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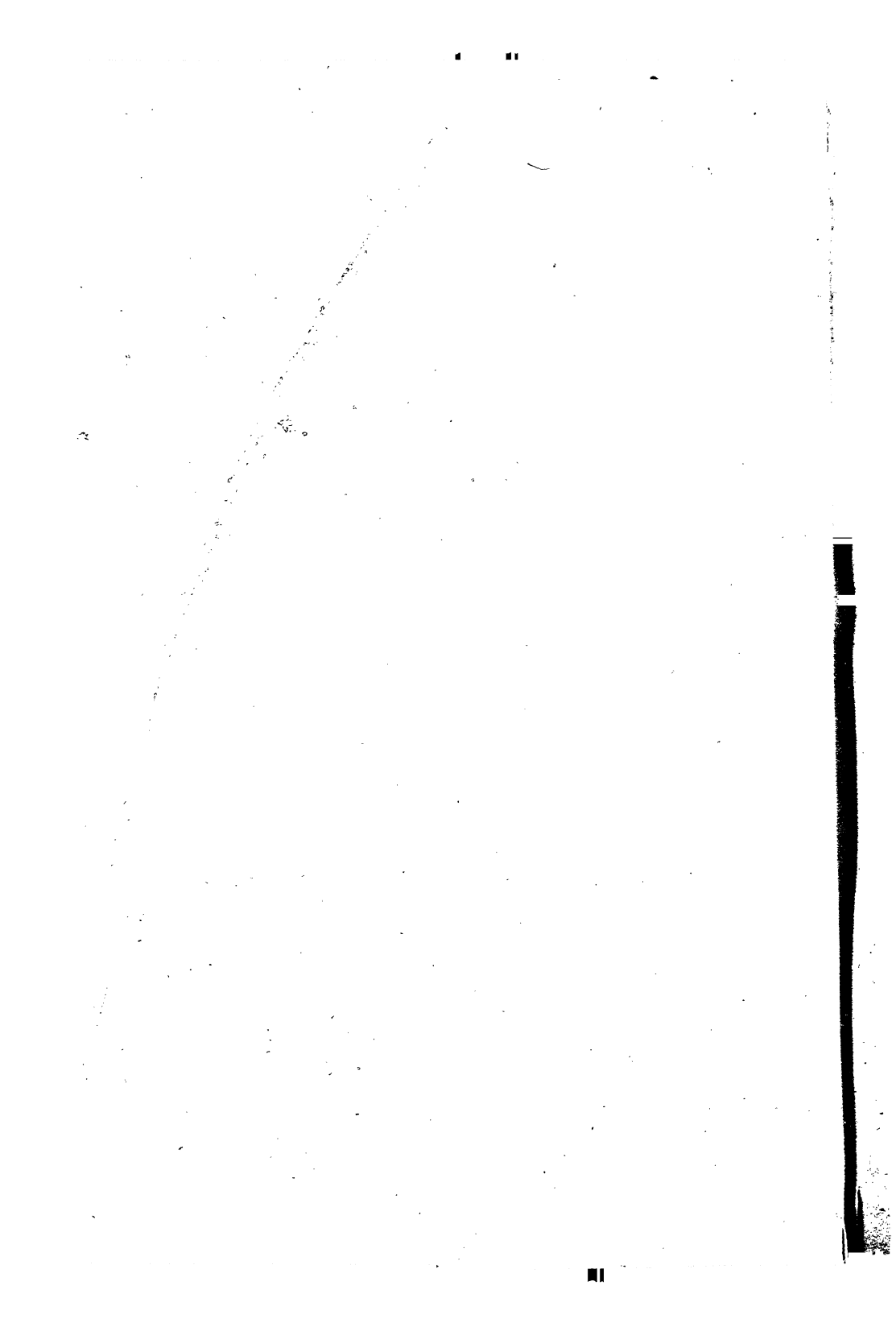
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OFFICIAL REPORT

—OF THE—

EXPLORATION

—OF THE—

Queen Charlotte Islands

FOR THE

GOVERNMENT OF BRITISH COLUMBIA

—BY—

NEWTON H. CHITTENDEN.

PRINTED BY AUTHORITY OF THE GOVERNMENT AT

VICTORIA,

1884.

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(45)

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Hon. Wm. Smithe,

*Chief Commissioner of Lands and Works,
of the Province of British Columbia:*

Sir:

*I have the honor to submit herewith my report of
the exploration of the Queen Charlotte Islands, made
under your direction, for the Government of British
Columbia.*

Very Respectfully,

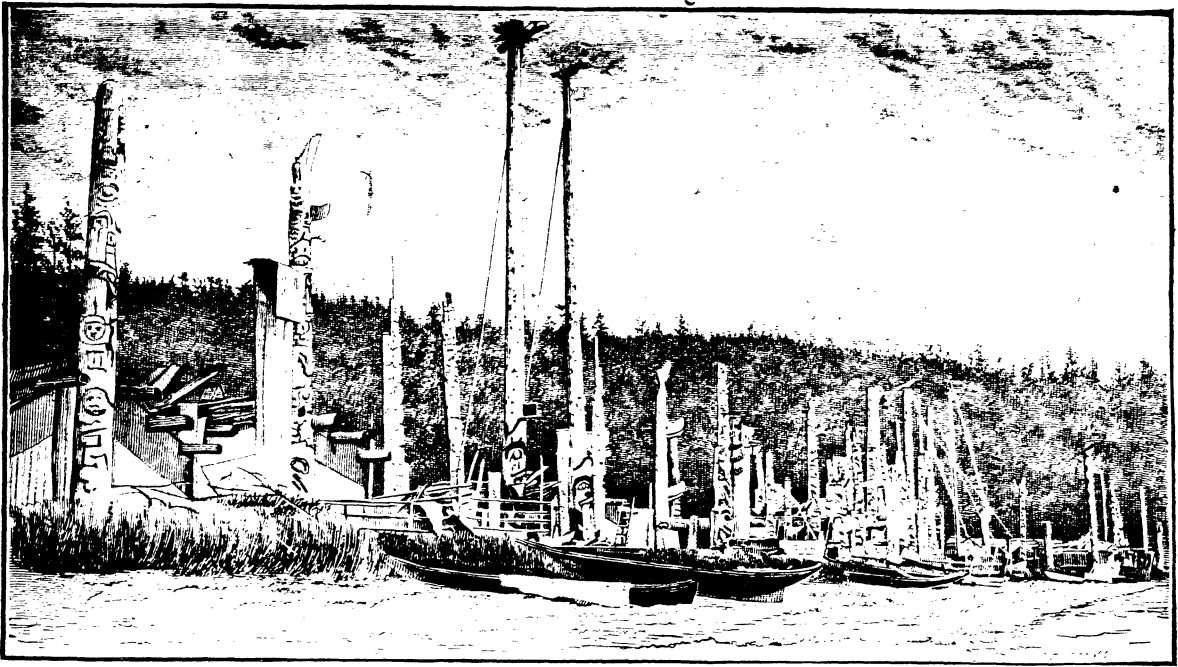
Your Obedient Servant,

Newton H. Chittenden.

Victoria, B. C., Nov., 1884.

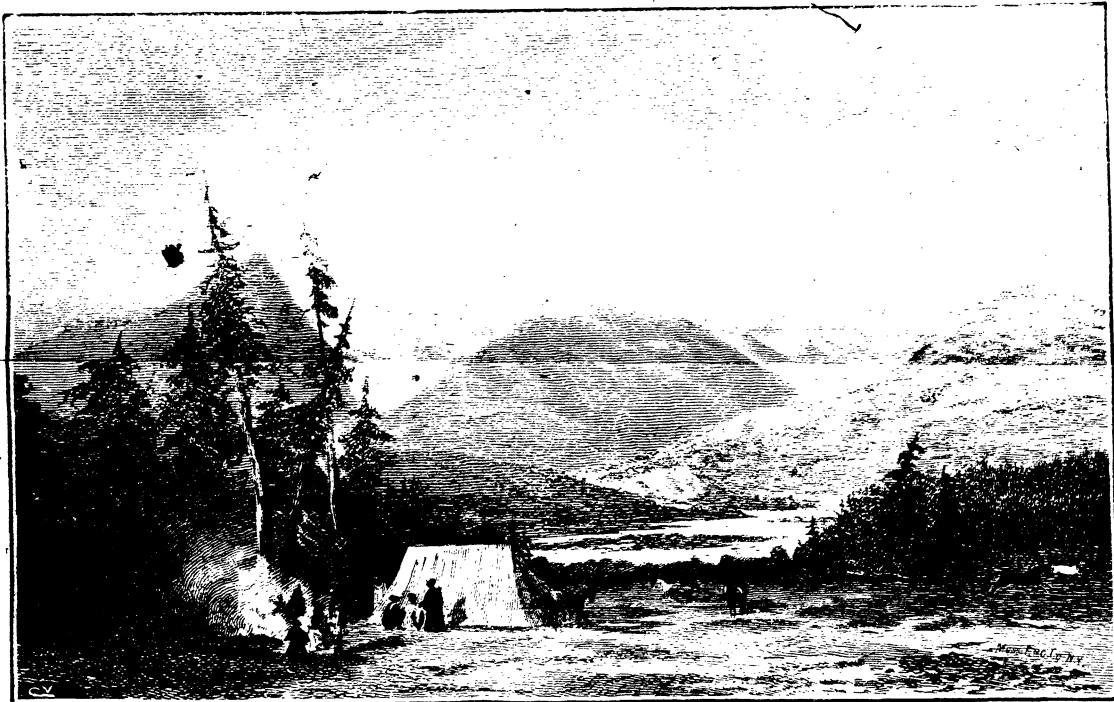
THE INDIAN VILLAGE OF GODD HARBOR, (UPPER CHARLOTTE ISLANDS,
From Photo by R. Mowbray.





THE VILLAGE OF THE TLECHU, ON THE COAST OF THE ALASKA PENINSULA





A CAMP ON THE TUMBUKTOO MOUNTAINS.



INDIAN OOLACHAN FISHERY OIL AND DRYING WORKS, NAAS RIVER, B. C.
From Photo by R. Maynard.



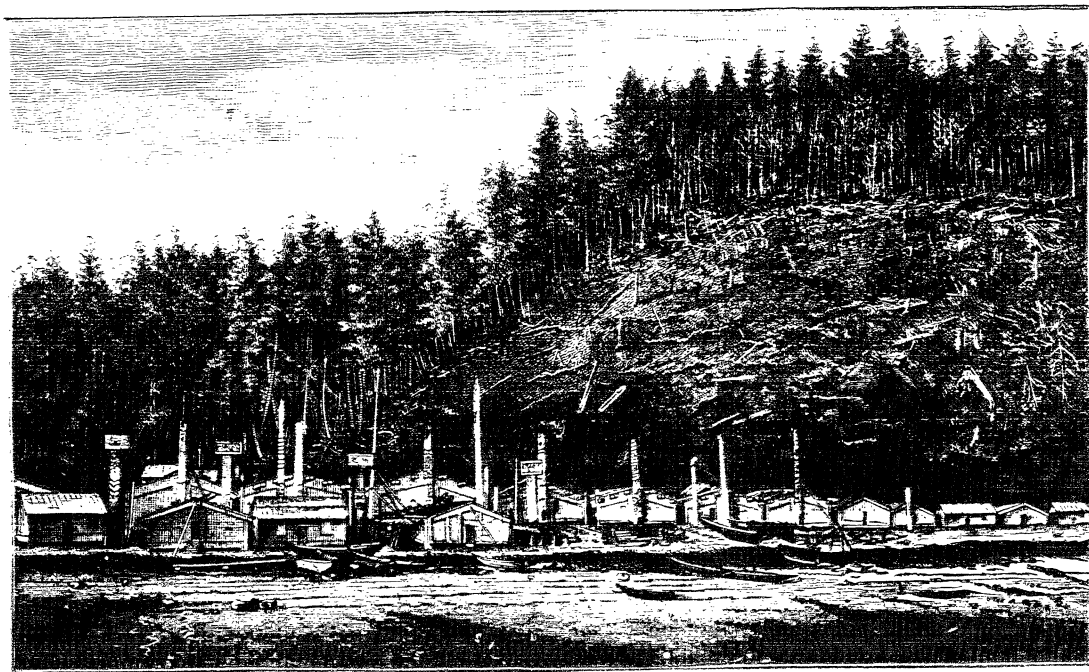
STEWARTSON AND PARTY AT CAMP NEAR THE LAKES IN BRITISH COLUMBIA.
FROM A PHOTOGRAPH BY M. J. W. HARRIS.



*A MINE-SCENE IN BRITISH COLUMBIA.



The River of the Thompson Highway at Ruma.



The Logging Mill near the Thompson Highway at Ruma.



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Geographical Position and Extent.

The Queen Charlotte Islands, the extreme north-western lands of British Columbia, lie in the Pacific Ocean, between fifty-one and fifty-five degrees of north latitude. They comprise over 150 islands, and islets, their length being 156 miles, and greatest width fifty-two miles. Provost, Moresby Graham and North Islands, extending north-westerly in the order mentioned, twelve, seventy-two, sixty-seven and five miles respectively, constitute over eighty per cent. of their entire area. Dixon Entrance on the north, with an average

width of thirty-three miles, separates Graham Island from the Prince of Wales group of Alaska. Queen Charlotte Sound, from thirty to eighty miles in width, lies between them and the mainland of the Province. The nearest land is Stephen's Island, thirty-five miles east of Rose Spit Point, the extreme north-eastern part of Graham Island, and also of the whole group. Cape St. James, their most southern point, is one hundred and fifty miles northwest of Cape Scott, the northernmost land of Vancouver Island.

Discovery and Exploration.

The Queen Charlotte Islands were first discovered by Juan Perez, a Spanish navigator, on the 18th of July, 1774, and named by him, Cabo De St. Margarita, and their highest mountains, Sierra de San Cristoval.

La Perouse coasted along their shores in 1786, and first determined their entire separation from the mainland. In 1787, Captain Dixon sailed off and on their north-west shores, with his vessel, the Queen Charlotte, naming the group, also North Island, Cloak Bay, Parry Passage, Hippa Island, Rennell Sound, Cape St. James, and Ibbitson's Sound, now known as Houston Stewart Channel. The first white men known to have landed upon the islands, were a portion of the crew of the *Iphigenia*, under command of Captain William Douglass, who remained about a week in Parry Passage in 1788, trading with the natives. The most extensive explorations made of any portion of the islands, by those early navigators, whose voyages for purposes of discovery, trade and adventure, extended into these northern seas, were those of Captain Etienne Marchand in the French ship *Solide*, who in 1791, examined the shores bordering on Parry Passage, and also about twenty miles of the west coast of Graham Island, from near Frederick Island southward. Since that date, although several parties of prospectors and others have visited various parts of the islands, no systematic effort has hitherto been made for the exploration of the entire group.

Under the direction of the Dominion Government, the waters and shores of the north and east coast of the islands including those of Massett Inlet and Sound, Naden Harbor

and Skidegate Inlet, have been partially examined, and mapped with considerable accuracy; but almost the entire west coast, so far as the number, extent and character of its numerous indentations are concerned, has hitherto remained a *terra incognita*. Judge James G. Swan, who, under the direction of the U. S. Government, visited the islands in 1883, and voyaged in a canoe from Massett to Skidegate, gave in a lecture before the Provincial Legislature of British Columbia, the first public confirmation of the entrances to the inlets and harbors on the west coast of Graham Island, approximately, as reported by Captain Marchand.

