at present could occur only out of some disagreement in trading, as whites are thrown with them only in this employment.

TANANAH INDIANS.

About 300 miles below Fort Yukon, on the south bank of the river, there enters a tributary, which, at its mouth, appears to occupy as much space and convey as much water as the main river itself. This is only apparent, however, on account of the flat character of the country in the immediate vicinity, for although a large stream, it is nevertheless considerably smaller than the Yukon. The river is known as the Tananah, and, with the exception of the two white men, has never been explored to any extent whatever. These two men made a portage across the country from near Belle Isle, and came upon the river 700 hundred miles from its mouth. The river here was about 1,200 yards wide, and

from its general character it was considered that it must have flowed already a distance of over 300 miles. It was descended from here in a frail boat, rudely constructed, and covered with two moose skins, which was in constant danger of being sunk by the numerous sharp snags which were sticking up out of the water. On account of the character of the boat and the great difficulty experienced in stopping when it was desired a too large estimate was undoubtedly made of the distance traveled, though these figures, judging from the amount of water poured into the Yukon and the increase in the rapidity of the current after its entrance, cannot be greatly in excess of the true estimate. Another circumstance which would tend to show that the river at least extends a very considerable distance beyond the point where the white men came upon it, provided they traveled almost directly across country, is the fact that there is a portage which is used by the Indians from the White River across to near the headwaters of this stream.

The White River is ascended a distance of 50 miles, and then a journey of about twelve days is required to reach the river. It is said by traders, who have had considerable intercourse with these Indians, that during the occupancy of Fort Selkirk the Tananah Indians were in the habit of coming directly into that post without making a journey down the White and thence up the Yukon. It is thus seen that there are, besides entering the country by the mouth of the river, three different ways which are or have been used in traveling backward and forward between these two large rivers, which were used by the Indians in communicating with neighboring Indians and traders either living permanently in the country or entering it temporarily for the disposal of their goods. It is not known how long was required in the journey between the river and Fort Selkirk, but probably a shorter time than by the White River. The portage across from Belle Isle requires about ten days, and as there is no other means of transporting goods than by employing Indians to pack, except perhaps in winter when sleds might be used, great difficulty would be experienced in conveying any number of men across, without reducing the baggage, etc., to the very smallest amount possible. This tribe lives all along the river, and has generally had the reputation of being very warlike and in every way averse to civilizing influences. This is true to a great extent, for they have at different times displayed considerable jealousy towards prospectors' setting out with the intention of going through their territory, but on various occasions have expressed a great desire to have a missionary come among them, and have also been very anxious for a trader to establish a post among them. Their country being mountainous, and their life being one of activity, being passed for the most part in hunting game, makes them more inclined to war, no doubt, than other tribes, who lead more sedentary lives, and secure their food with less difficulty; yet they are by no means brave in the strict sense of the word, and like most Indians would not hesitate to take an unfair advantage of an enemy

when he had the least suspicion of any treachery. Their whole number is variously estimated as between three and seven hundred, but those who have had most frequent intercourse with them reckon their number as about five hundred. Of these, all who are capable of bearing arms are provided with a gun of some description, either a double-barreled shotgun of small caliber, in which a bullet is generally employed, or the old-fashioned musket, which was formerly sold by the Hudson Bay Company. There are very few, if any, breech-loading rifles, and are not sought after on account of the great difficulty in obtaining ammunition in sufficient quantity to supply them, the introduction of cartridges into the Territory being prohibited. They are poorly supplied with ammunition of any sort, the supply being obtained from year to year, as it is needed, from traders principally at posts on the Yukon. In the event of this source being denied them, their only other means would be from the Chilkats or Hudson Bay Company either directly or through the agency of Indians of other tribes. This is by no means an uncommon occurrence, for many of these Indians do not buy goods for their own use, but for purposes of trade, though this is by no means as common as with the natives along the Alexander Archipelago, who seem to take particular delight, as it were, in accumulating wealth in the shape of blankets and other useful articles. These Indians rarely possess more in the way of useful articles than what they carry with them, and have more or less difficulty in always supplying themselves with these. They are, as a rule, however, fairly well clothed in civilized garments for the most part, which they obtain from traders, yet being somewhat far removed from any trading post a good many wear the moose-skin coats and trousers. In the event of their being denied any chance of obtaining cloth, very little, if any, embarrassment would be occasioned, as only little labor would be required in obtaining skins and furs in quantities sufficient to provide for all. Their habitations, except among the Indians living near the mouth, are very temporary, being made of moose skins in the winter, and generally of a lighter or less substantial character even than this in summer. Near the mouth of the river some of the tribe have underground houses, such as are in use among the Innuits, and are called by the Russians "barraboras." The principal game found along this river is moose, caribou, and mountain sheep, which, besides the salmon and whitefish caught in considerable quantities in the stream, furnish these Indians in reality their only food, for were these cut off they would not be able to exist. There are very few edible roots or berries found, about the only thing used as food being the small root of a pea-like vine which contains considerable sugar, and is eaten in considerable quantity. Very little flour or other plain articles of food are bought of traders, chiefly, no doubt, on account of the difficulty in transporting it home.

Their means of communication are by canoes on the water, and by land by means of dogs, packing in summer and drawing sleds in win-

ter. Rafts are not used by them, on account of the rapidity of the current and the great difficulty experienced in managing such a craft. In regard to the subdivisions of the tribe, there are three bands on the lower 300 miles of the river, which would unite together in the event of any difficulty, and are only distinct in the fact of their having separate heads; whether there are any divisions among the Indians living further up is unknown.

The chief of the band occupying the section of the country near the mouth is an old man known as "Ee-van," who has considerable influence over the subchiefs and people generally.

The chief of the band living about 200 miles up, is called "Jack," and exerts only slight influence. Another individual, called the black "shaman," not only exercises authority over this third division, but also performs the office of medicine man among these Indians, and his influence, as such, is very strong indeed. Although it is thought that a missionary among them would completely destroy this influence, not however without danger to himself, as these shamans are very jealous of their power, and are very prone to kill the object of their jealousy themselves, or, as is often done, frighten some members of the tribe into committing the deed. At present there are no whites anywhere along the river, although only a short time ago there was a trading station some little distance up from the mouth, which has since been abandoned.

The trader who lived among them speaks of them as friendly towards the whites and the Indians living in the neighborhood, and if a man shows determination and independence in his treatment of them, there need be no fear of trouble. Individual disputes necessarily arise, and in such an event if one asserts his rights in a bold and firm way the Indian generally gives way. They have, of course, never been at war with the whites, of whom and their Government they know very little, and have the most exaggerated ideas of soldiers from pictures shown them in illustrated papers, and at the same time profess to disbelieve entirely the existence of any such class of white men. The only Indians liable to unite with them in war are some living on the Koskoquien, and a band called Too-clok, who live on a river of the same name, which empties into the Tananah from the west, about 150 miles from its mouth. Indian allies against them could, probably, not be obtained in this section of country.

The seasons would affect military operations in their country considerably, for in the summer ordinary clothing could be worn, while provision would have to be made against the extreme winter cold by providing troops operating against them with garments of fur, which are made and sold by the natives living near the mouth of the Yukon. All the rivers freeze over, so that transportation by water has necessarily to be abandoned and resort had to sleds drawn by dogs, which latter can be obtained in sufficient numbers throughout the whole region. Besides

the fur clothes, an ample supply of mosquito bars should be carried as a little protection against those pests.

The appearance of a body of troops with authority to do with this and many other tribes as it pleased would have a very wholesome effect, as there are a number of murderers unpunished, who, if properly rewarded for their misdeeds, would insure the good behavior of the remainder of the tribe for some time to come.

About two years ago a Mr. Bean ascended the river a short distance and settled there for the purpose of trading. He was accompanied by his wife; and one morning while they were sitting at breakfast, a shot was fired through the crack of the door, killing the woman almost instantly. The motive for the deed was never exactly understood, as no difficulty of any sort had occurred, and the Indians were all very fond of both parties. The Indians said that the shaman, through some influence or other, had conceived the idea that for the good of all a white man must be killed, and so instigated the murder. The man who did the actual shooting was turned over to the only trader in the neighborhood, after he was captured, but the trader being afraid of a reaction afterwards, if the man were punished, did not care to take the law into his own hands, and, in consequence, gave him his liberty.

INGALIK TRIBES.

This name is given to the various families living along the Yukon River and its tributaries, below the so-called "Ramparts," and extending about 400 miles down the river. As regards the exact limits either way it is, of course, very difficult, if not altogether impossible, to mark them, for those bands living in close communication with those of entirely distinct families, by long intercourse gradually adopt certain ways of living, and other improvements in different things over those in vogue among themselves. In consequence of this different authors would be apt to mark the limits at different places, according to the minuteness with which they had observed the smallest details in their every-day life.

From Mr. Fredickson, a trader who has been thirteen years in the territory, it is learned that the last Ingalik village is about 40 miles below the settlement called Anvik. Among the tribes living within this section, already defined, there are one or two which do not coincide in every particular with the Ingaliks proper, a fact which will be noticed further on in speaking of them individually; but they are so similar in manner of living and customs, and occupy regions so contiguous, that in this description very little regard will be paid to the minute and delicate distinctions which could be of no service in any other than a strictly scientific sense.

The country which they occupy is generally mountainous on each side of the river, well covered with timber, principally spruce, poplar,

and birch, and consists mainly of rolling plains, allied to the tundra, so-called, of Siberia, except that more or less timber abounds as mentioned before, the ground is everywhere covered with a thick grass or moss, which remains very wet and soggy all the year around, and presents great difficulties to travel unless, as it is during many months of the year, thickly covered with snow. This moss, remaining so wet, is a poor conductor of heat, consequently it protects the soil beneath from the rays of the sun during the few months that it shines brightly, so that the frozen ground does not thaw out at all. With this condition of affairs it can hardly be said to be fertile, though by constant care and considerable work in digging ditches for purposes of draining, certain varieties of produce can be raised.

At Nuklukoyet, a trading station, situated on the river, a few miles below the mouth of the Tananah, Mr. Harper, the trader there, had a garden fenced off, in which, without very much care or attention, he had succeeded in producing turnips of large size and of excellent flavor. No other vegetable of any sort had been planted, but he thought that any of the hardier varieties could likewise be made to flourish and show favorable results.

Several tributaries join the main river along this section, none of which, however, except the Tananah, are of any great size. The Koyukun comes in from the north, and is interesting in the fact that not only quite a large band lives along its banks, but from its headwaters a portage of no considerable length is made to the sea-coast, at Kotzebue Sound. Across this portage, trading goods of different kinds were interchanged between the Innuits of the coast and these interior Indians. Among other things liquor, originally obtained from whalers and other trading vessels, was disposed of to the Koyukuns, who thus became addicted to the use of alcohol before many of their brethren, and from this fact they have acquired considerable notoriety through many difficulties growing out of drunken sprees. Many of these disputes were of course trifling in character, but others were accompanied by fatal altercations.

Some distance to the westward of the mouth of the Koyukun is the Kaltag River, a small but very clear stream, which flows in a southeasterly direction, heading up in close proximity to the source of the Oonalakleet River, which flows into the sea. During the time of the Russian occupation, when Nulato, situated a short distance above the mouth of the Kaltag, was a trading post of considerable importance, the journey between it and Saint Michaels was most conveniently accomplished by means of these two rivers. This was more particularly the case in winter, when both streams were frozen over and the country generally covered with snow.

The distance between Saint Michaels and the Oonalakleet is about 40 miles, and is made in canoes along the shores of Norton Sound, or in sleds, according to the season of the year. The river is then as-

cended to a certain point, where a crossing is made to the Kaltag, and that river is then traveled down to its mouth, from which point it is about 40 miles to Nulato. Somewhat farther down the river the Anvik, a very swift stream, enters from the north, and a portage across country to Saint Michaels is also made from near the headwaters of this stream, occupying generally about five or six days, but a good Indian can make the distance in summer in three.

These rivers are the only ones of importance, not on account of their size, as the Kaltag is a very small stream, but as affording a means of communication, and one that is practicable, between the coast and the different tribes who live along this portion of the river. If resort had to be made to the journey by way of the mouth of the river, especially in entering the country; much more time would be consumed though for the transportation of a large number of men this way would be more practicable.

The principal game found in this region is moose, reindeer, and many different varieties of water fowl, such as ducks, geese, swans, &c.

During the winter the larger game is hunted, and furnishes the inhabitants their chief support in the way of fresh meat. Early in the spring the water fowl put in an appearance, and later on the fish begin to run in considerable quantities in the river. Salmon are caught in considerable numbers, but the chief reliance is in a smaller variety, called whitefish, which is obtained in greater quantities and during a longer time. Just before the breaking up of winter, before the water fowl put in an appearance, there is a season when it is almost impossible to obtain sufficient food of any kind to satisfy the ordinary wants, and the inhabitants, being naturally very improvident, do not profit by past sufferings, to store up sufficient to do them during this bad season; consequently in the past, more than at present, many have died from actual starvation.

In regard to the whole number of people comprised under the heading of Ingaliks, it is very difficult to give an estimate which would approximate the truth on account of the large tract of country occupied by them and the great number of separate villages. In one census report the number is given as about 1,250, and as many as six villages are mentioned as containing a population of over 100, while one is spoken of as containing 700. These estimates were made from the steamboat as it ascended the river, when individuals from all around assembled at different points; so that while, of course, giving a fair idea of the whole number in the region, it overestimates the number of occupants of each village; and as these are in every respect distinct from each other, much perplexity would be occasioned in the event of any disturbance arising. Though not having sufficient time to examine minutely concerning the number of inhabitants in each village, yet as our approach was, as a rule, quiet, and in every way unexpected, we did not pass a single village that could accommodate as

many as one hundred; and as it was more often the case that the inhabitants were away than collected together, the villages almost invariably presented a very deserted appearance. The whole number may be estimated safely as between 1,200 and 1,500, divided among different bands, leading lives independent of each other, except the interchange of certain articles in trade. The relations are generally friendly in most respects, but in the event of a difficulty of one division with the whites, none of the others would join this one out of pure friendship, unless the matter in dispute were one which concerned all of them as a people. Such a disturbance at present could only grow out of some trading interest, as that is almost the only industry which throws them in contact with the whites; in fact with a very few exceptions the only whites who have ever been in this region have been induced by prospects of large profits in disposing of their goods to the natives.

The only miners who have prospected this region are a party who wintered there during 1882, and they not only found the chances of becoming suddenly wealthy far from flattering, but are said to have been actually driven out of the country by the myriads of mosquitoes which swarm in such numbers during the summer season. To give something of an idea of the numbers and annoyance occasioned by these insects, it is stated as a fact, by men who have been in the country any time, that animals are often killed by them, and an argument in proof of the veracity of this statement is shown by the great sores which are produced on dogs when chained in one place for any length of time.

Many of the natives take advantage of the civilized improvements—in the shape of mosquito netting, for instance, which they use as a veil, wearing it coiled around their hats when not in use. As regards these Ingaliks as a class, they are, as a rule, of average height, tolerably well built, but slender, differing in this respect from the natives further down the river. They have long black hair and a complexion brown by nature, but often verging toward black on account of a liberal covering of dirt. In character they are generally pretty brave, but by no means inclined to war, and are by no means so upright or honorable as to hesitate to take an unfair advantage of an enemy. Avarice is a prominent trait in their character and they do not seem to have very much affection except perhaps for their children.

On account of the cold and damp climate, and the constant exposure to which the children are subjected on account of a lack of sufficient clothing, pulmonary diseases of various kinds are very prevalent. Many die of pneumonia, it is said, during the winter, and they all have an appearance as if inclined to consumption. Whooping-cough is very prevalent among the children, which of itself, and with the sequelæ, causes the death of a number.

Last winter there was a severe epidemic of some throat disease, presumably diphtheria, as well as could be acertained from the different des-

criptions. This completely desolated some families, and was particularly fatal among the younger members. All along the river numerous and recent graves were seen, often as if inclosing the bodies of whole families, judging from the amount of space included within the rough fence.