General Physical Features.

High steep mountains, dense and almost unbroken forests, islands and islets in great number and water-ways most wonderful, extend for a thousand miles along this north-west coast. "Only mountains, forests and water," replied an Indian, of whom I made inquiries concerning this region. The Queen Charlotte Islands, in common with all those lying off the north-west coast of the continent, are evidently the mountain tops of a submerged land, separated from it by a mighty volcanic upheaval followed by the sinking of the earth's surface, and the inflowing of the waters of the ocean, forming the most remarkable labyrinth of inlets, sounds, straits, channels and passages on the face of the globe. A continuous range of mountains from 600 to 5,000 feet in height, extends the entire length of the islands nearest their western coast, reaching their maximum elevations on Moresby Island, between Darwin Sound, and the head of Cumshewa Inlet. These are clothed with an evergreen forest of spruce, hemlock and cedar from near their summits down to the coast, with the exception of the comparatively small areas, as hereafter specified. The shores of the islands from Cumshewa Inlet southward to Cape St. James, and from thence northward around the west and north coast to Massett, are uniformly rock-bound, containing however, many stretches of fine, sandy, or gravelly beaches. From Massett to Dead Tree Point, Moresby Island, a distance by the

coast line of about seventy-five miles, a magnificent broad beach of white sand, extends the greater portion of the way. The shores of Naden Harbor and Skidegate Inlet and channel are also generally low and sandy. With the exception of the north and eastern portion of Graham Island, the base of the mountains reaching down to the sea, with only occasional narrow benches and gradual foot-hill slopes. The highest elevations on the immediate coast, from North Island east and southward to Cumshewa Inlet, Klas-kwun Point, Tow Hill and Cape Ball of Moresby Island, do not exceed four hundred feet. From thence to Cape St. James, there are several bold, rocky bluffs, from three to eight hundred feet in height, but along the west side of Moresby Island, between Henry Bay and Gold Harbor, the mountains present, for considerable distances, an almost perpendicular front of from one to two-thousand five hundred feet in height, and in many places the mountains bordering the inlets to the northward, are almost equally high and precipitous.

Passages, Inlets and Channels.

The principal islands of the group, as mentioned, are separated by narrow water-ways, admitting the passage of the largest ships through them, with the exception of the narrows of Skidegate Channel and Inlet, navigable only for small vessels at flood tide. These are Parry Passage, between North and Graham Islands, a mile-and-a-half in width, and two miles-and-a-half in length, Skidegate Inlet and Channel separating Graham from Moresby Island, together thirty-five miles in length, and from 250 feet to seven miles in width, and Stewart Houston Channel twelve miles long, with an average breadth of a mile and-a-half, between Moresby and Provost Island. We also found a short canoe passage between the latter island and Cape St. James. Besides these sea channels extending across the group, there are twenty inlets from three to fifteen miles in depth, generally running in an easterly and westerly direction, and reaching to the base of the high mountains described. These numerous inlets, with the bays therein embraced, leave but a

skeleton land of Moresby Island and the south-western portion of Graham. Massett Inlet, the deepest indentation in the archipelago, penetrates the latter island for eighteen miles, and then expands into an open sea nearly twenty miles in length and over six miles in width.

Bays, Harbors and Sounds.

The waters surrounding these islands embrace numerous bays, harbors and sounds, of which Cloak Bay, North Island, Virago Sound, Naden and Massett Harbors of Graham Island, Darwin and Juan Perez Sounds, Laskeek, Sedgwick, Henry and Robson Bays, Gold Harbor of Moresby Island, Cartwright and Rennell Sounds, and the excellent harbors afforded by Kio-Kath-li, Skaloo, Athlow, and Seal Inlets on the west coast of Graham are the most important. There are no harbors, except for small boats, between Massett and Skidegate Inlets by the east coast.

Islands.

Of the great number of islands and islets contained in the archipelago the largest and most important except those mentioned are, Louise, Lyell, Barnaby, Tal-un Kwan, Tanoo, Ramsay, Murchison, Kun-ga, Faraday and Huxley Islands, all lying off the east coast of Moresby; Maud and South Islands in Skidegate Inlet; Cub, Edward Kwa-kans, Wat-hoo-us and Multoos of Massett Inlet and Sound; Frederick and Nesto on the west coast of Graham and Chathl island between the entrance waters of Skidegate Channel and the canoe passage connecting therewith. Of these named Lyell and Louise islands, the largest, are about 15 miles in length and from five to ten miles in width. Barnaby, Talun-Kwan, Tanoo and Cub islands are each from eight to ten miles long. The others are much smaller—from two to three miles in length.

All of the largest except Cub Island are mountainous, and forest covered down to their shores. Hot Spring island, situated between Ramsay and Faraday, though small, deserves mention as containing a spring of very hot water, slightly impregnated with sulphur and salts.

Rivers.

There are hundreds of streams upon the islands, from ten to twenty-five miles in length, and from fifteen to one hundred and fifty feet in width. The Ya-koun River, the largest, rises in Ya-koun Lake, and flowing northward empties into Massett Harbor, twenty-six miles south of Massett. It affords uninterrupted navigation for canoes about a mile and-a-half, and beyond to its source, by means of small dug-outs and numerous portages. The Naden River, rising in Eden Lake, and discharging into the head of Naden Harbor, is next in size. It is broader and deeper than the Ya-koun, navigable for canoes between two and-a-half and three miles, but is only about ten miles in length. The river Tlell emptying into Queen Charlotte Sound twenty-five miles north of Skidegate Inlet, is the principal stream discharging on the outer coast of the island. Canoes can ascend it two or three miles at high tide. The Ain River, of Massett Harbor, Jalun of the north coast, Slate Chuck and Dena of Skidegate Inlet, Skidegate Chuck of Moresby Island, are among the other more important streams. All of these, and many others of lesser size, flowing into the numerous inlets, are the resort of salmon in great numbers. Upon the banks of the Ya-koun, Naden and Ain Rivers, the natives have obtained their choicest specimens of red cedar for their canoes, carved poles, and house building. Numerous bear, and marten traps, in the last stages of decay, were found upon them. They are generally filled with logs to near their mouth, with rapids and shoals in their upper courses. Their waters are clear and good, with the exception of those flowing from the northern and eastern portions of Graham Island.

Lakes.

Soo-o-uns or Clifford Lake, the source of the Ain River, is so far as known, the largest body of inland water upon the islands, being from eight to ten miles in length, and from two to three miles in width. Yakoun, Eden and Awan Lakes, the sources of the rivers bearing their respective names are next in size.

Climate.

The climate of the islands, being under the influence of the warm Japan current, is much milder than upon the coast of the mainland opposite. I found vegetation more advanced at Massett, and all along the northern and eastern shores of the islands in April, than at Port Simpson. It is rarely severely cold, and then only a few days at a time. Snow falls, according to elevation, from one to five feet in depth, and remains upon the mountain tops until late in summer, and in a few deep gorges on their northern slopes throughout the year. It not infrequently reaches down to the coast, but then generally disappears in a short time. The temperature is equable, the extreme heat of summer seldom exceeding seventy-five degrees, Fahrenheit. During the months of April, May and June, the thermometer ranged from forty deg., at 5 A. M., to about sixty-five deg., in the middle of the day. I kept no record later than June, having loaned my instrument to a vessel, whose barometer had become useless. The annual rainfall varies according to local topography, from forty-five inches to seventy-five inches, the west coast, especially at the heads of the inlets, receiving much the largest amount, and the north and eastern portions of Graham Island the minimum. There were about fifty-five, clear days in the months of June, July and August of the past season, which I was informed was about an average one in that respect. Throughout the winter months the sky is almost continuously overcast, one rain storm—frequently accompanied, especially on the west coast, by violent gales—succeeding another, with but few and short intervals of clear weather. The winds are very changeable, those from the north being the most prevalent and reliable.

Soil.

A light sandy soil, generally prevails over all the islands, except those large areas covered by rocky mountains. The best lands lie mainly at the heads of inlets and mouths of the larger streams. There are occasional tracts of swampy lands containing a deep soft fibrous deposit resembling peat. A clayey subsoil was seen in a few places near Cape Ball on the east coast of Graham island.

Agricultural and Grazing Lands.

There are about fifteen thousand acres of clear land upon the islands on and near the coast including river tide meadows. The largest tracts lie on the north and east side of Graham Island as more specifically located in Progress Report Nos. 1 and 3. The mountains embrace probably twenty thousand acres of open, timberless lands producing considerable pasture. The grasses of the coast, with the exception on some meadows, are generally coarse and thin. Graham Island will support a few hundred cattle, by cutting all its meadows for winter feeding. The grazing of the interior is very limited, owing to the density of the forest growth, its numerous swamps, and almost impassable dead-falls.

Forest Growth.

The forest growth is very dense, and composed chiefly of spruce, hemlock, red and yellow cedar. I have measured several spruce trees, and also red cedars from thirty to thirty-three feet in circumference, the finest specimens having been found on Skidegate and Massett Inlets. With the exception of those localities, I have seen no place upon the islands, where the available quantity of these woods is sufficient to warrant the erection of mills for their manufacture for exportation. There are fine specimens of yellow cedar of very scattering growth, and several bodies of considerable size on the borders of the interior lakes of Graham and Moresby Islands, as hereafter more specifically described in Progress Report No. 2. Its utilization is of doubtful practicability, on account of its distance from navigable water, and the obstructions of the streams flowing therein. There is an occasional alder bottom, hemlock is quite common, bull pine is found in a few localities, and yew, dog-wood and crab-apple occur upon all the islands. There is a dense undergrowth of salal, whortle, salmon, raspberry and other bushes, and shrubs.

Wild Animals.

Black bear, land otter, marten, weasel and mice, are so far as known, the only native animals upon the islands. Deer and rabbit have been placed upon Graham Island, by Alexander McKenzie Esq., of Massett, and the latter by Rev. Mr. Robinson upon Bare Island in Skidegate Inlet. The Indians report having seen a species of Caribou, on the north-west part of Graham Island.

Birds.

The birds of the Queen Charlotte Islands are, eagles, ravens, crows, hawks, owls, black-birds, blue-jays, humming birds, wrens, swallows and bats, of the same kind found in other parts of this region.

Resources—Fish, Etc.

The waters surrounding the Queen Charlotte Islands, abound with the most valuable varieties of fish found in this region. Hallibut are caught in unlimited quantities, upon banks near all the Indian villages; small salmon of excellent quality frequent nearly all the larger streams in the spring, and a much larger, though inferior kind in the fall of the year. I have seen fine silver salmon at the mouth of the Ya-koun River, but it is doubtful whether they, or any other marketable salmon, frequent these waters in great numbers. Immense schools of dog-fish feed on the shoals off the north and eastern shores of the islands, herring of good size and excellent quality visit Skidegate and other inlets in such great quantities that their spawn forms an important article of diet with the natives. Flat-fish, rock-cod, salmon and brook-trout, clams and mussels are plentiful.

Black Cod.

Called by the Hydahs, Skil, and known on other parts of the coast as Pollock and Coal-fish, are caught off the west

coast of the islands. They have been prized hitherto for their oil, which the natives have extracted, by boiling them in wooden tanks, with heated stones. Samples obtained by Hon. James G. Swan in 1883, and by Messrs. McGregor and Combes during the present season, have been pronounced so excellent by competent judges, that the establishment of a fishery for their utilization, would seem to be practicable, providing that they can be taken in sufficient quantities. Messrs. McGregor and Combes caught 110 in three hours, about two miles from shore, opposite Gold Harbor, Moresby Island, fishing from a canoe manned by three Indians, with two kelp lines, 250 fathoms in length, with 60 native hooks upon each, baited with halibut. The fish dressed weigh on an average six pounds each, the largest being thirty-three inches in length. They are easily cured with salt and keep well. It is believed that a good steam schooner of about 100 tons register, provided with Columbia River boats of the largest size, manned by practical cod fishermen, will be best adapted for catching these fish in marketable quantities. There are good harbors of easy access, within ten or fifteen miles off the fishing grounds, all along the west coast.

Minerals—Gold, Etc.

Gold was discovered at the head of Gold, or Mitchell Harbor on the west coast of Moresby Island in 1852, by an Indian, since known as Captain Gold, and about \$5,000 taken out by the Hudson Bay Company, when the vein (quartz) pinched out. Parties of prospectors have examined the locality since, but have not found any further deposits. Colors of gold have been washed out from the sands on the east and north shores of Graham Island.

Coal

Numerous veins of coal have been previously discovered on Moresby and Graham Islands, the most important of which are the anthracite deposits situated on Skidegate Inlet, and described under the head of "The Cowgits Coal Mine" in

progress report No. 4. There are outcroppings of coal in several other places on and near the shores of this inlet, viz: on its south side, nearly opposite the Cowgits seams, on Alliford Bay, and on the north side about half a mile from the Indian village of Skidegate. These coals are of a bituminous character, but the veins exposed are only a few inches in thickness.

Beds of lignite formation lie on the north side of Graham Island between Tow Hill and Chown Point, on the Yakoun and Mamin rivers of Massett Inlet, on Lignite Brook and Naden Harbor and on the west coast near the sea otter hunters' camp of Tledoo. Coal has also been found at the head of Skaloo Inlet.

The Indians have brought in specimens of bituminous coal said to have been obtained upon a stream discharging into Cumshewa Inlet, and they also report having seen a seam near Ninstints. Messrs Knight, Williams and Allen, practical coal miners of Nanaimo, prospected the islands for coal during the past summer, but made no locations.

Copper.

Copper bearing rocks, and veins occur in several localities on the east coast of Moresby Island, and shafts have been sunk into them at Copper Bay and opposite Copper Island and abandoned. The examination of these deposits is briefly mentioned in progress report No. 2.

Productions, Cereals and Vegetables.

Oats are the only cereal which has been successfully grown in the islands.

Potatoes, turnips, cabbages, peas, and garden vegetables generally, with the exception of Indian corn tomatoes and melons are raised.

Fruits.

Crab-apples, red, blue and black whortleberries, Scotch,

salal, salmon and strawberries are very abundant. Cranberries were found on the north and east side of Graham Island. A few black currants and gooseberries were also seen. Apple and pear trees grow well, but bear an inferior fruit which seldom ripens.

Inhabitants—Physical Characteristics.

These islands are inhabited by about 800 Hydah Indians, a very remarkable race of people. The most common type of the adult unmixed Hydah is about five feet, seven inches in height, thick-set, large-boned, with fairly regular broad features, coal-black hair and eyes, and a bronze complexion. They have generally—both men and women—finely developed breasts and fore-arms, caused by their almost daily use of the canoe paddle from infancy. A few have well-formed legs, though the greater number are defective in this respect, resulting from much sitting, or rather squatting in their canoes, in and around their lodges, with but comparatively little walking. Their feet are so short, broad and thick through the instep, that shoes are made by the manufacturer, expressly for them. Some of the young men wear a moustache, and a scanty beard is occasionally seen upon the face of the old men, though both generally eradicate such hair as it grows. Only the women and medicine men permit the hair of the head to grow long. They walk with a springy light tread and agile step, though I easily outran a young Indian of Massett, who matched himself against me. Some of them are very strong in the arms, an Indian of Skidegate beating me at "tug of war." Many are expert swimmers, sometimes diving from their canoes into the rough sea, and bringing out wounded seal which have sunk to the bottom. One of my men performed such a feat, springing from the top of a great rock, where the ocean was breaking. They are intelligent and quick to learn from observation.