These natives are quite industrious, and as a rule willing to work, but as there is not much demand for their services they do not find much employment among the whites. They are active traders, doing much business, as it were, with the Innuits living down the river and on the coast. They exchange certain wooden utensils, skins (principally wolverine for trimming garments), canoes, and other articles for oil and skins of the tame reindeer, obtained in trade principally from the natives of Asia. The canoes, which they use themselves and trade to the lower river Indians, are made of birch bark, similar in many respects to those in use by the Indians living nearer the headwaters of the river, but they are far more substantially built and not so well modeled. They have to be built on firmer frames on account of being used on rougher water; for the river spreading out in this lower country affords ample space for the wind to create considerable commotion in the water, which would prove disastrous to any craft less substantially made. These canoes afford them during the summer almost their only means of communication, although one of the large skin boats of the Innuits, called a "bidarra" by the Russians, is occasionally seen in use among them. These are propelled by means of paddles and sails and are capable of carrying immense loads.

During the winter, which in reality is the season when they do most of their traveling, their reliance for transportation of their property, as well as themselves, is in their dogs, which are capable of making very long journeys without requiring very much food. The dog is the only domestic animal found among them, and, as is seen, answers their purpose far better than the horse or any other draft animal.

In the section of country occupied by these natives there are two white men permanently settled for the purpose of trading with them. One at Nuklukayet, or, more properly, Tananah Station (the first name being that of an abandoned post situated a short distance up the river), supplies the lower Tananah district and all the region up and down on each side of the river for a a considerable distance.

The Indians generally come in early in the year, so that they are very often collected about the post at one time to the number of 400 or more, and occupy their time in dances and celebrations of all kinds. At other times during the year single individuals come in, obtain what they require and leave, so that as a general thing, the post and its surroundings have more of a deserted appearance than otherwise.

The other trading post is at Anvik, which supplies the natives living along the Anvik River, the Shageluk section, and the country along the river, both up and down. The larger portion of the trading material is brought up on the steamboat at the time of its annual trip in the

summer, although some little, especially articles of food, is brought over the different portages by means of dogs and sleds in winter. From these places the natives obtain their supply of ammunition and other articles, such as cloth of various kinds, for making their clothes, which are in pattern such as are worn by civilized people during the warm weather.

In winter they wear clothes of reindeer skins, which, as stated before, are generally obtained from the natives living nearer the mouth of the river, who seem to be much more expert in the manufacture of their clothing than the Ingaliks. Should these two places be abandoned the only other sources of obtaining useful articles would be from whites living further down, directly or through other Indians.

Considerable flour is disposed of to these people, who in many ways have adopted different civilized improvements. All their uncouth and rude cooking utensils have been very generally set aside, and those obtained from the whites adopted in their places. Tea and tobacco are the articles most sought after, and it is the rarest exception for a trade to fall through if either of those articles be offered in exchange for what is considered as an equivalent in value. The habit of drinking tea was acquired during the Russian occupation, and this race has left its imprint on the inhabitants in many other ways. Wherever the Russians had settlements many of the natives were employed by them, and they were invariably treated with the utmost harshness and cruelty, and had it not been from fear many and serious difficulties would have occurred; in fact many murders were indeed committed, oftentimes innocent parties being the victims.

The subdivisions of these Ingaliks are not made, generally, with any regard to a difference in the habits, customs, ceremonies, &c., as they are all very much alike in these respects, but simply from the different parts of the river which they occupy have they derived different names. For instance, those about Nuklukayet are known by the same name, and so on with the Kaltags, Nalatos, Shageluks, Anviks, &c. As regards those natives living along the Koyukun River, and called by that name, they, by some authors, are not considered as belonging to the Ingaliks, although they speak the same language and resemble them in very many respects. They are, however, considered more warlike, which might be from the fact of their leading a more active life, and by some are considered the most attractive looking Indians of this portion of the country. This last consideration, of course, is a mere matter of fancy, and they might be far more pleasing to the eye than many others, without even then producing a favorable impression.

Each subdivision, or more strictly speaking each village, has its head chief, who is, however, not looked up to with the same veneration as among other tribes, for these people, being very superstitious, have far more respect for the medicine man, or shamans as they are called among them. These individuals are generally very shrewd, and exercise their

talents in curing disease, not for the good of the people, but as a means of living for themselves, consequently they are oftentimes very unscrupulous, and with such superstitious minds to work on, often do a great deal of harm onaccount of thus practicing their tricks and mysteries as a trade; bribes, if judiciously offered, would undoubtedly accomplish all that was required.

The habitations which are occupied by the people are quite substantially built of logs and hewn timber, generally near the water, and are only partially bullet proof some are partially underground, the last named being met with more and more frequently as you approach the region occupied by the Innuits, from whom they have undoubtedly acquired this method of building. The language spoken by the Ingaliks is one peculiar to themselves, and in reality is the main mark of distinction between them and the natives living both above and below them. Many of them have learned considerable of the Russian language, which, combined with their own tongue, forms a patois which is employed in trading. No attempt has been made to improve the condition of these natives by the establishment of schools before or since the departure of the Russians, so that even now they continue to live as ignorant as at the time of their earliest intercourse with the whites. Very little advancement has been made in the way of Christianity, although priests of the Greek church have been among them since the earliest times; yet the natives, while always desirous of being baptized and reckoned as true converts to the faith, nevertheless they have not the smallest idea of what it all means, and in consequence, no beneficial results accrue, such as an improvement in moral tone, &c.

An episode which occurred last year will give a very fair idea of what changes are made on these savage minds by prospective salvation. A Russian priest came up from the mission to Anvik, with the purpose of baptizing a number of Indians, who were to come down from the Shageluk village above and meet him. Previous to this time there had been two trading companies on the river, and one being only just withdrawn the prices given for furs were necessarily immediately lowered, which fact created much feeling among these Indians. As they were to meet the priest at Anvik, it was considered an excellent opportunity to take revenge on the trader at the same time; consequently a plot was arranged by which means several of the men were to be admitted to the store at the same time. The trader was to be bound, and perhaps killed, and the store plundered. Fortunately the plan was disclosed by the Anvik Indians, who refused to lend their aid, and the Indians, finding the trader warned, decided not to make any such attempt. Any outbreak by these men would be in some such underhand way, for a single determined white man can intimidate any number, provided they do not obtain an unexpected advantage. At present, except perhaps in certain matters concerning the disposal of furs, the most friendly relations exist between these Indians and the whites residing in and pass-

ing through their country. Several murders are recorded, the most atrocious being the massacre at Nulato in 1851 by the Koyukuns, which is spoken of as being brought on by the blunt manners of a lieutenant in the English navy.

In reality the Indians had been jealous of the whites establishing themselves permanently among them, and had manifested this feeling on two or three different occasions by destroying the improvements made during the summer by the Russians, and abandoned in winter. In 1851, ten years after the post had been established at Nulato, Lieut. J. J. Barnard arrived there in seach of information concerning the lost Franklin party, he being a member of an expedition sent out for that purpose. Instead of politely requesting an audience of an influential chief of the Koyukuns, he sent for him, which was considered an indignity by the chief, who immediately set about to obtain satisfaction for the insult. Before arriving at the station a Russian and an Indian companion were killed and said to be eaten, after which, before the attack was made on the whites, the native village near by was set on fire, and the inhabitants shot with arrows as they ran from their houses. Notwithstanding all the noise of this the whites were not aroused, and the commander as well as Lieutenant Barnard were killed almost in their beds in attacking the room occupied by two Russian workmen; one of their number being killed created a panic among them, and they thereupon departed. Lieutenant Barnard died before aid could arrive from Saint Michaels redoubt, and his grave is now seen a short distance to the rear of the old post, which consists now of two or three log houses partially fallen down. Last year a Russian was killed by an Indian living at Nulato, and the murderer still goes unpunished, though in constant fear of being killed or otherwise injured by the whites. This murder, though by no means justifiable, is nevertheless accompanied with circumstances more or less extenuating. The Russian, whose name was Ivan Kogenikoff, was held in great fear by all the Indians, not only on account of his naturally quarrelsome disposition, but on account of the very summary manner in which he had avenged a murder occurring farther down the river some years ago, and many of them would have been delighted at the prospect of disposing of him had they dared. One night he was being literally dragged home in a helpless state of intoxication by an Indian whose brother had been killed by a son of Kogenikoff. The Indian, seeing him so utterly helpless and so completely in his power, struck him on the head with an ax, considering the deed justifiable in revenge for the death of his brother.

Bows and arrows have been utterly abandoned by these tribes who are provided, generally, with double-barreled shotguns of small caliber, in which a bullet may be used.

INNUIT TRIBES.

This is a name given to themselves by all the natives, who are more commonly spoken of as Eskimo, and as they extend all along the shore of the Arctic Ocean, as well as along the western coast of Alaska south to Mount Saint Elias, they necessarily consist of a great number of divisions.

These various branches resemble each other in many particulars, but likewise differ in other respects, according to the country which they occupy and the different pursuits followed in obtaining food, &c. They differ widely from the natives of the interior, who are spoken of as Indians, not only in customs, habits, manner of living, &c., but even in their anatomy, showing conclusively that they belong to an entirely different family. Men versed in the science of ethnology, on picking up the skull of one of this family can distinguish it instantly from an Indian skull.

As many as seventeen or eighteen different tribes are mentioned as dwelling along the western coast of Alaska from the neighborhood of the Copper River, including those inhabiting the various islands in Bering Sea and Straits. Of these divisions those living on the island of Kadiak are the most powerful, and at the same time comprise more inhabitants than any other along the coast. They were formerly considered as Aleuts. But at the time of the first visitors appearing among them they were carrying on an active warfare with the natives dwelling on the Aleutian Islands, and differ from them in energy and spirit, being very much less influenced by contact with the Russians than many of the other tribes.

Between the island of Kadiak and the Yukon delta six different tribes are mentioned as occupying the intervening country; they resemble each other very closely, and only differ in certain minute particulars, principally in their vocabularies, certain words being substituted, and slight changes in the terminations of other words being found.

Those tribes living near the mouth of the different rivers have ascended these streams to variable distances, as is seen in the case of the so-called Ekogmuts or Ikvogmutes, as they are sometimes called. These natives inhabit the Yukon delta, and are found along the river a distance of about 300 miles from its mouth. The village of Manki, or Makeymute, situated about 40 miles below Anvik, is the most inland village of the Innuits, and is the dividing line between them and the Ingaliks.

The tribes along the shore of Norton Sound are called Mahlemuts and Unaligmuts or Unaleets, and are important in the fact of their living in the neighborhood of Saint Michael's, and having been thrown in direct intercourse with the whites both Russian and American since the establishment of a post at that place. The term "Mahlemut" is often

applied to all the Innuits, both along the river and vicinity of Saint Michael's as well.

In regard to the general characteristics of these different tribes, it may be stated that their complexions are brown, not the copper color generally ascribed to the Indian, this color being influenced in shade, more or less, by exposure to the sun and by a lack of proper attention to regular bathing. They are generally of average height, very often exceeding this, and the men are well built and possess great muscular power, enabling them to lift almost incredible loads. As a rule they are good-natured, willing to work, and are not easily made angry. They are not warlike, and as a rule are very cowardly indeed, being not only in great fear of the Indians of the interior, but they have the greatest respect for the whites in certain villages where there has been a trader among them. One determined man can do exactly as he pleases, as is shown by the high-handed treatment to which they are at times subjected. It is said that on the mysterious disappearance of any article the trader would start through the village with a whip, slashing here and there until the article was returned. This undoubtedly is somewhat exaggerated, though they have very much more respect for a man of this kind, being accustomed to such treatment ever since their first intercourse with white people. A peculiarity of these Innuits is the growth of hair on the face and body; forming a striking contrast in this respect with other native tribes.

The tribe living on the Yukon is said to differ in this respect more markedly than any other, many of the men having very heavy mustaches and beards. The singular custom of wearing labrets is in vogue among them. A hole is pierced on each side of the lower lip, just below the angle of the mouth, and through this is worn some sort of ornament of bone, ivory, or stone. This prevails among the men, while the women adorn themselves by tattooing the chin, which is often the only means of telling them from the men, except, perhaps, the cut of their fur garments. As a general rule the kind of clothing in use among them since the earliest times is retained by them, instead of adopting the civilized garments, which, at best, could only be used with any degree of comfort during the summer. These native garments consist of a coat made of reindeer skin, and extending almost to the knee, with a hood to be thrown over the head, with a trimming generally of wolf, or other long fur, which answers as a protection to the face against the wind. Breeches are worn below this, which are continuous with the foot covering in the female garment, but separate as worn by the men. The boots are made entirely of deerskin except the soles, which are of the thick skin of the seal, and capable of withstanding considerable wear. These are worn with a thick layer of cloth, or straw, around and beneath the foot, to absorb the moisture, and protect the sole from injury when stepping on rough ground, &c. A certain kind of boot for use in the water is found among them, made of seal or fish skin, which is almost, if not fully,

as impervious as those made of rubber by more civilized people. In regard to the coat called a "parka" by the whites dwelling in the country, the only difference between that worn by the women and the men is the way it is shaped at the bottom. That for the men is cut almost straight around, while the other is cut up at the side, forming a semicircular flap extending below the knee in front and behind.

White men living in the country, when exposing themselves to the climate in journeys among the different villages, invariably use these parkies, the custom being as with the natives, to wear two; the one nearest the skin having the fur side in, while the reverse is practiced with the outer one.

The country along the river, which is occupied by these natives, does not differ materially from that farther up, except in the timber. Trees of considerable size gradually disappear until small shrubs only remain, and down toward the region of the delta everything in the way of trees disappears, presenting nothing to the eye except a broad expanse of country. This consists everywhere of a marshy prairie land, known as tundra, thickly covered with moss, and only fertile to a small extent, even after much care is taken to drain it.

On the island of Saint Michaels, where a trading station has been established for many years, vegetables of different kinds are produced, such as turnips, radishes, and lettuce. The soil here does not differ from that along the lower portion of the river, except it may be less moist, so these same vegetables ought to succeed as well there if the same attention be paid to their cultivation.

Along the left bank of the river the country is everywhere flat, while a chain of hills extends along the right bank almost to the delta, which seems to have the effect of turning the river away from the point where it would naturally seek the sea, and bending it for some little distance to the south.

These natives occupy permanent villages, situated, in the case of the Ekogmuts along the river, and built close to the water's edge. The houses are of two kinds, one for use in summer and the other to be occupied when the weather is colder. The former are built mostly above ground, of logs and hewn timber, with the roof generally more or less covered with dirt, with a hole in the center for the passage of smoke. The winter houses are built of logs, either entirely underground, as when built on the side of a hill, which is a favorite site, or covered entirely with earth piled up around them. The entrance consists of a hole just large enough to accommodate a human being on his hands and knees, which is closed by means of a skin of some sort to keep out the cold. The approach to this is by means of a covered hall-way, as it were, which answers the same purpose as a storm door in use in cold civilized countries. The summer houses would be only partially bullet proof, while the true barraboras last described would undoubtedly resist the passage of such small missiles. But if anything like artillery

were employed against them they would necessarily have to be abandoned.

The villages of the coast tribes are generally situated near the mouths of rivers or in some sheltered bay or cove, close to the water, thus conveniently placed for fishing and communication in their boats. Several different varieties of canoe or boat are in use among them, which are used according to what is to be accomplished and the character of the water near their villages.

Along the river a strongly built and well braced birch-bark canoe is used, generally of such a size as to accommodate only a single man, though some are of larger build. These are built by the Ingakiks living further up the river, and traded to them in exchange for seal skins, oil, walrus hide for making rope, etc. Besides these canoes there are other varieties peculiar to the Innuits, which are the only ones used by the natives who dwell in the immediate vicinity of the sea. One is a regular boat, consisting of a heavy frame-work of wood bound together with hide and covered with seal skins, which are carefully prepared, nicely oiled, and sewed together; the other is of smaller build, but constructed on the same principle, except that it is everywhere covered in with the seal skin, only a single hole being left in the middle for the occupant. The former is known by the Russians as a bidarra, and is very useful in carrying freight, etc., while the latter, called "kyak" by the natives themselves, is known as a bidarka among the Russians.