There are, probably, more well formed and featured people among the Hydahs than any other aboriginal race, though there are none which can be considered handsome; indeed I have never seen an Indian beauty, nor an adult

Indian woman of graceful movement. Black hair and eyes, white teeth and occasionally a rich olive complexion are their chief attractions. The Indian ages rapidly and are shorter lived than the whites. They suffer most from pulmonary and venereal diseases, the faces of many being scarred by the latter in its worst forms. Small pox has also destroyed them by the hundreds.

Dress—Ornaments. Etc.

The Hydas have so far adopted the dress of the whites, that with the exception of blankets—still much worn by both sexes at their homes, and dancing suits—their original costumes are now seldom seen. The blanket has been substituted for the sea-otter cloak, trousers and dresses for the breech cloth, and leather undergarments by woven ones. The men wear hats, but the women very rarely; a handkerchief or shawl being their most common head covering. Some of the elderly women, however, wear large hats of the Chinese pattern, braided by them from the roots of the spruce tree. The women are very fond of bright, striking colors; though many exhibit considerable taste by the selection of dark shades, suited to their complexion. The men are quite as much inclined to over-dress as the women, when they have the means. On one of the hottest days of summer, I saw an Indian parading through the village of Skidegate, dressed in a full suit of black, including a *heavy beaver Ulster*. Both men and women generally go with barefeet, except when engaged in some occupation away from home, which exposes them to injury.

Nearly all the adults are tattooed upon the arms and legs, many upon the breasts, and occasionally one upon the face. The designs usually represent tribal and family crests and totem. The practice is being gradually discontinued. The face is generally painted for dances, by the women when mourning, and frequently by both sexes when travelling, to protect it from the effects of the sun and wind. Vermillion, the fungus of trees, burnt and ground, common charcoal, deer tallow, and spruce gum are used for this purpose. Labrets—

pieces of wood, bone or shell, from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in length—are worn by a few old females, but this hideous monstrosity is now never found upon the young women. Many of the middle-aged, however, pierce the centre of the lower lip and insert a small silver tube, which projects about a quarter of an inch. Both sexes perforate the septum of the nose for rings, but I have only seen two worn by the Hydas, and these were silver. The medicine men, while performing their dances, sometimes insert a semi-circular bone from eight to ten inches in length. They are very fond of ornaments, which are used in profusion, especially upon their dance and ceremonial dresses and robes, and by the females upon their persons. I saw a woman at Skidegate with sixteen silver rings upon her hands, and two or three heavy silver bracelets are quite commonly worn. Feathers, mother-of-pearl buttons, puffin bills, abalone, dentalium and other shells, silver pieces, and deer toes, are among their favorite articles of adornment.

Manners and Customs.

The Indian generally, is an ill-mannered brute, who steals into your presence without warning, handles whatever he sees without permission, smokes if you allow it, and seldom, especially if a middle-aged or old woman, leaves you without begging a potlatch. He exhibits very little deferential respect for his superiors, seldom expresses gratitude for favors, and more rarely does them without expecting compensation. At their homes, however, there is much to be commended in their conduct. There they are generally quiet and peaceable, converse in low tones, and treat their children with kindness. There is a noticeable difference in favor of the deportment of those Hydas of Massett and Skidegate who have come under the influence of missionary training.

Domestic Relations.

The Hydas generally enter the marriage state in early youth, the females frequently between the ages of fourteen

and sixteen. Matches are often arranged by the parents before the children are old enough to choose for themselves. In such cases, when of suitable age, the young man and woman begin to live together without other ceremony than a mutual agreement and understanding between them and their relatives, and the bestowal of presents and dowry upon the bride. When the parties make their own selections, which is now oftenest done, and the young man falls in love, he tells his mother, who goes to the mother of his sweetheart, (ka-tadha,) and makes a declaration of her son's affection for and desire to marry the girl. If the proposal is favorably received, the parents and friends of the groom assemble at an appointed time at the house of the bride's parents, where, all sitting around the fire, the good qualities of the young man are praised by his friends to the father of the girl. She is present, also, and if satisfied after listening to all the gracious words in favor of her intended, she rises from her place, goes and sits down beside her lover, and taking his hand in hers the ceremony is complete. Among those Hydats who profess Christianity, marriage is solemnized by a ceremony, at which a missionary or Justice of the Peace officiates, the same as among the whites, and other unions are not regarded as binding. Polygamy was formerly much practised, especially by the chiefs, who took young women for their wives as often as they desired them, but none of the natives, so far as my observation extended, now have more than one wife. Married women are generally well treated, and instead of being menial servants as frequently represented, they oftener carry the purse than the men, and have an equal voice in the management of family affairs. Indeed, the only domestic unpleasantness which I witnessed were cases of young wives vigorously asserting authority over the "old man." The marriage relation has, however, undergone a radical change since so many females, from their own earnings, not only bring most of the money into the household, but frequently support the men in idleness.

Slavery.

Slavery has existed among the Hydats, as with the other

native races, from the earliest times. Until a comparatively recent period they were always at war with some of the coast tribes, and, being generally victorious, made many captives, whom they held in bondage, usually attached to the household of the conquering chief, who became their absolute owner and master, even to ordering their sacrifice, which has occurred on many occasions. A slave, (elaidi), was formerly valued at from one hundred and fifty to two hundred blankets, but now, though there are still a number upon the island, they are no longer bought and sold, but enjoy unrestrained freedom. Many prefer to remain with or near their former masters and render service for food and protection—especially men—rather than return to their native villages and endure the disgrace and taunts for having been overcome in battle. Several white men have been captured and held as slaves by the Hydas within the last thirty years.

Potlatches.

This custom of distributing property prevails more or less among all the northwestern tribes. The potlatch is usually preceded by a feast, also provided by the donor. They are never prompted by a spirit of unselfish generosity, but are given as a means of acquiring popularity and influence, for the compensation of labor performed, in satisfaction for injuries done, and sometimes as a means of revenge. The greatest potlatches are given by the chiefs, either for the purpose of obtaining or retaining the chieftaincy. On such occasions the feasts are sometimes prolonged for days, and hundreds of blankets distributed. Whenever a great house or carved pole is erected, there is a feast and potlatch for all who assist in the work. They are also held on occasions of tattooing, when females arrive at maturity, and as a part of the funeral ceremony. In most instances a record is kept of the property dispensed, and an equivalent, if not already received, is expected at some future potlatch.

Dancing and Masquerading.

The Hydats are fond of dancing, and display great ingenuity in devising many grotesque and fanciful costumes for wearing upon such occasions. Every beast, bird and fish almost of which they have any knowledge, is represented in some form—the heads of bear, seal and other animals are worn upon their heads, and also hideous masks, with moving eyes and lips. The costly *na-xin*, or blanket, woven from the wool of the mountain goat, is thrown over the shoulder; curiously carved rattles are held in their hands, whistles imitating owls, wild geese, loons, eagles and other animals, are blown, drums are beaten; castanets—small hoops upon which numerous puffin beaks are suspended—shaken, birds' down is scattered until it fills the air and covers the performers, who, with a swinging, slouchy movement, dance for an hour at a time, rattling, whistling, singing and grunting. There are reception dances—*Skaga* and *Hi-ate*—house-building dances—*Skadul*, the *Kata-ka-gun* dance when the house is completed, and the *Skarut* dance, preceding a distribution of property—and also on occasions of tattooing and death. The latter is performed by a single man, naked with the exception of a breech-cloth, wearing a hideous mask on his head. He runs at large through the village, and simulating an infuriated wild beast, seizes dogs, tears them in pieces, and eats the raw flesh. Nearly all these dances have been abandoned at Massett and Skidegate, but most of them are still practiced in those villages not yet reached by the missionaries.

Totems and Crests.

There are five separate totems or crests among these people, established, apparently, to avoid too close blood relationships. These are *Koot*, (eagle), *Kooji*, (wolf), *Kit-si-naka*, (crow), and *Sxa-nu-xa*, (black bear and fin-whale united). The several tribes are supposed to have been originally about equally divided under these different totems. Marriage between

those of the same totem is forbidden, and the system is perpetuated by the children adopting the totem or crest of the mother.

Religion.

The Hydas, with the exception of those who have embraced the Christian faith, have no forms of religious worship, and I am informed by Rev. Mr. Harrison, missionary at Massett, and probably the best authority upon the subject, that there is no word in their language which signifies the praise or adoration of a Supreme Being. They believe in a Great Spirit, a future life, and in the transmigration of souls. Their God, (Sha-nung-et-lag-e-das), possesses chiefly the attributes of power, and is invoked to help them attain their desires. Their Devil, (Het-gwa-lan-a), corresponds with the devil of common belief, a demon who in various forms brings upon them evil and destruction.

Morals.

The moral degradation of these people is so great that they seem to be nearly destitute of any sense of wrong-doing, while committing the grossest social sins imaginable. There is every reason to believe that before they came in contact with the whites, that they were much given to licentious practices. Many of their legends and traditions are filled with vulgarities too great for translation. But with the opportunities afforded after the influx of whites into their country for obtaining money by the prostitution of their females, this practice has prevailed until many of the present generation of young Indian women seem to regard this mode of serving their kindred as their legitimate end. Almost incredible as it may appear, fathers and mothers become procurers for their own daughters, brothers for sisters, and, in some instances, husbands for their wives. Soon after my arrival at Skidegate, a Hyda young man called at my cabin to see if I would not take a rather comely Indian girl, about twenty years of age, who accompanied him, to live with me, and

neither seemed in the slightest degree embarrassed, either in making the proposition or when it was declined. Immodesty of speech or action in public places, however, is rare, even among those women who change their *man* so often as it suits their caprice or convenience. Both the married and unmarried have apparently not neglected their opportunities to improve upon the native stock by the introduction of foreign blood. There are Russian, English, Canadian, American, Chinese and Negro Hydas; Hydas with fiery red hair, tow heads, blue eyes, and all complexions from black to pale white. Many of these homeless half-breeds are farmed out with relatives, by their mothers, when single, thus leaving them free to go and come without incumbrance. Barrenness, disease and early death are the fruits of such promiscuous intercourse, to such an extent that their utter extinction from these causes is inevitable, unless they are speedily removed. Their only hope of long surviving lies in the careful training of the young children by the missionaries. The habits and associations of the adults are too strong to be much affected by their labors.

Legends and Traditions.

The mind of the Indian is full of weird strange fancies and imaginations. Groping in darkness, in almost total ignorance of the discoveries of science, with nothing to guide or correct him, it is no wonder that in his blind struggles to solve the great problems which are more or less a mystery to us all—the origin of man and original creations—that he has wrought out the incongruous mixture of ignorance, superstition and vulgar imagination which mainly compose their legends and traditions. Some of them are doubtless based upon actual occurrences in the remote ages, which they have interwoven with their own fancies; others upon the exploits and experiences of their ancestors; though the greater number are pure fictions, fairy tales and hobgoblin stories, handed down from generation to generation. It would require a large volume to contain them all, and years to translate them with accuracy. I can therefore only give a few examples

from those most frequently narrated, which I had from the lips of Edensaw, the oldest and ranking Chief of the Hydah nation, and Goo'd-nai-u-uns, wife of Goo-gul, well known as a gifted relator of their legends and traditions. Ne-kil-stlas is their great creative geni, who, by transforming himself into men, women, children, beasts, birds and fishes, or whatever thing is best suited to accomplish his designs, performs the most miraculous deeds. Ne-kil-stlas is known also as Kill-sing-ne-kee-uns, Goya-ta-get-ya, Goy-kilt, Guoy-ne, kill-gee-sklass, Hoya, and by other names, according to the shape which he assumes.

The Creation of Man.

When the water which once covered the whole earth subsided, a raven (Ne-kil-stlas) was the only creature surviving. In his loneliness he started around the islands, seeking companionship, and when passing Sand Spit Point heard very faint cries, which he soon discovered proceeded from a cockle shell lying upon the beach. While examining it with great wonder, the voices grew louder and louder, until finally there issued therefrom several male * infant children, which rapidly increasing in stature joined him in a common search for mates. Upon reaching the lonely island of Ninstints they found females clinging helplessly to the rocks, whom rescuing and taking for their wives, peopled the land.

Origin of Light—The Sun, Moon and Stars.

Ne-kil-stlas, soon discovering that light, fresh water, and many other things which the people most needed were in possession of a powerful chief called Setlin-ki-jash, and jealously guarded by him, resolved to obtain them. Now this chief's daughter had a little babe, which, when they all slept, Ne-kil-stlas killed, and taking the place of the infant was fondly petted and cared for. When he found where the chief

* As related by others only one infant, and a female, was found in the cockle shell, whom, marrying Ne-kil-stlas, became the great father of the Indian race.

kept the moon, he began to cry to see it, and continued so to do for a long time, and until they opened the door into the apartment where the moon was concealed, which seeing, Ne-kil-stlas instantly became a raven and seizing it with his bill flew away to the Naas country. Here the Indians gathered about him and begged to see the moon, of which they had heard. Ne-kil-stlas agreed to let them see it if they would give him all the oolachan fish which he desired, to which consenting, he threw down the moon before them, which they in their wild delight tossed so high in the air that it broke in pieces, and formed one part the sun, another the moon, and the small fragments the stars.

Carvings.

The Hydass are distinguished for their superior skill, above that possessed by any other aboriginal people on the continent, in carving and mechanical arts and contrivances generally. Besides their great columns, from 30 to 75 feet in height, covered with figures from top to bottom, nearly every article used by them is carved to represent either their totem crests, or some animal, bird or fish familiar to their sight. House-posts, canoe-heads, stone axes, mauls and mortars, fish-hooks and floats, seal-killing clubs, boxes of all kinds, cooking and eating utensils, trays, spoons, ladles, medicine charms, masks, rattles, whistles, gambling sticks, tows, and other articles, too numerous to mention, are all carved. Their designs are often grotesque, many evidently purposely so, and their workmanship commonly rude compared with that of our best white carvers; yet their skill in so curiously and accurately shaping some things, considering their few and inferior tools and semi-savage state, is quite remarkable. Desiring to possess some small article of Hyda manufacture, I gave a young Indian jeweler a two-and-a-half dollar gold piece at 9 o'clock in the morning with instructions to make from it an eagle. Before 1 o'clock the same day he brought me the bird so well made that not many jewelers could improve upon it.

Food Supplies.

The Hydas live chiefly upon fish, though of late years they consume also considerable quantities of other supplies, especially flour, rice, sugar, coffee, crackers, &c., purchased from the traders. Of fish, halibut and salmon, dried and smoked, are mainly depended on, though many other varieties are eaten in their season—herring, flounder, trout, rock cod, true cod, clams, mussels, &c. Pollock, called by the Hydas *skill*, are caught off the west coast, principally for their oil, which is extracted by boiling them in large wooden tanks by means of heated stones. Dried herring spawn, salmon roe, sea and birds' eggs, chitons and octopus are favorite articles of diet. Berries and crabapples are gathered in large quantities and eaten both fresh and dried, frequently mixed with oolachan grease, their choicest condiment, obtained from the Nass Indians. Potatoes, generally of an inferior size, are raised, chiefly by the old women. Many wild roots, bulbs and plants are also eaten: the lily, *epilobium*, *heracleum*, &c. Bear, wild geese, duck, and grouse also contribute to their food supply, although the present generation of Hydas are not very successful hunters, seldom penetrating far inland in search of game.

Hyda Villages.

There are seven inhabited, and fifteen deserted villages upon the islands, which will be briefly noticed in the order reached in circumnavigating the archipelago from North Island, proceeding eastward. They are situated upon the immediate shore, the houses generally standing in a row facing to the south or east, with from one to three tall carved poles in front. Kah-oh and Ki-oos-ta, both in ruins, the former containing six houses and ten poles, and the latter fifteen houses and eighteen poles, are situated near each other on the south shore of Parry Passage, on Moresby Island. On the north side of the Passage, on the south end of North Island, opposite Lucy Island, lies Tadense, with its six small houses—still occupied by hunters and fishermen during the summer—and one lonely carved pole. On the rocky, exposed

shore, just east of Klas-kwun Point, stands the three houses and one carved pole comprising the village known at Yatze. It is now only the occasional stopping place of parties of Indians en route to and from the west coast. Its builders formerly occupied deserted Kung, very pleasantly situated on the west shore, at the entrance to Naden Harbor. Fifteen houses, all in ruins but two, and twenty poles, are all that remain visible here, except numerous graves of the dead. There are three villages near the entrance to Massett Inlet: Yan—abandoned—with 20 houses and 25 carved poles, on the west side, and Utte-was—now Massett—and Ka-Yung, situated about a mile below, on the east. Massett is the principal village of the Hyda nation, now containing a population of about three hundred and fifty Indians, 40 occupied houses, 50 carved poles, and the ruins of many ancient lodges. The Hudson Bay Company have had a Trading Post here since 1855, Mr. Alexander McKenzie having been their agent for the last six years. He is the extreme north-western resident white man on the soil of the Dominion of Canada. The Episcopal Church of England established a mission at Massett in 1877, now under the excellent charge of Rev. Chas. Harrison and wife. At Ka-Yung we found only the ruins of a few houses and carved poles; also at the mouth of the Hiel-len, where there was formerly a considerable village. A still larger one is said to have stood at the base of Rose Spit Point, called by the Indians Ne-coon, and another between this point and Cape Ball, on the the east coast of Graham Island, the remains of which may still be seen.

We have now reached Skidegate, an imposing village, finely situated, on the north shore of Skidegate Inlet, eight or ten miles from its eastern entrance. It contains 30 houses and 55 carved poles. A Methodist Mission, Church, and School building occupies a prominent site in the back-ground. The village of Gold Harbour is situated upon Maud Island, three miles further up the inlet. Its people, now numbering 108, removed from Gold Harbour, on the west coast, a few years ago. Here are 13 houses and 18 carved poles. Cumshewa, situated on the north shore of the inlet of that name, contains 60 people, 18 houses and 25 carved poles, and Skedance, on

the opposite, only 12 Indians, but 25 houses and 30 carved poles. Tanoo, or Laskeek, on Tanoo Island, is next reached. It is second in population to Massett, containing 150 natives, 20 houses and 25 carved poles. There is only one more Hyda village to the southward, Ninstints, with 30 inhabitants, 20 houses, 25 carved poles, and 20 burial columns, occupying a rock-bound islet lying off the south-west coast of Moresby Island, near the western entrance to Houston Stewart Channel. There are five other villages on the west coast of the islands, all abandoned, and most of them in ruins. Tasso, on Tasso Harbour, Gold Harbour, between Gold Harbour and Skidegate Channel, picturesque Chathl, on Canoe Passage, near its western entrance, Lenna-how, on Graham Island, opposite Nesto Island, Tiahn on Tiahn Cove, between Stowe Harbour and Frederick Island, and Susk, on Graham, opposite the latter. There are, besides these villages named, numerous houses and temporary lodges, from one to seven in a place, situated at the mouths of the principal salmon streams, near potato gardens, and convenient to choice hunting and fishing grounds.

PROGRESS REPORT NUMBER ONE.

SKIDEGATE, Queen Charlotte Islands, May, 1884.

Hon. Wm. Smithe, Chief Commissioner of Lands and Works of the Province of British Columbia:—SIR—I arrived at Massett on the 18th of April, and on the following day, pursuant to agreement, commenced the exploration of the Queen Charlotte Islands. I was highly pleased with the first glimpses of Hyda land, its pleasant sloping shores and long stretches of splendid beaches being in marked contrast to the forbidding, rock-bound coast which had extended for hundreds of miles along our northward course.

MASSETT INLET

Is a magnificent body of water, about twenty-seven miles in length, from one to one-and-a-half miles in width, for eighteen miles, then widening to over eighteen miles, being sufficiently

deep for vessels drawing twelve feet of water. There is fifteen feet of water on the bar at low tide, and safe anchorage immediately inside, except during north-westers, when perfect protection could be secured by running down the inlet.

I desired first to make a reconnoissance of the entire island, penetrate all its rivers, inlets and waterways, that I might thereby be better able to determine which portion should receive the greater share of my attention. For this purpose I proceeded to the mouth of the Ya-koun River, about twenty-six miles south of Massett, and from thence examined the shores systematically northward along the east side of Massett Inlet to Massett, thence eastward following the north shore to Rose Spit, and from thence southward to Skidegate, penetrating the rivers, inlets and inland as indicated by the red lines on the accompanying map. A brief description of the topography of this shore line and of its water courses and bordering country will assist in locating the lands and other resources hereafter noticed. First in the order reached is a small stream, not down on the chart, flowing into a little bay about four miles north of the mouth of the Ya-koun River. From having found on its bank a cedar twenty-four feet in circumference, I named it Cedar Creek. It is not to exceed fifteen feet in width and filled with fallen trees its entire length.

CANOE PASSAGE,

Navigable for canoes at high tide, is about eight miles in length, and from 150 to 200 feet in width. Passing through it at half tide with an average sized canoe, we were compelled to wade and drag it over a mile. Flowing into it from the east is a little stream, unnamed, and not shown on the chart, which, from having seen numerous grouse thereon and for convenience, I have called Grouse Creek. It is only about twenty-five feet wide and full of fallen trees. About a mile above the northern entrance to Canoe Passage we reached a considerably larger stream, named Nedo Creek. It is about fifty feet wide at its mouth, but obstructed with log jams almost down to the inlet. Next comes a small creek, called by my Indian guide Ka-la-pu-tant-la; then, Watoon Creek, which is about sixty feet in width, but full of dead fallen trees from near its mouth up.

This brings us to the largest indentation on the east shore of Massett Inlet, about one mile and three-quarters in depth inland, not named on the chart, but called by the Indians Del-kat-lay Inlet. It is situated about three and a half miles south of Massett. The eastern shores of Massett Inlet are uniformly low, sandy and forest-covered, though for several miles south from Watoon Creek, they are from fifteen to fifty feet in height, with small burnt openings on their summits. Following eastward along the north shore of the island,

SKOONAN RIVER

Is the first stream crossed. It is misnamed on the chart Chown Brooke. Chown is the name of the point lying just to the westward, which is more prominent than shown on the chart. This river is about forty feet wide, but not navigable, owing to log obstructions. An inlet extends westward from near its mouth about two miles at high tide.

TOW HILL,

A bold, rocky, perpendicular cliff, rising to the height of about 300 feet immediately on the sea shore, eight miles eastward, is the most prominent landmark on the north part of the island. It is visible in fair weather twenty-five miles at sea and guides the navigator approaching the harbors of the north coast. The Hi-ellen River, larger than any yet mentioned, except the Ya-koun, flows into the sea just east of Tow Hill. This is also obstructed from within a half mile of its mouth up by log jams.

ROSE SPIT,

The extreme north-eastern land of the island, is more extensive than indicated by the chart. Mr. Maynard, the photographer, who accompanied my Indian guide in a canoe around it, while I was engaged in examining the country inland, says that they were thrown with great force on to the spit by a heavy breaker more than three miles off the extreme point of land of the peninsula, which split and would doubtless have sunk the canoe, had we not taken the precaution to strengthen it with ribs before leaving Massett. The north shore of the island is generally low, Chown and Yakan Points

and Tow Hill being its only elevations exceeding fifteen or twenty feet. Between them are long stretches of very fine beaches, sandy, wide and gradually sloping.

There are no harbors, though canoes and small boats take refuge in stormy weather at the mouths of the rivers already mentioned. A thick growth of spruce and cedar generally reaches down to the sea shore. About seven miles south of Rose Spit Point there is a lagoon three or four miles in length, which we have named Long Lagoon. The Hoy-kund-la River, not mentioned on the charts, about two rods in width, and choked with the usual obstructions, was passed, ten miles further south. Three brooks, from ten to fifteen feet in width, were crossed between it and

TLELL RIVER.

This stream, about thirty miles north of Skidegate, is the most important water-course on the island, east of Massett Inlet. It is from seventy-five to 150 feet in width, and navigable at high tide for about three miles. South of Tlell River there are several small brooks, but no rivers as far as Skidegate Inlet.

There are no harbors on the east coast of Graham Island, and only canoes and small vessels could find refuge in its small bay indentations in stormy weather. Shoals extend nearly its whole length, upon which many rocky reefs are visible at low tide. Mr. McGregor, of the Skidegate Oil Co., says that their small steamer struck a rock at least three and a half miles off this coast. Mr. Maynard also reports that our canoe hit a rock over a mile from shore, when near the mouth of Tlell River. The general elevation of the eastern is much higher than that of the northern shore of the island, rising to bold sand bluffs from 50 to 250 feet in height for the greater portion of the distance between the Hoy-kund-la and Tlell Rivers.

Having thus briefly outlined the most prominent physical features of the section traversed, I will return to the point of departure on Massett Inlet, and notice its

AGRICULTURAL, GRAZING AND TIMBER LANDS.

Of strictly agricultural lands, the quantity found is quite limited. At the mouth of Cedar Creek there are about twenty acres of overflowed land which could easily be reclaimed by dyking. Along Canoe Passage there is a considerably larger tract of tide-land, probably 150 acres, which from two to three feet of levee would protect from overflow. Proceeding northward there is no open country until Deleatlay is reached, where there are about 900 acres of level land, about one-half of which is subject to overflow at high tides. This produces an abundant growth of meadow grass. It is situated about two miles southeast of the village of Massett. Passing over to the north coast there is a strip of grazing land from fifty to ten rods in width, narrowing as it is followed eastward, which extends from the village named, unbroken, for five or six miles along the immediate seashore. It produces a coarse sea blade bunch grass and affords considerable grazing. This tract comprises about 1,000 acres, most of which is of too uneven surface to admit of cultivation with the plow.

On the inlet extending from Skoonan River westward, there are about seventy-five acres of tide-lands which could be reclaimed by a short, inexpensive dyke. Near Yakan Point, to the eastward, there are about twenty acres of level meadow land, with a small patch adjoining, where the Indians have raised potatoes. In the meadow I found cranberry vines, upon which last season's fruit was still hanging. About one mile south-west of Tow Hill and half a mile from the sea shore, with timber intervening, there is a marsh containing about 200 acres, which could probably be drained and converted into good grass land. Here I also found cranberry vines in a flourishing condition and their fruit. Three or four miles back from the coast at this point, lies a tract of several hundred acres of swamp grass land, which by drainage, would afford considerable pasturage. A narrow strip of grazing land, from five to fifteen rods in width, extends for about three miles along the seashore, eastward from near the mouth of the Hi-ellen River. Five or six miles south-west of Rose Spit peninsula, I found a hay marsh of probably 150 acres.

Rose Spit peninsula embraces from 1200 to 1500 acres of rolling grazing land, portions of which are suited to agriculture. Immediately to the eastward of Long Lagoon there are about 200 acres of meadow land, a portion of which is quite low and wet. To the south and westward lies an irreclaimable swamp, covering from five to seven thousand acres, filled with dead trees, standing.

South of the Hoya-kund-la River, and near the seashore, there is about 250 acres of grazing land, interspersed with groves of small spruce. From the mouth of Tlell River, south and westward, there is a considerable body of grazing land, estimated at two thousand acres. It produces, besides the usual coarse sand grasses, a nutritious wild pea vine.

THE SOIL

Is uniformly sandy and of too recent formation to be much enriched by decomposition. It varies but little in quality, there being no alluvial deposits, owing to the flat character of the eastern portion of the island. There is no sub-soil, except in a few localities, sand and gravel extending down to the rock layers. As far as I penetrated the interior, the roots of the fallen trees exposed only sand, sea-washed stones and shells. Clay was observed at one or two points, for a short distance between Hoya-kund-la and Tlell Rivers, also a formation resembling peat.

TIMBER LANDS.

A forest of spruce, hemlock, cedar and cypress covers probably nine-tenths of the surface of the island. While in the aggregate, it embraces large quantities of merchantable timber, a comparatively small portion is available for lumbering operations. This is due to the scattering growth of the best trees, and also to their location upon streams either too small to float logs or blockaded by fallen trees. I am speaking, of course, only of that section of the island so far examined. There are very fine specimens of spruce and cedar upon all the streams mentioned flowing into Massett inlet. Spruce is much the most common, and is found in bodies of sufficient extent to warrant its manufacture into lumber on the shores

of Canoe Passage, Grouse, Nedo and Watoon creeks. Some of the trees seen were from five to seven feet in diameter and of great height.

The cedar was found chiefly on the banks of the streams and borders of marshes and swamps. In following up the rivers and creeks, especially those flowing into Massett Inlet, I almost invariably found Indian trails, evidently made for getting out canoe logs, and poles for carving their tribal and family emblems. These trails, upon which considerable labor had been expended at the crossing of ravines and marshy places, extended only a short distance, seldom exceeding two miles, branching off here and there to the base of great cedars from which they had selected a choice section, and rough-hewn before dragging out.

The surface of the timber lands was generally covered from five to ten feet in depth with fallen trees, in all stages of decay, moss-grown, and half concealed by a thick growth of salal and salmonberry bushes. All of the streams which I followed up to their source, led into almost impassable swamps, through which progress at the rate of a mile an hour was difficult. Along the north and east shores of Graham Island, I saw but little timber of sufficient size and in bodies large enough to warrant the erection of a saw mill. The smallness and obstruction of the streams and the absence of harbors, renders its profitable utilization difficult. There is but little of the yellow cedar or cypress growing in the forest now described.

Scattering trees were seen at various points, especially along Massett Inlet, but no valuable tracts of it were found. It grows more upon the higher lands at the eastern base of the mountains on the western portion of the island. Besides the forest trees mentioned, there are occasional small bodies of alder, yew and crabapple trees seen, the latter bearing considerable fruit.