A modification of the kyak is often seen copied, it is said, from the Aleuts, consisting of an exactly similar construction, but with two or three holes for the accommodation of that many individuals. Both varieties are extremely serviceable, especially in making journeys which are not prolonged, for after some service the skin becomes soaked and the boat has to be taken out of the water and allowed to dry. Considerable practice is required to even sit in one of the kyaks without turning over, but to one accustomed to their use journeys can be made in the roughest kind of water, and a very fair rate of speed be maintained without extraordinary exertion. Both a single and double bladed paddle are used in propelling these kyaks, while resort is often had to a sail when traveling in the bidarras.

Many wonderful anecdotes are told of the feats of seamanship performed by these natives, who wear, when in rough water or when it rains, a waterproof shirt, which is fastened to the rim of the hole in which he sits, thus preventing any water from entering the canoe. Some are said to be able to turn completely over, bottom upwards, and right themselves by means of their paddles. Though not prepared for this performance they are very liable to be drowned on account of their feet and legs being confined in the boat, as happened to an individual who was rescued from such a predicament shortly before our arrival at Saint Michaels.

Stories are also told of some being actually thrown, by way of sport, rom the top of high rocks into the water, and by a skillful use of the

paddle coming up safely again only to repeat the performance. Their only means of communication in winter is by sleds drawn by dogs, which are able to travel very considerable distances without requiring very much food. The dog is the only domestic animal found among them, and, as is seen, he answers every purpose for which a draught animal is useful among civilized people, and does not require any care whatever in keeping.

In regard to the whole number of natives of this family living on the Yukon River, they are variously estimated by different authors; one census report puts the number at 1,333, which does not include those living within the delta of the river. This is approximately true, being somewhat in excess of the actual number if anything. In the delta proper there are probably about 300 souls, and between this point and the furthest village of the Mahlemuts there are undoubtedly as many more. Among these those capable of bearing arms are provided with weapons of some description. The gun most universally seen is a long, double-barreled shotgun of small caliber, in which both shot and bullet may be used, according to the nature of the game hunted.

Along the Lower Yukon large game is not found to any great extent, reindeer and bears being about the only animals hunted, but there is the greatest quantity of water fowl. Ducks, geese, and swans, of almost every variety, breed all along the river in fact, but the delta seems to be a favorite resort for the geese, which are killed in great numbers, and are salted, in barrels, by the white residents, for winter consumption. The natives rely almost entirely on fish, both fresh and dried, which furnishes them their chief article of food, and provision is made for winter by storing away sufficient quantities of the dried article to last the season through. The custom prevails among the river natives to bury the fish and allow them to remain there until sufficiently putrid to suit their taste, when they are eaten with a great deal of relish. The coast natives vary their diet of fish with not only reindeer, but with seal meat and oil.

Walrus are not found in any numbers along this portion of the coast, so that no reliance is placed on them for food. The beluga, or white whale, is killed in considerable numbers near the mouth of the Yukon. This is a small whale, which enters the shallow water for breeding purposes, and when the tide falls the natives attack it, and secure a great many without much labor. The flesh is eaten, and the oil and blubber also preserved for food, and to be burned in their rude lamps, which consist of a small open vessel containing oil, into which a wick of moss or cloth is dipped and a light applied. The amount of light secured from each does not in any way compare with the brilliancy of a tallow candle, and the odor which is generated by the burning oil is far from agreeable, especially when confined to the close limits of one of their underground houses.

These tribes have no chief in the strict sense of the term, although

there are individuals among them who exercise more or less influence through accumulated wealth or otherwise without necessarily being endowed with the spiritual powers, which the shamans are supposed to possess. With no real head they have not the unity of the majority of Indian tribes; consequently, in the event of hostilities, do not all combine with the same readiness.

Many superstitions prevail among them, and the utmost confidence is placed in the sayings and predictions of the shamans, who resort to all kinds of devices in the way of sleight-of-hand performances to make their acts more mysterious. As a compliment to one of these individuals, he was asked to predict how long we would have to wait at Saint Michael's redoubt before the arrival of the schooner "Leo." The reply was made that if on a certain evening we would go to the village he would invoke the spiritual aid and relieve our minds of any anxiety. On the evening in question we assembled at the "Casine," a public building, built on the same principle as the dwelling-houses, with one of which every village is provided, and after many of the natives had seated themselves around the shaman, accompanied by a monotonous singing and drum beating, began to call in the aid of the spirits. Finally when everything was ready a small blue bead was taken, crushed, and sent toward the schooner, the announcement being made at the same time, if the bead returned whole the vessel had been reached. A bead was resurrected shortly afterwards, unfortunately of a different size and shape, which, however, was not observed by the natives present, and the answer obtained from it was that the arrival would happen before another moon, or some such indefinite and Delphian-like response. Several other tricks were performed of a more childish nature even; so plain were they in fact that it seems really incredible that the simplest-minded native could be deceived by them.

There are very few whites dwelling in the country occupied by these tribes, and they for the most part are traders who are employed by the Alaska Commercial Company. At the Mission, a village on the river, only a short distance below Anvik, there is a store kept by an Aleut, the brother of the Greek priest, who had a church here as well. From this point supplies are obtained by all the natives living above and below on the river. The chief articles which are sought after in trade are tea and tobacco, though considerable flour is also sold, and many other plain articles in the way of cloth, cheap hats, &c.

The only sources for ammunition are the different stations along the river, which, in the event of any difficulty with our own Government, would be denied them. Some miles below the mission is another post, formerly occupied by the Russians, which is known as Andreievsky. This is the home of a trader, who in winter has been accustomed to make long journeys among the different villages, about the Yukon Delta, disposing of various articles in exchange for furs.

Near the very western limit of the Uphoon mouth is Koatlik, a very

small village indeed, but the home of an old Russian who has the usual amount of trading material. About 70 miles north of the Uphoon mouth, which is the one generally, if not always, employed by the whites, is the island of Saint Michael's, on the eastern end of which is a settlement of the same name, established by the Russians in 1833. The site for a settlement has many drawbacks, first and foremost the lack of water, the supply being brought in boats from the mainland, a distance of 3 miles, and a scarcity of fuel, but it has the advantage of being in a sheltered bay and the nearest point to the mouth of the Yukon, which vessels of even average draught can approach on account of the extensive shoal, formed by deposits brought down by the river. This place is the headquarters of the trading company, and the depot of all supplies, guns, ammunition, &c., that are taken into the river and disposed of to the natives living along the coast adjacent, and would necessarily be an objective point were the motive prompting an outbreak one of robbery. The natives, as a rule, are very kindly disposed toward the whites, and although many threatened attacks are often spoken of, none of late years have been made. These are generally agitated after a free indulgence in liquor, which is occasionally obtained from whalers and other vessels, or at the instigation of some individual whe has been thrashed for stealing or has suffered some imaginary wrong.

In 1836 an attack was made on the post, but was repulsed without any injury being accomplished by the commander of the fort. The natives indulging in this were the Unaligmuts, who, with the Mahlemuts, are generally a worse class of men than those living on the river, on account of their long intercourse with unscrupulous traders, who make every attempt to obtain the greatest quantity in exchange for the smallest amount of the vilest liquor or other articles equally contraband.

Since the year 1855 it is said that not a single white man has been injured, or even threatened, by the natives on the lower river, who certainly do manifest a spirit of abject submission. At that time there was a considerable Russian settlement at Andreievsky and Ekogmut village near by, many of the inhabitants of which were employed as workmen at the station. Several of the whites had gone on a journey up the river, when the natives attacked the place, while its few inmates were taking the customary steam or hot-air bath, and murdered them as they came out. A boy escaped and finally reached Saint Michael's, which was temporarily in charge of the Russian kogenikoff, previously spoken of as being murdered last year in the neighborhood of Nulato. He, with one or two others, set out immediately in a small schooner or "barka," as it was called, for the scene of the massacre provided with two howitzers loaded with scraps of iron, nails, &c. He demanded that the murderers be handed over or he would fire on the village. The natives showed no inclination to obey, thinking the guns would not go off, but were soon brought to a realizing sense of their

error by the discharge of the guns, which killed a number. The Russians, not satisfied with this, are said to have attacked the remainder with clubs, and to have killed many women and children. The result, though hardly justifying the means, has been very wonderful and of great benefit to the whites who may have occasion to enter the Territory.

As far as a universal outbreak is concerned, such an event could not well occur, as there is not sufficient union among members of any tribe to occasion it, nor are there whites enough in the country to justify it.

In the event of troops entering the country, necessarily by sea, for the punishment of outrages by members of tribes, it is more than likely that the offenders would be immediately given up, or, if not, no other tribe would be willing to bear any portion of the blame, and certainly would not unite with them as allies.

The only unusual campaign supplies would be boats, and if a winter sojourn were made native garments would be required.

ALEUTIANS.

Under this heading is considered a large family, differing in many respects from any before spoken of, which occupies the group of islands extending to the westward from the Alaska peninsula, and forming a boundary, as it were, between Bering Sea and the Pacific Ocean. There are one or two settlements on the peninsula itself; and the Pribylov group, comprising the islands of Saint Paul and Saint George, also is inhabited by members of this same family.

In a military sense their consideration is of little importance, for they are more than half civilized, about a fifth of their whole number being half breeds while many others have necessarily more or less white blood in their veins. They are, however, connected with the most lucrative and chief commercial interests of the entire Territory, namely, the fur seal and sea otter, and being met with on our returning by sea will be spoken of in this connection as completing the various different tribes living in the country which we met.

The word "Aleut" is of obscure origin, not belonging, it is said, to their language, but derived from some other dialect, how or when it first came into use being unknown. The name formerly used by themselves in being translated signifies "men of the east." Among all of the tribes throughout the Territory of Alaska this one family has not only been longer in direct intercourse with white men, but has been more throuoghly changed from their original condition than any others. Before the arrival of the Russians among them they are said to have been full of life and spirit, and fond of all sorts of enjoyments; whereas now on account of the cruel treatment to which they were subjected, being looked upon and treated as mere slaves, their spirit seems broken and their character completely changed. With all this came likewise a complete change in

habits and customs and religion even, for they are said to have had certain ceremonies which resembled a religion more closely than that of any other tribes. Their condition indeed is bettered no doubt by the civilizing influences, but the same result might have been accomplished by less heroic measures. They were savages undoubtedly before their first intercourse with the Russians, and had manners and habits, which could not be considered otherwise, as for instance, their dwellings. These were built entirely under ground and of a sufficient capacity to accommodate as many as two hundred or more people, families being divided off from each other by means of very rude partitions. Entrance was effected through the roof, by means of ladders, one house being provided with several such means of entry. Being so protected from the wind and cold, these houses were necessarily very warm, so confined in fact that no clothes were required, and the inhabitants are said to have gone about for the most part entirely naked. Their food consisted of fish of various kinds, flesh of the seal and sea-otter, whale blubber, sea-weed, wild parsnips, different sorts of berries, &c.

Certain records and legends of the Russians and the people themselves would tend to show that they numbered at one time as many as 25,000 souls, which is probably a too high an estimate, the best authorities considering that at no time could they have numbered more than 10,000 at the most. Their many dances and peculiar festivals, as described by Bruiaminov, a very earnest and hard-working Russian bishop, are especially interesting, inasmuch as all the masks and other relics used in their celebration have been destroyed, whenever found, by the Russian priest, so that now the object or idea involved is more or less wrapped in obscurity. The Aleut is of average size, perhaps rather below the medium, with an expression of countenance generally described as pertaining to the Japanese. The complexion is of light brown, hair black and coarse, and the beard generally scanty. As a general thing their chests and arms are well proportioned, while their legs, from the position which they assume so constantly in their skin boats, are often somewhat curved. They are willing to work, and, except when under the influence of liquor, the desire for which is one of their failings, they are mild, good-tempered, and in every respect pleasant to have dealings with. Though much addicted to the use of liquor, and as a general thing craving it on all occasions, crimes of a serious nature are of very rare occurrence, and that of murder is scarcely known. Formerly the number of wives was not limited, the most influential and respected (and they were the best hunters) having the greatest number. Their ideas of anything like marriage, as is the case with almost all the Innuit tribes as well, were very crude, and the wife or wives were generally at the disposal of visitors or guests. At the present time they have only one wife, and they live together with their families in separate houses. In settlements where there are white people dwelling as well, small huts of civilized build are generally used,

though the barrabara or underground house is very much in use, especially in remote villages.

Their original native dress is described as consisting of a coat or parka, made with tight sleeves, and sufficiently long to reach below the knees, of some sort of fur or bird skins. No trousers were worn, but the boots came up to the knees. In wet weather a sort of water-proof shirt, made of the intestines of the sea lion, is still worn by them. Besides this last-mentioned garment, the original native dress has everywhere been discarded and civilized clothes adopted, except in a few instances, where the poverty of the individual will not admit of such an expenditure. This is especially the case at those villages where the whites have settled. And as it is through the efforts of the natives that the fur-bearing animals are secured, every aid and encouragement possible is given them.

Schools were established among them years ago by certain Russian priests who were more earnest in their work than some others, so that some few learned to read and write. Bishop Vruiaminov made an Aleutian grammer, and through this means many have been partially educated. Of late years, though several educated members of their own family have been admitted into the priesthood, no very rapid strides have been made in the way of education. The inordinate desire for alcoholic stimulants of some sort, as stated before, has been their very worst fault and the greatest drawback toward their making more rapid progress in the right direction.

The introduction of liquor of any sort is prohibited, consequently in order to properly celebrate festive occasions resort has to be had to a decoction of domestic manufacture. This is made from sugar as a principal ingredient, with the addition of flour, and hops if they can obtain them. The whole is placed in a barrel, tightly closed and then allowed to ferment. As the drink resulting is only made when required, time is not allowed for the fermentation to be completed, but they consume it just as quick as the proper strength is attained, with all its horrible taste.

When an individual returns from a successful hunt he purchases whatever articles he may need in the way of food and clothing, and then invites his friends in to partake of his hospitality, in the form of this home-made beverage. This is the occasion of a big spree, which invariably terminates with violent disputes, though, as stated before, it is said that there is not a single instance recorded of a life being lost or of any one suffering severe bodily injury, except as a result of a frequent repetition of the same dissipation, and the exposure consequent upon having their sensations so blunted as to fail to protect themselves against the weather.

The chief article of food of the people is undoubtedly fish; the various kinds, such as cod, halibut, salmon, and trout, being obtained as they come in season. Besides these there are many water-fowl and

shell-fish as well, which serve to vary their diet. Many articles of food are also obtained from traders, such as tea, hard bread, flour, sugar, and other little necssaries, and these have been so long in use that the people would find it very embarrassing to do without them now.

The country inhabited by these people consists, as previously stated, of a long chain of islands extending out into the open sea far to the westward of the mainland of America. The islands vary in size, but resemble each other in their very mountainous character. All are undoubtedly of volcanic origin, on several of which there are craters, which are, at the present time, considered as active. The various settlements of the people are scattered throughout the group of islands, the most western of all being Chichagov, on the island of Attoo. In former times this village was very prosperous, but is now one of the poorest, in a pecuniary view, of all the settlements, on account of the gradual falling off in numbers of the sea otter. This animal which furnishes the beautiful and very expensive fur, was originally caught in great numbers in the vicinity of Attoo, and as the exchange of its skin for necessary articles was the only means of living to the n atives, they have consequently suffered, having no other resource to fall back on. Had it not been that they are amply supplied by nature with the actual necessities of life in the way of food, such as different kinds of fish, starvation would have been imminent. The capture and sale of the sea otter skins being one of the utmost importance to this section of country, the means of taking them is very interesting, as sho wing a prominent trait in the Aleutian character as well, namely, unselfishness.

The animal is generally found on certain banks some distance from the land, and is hunted by a number attacking him on different sides. They start out in their skin boats with provisions sufficient to last them for several days, and when arriving at the place generally frequented by the otter, a long line is made of boats, and a slow and quiet advance is made. When the animal is discovered, either asleep or quietly swimming about with his nose just above the water, an effort is made to surround him, so that in coming up after diving he may come within the circle of boats. Spears are the weapons used against them, as it is thought the firing of guns would frighten them away entirely. It is rarely the case that the first wound kills him; but the animal soon becomes tired out with the continuous diving, and is then readily secured.

In illustration of the unselfishness of the Aleut it has been the custom to give the skin to the man who strikes the first blow, so that after this the others can have no interest, but nevertheless devote themselves indefatigably in trying to secure the prey. If it cannot be determined about the time of the first blow the one hitting nearest the head obtains the prize, and if they are of equal distance, the one on the right is granted the skin.

Between the islands of Attoo and Atkha, where the next settlement

now stands, there were formerly several on the different islands intervening, but these now have all been abandoned.

The island of Atkha was originally a boundary line between two so-called divisions of this tribe, which at present, on account of the admixture of Russian blood and other causes, do not exist; the chief distinction in former times was a difference of dialect, there being certain terminations and words not common to both. This must have been quite marked, for the originator of the grammar, previously spoken of, was obliged to form two, one for use among the residents about Oonalaska and the other for the Atkhans.

Quite a large settlement is found on the island of Atkha, and the inhabitants are prosperous in consequence of the number of sea otter captured annually in their neighborhood, being thus, as it were, wealthy. They buy many articles of the traders and indulge in many of the civilized luxuries, such as clothes, &c. Among other industries, besides being considered the best and most successful hunters after the otter, they are said not only to surpass every other settlement of this family, but every other race in the world in the manufacture of various baskets and ornaments out of grasses.

During the occupation of the Russians Atkha was a place of considerable importance as a central point, but since the transfer of the Territory, other interests have made a change necessary.

The next settlement to the eastward is situated on Oomnak Island, and is known as Nikolsky. The inhabitants devote themselves chiefly to hunting the sea-otter; they are generally quite successful, and in consequence prosperous.

Proceeding in the same direction, Oonalaska Island is next met with, the largest and in many respects the most important of the entire group, inasmuch as on the northern shore, in a very beautiful inlet called Captain's Harbor, is situated Ilinlink, or Oonalaska, the headquarters of all the commercial interests of this part of the world. There is a settlement here of about four hundred people, which includes a school-house, church, residence of the priest, custom-house, traders' warehouses and dwellings, and many frame buildings, erected for the use of the natives, besides numerous barraboras. Here is seen almost every sign of civilized improvements, and among other things the novel sight of domestic cattle was presented to us.

The climate is by no means severe in this part of the country, and sufficient grass is found almost all the year through to support stock of any sort. The natives in the vicinity are very much improved by long intercourse with the whites, and it is said that almost half their number are able to read and write—the Aleutian language principally.

Besides this large settlement there are several others of less importance, chiefly on the northwestern coast. The island being so indented and cut up with bays and inlets affords ample space for numerous excellent village sites. Makushin, Koshigin, and Cheruovsky, three small

villages to the west of Ilinlink, are closely allied in interests, as sending out each season hunters along with those from the last-named place. The natives are conveyed on one of the company's vessels to Sannakh Island, which is the principal resort for the otter, and when the season is over again brought back to their homes.

To the south of Oonalaska is a small island, on which is the settlement of Borka, whose inhabitants are considered the neatest, most orderly, and cleanest of the whole family. This condition of affairs is said to be due to the influence of an old Russian trader and his wife, who have lived among them for some time and set them this good example.

Between Oonalaska and Oonimak Island on the east there is a pass generally resorted to by vessels in going north. This is sufficiently wide and deep, but on account of numerous small islands and the great rate at which the tide rushes through vessels are often thrown in great danger, especially when wind and tide are opposite. In the vicinity of this pass are the settlements of Akutan, Akoon, and Avatanak. Each is situated on an island of the same name.

An industry among the inhabitants, besides hunting the sea-otter, is the capturing of the sea-lion, the hide of which is used in making the bidarkas.

The next settlements are in close proximity to the peninsula of Aliaska, being distributed among the different small islands, principally along the southern coast. The largest is called Belkoosky, situated on the peninsula and in close proximity to the best sea-otter grounds found throughout this region. The other villages in order of size are Ounga Protassov, Korovinsky, Nikolaievsky, and Vosnessensky. Almost the sole industry is the capture of the sea-otter, which is obtained in such numbers as to make the inhabitants too luxurious, so that almost all their earnings are squandered as soon as obtained.

Directly north of the island of Oonalaska, a distance of about 200 miles, is situated the Prybilov group, consisting of the islands of Saint George and Saint Paul. These are inhabited by members of the Aleutian tribe, and their chief occupation is in connection with the capture of the fur-seal. All rights, privileges, &c., in regard to the taking of this animal on these islands are under the control of the Alaska Commercial Company, who, in turn, are restricted both in the methods employed and the number annually killed, agents are employed to carry out the laws of the Government in this respect, although the interests of the company are so closely linked with the killing of a judicious number that in reality the corporation becomes its own guard. The limit of the law is 100,000 young males, but as the demand of the market will not always justify this amount, the number actually killed falls considerably below this each year.

The natives living on these islands have become very civilized, and have adopted many of the improvements of modern life. Their villages are laid out in streets, and besides the school-house, church, and other

buildings, consist principally of cottages, which have taken the place, to a great extent, of the barraboras, and a fair condition of neatness everywhere prevails. It is said that the natives now living there are descendants of those formerly brought from the Aleutian group proper by the Russians to conduct their seal interests, as the Prybilov Islands were originally uninhabited. From constant practice and training from their very youth the capture of the seal and skinning and preserving of the skins have been reduced by them to almost a science, so that were the whites deprived of their aid considerable embarrassment would be occasioned.

In regard to the entire number of people included under this heading they have been estimated at 1,890. This does not include the half-breeds or creoles, as they are called, who of themselves are numbered at 479. Their entire number has slowly decreased since the advent of the whites and the introduction of intoxicating liquors.

On account of the dampness of the climate, though never very cold, many of the adults die in the winter of pneumonia, brought on by exposure; and the various other lung diseases are especially prevalent among the children.

In regard to communication between the different islands, their only means, except through the aid of the whites, is their skin boats, which are the only kind used. These, like those in use among the Innuits, consist of a frame work of some light wood securely bound together with thongs, and everywhere covered in with dressed skin of the sea-lion, a hole being left in the center large enough to accommodate the occupant. Some are built with two or three holes, and resemble the one previously described, except in the number of occupants they are able to contain. These bidarkas, as they are called by the Russians, are very light, and are propelled with great ease and at a considerable rate of speed by means of paddles with a single or double blade, according to the fancy of the individual.

As stated at the beginning of this description, the Aleuts are of little importance in a military sense, as the question of active hostilities is one which will probably never come up, simply on account of the nature of the race. They were so long under the sway of the Russians and were so completely subdued that now no indignity could be put upon them sufficiently harsh to occasion serious resistance.

The men are, as a rule, well provided with arms of some description. Those most frequently observed are a double-barreled shotgun, of small caliber, in which shot or a bullet may be used. Should it ever become necessary to carry on a campaign against this people troops would necessarily have to be brought to the country in vessels, and as the villages for the most part are situated in the deep and sheltered inlets, a very near approach can, in almost every instance, be effected. Nothing in the way of unusual supplies would be needed, except, perhaps, a number of small boats, which would be greatly aided by a small steam

launch as well. Very few of the houses are substantial enough to resist the passage of bullets, and should heavier missiles be employed their destruction would be only a matter of a short time.

SUPPLEMENTARY REPORT.

VANCOUVER BARRACKS, WASHINGTON TERRITORY,
May 12, 1884.

After a careful arrangement of the data on the topography of the country passed through, with special reference to the boundary line between the Territory of Alaska and British America, it has been determined that the main village of one tribe, Klat-ol-klin, supposed to be in Alaska, is situated within the English possessions; consequently that tribe will not be included in the following summary of the names and members of the tribes met with in this portion of the United States:

Tongas, about	600
Cape Fox, about	250
Stickeens, about	800
Sitkas, about	1,000
Hootznahoo, about	700
Hoonahs, about	700
Auks, about	700
Chilkats, about	980
Tadoosh, about	50
Fort Yukons, about	100
Tananahs, about	500
Ingalik tribes, about	1,350
Innuit tribes, about	1,900
Aleuts, about	1,890
	11,520

Only those Innuits living along the Yukon River within the delta and northward along the coast to near the Oonalakleet River are included in this list, and about 400 half breeds (Aleut and Russian living on the Aleutian group are also excluded.

The whole number of natives met with is, therefore, about 11,520. The tribes met with along the river east of the boundary are:

Tahkeesh	50
Ayans	200
Takons	100
Klatolklins	100

Concerning the last named tribe it may be stated that their village is but a short distance from the boundary line as determined, and that the trading station about a mile further down the river, and now abandoned, is within the Territory of Alaska.

Respectfully submitted.

GEO. F. WILSON,
First Lieutenant and Assistant Surgeon, United States Army.

APPENDIX.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Washington Territory, April 7, 1883.

First Lieut. FRED. SCHWATKA,
Third Cavalry, Aid-de-Camp ;

SIR : In view of the frequent reports of the disturbance of the peace between the whites and Indians in Alaska, and the indications that the present condition of affairs must lead to serious hostilities between the two elements in the near future, you are hereby directed to proceed to that Territory for the purpose of gathering all information that can be obtained that would be valuable and important, especially to the military branch of the Government.

You will ascertain as far as practicable the number, character, and disposition of all natives living in that Territory, how subdivided into tribes or bands, the section of country they inhabit, their relations to each other, and especially their disposition toward the Russian Government in the past, and the feeling that exists among them towards the present Government and the white people that are making their way into that Territory.

You will further examine and ascertain their modes of life and means of communication from one part of the country to the other, the amount and kind of weapons of war in their possession, and from where obtained.

You will further obtain such information as practicable of the character of the country and the best means of using and sustaining a military force, if one should be needed in that Territory.

You will make especial inquiry as to the kind and extent of the native grasses that would sustain animals ordinarily used in military operations, also the character of the climate, especially inland, the severity of the winters, and any other information that would be important to the military service.

You will endeavor to impress the natives with the friendly disposition of the Government, and in no case will you move in any section of the country where you cannot go without provoking hostilities or inciting the natives to resistance, as you are not authorized to exercise any control of affairs in that Territory.

You will consider this duty especial and confidential, making your reports to me, accompanied as full as possible with itineraries, maps, traces, and field-notes.

Asst. Surg. George F. Wilson, and four enlisted men, will be directed to report to you, and such Indian scouts as may be hereafter authorized.

You are authorized to employ an interpreter when needed, and you will exercise strict economy in your necessary expenditures.

In making your investigation you will endeavor to complete all information in each section of the couutry before proceeding to another, in order that, should time not permit your full completion of this work, it may be taken up the following season.

The chiefs of the several staff departments at these headquarters will, on presentation of this letter of instructions, furnish you with the means and necessary equipments to enable you to accomplish the duty assigned you.

Upon completion of this duty you will return to these headquarters.

Very respectfully, your obedient servant,

NELSON A. MILES,
Brigadier-General, Commanding.

[First indorsement.]

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Washington Territory, May 9th, 1884.

Respectfully referred (through Lieutenant Schwatka) to Asst. Surg. George F. Wilson; the department commander calls upon Dr. Wilson to report as near as practicable from the data furnished in this report and from any information he may have, the names and numbers of such of the Indians within referred to as are inhabitants of the United States Territory of Alaska, and to locate as nearly as he can on a map of that Territory, to be furnished by the chief engineer officer of the Department, their places of habitual abode.

By order of Brigadier-General Miles.

O. D. GREENE,
Assistant Adjutant-General.

[Second indorsement.]

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Washington Territory.

Respectfully referred to Asst. Surg. George F. Wilson. Attention called to preceding indorsement.

FRED'K SCHWATKA,
First Lieutenant Third Cavalry.

[Third indorsement.]

VANCOUVER BARRACKS, *May* 12, 1884.

Respectfully returned to the assistant adjutant-general Department Columbia (through Lieutenant Schwatka), inviting attention to the supplementary report, marked such, and transmitted herewith.

GEO. F. WILSON,
Assistant Surgeon, U. S. A.

[Fourth indorsement.]

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, May 15, 1884.

Respectfully forwarded to division headquarters.

Upon being assigned to this command, I found that the Territory of Alaska, although embraced within the geographical limits of this Department, with an area of 577,390 square miles, was practically an unexplored and unknown country, but little being known of its topographical features, number and character of its inhabitants, its resources, or its climate.

On November 2, 1881, I forwarded a communication recommending a special appropriation from Congress of $68,000 to explore this Territory.

Although the bill to that effect was introduced into the United States Senate it failed to become a law, and on the 3d of April, 1883, I sent one of my aids-de-camp, Lieutenant Schwatka, with Assistant Surgeon Wilson, Topographical Assistant Homan, and three enlisted men, to Alaska to obtain information regarding the interior of that Territory under instructions contained in letter of 7th of April, 1883 (appended).

The accompanying report is the result of this reconnaissance, and contains much information, especially regarding the section visited, the character of the country, and its inhabitants.

That part of the report which embraces a survey of a portion of British America, with description of the same, was not called for by the letter of instructions, and the publication of so much of the substance of this report as has appeared in various newspapers and magazines of the country, prior to its being submitted to the military authorities, has been disapproved.

With these exceptions the reconnaissance has been successful, satisfactory, and accomplished at little expense, and the report is interesting and valuable, and contributes an important chapter to the descriptive history of that remote and extensive country.

Lieutenant Schwatka and his assistants are entitled to much credit for the energy and zeal displayed in overcoming apparently insurmountable obstacles in their long, hazardous, and laborious journey.

NELSON A. MILES,
Brigadier-General, Commanding.

[Fifth indorsement.]

HEADQUARTERS DIVISION OF THE PACIFIC,
Presidio of San Francisco, California, July 26, 1884.

Respectfully forwarded to the Adjutant-General of the Army.

JNO. POPE,
Major-General, Commanding.

Official copy.

R. C. DRUM, *Adjutant-General.*

ADJUTANT-GENERAL'S OFFICE,
November 4, 1884

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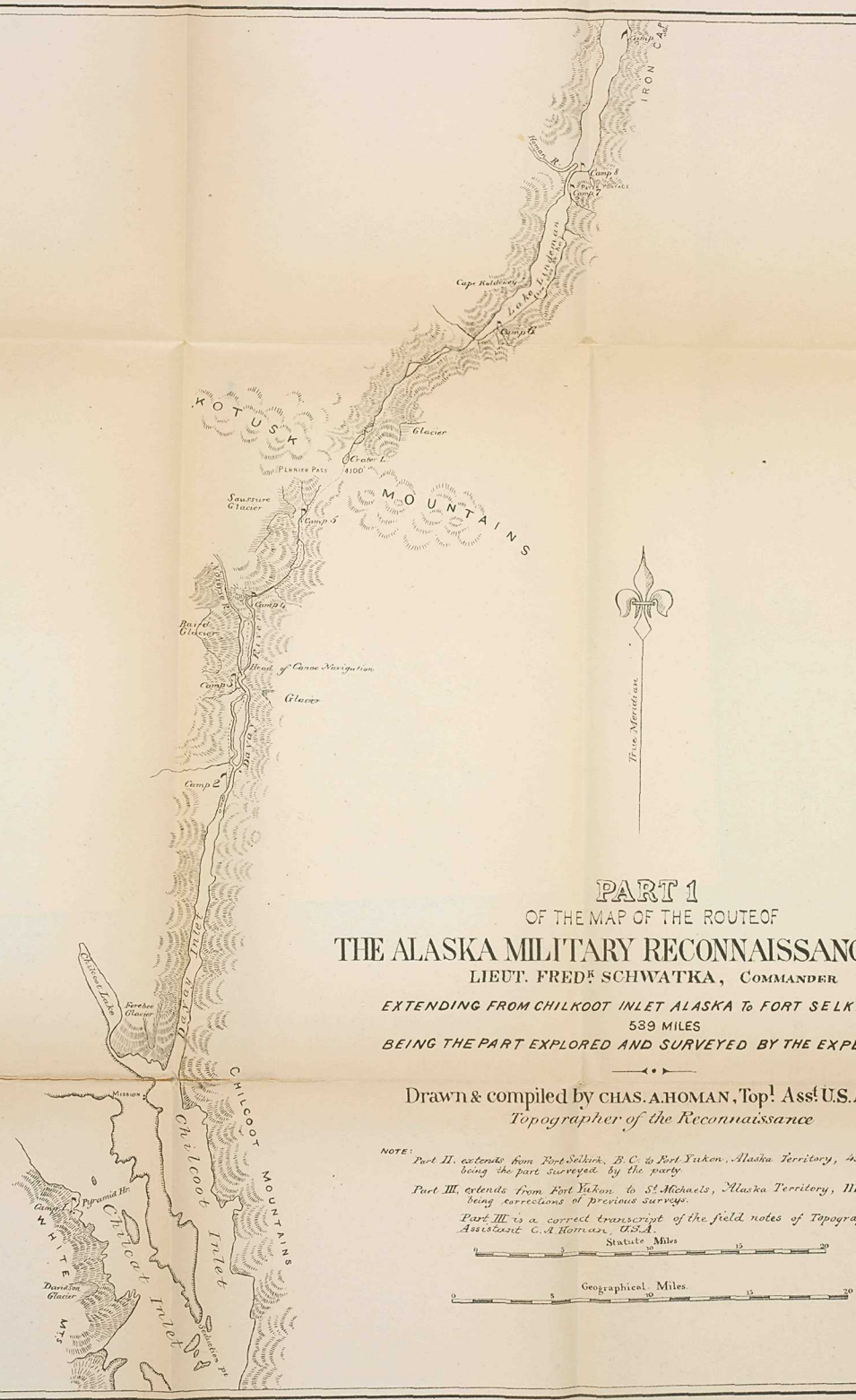


PART 1

OF THE MAP OF THE ROUTE OF

THE ALASKA MILITARY RECONNAISSANCE OF 1883

LIEUT. FRED^K SCHWATKA, COMMANDER

EXTENDING FROM CHILKOOT INLET ALASKA TO FORT SELKIRK, B.C.