Of plants, the strawberry grows everywhere upon the open lands, producing small fruit of fine quality in moderate abundance.

HALIBUT AND SALMON

Abound in the waters traversed. I was surprised to find the

Indians catching the former in Massett Inlet. Nedo and Watoon creeks, Skoonan, Hi-ellen and Tlell Rivers are all salmon streams, with fishing stations at their mouths.

TROUT

Are also found in all these streams and in the other creeks and brooks mentioned. Shell fish, clams, round and long, though not abundant on that part of the coast examined, may be obtained at several points thereon with but little difficulty.

GAME

Of some kinds abounds, especially geese, ducks and grouse. Black bear are numerous, their fresh tracks being frequently seen. There are no deer or rabbits, except those which have been brought to the island by Mr. McKenzie and others, which are reported to be increasing. No wolves or beasts of prey have ever been seen. There are no snakes, nor turtles, and very few frogs. Mosquitoes have not been troublesome, but are more numerous during the summer months.

THE WATER SUPPLY

So abundant, owing to the swamps filled with decaying trees, through which it flows, is generally highly colored, and though perhaps not unwholesome, is not very palatable. There are, however, exceptional streams, especially at Skidegate, which, having their sources in the hills, are clear and pure. There is, of course, no difficulty in obtaining an abundant supply of rain water, which is much used for drinking purposes at Massett.

It not being my purpose to elaborate upon the various resources of the island in this hasty sketch, but simply to indicate, as requested, the general results of my examination of that portion thus far traversed, the foregoing is respectfully submitted.

Your obedient servant,

NEWTON H. CHITTENDEN.

PROGRESS REPORT NUMBER TWO.

SKIDEGATE, Queen Charlotte Islands, June, 1884.

Hon. Wm. Smithe, Chief Commissioner of Lands and Works of the Province of British Columbia:—SIR—On the 5th of May, having secured the services of two Hyda Indians, one a native of Ninstints, the extreme southern village of the Hyda nation, familiar with the shores of the southern portion of Moresby, and also of Provost Island, and the other of Gold Harbor, well acquainted with the northwestern coast of Moresby Island, I proceeded from Skidegate by canoe southward, circumnavigating the islands above mentioned, and also crossing them from shore to shore at two different points, and penetrating inland sufficiently far in several other places to determine the general character of the section of country under examination. Our route was via Sand Spit Point, Copper Bay, the villages of Cumshewa and Skedance, Cumshewa Inlet, Louise Island, Selwyn Inlet, Talunkwan Island, Dana Inlet, Logan Inlet, Tanoo Island, the village of Tanoo or Laskeek, Richardson Inlet, Darwin Sound, De La Beche Inlet, Hutton Inlet, Werner Bay, Huxley Island, Barnaby Island, Scudder Point, Granite Point, Skincuttle Inlet, Deluge Point, Collison Bay, Carpenter Bay and Forsyth Point, all on the east side of Moresby Island; thence across Houston Stewart Channel, around Provost Island, entering Provost and Luxana Bays and Seal Cove, rounding Cape St. James, and then along the west coast, northward, via the village of Ninstints, Henry and Robson Inlets, Grand View Inlet, Tassoo and Gold Harbors, to the southern or Canoe Passage of Skidegate Channel, through which, touching at the abandoned village of Cha-atl, we returned to Skidegate, the round trip of about 325 miles having been made in twenty-three days.

GENERAL PHYSICAL FEATURES.

Steep and often precipitous mountains, ranging in elevation from 800 to 4000 feet above the sea, rugged and rocky on their western slopes, densely covered with forests of spruce, hemlock and red cedar, extend from Skidegate to Cape St.

James, and from Queen Charlotte Sound to the ocean, over all the islands, so far as my observation extended, except the comparatively small tracts as hereafter described. The small diameter of the islands south of Skidegate Channel leaves but little room at any point for an interior beyond the range of the human eye, when standing upon the summits of the highest mountains, after having traversed their shores. The latter are uniformly rock-bound, frequently bluff or precipitous for from 25 to 1500 feet, with generally very limited borders of level country, the base of the steep mountains reaching down to the sea, with but narrow foothill slopes. There are occasional short stretches of fine sandy beaches, especially on the bays and inlets. The streams flowing from the short water-sheds are small, but numerous, and without exception filled with fallen trees from near their mouth up. Their waters are generally rapid, clear and good. Trout are found in most of them, and a small, very excellent salmon is caught in considerable numbers in several of the largest.

The rivers which I followed to their sources, rise in lakes and small swampy mountain basins. There are many good harbours for small boats, and several which afford perfect security at all times for large vessels on the eastern shores of the islands traversed. Of these, Copper Bay, Gray Bay, Laskeek Bay, Crescent Inlet, Sedgwick Bay, Werner Bay, Island Bay, George Bay, Collison Bay, Carpenter Bay, Provost Bay, Luxana Bay, and Seal Cove are the most important. On the west shore of the islands, though the harbor advantages are much more limited in number, they are believed to afford safe anchoring grounds for sloops and vessels of considerable size during the severest storms from any quarter. Henry and Robson Inlets, Tasso and Gold Harbors, from twenty-five to thirty miles apart, are the largest and best harbors on this coast. There is, I judge, sufficient water at their entrances to admit deep-draught vessels.

Besides these waters, there are several indentations, greater than shown on the charts, and others not marked thereon, where small boats may find shelter. Among the latter, Grand View Inlet, so named from the magnificent scenery surrounding it, situated about eight miles south of Tasso Harbor,

is one of the securest retreats for small boats I have ever seen. When opposite the entrance, the rocky shore seemed to offer no landing place unless the storm should suddenly abate. Unexpectedly my Indian guides turned directly toward land, and ran through a narrow rock-bound passage into a little basin about fifty rods square, surrounded by mountains rising very precipitously from 1500 to 2500 feet in height, down which were plunging ten cataracts, where the smallest canoe could lie in safety at all times. The west shore is much the boldest, presenting for considerable distances, almost perpendicular-faced mountain walls from 1000 to 1500 feet in height.

THE AGRICULTURAL LANDS

Embraced in these islands aggregate but a few hundred acres, principally lying in small tracts at the heads of bays and inlets, mouths of streams, and on small benches at the base of the mountains. Most of the richest spots appear to have been cultivated at some time by the Indians for raising potatoes. The largest bodies of cleared arable land seen, contained not exceeding twenty acres. There are several thousand acres of lightly timbered spruce and alder lands, bordering the bays, inlets and streams, which might be cleared and brought under profitable cultivation for dairying and the raising of root crops, should the development of the other resources of the islands attract a sufficient population to create a home market for such products.

The most available and desirable of the lands of this character noticed, are situated upon Skidegate Inlet, Copper Bay, Alder Creek, four miles south, Gray Bay, along the central portions of the south shore of Cumshewa Inlet, Hutton Inlet, Henry and Robson Inlets, and on the narrows of Skidegate Channel.

GRAZING LANDS.

The level grazing country is also of small extent, a tract of about 400 acres situated on Sand Spit Point, south of the entrance to Skidegate Inlet, being much the largest found. It bears a scattering growth of coarse beach sand grass.

On the sides of the mountains, however, and in some places reaching up to their summit, are several thousand acres suited for stock ranges, producing a thicker growth of more nutritious grass, of the red-top variety.

Of such pasture lands we found about 1,000 acres in crossing from Hutton Inlet to Robson Inlet, surrounding a beautiful lake about a mile in length, and about 500 acres in each of the following bays, viz: Carpenter, Provost, Luxana, Henry and Robson, and also several hundred acres on the northern slope of the mountains lying south of Canoe Passage into Skidegate Channel.

TIMBER LANDS.

As already stated, a dense forest of spruce, hemlock and cedar covers nearly the whole surface of the country.

It contains in the aggregate great quantities of valuable timber, and many places where small mills could obtain an abundant supply of spruce, but no location I think, where a large lumber manufacturing establishment could be profitably operated. The Douglass fir and yellow cedar or cypress, furnishes the only lumber which can be profitably exported from the Province. The former is not found on the Queen Charlotte group of islands, and the latter does not grow in sufficient quantities south of Skidegate Inlet to furnish saw-logs in any considerable quantity. The best bodies of timber seen were on the south shore of Skidegate Inlet, on a small stream flowing into Copper Bay on the north side of Louise Island, bordering a river flowing into Cumshewa Inlet, about ten miles west of the village of Skedance, on Hutton Inlet, Carpenter and Henry Bays.

FISH.

Nearly all of the choicest varieties of fish found in this region abound in the waters traversed. There are several halibut banks besides those located on the charts, where the Indians obtain the most abundant supplies of these, their principal article of food.

On the day of our arrival at Ninstantis, the Indians returned with a large number caught upon banks opposite the central

portion of the western shore of Provost Island. There are also banks off Sand Spit Point and Skedance. During the present spring, the Indians have caught a considerable number of black cod opposite Skidegate Channel, and also off the abandoned village of Kisson, on the north-west coast of Moresby Island. The waters just outside the entrance to Skidegate Inlet are the greatest known resort of the dog-fish on the coast; the only place where they are caught continuously from spring until fall in large numbers.

The extraction of their oil by the Skidegate Oil Company, to the amount of 35,000 to 40,000 gallons annually, gives profitable employment to a large number of Indians during the summer months.

We found Chief Skidegate and about twenty of his people catching their spring supply of a very fine small salmon, in the river flowing into Copper Bay, and met Chief Skedance *en route* to a river flowing from the north side of Lyell Island into Cumshewa Inlet, for the same purpose. There is also a salmon stream emptying into that inlet on the north side near Conglomerate Point.

Upon one of the streams discharging into Hutton Inlet (which I named Portage Creek, from the fact that in former times when the natives were much more numerous, they sometimes carried their canoes across the island to Robson Inlet), there was a stone dam, evidently built for salmon traps. We also saw where bear had eaten salmon near its banks.

Enormous quantities of mussels of great size, some measuring eight and ten inches in length, covered the shores in many places, and round clams are also abundant.

MINERALS.

I carefully examined the shores and banks of the streams wherever opportunity offered, but found no minerals except copper, at and in the vicinity of veins previously discovered on the shore of Copper Bay, and opposite Copper Island in Skincuttle Inlet.

GAME,

Especially geese and duck, were plentiful on the eastern

shore. Many of the bays and inlets were alive with hair seal. So many were seen in the extreme southern bay indentation of the entire group of islands that we called it Seal Cove. Several sea otter swam within rifle range on the west coast, and land otter we chased upon shore and killed. Birds' eggs, which the natives gather in considerable quantities, we picked up by the dozens on several of the little islands.

Notwithstanding the disaffection which exists among the Indians upon the Nass, respecting their land rights, I have found the Hydas friendly to my undertaking, inviting me into their houses to sleep, both at Cumshewa and Ninstints, and presenting my guides with halibut, eggs, etc.

There are abundant evidences in abandoned villages, habitations and burial places, of their formerly having been quite populous, probably ten times their present numbers.

No country which I have ever visited affords greater natural resources of food supply from the sea and forest.

Respectfully, your obedient servant,

NEWTON H. CHITTENDEN.

PROGRESS REPORT NUMBER THREE.

SKIDEGATE, QUEEN CHARLOTTE ISLANDS. }
OCTOBER, 1884. }

Hon. Wm. Smithe, Commissioner of Lands and Works of the Province of British Columbia;

SIR:—Having completed the examination of the country bordering on Skidegate Inlet and Channel, embracing the southern portion of Graham Island, and the north end of Moresby, I proceeded to explore the west coast of Graham Island, North Island, the north coast of Graham island from Cape Knox eastward to Massett Inlet, also Viga Sound, Naden Harbor and Massett Inlet, penetrating to the heads of all of the inlets, bays, harbors and sounds, and

following up the principal streams flowing into these waters from three to ten miles; concluding the circumnavigation of the islands at the mouth of the Yakoun River, that portion herein described, comprising a shore line of about five hundred miles.

GENERAL PHYSICAL FEATURES.

An intelligent Indian of whom I made inquiries concerning this country, replied, "there is no land, it is all mountains, forests and water." This statement is almost literally true so far as open lands are concerned, along the coast we are now describing, with the exception of the mountain pasturage as hereafter more specifically mentioned.

Mountains rising very precipitously from one to four thousand feet above the sea, generally thickly covered with the prevailing woods of the island, extend from Skidegate Channel northward for about forty-five miles, the country gradually sloping all along the north portion of Graham Island from fifteen to twenty miles from the coast southward. The summits of this mountain range are generally from five to eight miles from the sea shore, the long western arms of Skidegate and Massett Inlets reaching to its eastern base. The immediate coast is uniformly rock-bound, with many sharp, jagged points extending far out to sea, with out-lying reefs white with breakers in stormy weather. Most of the many

INLETS, SOUNDS, BAYS, POINTS, ISLANDS, RIVERS AND CREEKS between Skidegate Channel and Cape Knox, having been hitherto unknown, except to a few of the natives, they will be briefly described in the order reached in advancing northward.

Indian names have been retained so far as known, but when these are of difficult pronunciation, or unknown, English names have been added; a star indicating such cases. First comes

GOODEL BAY — About three and one-half miles south of Buck Point, the extreme south-western land of Gra-

ham Island. It is about two miles in depth, with a beach of the finest sand on the island at its head. A small island surrounded with kelp lying about one hundred rods from shore, protects a good canoe landing in stormy weather. Here were found racks for drying halibut, which are caught in abundance off this part of the coast. A fine clear stream about twenty feet in width entered the bay near by. Between three and four miles from shore and about the same distance south of

BUCK POINT, lies an island, called by the natives Guigats, a mile or more in length, which is probably the land marked on the Admiralty Chart as Buck Point, though shown thereon to be separated from Graham Island.

KE-OW INLET, the entrance to which is concealed by a high rocky point, until nearly opposite, extends in a north-westerly direction about four miles, with an average width of a mile-and-a-half. It is surrounded by high, steep mountains, down which several cataracts were plunging. A clear stream about twenty-five feet in width, with rocky rapids at its mouth discharges into the inlet at its head. Rounding

TSET-LA-KOON POINT—About four miles north-west of the entrance to the last named inlet—one of the most difficult for small boats to pass on the West Coast, (except by a canoe passage in very calm weather.) we next enter

CARTWRIGHT SOUND—This fine body of water, about two miles in width, extends five or six miles in an easterly direction, reaching to near the base of steep mountains from 1500 to 2500 feet in height. Its shores are generally rocky, though there is a sandy beach at its head, where we found a good landing and camping place at the mouth of Zuboff * river. This stream is from fifty to seventy-five feet in width, and navigable for canoes not exceeding one hundred rods, before meeting log obstructions. Large schools of dog salmon were rushing in and out at the time of our arrival, hundreds jumping their full length out of the water. Though much inferior to most other varieties of salmon, they are dried and smoked in large quantities by the Indians

An arm extends south-ward for about a mile from the south side of this Inlet, near its head to the base of high and very precipitous mountains, which from having four islets at its entrance, I have named Islet Inlet. There is also an island in the main inlet near the north shore about three miles from its entrance. Advancing and passing Kin-da-koon and Hunter Points, the latter a high, bold promontory bring us to

RENNELL SOUND, the largest indentation on the west coast of the island, extending about ten miles from its north point entrance in a south-easterly direction, and being from five to three miles in width.