539 MILES

BEING THE PART EXPLORED AND SURVEYED BY THE EXPEDITION

Drawn & compiled by CHAS. A. HOMAN, Top^l Ass^t U.S. Army.

Topographer of the Reconnaissance

NOTE:

Part II. extends from Fort Selkirk, B.C. to Fort Yukon, Alaska Territory, 490 miles. being the part surveyed by the party.

Part III. extends from Fort Yukon to St. Michaels, Alaska Territory, 1115 miles being corrections of previous surveys.

Part III is a correct transcript of the field notes of Topographical Assistant C. A. Homan U.S.A.

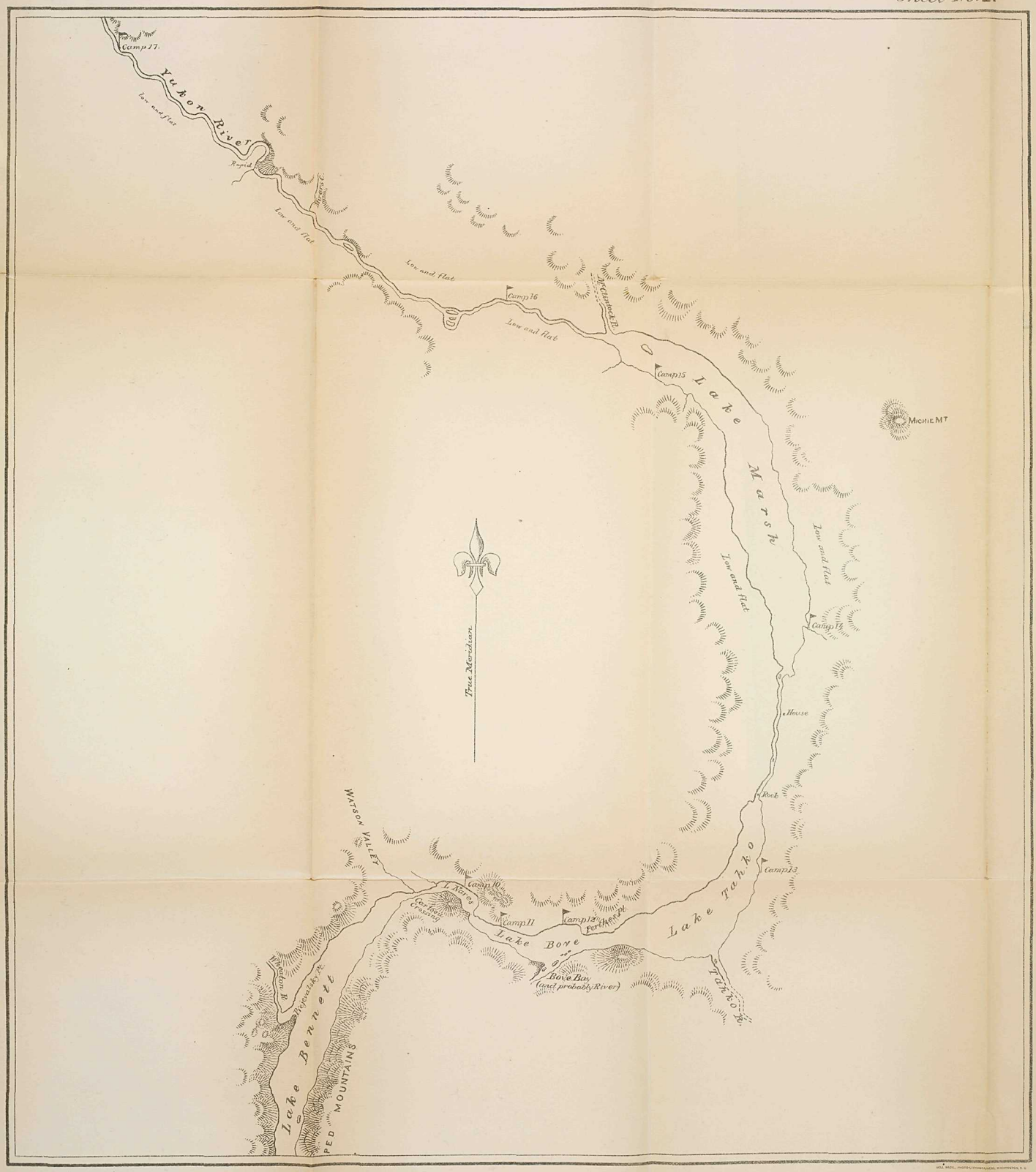
Statute Miles

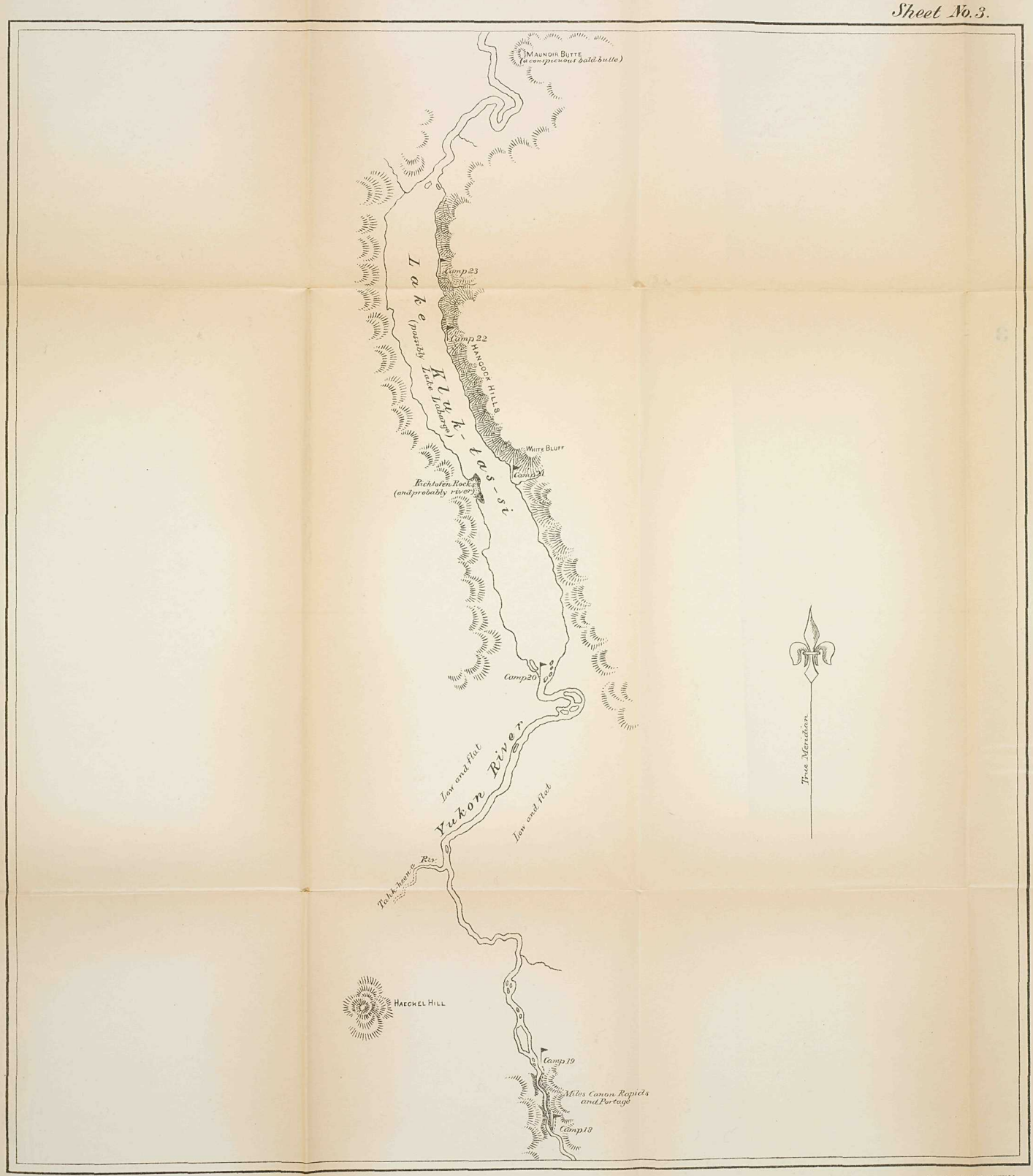
0 5 10 15 20

Geographical Miles.

0 5 10 15 20

BELL BROS. PHOTO LITHOGRAPHERS, WASHINGTON, D.C.


Camp 17.
Yukon River
Low and flat
Rapid
Low and flat
Low and flat
Camp 16
Low and flat
Camp 15
Lake Marsh
Low and flat
Low and flat
Camp 14
Michie Mt
True Meridian
House
Rock
Camp 13
Lake Tahko
Tahko R.
Watson Valley
Camp 10
Camp 11
Camp 12
Lake Bone
Bone Bay
(and probably River)
Lake Bennett
Red Mountains



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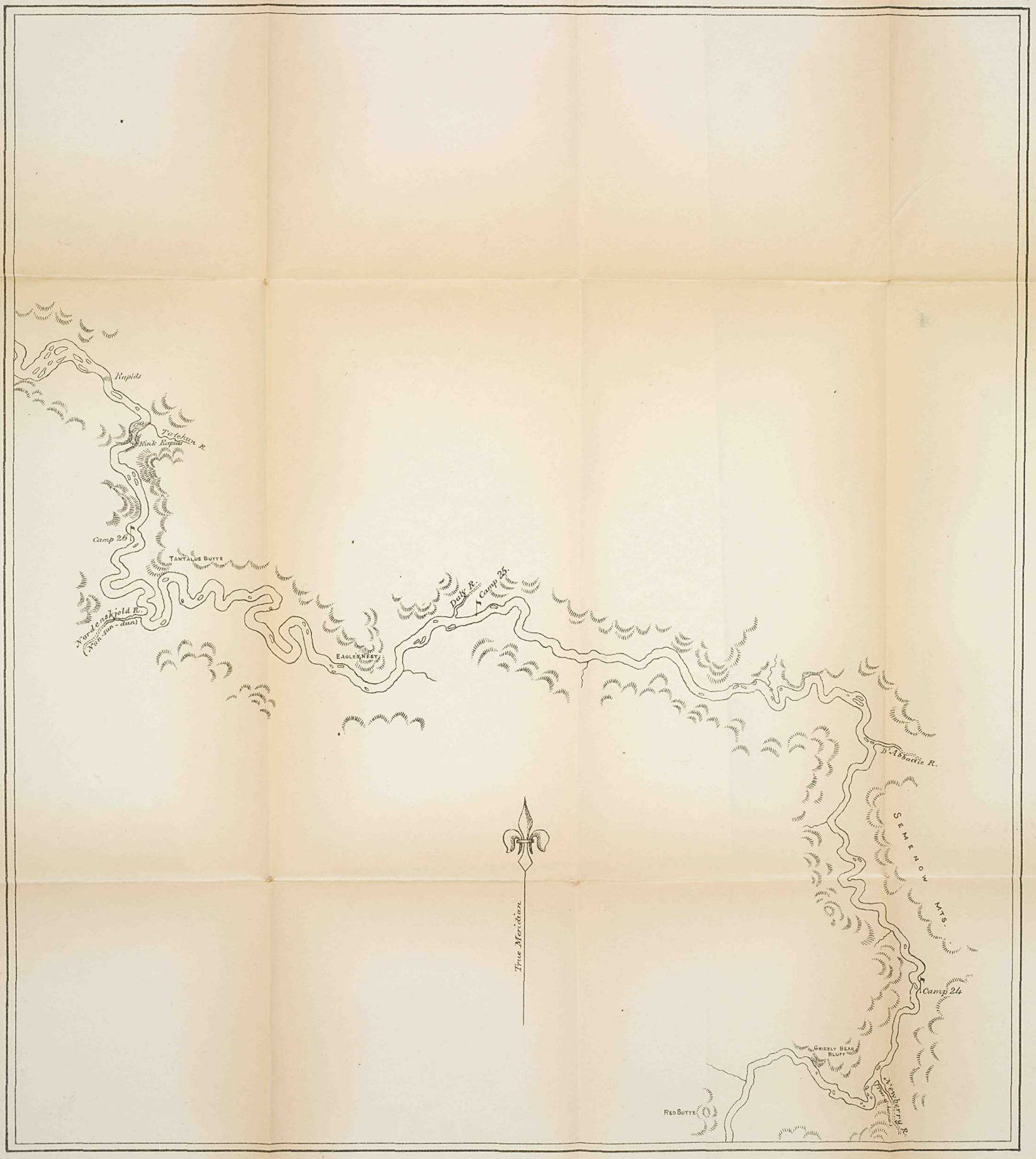

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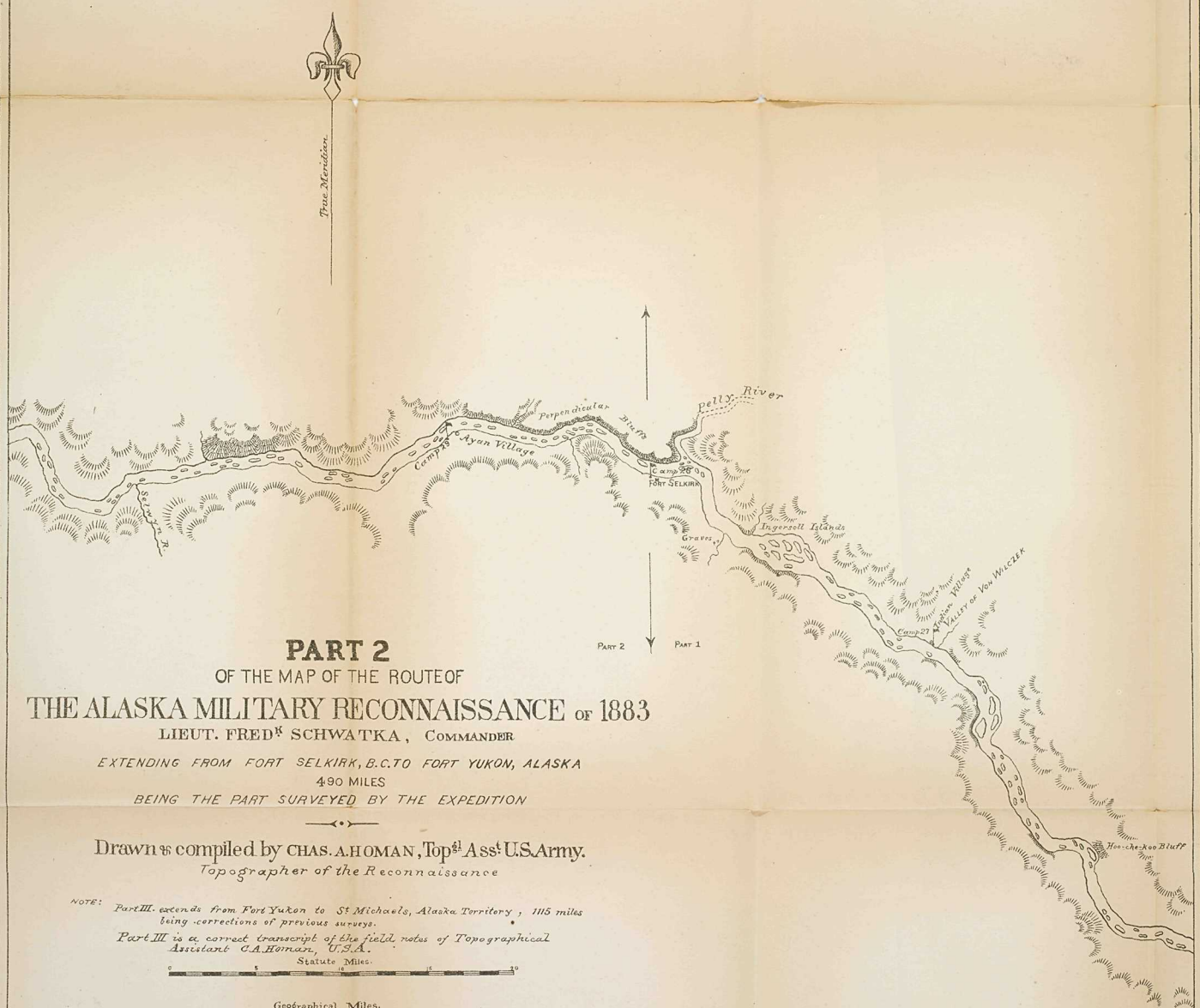


PART 2

OF THE MAP OF THE ROUTE OF

THE ALASKA MILITARY RECONNAISSANCE OF 1883

LIEUT. FRED^K SCHWATKA, COMMANDER

EXTENDING FROM FORT SELKIRK, B.C. TO FORT YUKON, ALASKA

490 MILES

BEING THE PART SURVEYED BY THE EXPEDITION

Drawn & compiled by CHAS. A. HOMAN, Top^al Ass^t U.S. Army.

Topographer of the Reconnaissance

NOTE: *Part III. extends from Fort Yukon to St Michaels, Alaska Territory; 1115 miles being corrections of previous surveys.*

Part III is a correct transcript of the field notes of Topographical Assistant C.A. Homan, U.S.A.

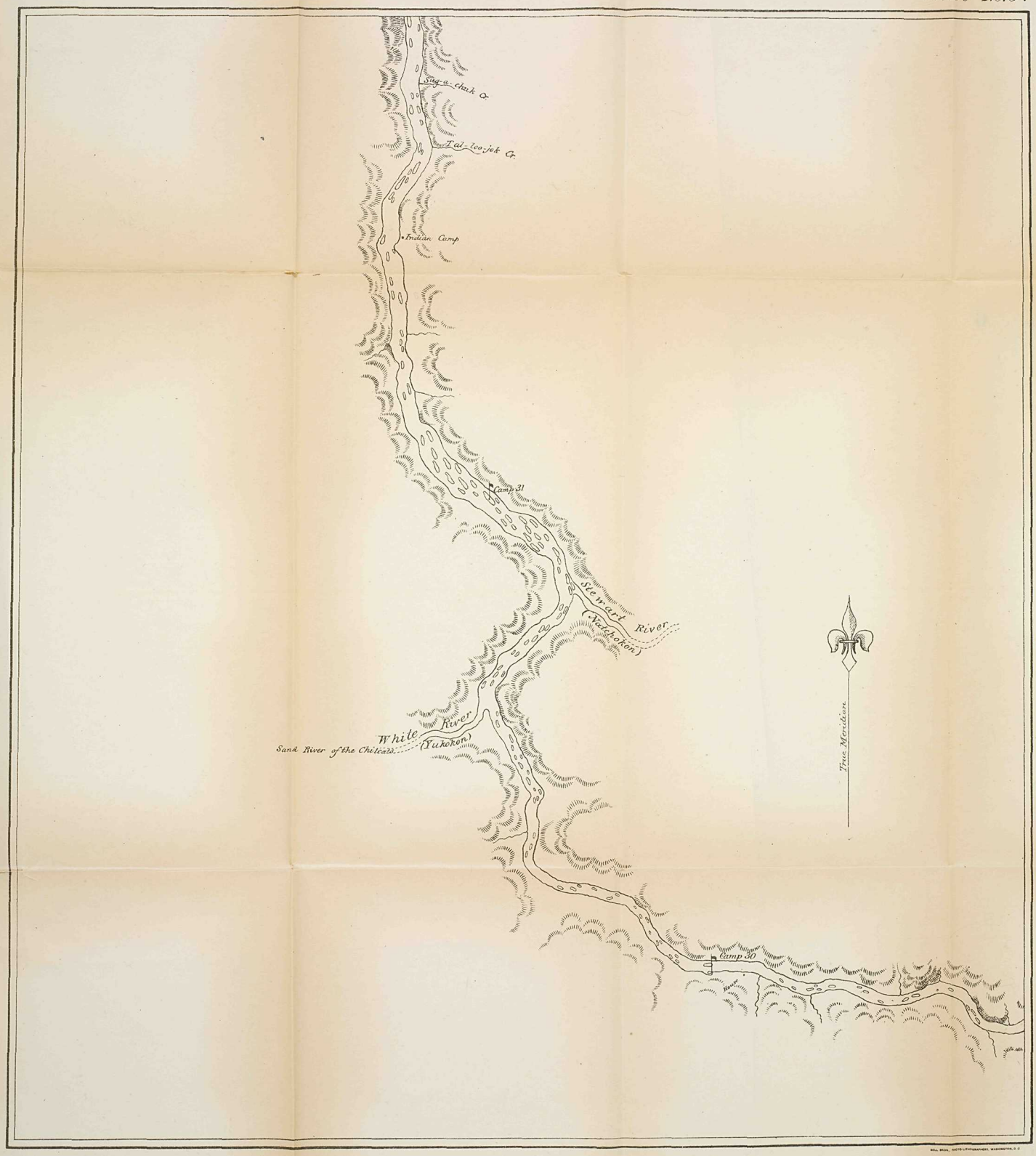
Statute Miles.

0 5 10 15 20

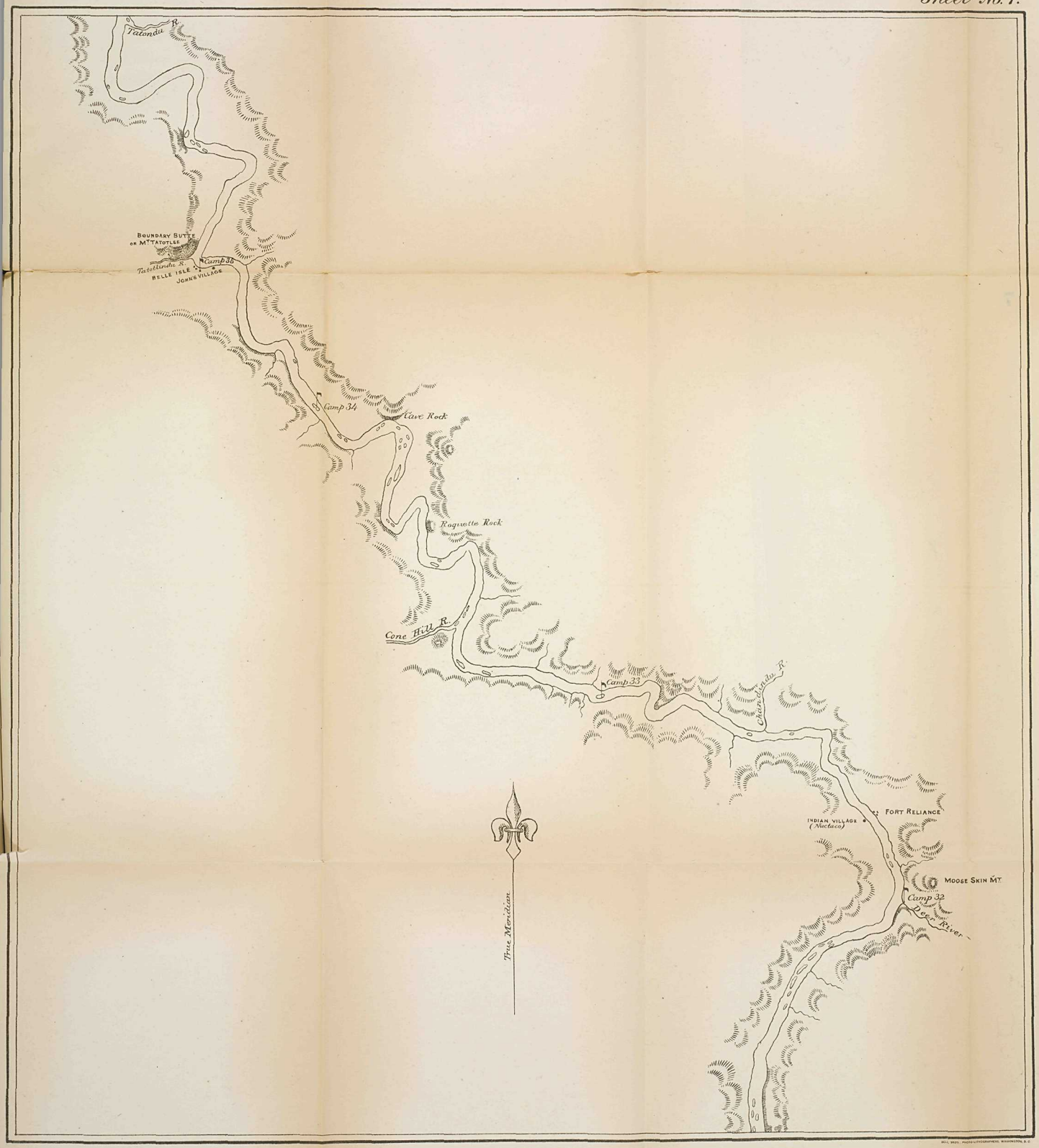
Geographical Miles.

0 5 10 15 20

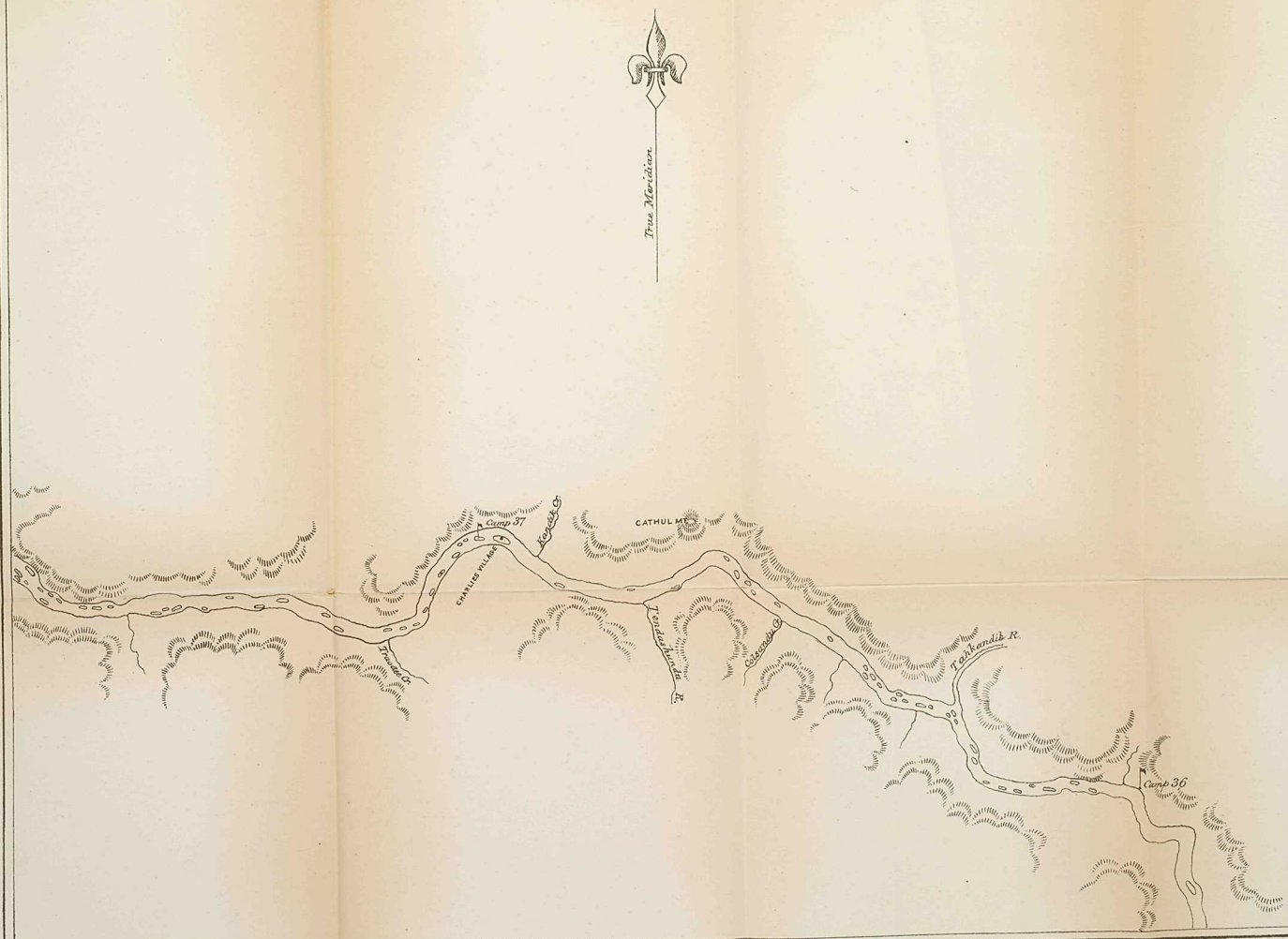
BELL BROS., PHOTO-LITHOGRAPHER, WASHINGTON, D.C.



BELL BROS., GOVT. LITHOGRAPHERS, WASHINGTON, D.C.



BILL BROS. PHOTO LITHOGRAPHERS, WASHINGTON, D. C.