It contains five islands, Edward Island,* the largest, centrally situated, about a mile and a-half in length with a good beach, camping place with a hut on its southern side,—and a group of four islands near its head; the largest of which I have called Cypress Island,* from having seen considerable yellow cedar growing thereon. There are five streams flowing into the sound, three in it south-easterly and two on its north-easterly side, from fifteen to thirty feet in width, none of them navigable. The only snow seen on Graham Island in September, lay in a deep canyon on the northern slope of the high mountains which surround its head.

There is an Indian hunters' lodge, chiefly made from yellow cedar plank, at the mouth of a small stream on a little bay on its south-eastern side.

TATTOO INLET, about two miles and three-quarters in length, with a uniform breadth of a mile, surrounded by steep, high mountains, runs in a north-easterly direction from near the north shore entrance of Rennell Sound. It receives two fine salmon streams at its head, from forty to fifty feet in width, navigable for canoes about fifty rods from their mouth. An extensive land slide has bared the mountain on its south-eastern side. There is a little, low, rocky island, about a mile from the entrance, upon which numerous hair seal were basking at the time of our visit. Both shores at the entrance are bold and rocky.

SEAL INLET*—So called from having seen hundreds of hair seal upon Seal Island, near its entrance, is next reached. It is about four miles in length, running north-east, then north and again north-east, with an average breadth of a mile and-a-half. There are two streams flowing into it, one about forty feet in width at its head, and a smaller one on its southern side. Besides the island mentioned, there is a small one situated close to the north shore of the inlet—with only a canoe passage between—about a mile from the entrance, and a group of three islets opposite a high, perpendicular granite bluff near its head. This inlet is called by the Indians Kung-wa. Four or five miles further, with mountains rising almost perpendicularly a thousand feet, on the right, around Na-wa-dun Point and we enter

T'KIEW BAY, about two miles in depth, with a fine stretch of sandy beach at its head. Two or three miles beyond the next point—called by the Indians Skwa-ka-tance—lies

NESTO or HIPPA ISLAND, a mile and a-half or more in length, thickly wooded, mountainous, with rocky shores, except on its eastern side where there are short stretches of sandy beaches with back-lying benches, formerly occupied by Indian lodges. There is a small island situated close to Nesto on its north-western side, with a canoe passage between them.

Nesto Island lies across the entrance to a fine inlet and good harbor known among the Indians as

SKALOO INLET—It is about three and-a-half miles in depth, running a little north-east, with regular shores, having an average breadth of about three-quarters of a mile. A small stream empties into it at its head. Proceeding north-westerly past the old Indian village of Len-na-how and around Skoot-koon Point, four or five miles brings us to

ATHLOW INLET, a splendid harbor and very interesting body of water, between four and five miles in length, and from one to two miles in width, surrounded by high, precipitous mountains, embracing three of the most conspicuous peaks

on the west coast; one to the north-west, quite green from its summit down a thousand feet, which I have named Green Mountain; another lying to the east, Castle Mountain* and one south-east, Bald Mountain.*

An island, about a mile in length, lies across the entrance in a north-westerly direction, which so thoroughly protects the inner waters of the inlet from westerly storms, that I have called it Protection Island.* There is a canoe passage between it and a point of rocks projecting from the southern shore of the inlet, and a small island close to its south-west side. Three streams flow into the inlet—one at its head, called Athlow river, and two on its south side, the largest, from forty to fifty feet in width, rising in Sook Lake. Between Athlow Inlet and Skoon-magi Point, a distance of ten or twelve miles, there are four indentations, the largest being

BLUFF BAY, opening to the southward, at the northern entrance to Athlow Inlet, with a small island opposite.

Passing the point last mentioned, we are soon in the waters of

KIO-KATH-LI INLET, which, with the exception of Rennell Sound, is the largest indentation on the west shore of Graham Island, being over five miles in length and three miles in width; containing five islands and receiving three streams, from fifty to one hundred feet in width, the largest being navigable for canoes about a half a mile from its mouth. Its south-eastern shores are very irregular. Mount Richard,* the highest elevation in the north part of the island, lies to the eastward.

Between Kio-Kathli Inlet and Frederick Island, a distance of about twelve miles, there are four bays from one to two miles in depth, with sandy beaches at their head, over which flow small streams—the first reached called by the Indians

STOWE HARBOR, being the only one affording protection for large vessels against westerly storms. The old abandoned village of Tiahn is situated facing the south, with a sandy beach fronting on the second indention north of Stowe Harbor.

The immediate coast from Kio-kath-li Inlet north-ward to Cape Knox, is less precipitous than further south, but more dangerous to navigators by reason of its many out-lying reefs and rocks and the absence of harbors.

CAVE BAY,* the first south of Frederick Island, so-named from a deep cave in a high, rocky bluff near its northern entrance, is the most extensive of those last mentioned, about two miles in depth, with a fine sandy beach on the east side. Three streams flow into the same, from fifteen to twenty-five feet in width.

There are three rocky islets near its southern entrance, inside of Point Patience,* which I have called the Sea Lion* Islets, these *mammal* having been seen upon them by the native sea-otter hunters. There is a good canoe landing in pleasant weather on the shore opposite, but in stormy weather it breaks all around the bay. We barely escaped losing everything in effecting a landing at the most quiet place we could find.

FREDERICK ISLAND, from a mile-and-a-half to a mile-and-three-quarters in length, extending in a north-westerly direction, is situated about a mile north of Point Edward,* instead of south of it, as shown on the Admiralty Chart. It is thickly wooded, from fifty to three hundred feet in height, with rocky shores, except on its southern side, where we found a sheltered cove, with a sandy beach accessible in stormy weather. The site of the deserted village of Susk is seen on the south side of a small bay to the south-east of Frederick Island. There are five bays between Frederick Island and Cape Knox—a distance of eighteen or twenty miles—all of them exposed to westerly winds, excepting in small coves which afford safe canoe landings and harbors. Of these latter

TLEDOO, a summer resort of the Massett sea-otter hunters, where there are three cabins, is one of the best and most frequented. There are four rocky islets lying from half a mile to a mile off shore between Frederick Island and the cove, a distance of about four miles. There are two small streams within three miles south of Tledoo, and one within a quarter of a mile north, the first of the former being

called "Boulder Creek,"* the second, "Islet,"* and the latter, "Otter Creek."* About two and a-half miles north east of Tledoo, around two rocky points lies

CLI-KA-KOON, a camping place on the south shore of a small bay, near the mouth of Hana-koot Creek. There is a sandy beach at the head of this bay, and another small stream flowing in on its northern side.

Around the next point and we enter See-al-tzing or Ezra Bay, about two miles in depth, having a sandy beach at its head and a small stream flowing into it. There are five rocky islets lying off shore, between the northern entrance to this bay and Saka-koon Point, at the southern entrance to

LEPAS BAY, the most extensive of the five mentioned, and the last before reaching Cape Knox. It is about three and one-half miles in depth and nearly as wide. There is a small island and cove on its north-eastern side, and beach of white sand at its head.

CAPE KNOX, the extreme north-western land of Graham Island, extends boldly out to sea about four miles in a south-westerly direction from the head of Lepas Bay. There are four off-lying rocks, the farthest out being over three miles from the cape, upon which the sea is almost always breaking.

Reaching Cape Knox, to the north-ward five or six miles may be seen the north-west point of

NORTH ISLAND—It is from five to six miles in length, with an average breadth of three and a-half miles, covered with spruce down to its irregular, rocky shores, its greatest elevation above the sea not exceeding four hundred feet.

There are four bays from one to two miles in depth on its eastern and north-eastern side, with beaches at their heads, which we named in the order reached in circumnavigating the island from Tadense eastward:—Clara,* Henry,* Edith and Albert Bays.* There is a small cabin on the shore of Edith Bay, with a garden patch adjoining. They are all exposed to easterly winds.

CLOAK BAY, on its south-western side, is much the largest indentation, but is open to westerly storms. The small cove on the south side of the island, near the Indian village of Tadense, is believed to afford the safest anchorage.

PARRY PASSAGE, about a mile and a-half in width, separates North from Graham Island, reefs, and Lucy Island narrowing the ship channel very rapid—except at flood tide—to less than 2000 feet. The deserted Indian villages of Ki-oosta and Kah-oh are situated near each other on the south shore of the passage.

It is about twenty miles from North Island to the entrance of Virago Sound. The coast and back-lying country for ten or fifteen miles, is low and thickly wooded; the shores being generally rocky with sharp points and many outlying rocks, surrounded with kelp, though there are occasional short beaches of gravel and sand. There are several exposed bays but no harbors, except for small boats, after leaving

BRUIN BAY, opening into the south-eastern entrance to Parry Passage. Here vessels sometimes anchor, though exposed to strong eddies. Rounding the next point we reach

PILLAR BAY, so-named from an isolated column of conglomerate rock, about a hundred feet in height, standing near its eastern side. It is three or four miles in width, and a mile and a-half in depth, but open to north-east winds. The

JALUN RIVER, the largest stream between North Island and Virago Sound, discharges into a small bay about four miles further eastward. It is from forty to fifty feet in width at its mouth, and navigable for canoes, not exceeding half a mile on account of rapids. Here were two huts, and a wooden boiler made from a hollowed log, for extracting dog-fish oil with heated stones, this being a favorite camping place for the native fishermen and hunters.

KLAS-KWUN POINT—Seven or eight miles to the eastward from the mouth of Jalun River, there is a bold point rising a short distance back from the shore to two or three hundred feet, known as Klas-kwun Point, on the east side of which lies

YAT-ZA VILLAGE—It has the most rocky and difficult landing of any Indian village on the island, the sites of which are almost invariably on perfect little harbors. Passing Cape Naden, we now enter the waters of

VIRAGO SOUND—It is about eight miles in width and five in depth, and opening into Naden Sound through narrows less than half a mile in width, between Points George and Mary. The shores are low and thickly wooded, with spruce of small growth. Two small islets lie near its west side entrance. Virago Sound is exposed to all winds north of south-east and south-west, but safe anchorage may be found at all times in

NADEN HARBOR on the west side opposite the abandoned village of Kung. Naden Harbor is about five miles in length, north and south and two miles in width. Its shores are low, and generally sandy, except in its southern and north-western sides. There are nine streams flowing into it, with extensive tide flats at their mouths—which will be noticed in the order reached in following the right hand shore:

First, a small creek about half a mile east of the village of Kung, into which the high tide flows for half a mile or more.

The second empties into the harbor, about two miles southward of the highest land bordering it, called Bain Point.

The third, a mile-and-a-half further westward, both small and unnavigable, and the fourth known as.

STANLEY OR TE-KA RIVER, into its most south-western bay. We were able to push our canoe up this stream, the second largest on the north shore of the island, about one-third of a mile, when log obstructions were found. About two miles in a south-easterly direction and we entered

NADEN RIVER, the second in size on the Queen Charlotte Islands, about a hundred and fifty feet in width at its mouth, up which we ascended between two and three miles to falls, with our canoe, at high tide, and advanced about six miles beyond on foot to the borders of Eden Lake, in which it rises, passing several rapids, from six to ten feet in height—and numerous log jams. There are the ruins of five huts on the left bank of the river at its mouth. About a mile and-a-half north-eastward from Naden River, a small creek discharges into the harbor, and two miles beyond.

LIGNITE BROOK, with a small island opposite, at high tide. About two miles north of the latter, we crossed a small creek

flowing into the deepest indentation of the harbor, which, being largely bare at low tide, we have named Tide Bay. From Cape Edensau, the eastern entrance to Virago Sound to

MASSETT INLET, a distance of about twelve miles, the shores are low and rocky; the back-lying country flat and thickly wooded with spruce and hemlock. There are four small islands near shore, the largest at the entrance to the inlet being known as Strice Island. Proceeding down its west shore about nineteen miles, to Massett Harbor or Sound we found four small streams, none of them navigable, except a few rods at high tide, named respectively:—Kowing, Kulin, Kitzhaun and Kuk. They have their source in swamps and small lakes, the back-lying country being low and thickly wooded. There are two islands in the inlet, the first called Massett, about three-quarters of a mile in length, situated near the west shore, about five miles from the entrance, and another fifteen miles down, about six miles long, called by the Indians Cub Island, with a canoe passage from the inlet, on its east side to Massett Harbor, as mentioned in Report No. 1.

MASSETT HARBOR or Sound, is a splendid body of inland water, about eighteen miles in length from east to west, and from five to seven miles in width, with upwards of two hundred miles of shore line, having seven arms from three to ten miles in length, containing over forty islands and islets, and receiving the waters of twenty-five rivers, creeks and small streams. Following the order of our movement along its western shore, passing one small creek with an Indian lodge at its mouth, about seven miles from Ship Island, we reach the mouth of

AIN RIVER, opposite Kwa-kans Island and a group of islets. We ascended this stream about ten miles, five on foot and thence by canoe through two small lakes to its source in Soo-u-uns Lake. This fine body of water is about eight miles long and three miles wide, surrounded by a thick forest of spruce, red and yellow cedar. Mountains rise gradually from its western and north-western sides to the height

of from eight to fifteen hundred feet. The river, from fifty to seventy-five feet in width, is navigable for canoes, about a mile from its mouth, and also between the small lakes mentioned, by means of several portages—log-jambs, shoals and rapids. There are seven Indian lodges at its mouth, this stream being a great resort for salmon.

It is about twelve miles from the mouth of the Ain River to the end of the north-western arm of the sound, which having no name on the chart, I have called

NEWTON INLET. It is about six miles in length, and two miles wide, with an island at its entrance, known as Mut-ooos, and several islets. *En route* we found two small streams, to the largest of which my attention was first attracted by the noise of rapids at its mouth. This is called by the Indians, Ta-tzun-in. Ascending it by wading, with considerable difficulty, its bed was seen to be chiefly limestone rock. There are two rivers flowing into Newton Inlet from fifty to seventy-five feet in width, navigable for canoes at high tide about half a mile, when shoal rapids are reached.