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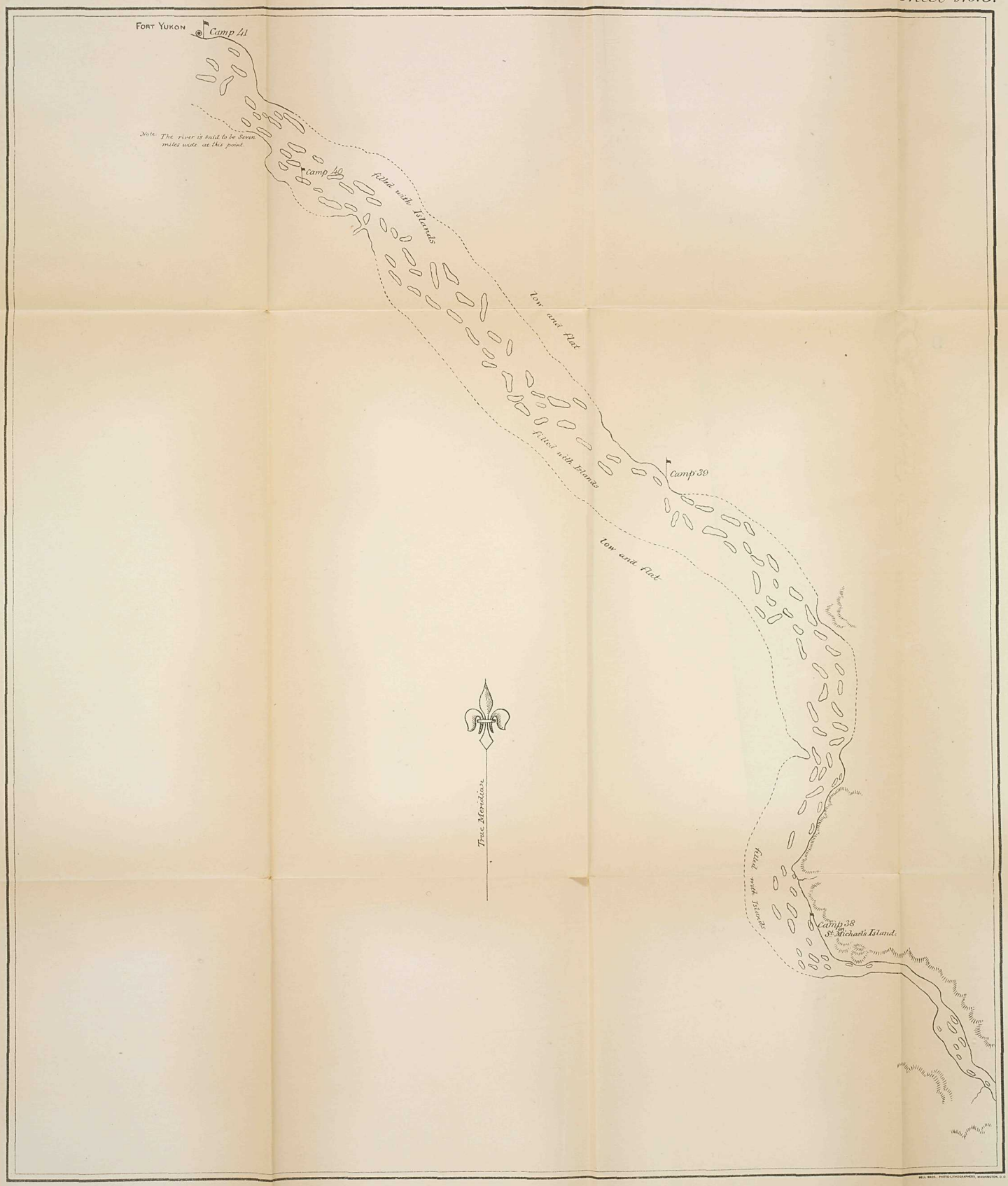
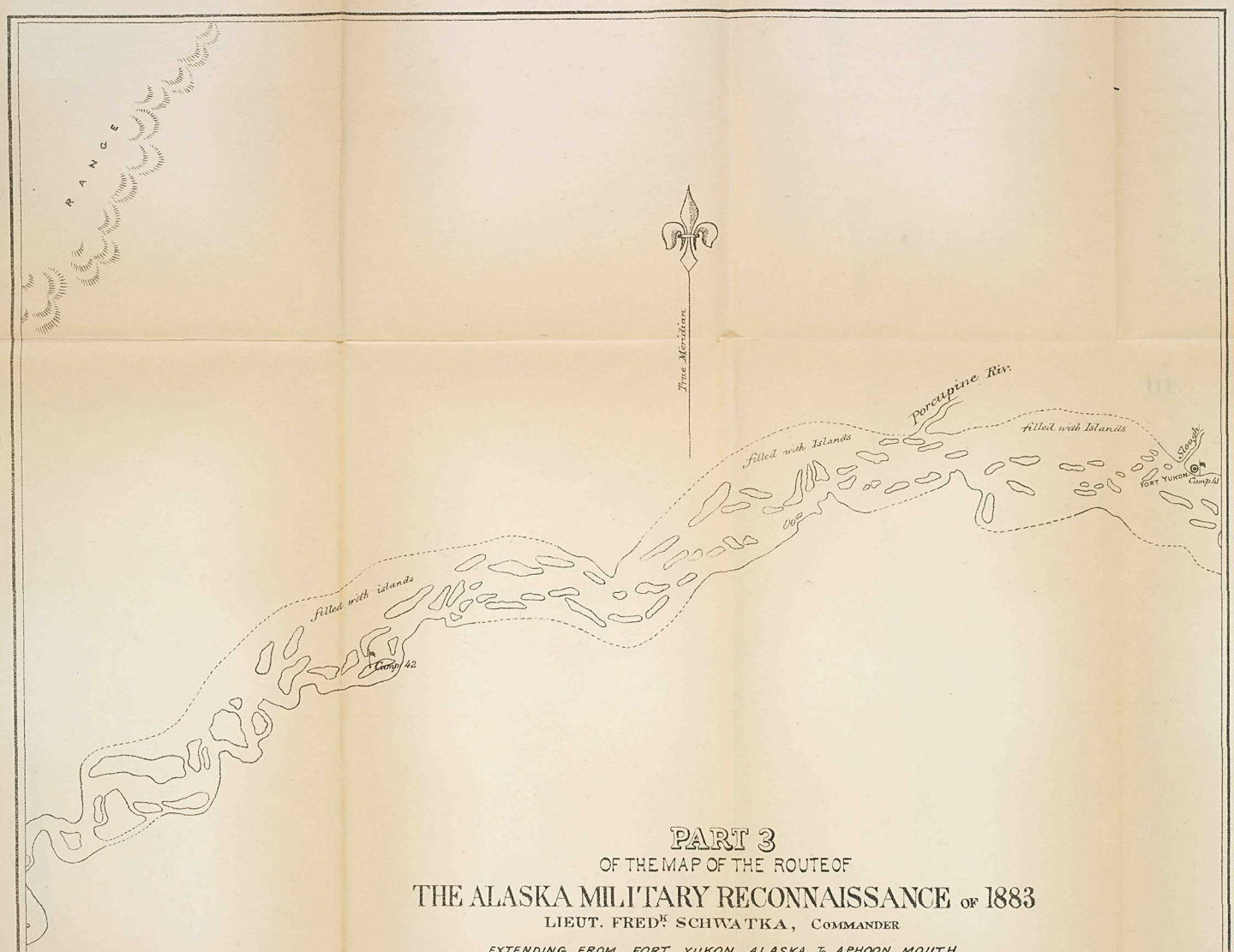


BELL BROS. PHOTO-LITHOGRAPHERS, WASHINGTON, D.C.



PART 3

OF THE MAP OF THE ROUTE OF

THE ALASKA MILITARY RECONNAISSANCE OF 1883

LIEUT. FRED^K SCHWATKA, COMMANDER

EXTENDING FROM FORT YUKON ALASKA, TO APHOON MOUTH.

1054 MILES

BEING CORRECTIONS OF PREVIOUS SURVEYS

Drawn & compiled by CHAS. A. HOMAN, Top^l Ass^t U.S. Army.

Topographer of the Reconnaissance.

NOTE: *Part III is a correct transcript of the field notes of Topographical Assistant C.A. Homan, U.S.A.*

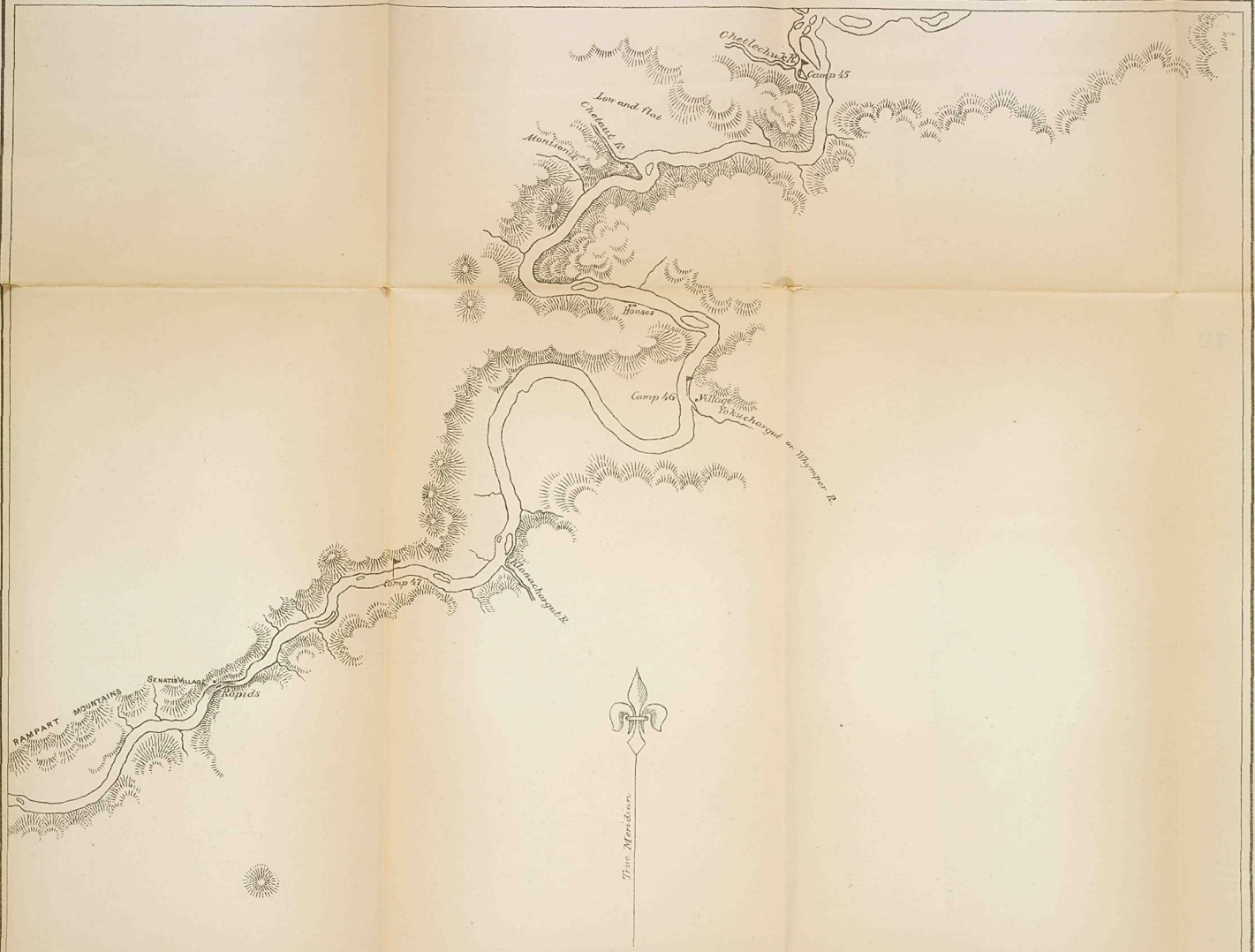
Statute Miles.

0 5 10 15 20

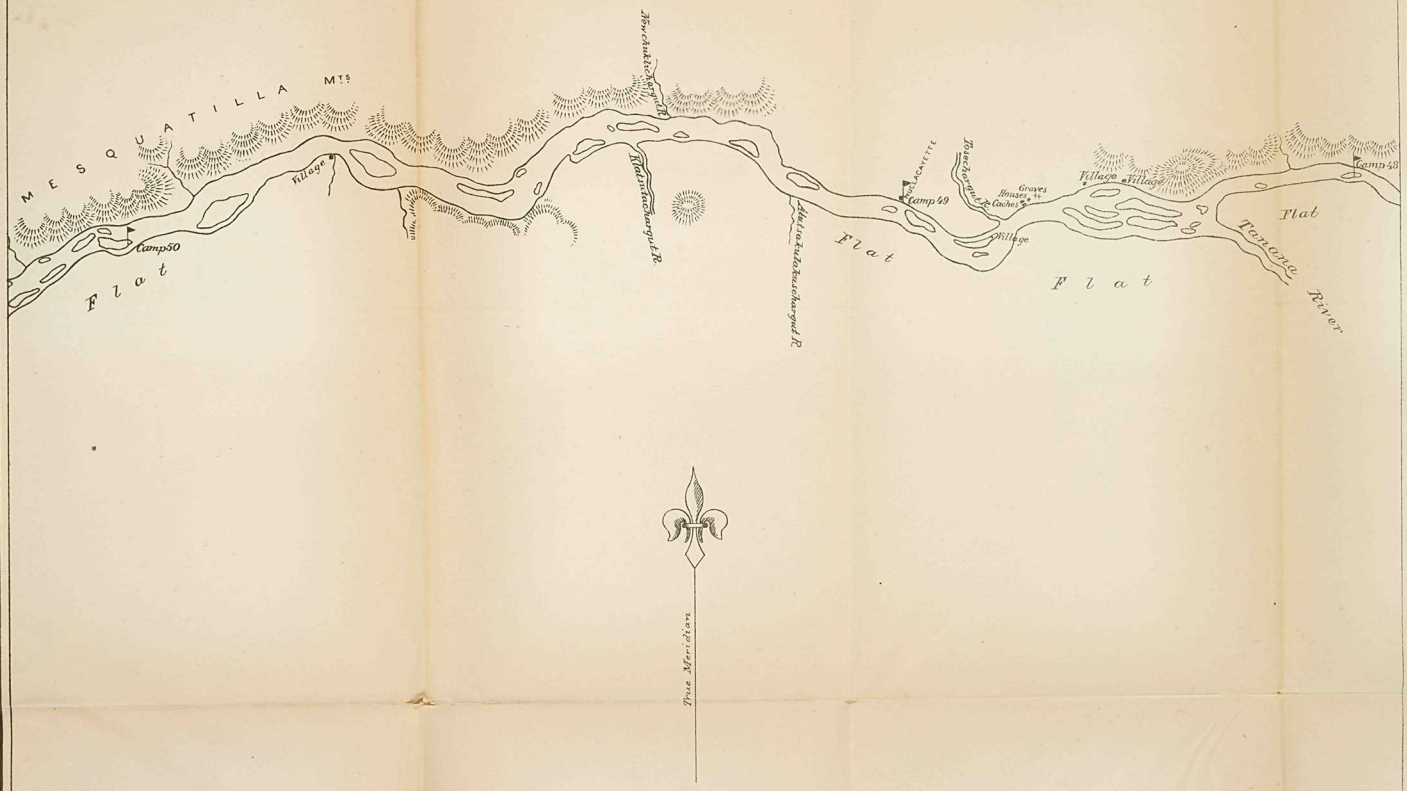
Geographical Miles.

0 5 10 15 20

BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

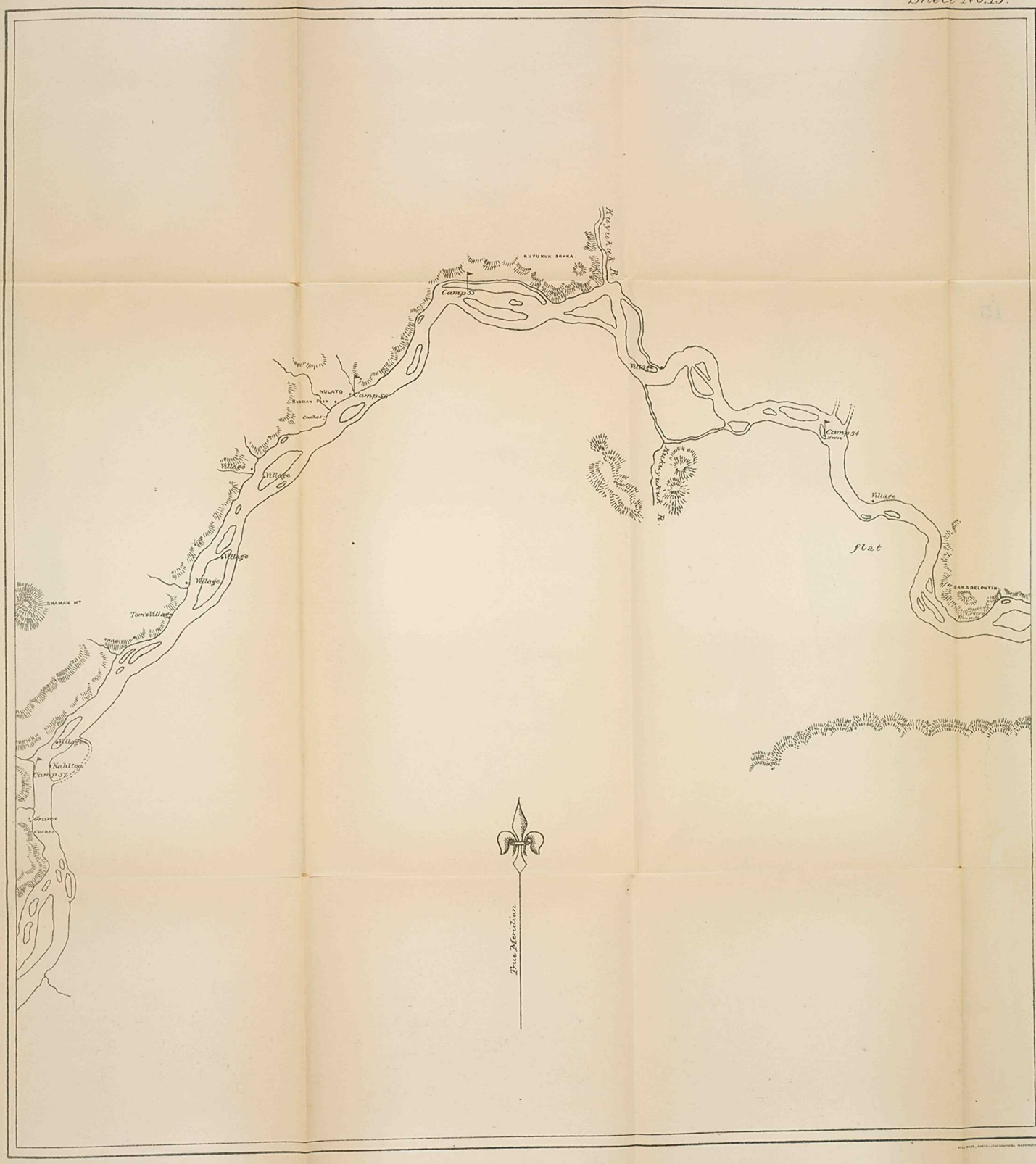


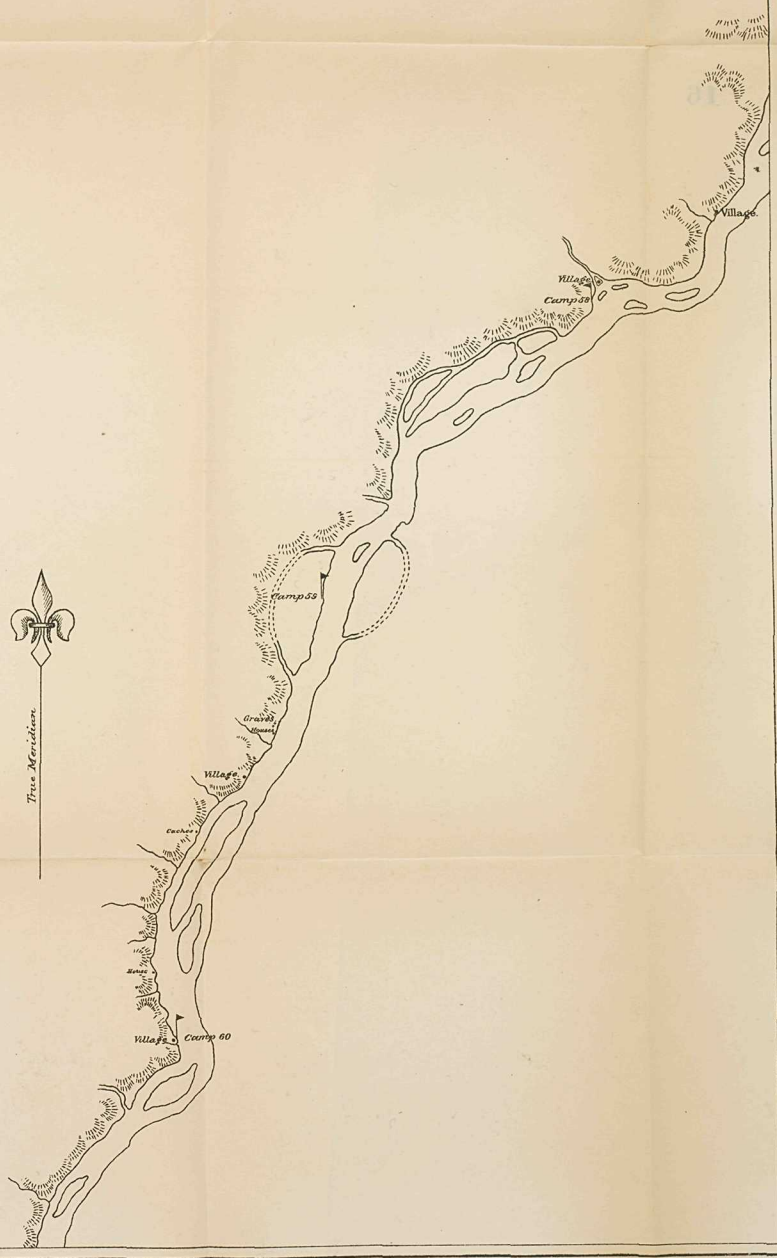
BUR. ENGR. PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



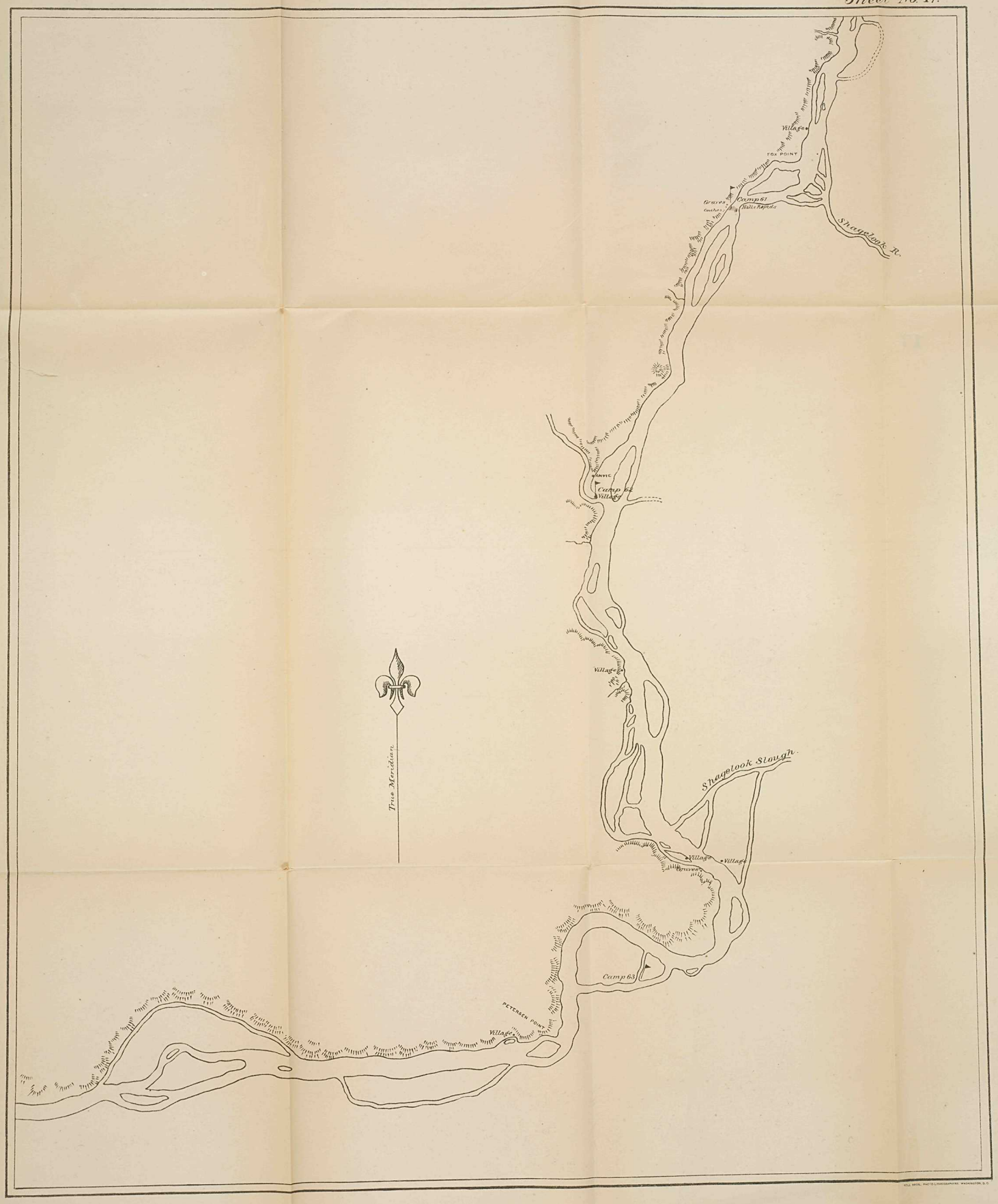
GEL. MON. PHOTOLITHOGRAPHED. WASHINGTON, D.C.

BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D.C.


Kuyukuk R.
KUYUKUK SOPKA
Camp 53
Village
NULATO
RUSSIAN FORT
Camp 56
Cache
Village
Village
Village
Village
SHAMAN MT
Ton's Village
Village
Nahltog
Camp 57
Graves
Caches
Kozyrevsk R.
Camp 54
Village
flat
SAKADELONTIN
True Meridian

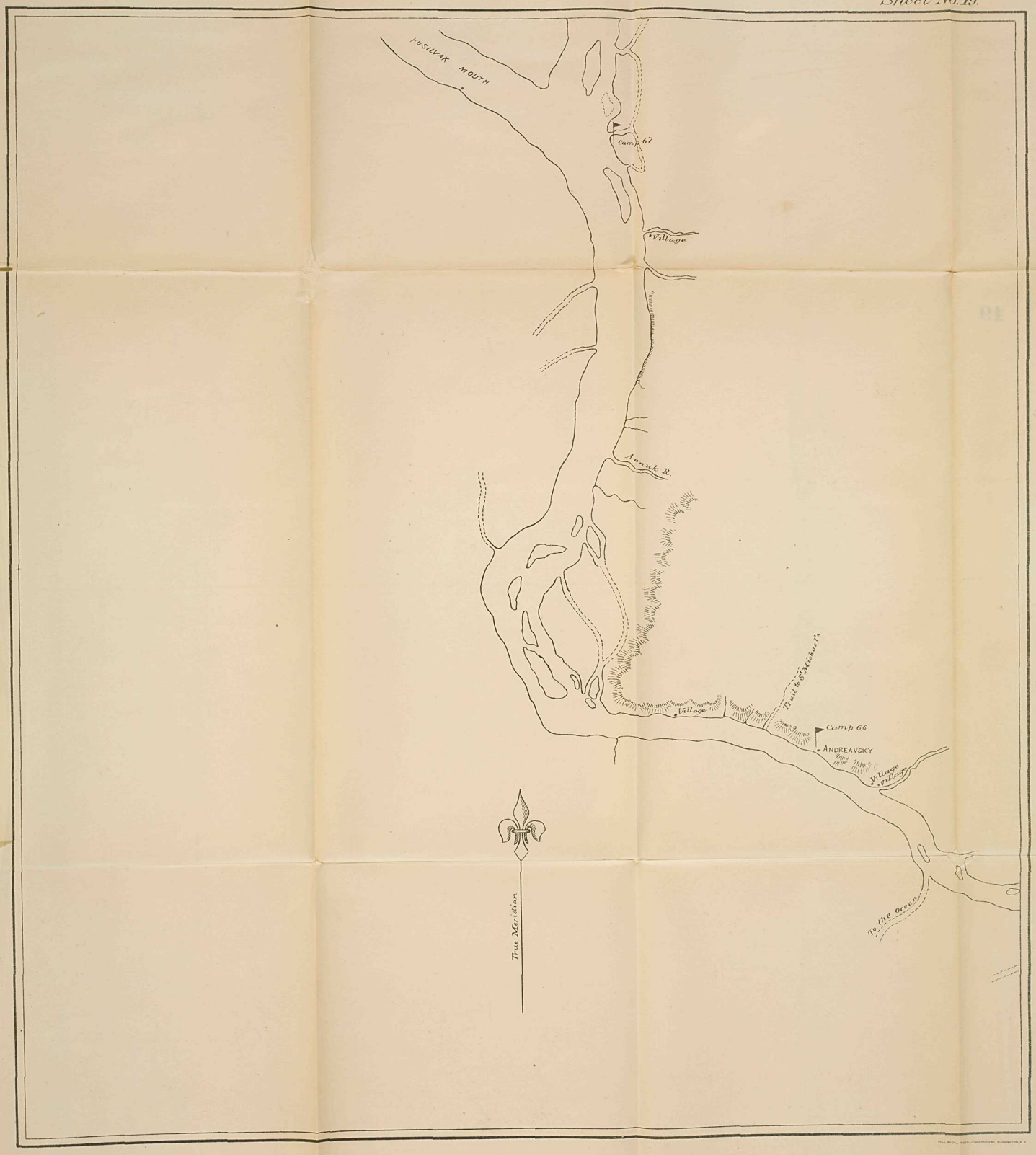


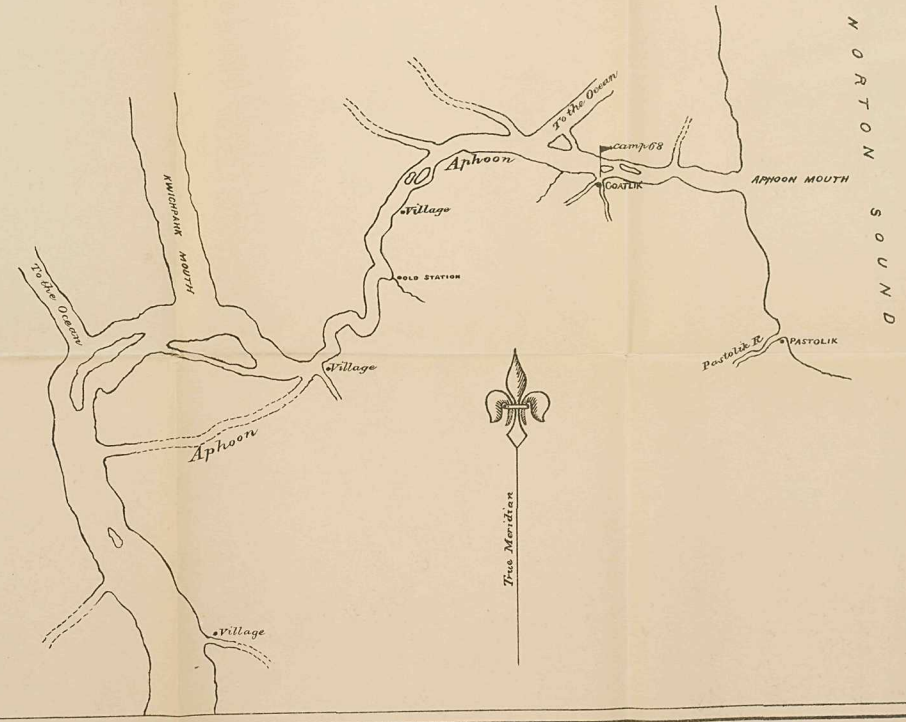
BELL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.



HELIO. BIRD, PHOTO-LITHOGRAPHER, WASHINGTON, D.C.

BELL BROS. PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.


KUSILVAK MOUTH
Camp 67
Village
Annik R.
Paul's Sketch
Village
Camp 66
ANDREAVSKY
Village
Village
To the Ocean
True Meridian



BILL BROS., PHOTO-LITHOGRAPHERS, WASHINGTON, D.C.