Steep mountains from 1,500 to 3,000 feet in height, separate this inlet from the waters of the Pacific. Five or six miles to the south-eastward begins

TI-IN-OWE INLET, which extends south-westerly between four and five miles, having an average breadth of two miles. Two streams flow in at its head, up the largest of which we ascended about one-third of a mile at high tide, when a log jamb was found. There are three inlets between Tin-in-owe and the entrance to Tsoo-skati Inlet, about ten miles to the south-eastward, and many islands and islets, the largest of which is called Wat-hoo-us Island. Into the first of these inlets flows the Awun River, rising in Awun Lake, about one hundred feet wide at its mouth, and which we were able to ascend with our canoe about one mile, when rapids were reached. Advancing several miles beyond on foot, the river was found choked with frequent log jambs. There is an Indian cabin and small garden plat cultivated for potatoes, at its mouth. Proceeding eastward, we next enter a small bay into which descends, over a precipitous ledge of rocks, a river, the outlet of a small

lake hidden from view by a narrow belt of timber; then follows a deeper indentation about a mile in length and half a mile in width to near its head, where an island narrows it for a short distance to less than a hundred feet. Having seen here the largest number of jelly fish found on the islands, I have named it Zoos Inlet.*

RAPIDS INLET,* or Lake, a small basin about half a mile in depth, which at low tide, discharges its waters with a loud noise down a steep rock-bound passage, not exceeding twenty feet in width, lies between Zoos Inlet and the point at its south-eastern entrance, which I have named Combe's Point. Five or six miles further bring us to

TSOO-KAT-LI INLET, which extends for about ten miles in a south-westerly direction, varying from three and a-half to two miles in width, containing over twenty-five islands, one of the largest, of which situated at the entrance, I have named Entrance Island.*

Four streams flow into this inlet at and near its head, the largest of which, Tat-lim-in, we ascended about one-eighth of a mile to rapids, with the canoe, and three miles further on foot, finding a succession of rapids, shoals and log-jams. Ma-min River, about sixty feet wide and filled with logs to near its mouth, empties into the south-eastern part of the inlet. About six miles east of Entrance Island, we reach the mouth of the

YA-KOUN RIVER, the largest stream on the Queen Charlotte Islands. It rises in Ya-koun Lake, seven days' travel distant by canoe, over scores of portages. It is about one hundred feet wide at its mouth, and navigable for small boats without obstructions, a mile and-a-half, beyond which, by means of two very small canoes and several portages, we ascended about five miles.

AGRICULTURAL LANDS—The resources of the west coast, Virago Sound and Massett Inlet country, so far as known at present, are fish, furs and timber. Its agricultural lands, chiefly those portions of deltas and meadows at the mouths of streams not subject to overflow, embrace in the aggregate, only a few hundred acres, the largest tracts on the west coast, lying at the head of Kio-kath-li, Tattoo and Athlow Inlets, not exceeding twenty acres.

There are about one hundred acres of tide meadows on Virago Sound, forty acres at the mouth of Naden River, twenty acres along the coast, at and near the entrance to Lignite Brook, ten acres between Naden and Stanly Rivers and the balance at the mouths of the other streams before mentioned. That portion of Massett Inlet herein described, contains about 250 acres of tide meadow lands, the largest tracts from five to twenty acres each, lying at the heads of Newton, Tin-in-owe and Tsoo-Skatli Inlets, and mouths of the Mamin and Ya-koun Rivers. The latter stream has an extensive delta of tide land, fifty or sixty acres of which could be reclaimed by dyking.

The bottom lands of the west coast, which might be brought under cultivation by expensive clearing, are limited to comparatively small tracts at the heads of inlets, their sides being generally precipitous and rocky. Portions of the low lands along the north coast of the island, on Virago Sound and Massett Inlet, being comparatively lightly timbered, might be reclaimed, for agricultural purposes. The

GRAZING LANDS of the west coast, with the exception of small tracts of a few acres on the shore, lie on the sides and tops of the mountains, located in estimated quantities, as follows: 300 acres on the north side of Ke-ow Inlet; 500 acres near the head of Seal Inlet; 200 acres on Skaloo Inlet; 3000 acres on Athlow Inlet—principally on its southern side—and a few hundred acres on the summits of the mountains to the northward.

TIMBER LANDS. There is no merchantable timber on the west coast of Graham Island, excepting spruce, which is found in moderate quantities at the head of Rennell and Cartwright Sounds, and the inlets to the southward. We examined with considerable care those localities where yellow cedar had been reported, crossing on foot from Athlow to Skaloo Inlet, finding small bodies of scrubby growth on the shores of each, also on Tattoo Inlet, but much the largest quantity on Cypress Island, Kio-kathli Inlet.

The timber on the north shore of Graham Island, including Virago Sound, is generally light. From three to eight

miles up the Naden River, however, we found considerable bodies of good spruce and red cedar. Its utilization would be attended with great expense, owing to the exceeding roughness of the country and the log jams, shoals and rapids of the river. Massett Inlet and Harbor contains a much larger quantity of available spruce and red cedar, the best tracts of which were found on the east side of the inlet opposite Cub Island, along the banks of the Ain, Awun, Ma-min and Yakoun Rivers, and on the inlets previously described. The largest quantity of yellow cedar seen was on Soos-u-uns Lake, which is believed to be too small to warrant the expenditure necessary to obtain it.

FISH. Hallibut, herring, salmon, salmon trout, and dog fish are caught in unlimited quantities in the waters described, also black cod or skill, all along the west coast of the islands.

MINERALS.—No minerals except coal are known to exist in the country herein described, of which no veins hitherto undiscovered have been found.

FUR-BEARING ANIMALS, especially bear, land otter and martin are very numerous. Since the abandonment of the west coast by the Indians for permanent residence, being but little trapped and hunted, they have increased rapidly. We found large numbers of old bear and martin traps along the streams and on the coast in the neighborhood of their old villages. Fur seal are killed in considerable numbers, and a few sea otter, from fifteen to twenty each season

WATER FOWL.—Wild geese were very numerous in Massett Inlet, Naden Harbor, and the southern inlets of the west coast. Comparatively few ducks, however, were seen.

WATER.—Nearly all the streams from Athlow River, northward, and also those of North Island, Virago Sound and Massett Inlet to the head of its South-western arms are of a dark reddish color.

THE CLIMATE of the west coast is exceedingly variable—stormy, squally weather prevailing during the greater portion of the year, the rainfall ranging from sixty to seventy inches. The Virago Sound and Massett Inlet country lying to the east

of the mountains possesses a much more equable and desirable climate, the annual rainfall seldom exceeding forty-five inches, except at the heads of the inlets.

Very Respectfully

Your obedient servant,

NEWTON H. CHITTENDEN.

PROGRESS REPORT NUMBER FOUR.

SKIDEGATE, Queen Charlotte Islands, October, 1884.

Hon. Wm. Smithe, Chief Commissioner of Lands and Works of the Province of British Columbia.—SIR—After returning to Skidegate from the exploration of the islands of the Queen Charlotte group lying to the southward, I devoted about one month to the examination of Skidegate Inlet, Skidegate Channel, the Canoe Passage from the latter to the west coast, and to the country bordering these waters, embracing the southern portion of Graham and the north end of Moresby islands. For this purpose, I traversed their entire shores, and penetrated from three to eight miles inland at various points, following up the principal streams flowing into these waters, and visiting also the Cowgits coal mine, the Slate Chuck quarry, the Indian villages, fishing camps, and other places of interest.

SKIDEGATE INLET,

Considering its resources of fish and timber, its coal deposits, the establishment thereon of the only manufacturing industry carried on by white men upon the islands, and two of the principal native villages, it is at present the most important body of water embraced within the Queen Charlotte Archipelago. The Inlet proper, from the entrance between Sand Spit and Dead Tree Points, to its junction with the waters of Skidegate Channel, leading through to the west coast, is twenty-five miles in depth, and from two or three hundred feet in the narrows to seven miles in width at the expansions of Bear Skin and South Bays. Its shores are generally low and fre-

quently sandy, and the back-lying country densely timbered and sloping gradually, except on its north-western side, where the mountains rise quite precipitous from 1,500 to over 4,000 feet above the sea. More than twenty small rivers and creeks flow into the inlet, several of which abound with a small but excellent variety of salmon. Of these streams, Klick-a-doan, (Slate Chuck), between Bear Skin Bay and Anchor Cove on the north, and Dena, emptying into South Bay, and those discharging into Long Arm are the largest and most important.

There are from one to four Indian houses at the mouths of the salmon streams, for their temporary lodgment during the fishing season.

Over thirty islands and islets are embraced within the waters of the inlet. Maud Island, the home of the Gold Harbour tribe, is the largest, being between three and four miles in length, and from one to two miles in width. It is centrally situated, thickly wooded, except where destroyed by fire on its southern side, with an average elevation of about three hundred feet. Lina and South Islands, the next in size in the order mentioned, are from one and a half to two miles in length. There is only a canoe passage between the former and Graham Island. Leading Island, lying between Maud and Moresby, is the landmark by which navigators are guided safely over the bar in clear weather. Bare Island, owned by the Skidegate Oil Company, not so destitute of vegetation as its name suggests, is of interest as having been once a fortified stronghold of the Skidegate tribe, now living on the north shore, opposite, and as now containing a flourishing colony of rabbits.

AGRICULTURAL AND GRAZING LANDS.

There are upwards of two hundred acres of tide meadows at the mouths of the streams mentioned, the largest and best tract, containing from twenty to thirty-five acres, lying along the Dena, on Moresby Island. There are also several hundred acres of alder bottoms, with a comparatively light growth of spruce interspersed, available for cultivation. The density of the timber prevents the growth of nutritious grasses, except in very limited quantities upon the immediate shores.

TIMBER.

There is a considerable quantity of accessible spruce and red cedar of merchantable size growing near the shores of the inlet, and much larger bodies on the banks of the streams, and in the valleys a few miles back. It would be expensive to obtain the latter by reason of log obstructions, except where the fall is sufficient for the construction of chutes. On Slate Chuck I saw spruce trees over thirty feet in circumference, and red cedars nearly as large. Occasional groves of alder used exclusively for fuel by the Skidegate Oil Company, are found on the shores.

COAL.

Several out-croppings of coal have been hitherto discovered on the inlet, including the only anthracite, so far as known, on the Pacific Coast. The vein is situated on the east side of Seymour Mountain, about a mile and a half from the shore at Anchor Cove. Upwards of a hundred thousand dollars were expended in its development by the Queen Charlotte Coal Mining Company, chiefly in the construction of a railway and other shipping facilities. Several tunnels were bored, the longest to a depth of 450 feet, reaching a vein of good anthracite coal from three to six feet in thickness, from which a vessel load was sold in San Francisco at a good price. But the vein soon becoming faulty, and the owners dissatisfied with the outcome from their investment, the mine was abandoned in 1872, and before the explorations made were sufficiently thorough to determine with much certainty the character and extent of the deposit.

THE SKIDEGATE OIL COMPANY'S

Works, buildings and wharf are situated on Sterling Bay, between Image and McGregor Points, ten miles from the entrance to the Inlet. They manufacture from 35,000 to 40,000 gallons of refined oil annually, representing over 500,000 dogfish, giving employment to hundreds of the natives during the summer months. This important industry is capable of indefinite expansion, and great credit is due to the enterprise and energy of Messrs. Sterling & Co, for its establishment and successful management.

THE SLATE CHUCK QUARRY,

From which the natives of the islands obtain the material for their stone carvings, is situated on the east side of the mountain of that name, on the west bank of Klickadoo River, about three miles and one-half from its mouth. The deposit is evidently an extensive one, the exposures covering several acres. No united effort has been made to develop it, the Indians quarrying it individually and carrying it out on their backs—over a rough trail—as required.

SKIDEGATE CHANNEL,

From three miles in width at its west coast entrance to two and three hundred feet where it meets the waters of Skidegate Inlet, flowing in from the east, is of sufficient depth on the rapids to admit of the passage at flood tide of vessels drawing seven or eight feet of water. Canoes pass through at all stages of water, but encounter very strong currents in the narrows, near the divide—not less than five miles an hour—when the tides are running out. Its shores are comparatively low, not infrequently sandy, except for several miles from the entrance, where the mountains are higher and more rocky and precipitous. The bordering country is clothed with a dense forest of spruce, hemlock and cedar.

SWAN INLET,

The entrance to which was first shown on Judge Swan's map of his reconnoissance along these shores in 1883, opens into the channel three and a half miles from the west coast entrance. It is between three and four miles in length, with two arms, one, the longest, extending in a north-westerly direction, and the other in a northerly, uniting about a mile and a quarter from the channel. High, steep mountains, thickly timbered—except on the west side, where there are two or three hundred acres of grassy openings—surround it. Three streams of clear water flow in at the heads of the arms mentioned, and a small island lies near their junction. There are three cabins in a sheltered cove on the east shore about a mile from the entrance—a rendezvous for the native seal-hunters and fishermen.

CANOE PASSAGE,

Leading from Skidegate Channel to the Pacific ocean, between Moresby and Cha-thl islands, is eight miles in length, and from two to three hundred feet to two miles in width. Passing through it at half-tide our canoe grounded in several places. It was formerly much traversed by the natives inhabiting the abandoned village of Cha-thl, on its north shore, near the west coast entrance, and also by the Gold Harbour people before their removal to Maud Island. There are several hundred acres of grazing lands on the sides and tops of the mountains lying to the southward.

Very respectfully, your obedient servant,

NEWTON H. CHITTENDEN.

CORRESPONDENCE.

NO. II.

Mountains clothed with dense forests of cedar, spruce and hemlock cover most of the surface of the country we are about to enter. Numerous wonderful inlets, sounds and channels divide it into an archipelago of many islands, of which Graham, Moresby, Provost, North Louise, Lyell and Barnaby comprise the greater portion of their area. Although so far north, being directly under the influence of the warm Japan current, which speeps along these shores, the climate is mild, winters rarely severe, snowfall generally light, except on the mountains, and rainfall ranging from forty to seventy inches, according to local topography, the western slopes of the mountains receiving much the largest amount. Their most valuable known resources are fish, lumber, fur seal, sea otter and coal. Veins of gold and copper have also been found, but not sufficiently developed to indicate their extent and value.

They are inhabited exclusively by the Hyda Indians, now numbering about 800 souls, who live in the villages of Masett and Skidegate, on Graham Island; Gold Harbor, on Maud Island, in Skidegate Inlet; Cumshewa, on Moresby

Island; Skedance, on Lyell Island; Tanoo, or Laskeek, on Tanoo Island, and at Ninstints, on a little island opposite the west coast entrance to Houston Stewart Channel. Their origin, in the absence of any written record or historical inscriptions, is an interesting subject for speculation. Their features, tattooing, carvings and legends, indicate that they are castaways from eastern Asia, who, first reaching the islands of Southern Alaska, soon took and held exclusive possession of the Queen Charlotte group. Their physical and intellectual superiority over the other North Coast Indians, and also marked contrasts in the structure of their language, denote a different origin. They are of good size, with exceptionally well developed chests and arms, high foreheads and lighter complexion than any other North American Indians.

Masset, the principal and probably oldest village of the Hyda Nation, is pleasantly situated on the north shore of Graham Island, at the entrance to Massett Inlet, Fifty houses, great and small, built of cedar logs and planks, with a forest of carved poles in front, extend along the fine beach. The house of Chief Weeah is fifty-five feet square, containing timbers of immense size, and planks three feet and one-half in width and eighteen inches thick. The village now has a population of about 350, the remnants of a once numerous people, the houses in ruins here having accommodated several times that number. Massett is the shipyard of the Hydass, the best canoe makers on the continent, who supply them to the other coast tribes. Here may be seen in all stages of construction these canoes which, when completed, are such perfect models for service and of beauty. This is the abode of the aristocracy of Hyda land—of Head Chief Edensaw, and of Weeah, Stilta, Kinaskilas, Kiltslouia, Spencer and Cootay, minor chieftains, who have but little now remaining except their titles, of which they are very proud. Most of the other villages named were offshoots from the parent colony caused by family and tribal feuds and quarrels. Chief Edensaw and most of his people were away at North Island and other points hunting fur seal, their most profitable pursuit. Those remaining appeared quite friendly, and disposed to look with favor upon my undertaking.

I had no difficulty in obtaining the desired Indian guide, and at once proceeded with the work of examining the islands. Down Massett Inlet we paddled and sailed for thirty miles, through great flocks of wild geese and ducks, several of which were soon added to our provision supply. What a splendid body of inland water, from one-eighth of a mile to twenty miles in width, deep enough for large vessels, abounding in choice fish and game, its shores covered with dense forests, where bear, land otter, and marten are numerous, altogether a veritable Indian paradise! For several days we coursed slowly along the eastern side, entering all of the indentations, and following up the streams flowing into it. My guide, a master of canoe navigation, and well acquainted with all of the waters of that portion of the islands, was of so little service upon land, both from ignorance of its topography, and inexperience of foot expeditions, that I made my interior excursions alone. Indian trails were almost invariably found, extending from one to three miles along the water courses, terminating at or near bodies of the finest red cedar, which they had cut for canoes and poles, for carving and building purposes. Upon some of these trails considerable labor had been expended in bridging over ravines, corduroying marshy places, and cutting through the trunks of great fallen trees. Only a few of them showed much use of late years, being obstructed by logs and overgrown with bushes. But, poor as were these native roads, I was always very glad to find them, and correspondingly sorry when I could follow them no longer, for beyond progress was exceedingly difficult; fallen trees from one to eight feet in diameter, in all stages of decay, thickly overgrown with moss, lying one above another, not unfrequently to the height of ten or fifteen feet, covered nearly the whole surface of the country. Several times I struck bear paths, so well worn that at first I thought that they had been trodden by human feet, but sooner or later they led me into thickets through which I could only go on all fours. I found a bear trap so constructed that, when sprung, an immense log would crush bruin to the earth; marten traps, where the animal was enticed by a tempting bait into a noose, which held it fast; and salmon traps, so

made by means of wing dams, with lattice work and boxes in the centre of the stream, that no ascending fish could escape being caught. Grouse were very numerous, and so tame from being seldom hunted, that they would sit upon the branches of the trees almost within reach. They were excellent eating, quite fat and tender.

Returning to Massett I then prepared for a more extended trip, the circumnavigation of the entire group of islands, for the purpose of a preliminary survey of the coast country, to enable me to determine which portion should receive the greatest share of my attention. The canoe which I had used on the comparatively smooth waters of the inlet was old, badly shattered and unseaworthy. I therefore decided to purchase a new one, and began to canvass through the village, examining those which appeared most suitable for the service required. Though I did this at first without seeing their owners, they soon ascertained the object of my visit, and before I had concluded a bargain every man, woman and speaking child in the village became interested in what to them seemed an important transaction. In matters of trade the Hydas are no exception to the Indian race generally, hesitating to set a price, for fear you might pay more if you should be asked; raising upon their figures if you accept an offer too readily; or backing down altogether, even after delivery, and demanding the article back again. Their extreme cautiousness in dealing with the whites is doubtless due in a great measure to having been so outrageously cheated by many of the early traders. At length, after several refusals on my part to accede to their excessive demands, and consultations of the owner with his people, my offer of \$31 for a canoe, thirty feet long, was accepted, which was a larger price than they had at first asked. After strengthening it by putting in cedar ribs, I resumed my travels, accompanied by Mr. Maynard, the well known, enterprising and plucky artist of Victoria, and Thomas, who, besides being so excellent in the management of the canoe, knew the coast very thoroughly as far south as Skidegate, about 100 miles distant.

We proceeded slowly, only advancing on an average about ten miles a day, traversing the entire shore on foot, fol-

lowing up the various rivers and creeks, and examining the extent of open country found. It comprises in the aggregate, between Massett and Skidegate, about 10,000 acres, better adapted for grazing than agricultural purposes, the largest tracts lying on Delcatley Inlet, near Massett, and on the Tlell River, about thirty miles north of Skidegate. The soil is uniformly sandy and of too recent formation to be much enriched by decomposition or alluvial deposits. A coarse broad-bladed grass growing in bunches prevails near the sea shore; a taller variety, of quite thick and luxuriant growth, on the meadows, while a species of red top was found on the higher lands. Strawberries, already in blossom, thickly covered the shore in many places. Cranberry vines were also found on two of the meadows. The immediate shores are generally low, thickly wooded with spruce, cedar and hemlock, with occasional marsh and meadow openings. The streams are small, and with one exception filled with fallen trees from their mouth up. The Tlell River, the largest, we were able to ascend several miles before meeting any obstructions. Although their waters were red from flowing through cedar swamps, several contain trout and a very choice variety of small salmon. Between Massett and Skidegate there are no harbors, only small bays, where vessels might find shelter during off-shore winds. From Massett Inlet eastward to Rose Spit, the extreme northeastern point of Graham Island, and from thence southward for nearly forty miles, a magnificent, broad, sandy, gradually sloping beach extends the greater portion of the way, being only broken for short distances by rivers, creeks and rocky headlands.

We became unexpectedly well acquainted with the first thirty miles of this splendid beach. Maynard and the Indian were to go around Rose Spit with the canoe and join me upon my return from an excursion inland. They failing to meet me within the expected time, and a storm having arisen, I began to fear that they had been driven back before it, but hoped to find them at the camp of the previous night. Pulling off the heavy boots in which I had been walking all day, I almost ran the ten miles, only to find the fishermen's hut we

had occupied dimly dark and silent. Another ten miles was made in all haste, and still no signs of the party. Here, being very thirsty, I felt my way in the darkness to a spring, from which we had previously obtained good fresh water. Dipping my cup, I swallowed a hearty draught of salt water, which had flowed in with the last tide. Although this was not a very refreshing or stimulating beverage on an empty stomach for such exertions, I returned to the smooth beach, followed it eight miles further to Massett, aroused the sleeping settlement, procured a canoe, four Indians and provisions, sailed down the coast fifteen miles, then walked twelve miles, when we met Maynard out searching for me. They had rounded the point in safety, though a heavy sea shattered the canoe, and would doubtless have swamped it had not the Indian, with great coolness and presence of mind, placed his back, with arms akimbo, to the inrolling breaker, drenching himself, but preventing the canoe from filling. In the thick fog their movements had escaped my observation. They had built bonfires to attract my attention, carried food and chocolate where I would be most likely to find it, and searched the peninsula over and over for me, in the same state of alarm in which I was hunting in another direction for them. In the course of our travels thus far we had found, in addition to several abandoned fishing huts and houses with carved poles in front, what appeared to be the remains of an earth and stone work fortification. It occupied an elevated situation about a mile from the sea shore, and consisted of an excavation about 100 feet square, surrounded by an embankment of earth and stones, which could hardly have been made except by human hands.

Near the close of the thirteenth day we reached the Indian village of Skidegate, comprising thirty houses and 100 people. It is situated near the entrance to the inlet of that name, one of the most important bodies of water embraced within the Queen Charlotte group. At high tide it is navigable through connecting waters for small vessels entirely across the island, here about thirty miles, varying from one to five miles in width. Its shores are generally gradually sloping, with long stretches of sandy beach, bordered by a thick forest

which, covering the mountains, rising from 800 to 3,500 feet, within from five to ten miles, bounds the horizon on every hand.

Here are convenient halibut banks, salmon and trout streams. Codfish, flounders, crabs, clams and mussels, and dog fish in such great numbers that 5,000 have recently been caught with hooks by four men within twenty-four hours for the Skidegate Oil Company. The natives have extracted their oil for many years by throwing heated stones into hollowed logs, filled with dog fish livers. But the oil obtained by this rude process was so frequently burnt and filled with dirt that it became very unpopular and could only be sold at a low price. The company above mentioned, by the introduction of the most approved retorts, have succeeded in extracting an article so pure and clear that it meets with a ready sale at a good price, and is regarded as one of the best oils in use, especially for all lubricating purposes. The company manufacture about 40,000 gallons annually, giving employment to the Indians from all parts of the island during the summer months. They are now assembling at Skidegate, which they make their headquarters during the dog fishing season. The shore is covered with canvas, Indian men, women and children, dried halibut, herring spawn, fishing tackle, bedding and camp equipage, presenting a scene of great interest.

Remaining here over night several voices were heard singing familiar hymns in a house close at hand. Going to the entrance I found a prayer meeting in progress, and, being invited in, remained to its close. Knowing that they had received only very limited missionary instruction, and none whatever for several months, I was considerably surprised that of their own motion, and without any white leader, they should hold such a well-conducted religious service. The songs were well rendered in English, the praying and speaking being in their native language.

I refitted at Skidegate, hiring a stronger canoe and two Hydah Indians, known as Sam and Tom, who, together, were well acquainted with the principal waters to be traversed. Proceeding southward, steep and often precipitous mountains, ranging in elevation from 800 to 4,000 feet above the sea, rugged and rocky on their western slopes, densely cov-

ered with forests of spruce, hemlock and cedar, extended from Skidegate to Cape St. James, and from Queen Charlotte Sound to the Pacific Ocean, over all the islands, so far as my observations extend, except a few thousand acres of grazing lands. Small tracts of arable meadows and garden patches are cultivated by the natives. The narrowness of the island south of Skidegate leaves but little room for an interior, beyond the range of the eye, when standing upon the summits of the highest mountains, after having traversed their shores. The latter are uniformly rock bound, frequently bluffly or precipitous, from 20 to 1,500 feet in height, with generally very limited borders of level country, the base of the steep mountains reaching down to the sea, with but narrow foothill slopes. The streams flowing from the short watersheds are small but numerous, and without exception, filled with fallen trees from their source to their mouth. Their waters are generally rapid, clear and good. Trout are plentiful in most of them, and a small, very excellent salmon is caught in considerable numbers in several of the largest. We found Chief Skidegate and several of his people securing their spring supply by means of traps, from a creek flowing into Copper Bay, and Chief Skedance *en route* for the same purpose to a small stream emptying into Cumshewa Inlet from Louise Island.

The rivers, which I followed to their source, rise in lakes and small swampy mountain basins. There are several harbors, where large vessels may find perfect shelter during the severest storms. Although the timber area is so great, there are but few localities where saw mills could be profitably operated. The forest embraces no Douglass fir, but little available yellow cedar or cypress, and only comparatively small bodies of merchantable spruce, which are accessible without the construction of expensive roads. Between Skidegate and Cape St. James there are more than thirty islands and islets, and bays, inlets, harbors, sounds and channels in great numbers. Day after day and week after week we paddled, rowed and sailed along these wonderful shores, visiting the Indian villages of Cumshewa, Skedance, Laskeek, or Tanoo, and Ninstints, all occupied, and several others now

abandoned. We also crossed Moresby Island from the east to the west coast at two different points, where the Indians assured me that there were trails over which canoes had sometimes been carried. We found no signs of a trail, except for a short distance, but, on the contrary, a country so difficult to traverse, on account of swamps and fallen timber, that the transportation of canoes through it would be a most laborious undertaking.

All of the villages named are beautifully situated, facing the south from cozy sheltered nooks, with splendid beaches, and abundant supplies of food conveniently near. Besides the halibut bank marked on the chart, there is one near all of the villages mentioned, and inexhaustible quantities of clams and mussels along the neighboring shores. This is certainly one of the most favored regions in the world for the abode of the Indian. From the number and size of their houses now occupied, and ruins, from fifty to seventy in each village, their burial Ghans and houses filled with the dead, these islands must have contained at least ten times their present population. Smallpox and the corruption of their women have been the principal causes of their destruction. The Hyda women, being good looking compared with those of the other coast tribes, have for twenty years been the special prey of the coarse libertines of a large floating population, until virtue is almost unknown among them. Nothing can save the race from speedy extinction except the most careful Christian training of their few healthy children. There are no missionaries in any of these villages, nor have they been visited by white men, except at long intervals. They treated me, however, with great kindness, inviting me to sleep in their houses, both at Laskeek and Ninstantins, and presenting my guides with dried and fresh halibut, dried sea weed, fish spawn, and the eggs of sea fowl.

Many of the natives, especially the women, were painted; a few of the oldest wore rings on their ankles, and all had their noses pierced for them. My guides painted at Ninstantins both black and red, and urged me to do so, saying that it would not only improve my appearance, but prevent the skin from blistering. The preservation of their complexion I

find to be the principal reason for painting by the women. They are the fairest on the Coast, and evidently conscious of it. One young woman, exceptionally good looking, ran to a brook upon our approach, and quickly washed off the unsightly pitch, deer tallow and charcoal, that she might appear in all her native charms.

Until we rounded Cape St. James, the extreme southern portion of the islands, we encountered but little disagreeably rough sea. Opposite Barnaby Island, however, we were struck by a heavy squall, which swept our canoe over the surface of the water for more than 200 feet, and to within about twenty feet of a precipitous rocky shore, upon which the waves were dashing furiously, before we could recover the use of the oars. But, from the cape northwest, it was a continuous battle amidst storms from all quarters, encountering strong adverse winds and much of what the Indians called *hyas solleks chuck* (very rough sea). I could then understand why, before leaving, they had inquired so carefully of Mr. McGregor, who recommended them, if I had a *skookum tumtum* (a stout heart), and of me personally whether I was subject to sea sickness. We were four days rounding one point, making three unsuccessful attempts, the Indians turning back, but not until our canoe had been nearly swamped by heavy breakers. The skill of the natives in handling the canoe is something wonderful. When once at sea, I left its entire management to their judgment. On one occasion, when off a rocky point, we were struck by a heavy sea with alarming force. To advance was seen to be impossible, and to turn back was almost equally perilous. It was no time for indecision, for another great breaker was rolling toward us. With a single signal word from the helmsman, with perfect coolness, a few powerful strokes at just the right time reversed our little bark, and we were soon in safe water again.

For considerable distances on the west coast rocky precipitous mountains face the sea, in places not less than 1,500 feet in height, almost perpendicular, rising over 4,000 feet within a few miles back. When running the guantlet of the storms along these forbidding shores we looked into the mouths of several dark caverns of unknown depth. Twice Indian Tom

raised his paddle, placed four small wads of tobacco thereon, and, with a supplicating motion of his right hand toward these caverns, made an offering to the spirits which are supposed to inhabit them, praying that we might have a safe voyage. Here we found what I believe to be the grandest scenery of the Queen Charlotte Islands. We had been pulling for six hours against head winds, squalls and rough seas along this rocky, high walled shore, which seemed to offer no place where a landing would be possible, when suddenly the canoe turned toward land, ran through a narrow rock bound passage into a little basin about fifty rods square, surrounded by mountains rising precipitously from 1500 to 2500 feet, down which ten cataracts were plunging. Grand View Inlet, or whatever it may be called, is situated about eight miles south of Tasso Harbor. As we were leaving it two land otters were seen swimming near the shore. Giving chase, one of them ran out upon the land, where, after an exciting hunt with dogs, it was killed. One evening, as we were camping in a rocky cove, Indian Sam suddenly seized his gun, ran down to the shore, and mounted a great rock where seal had been seen. Presently he fired, and then stripping off his shirt, dove headlong into the sea. He soon rose to the surface grasping a great seal, with which he swam to the shore. Although they had eaten a hearty supper, they sat up until midnight gorging themselves with its excessively fat meat. They had one continual feast from the beginning to the end of the expedition, devouring, besides the supplies taken with us, seal, wild geese, duck, octopus, clams, halibut, mussels, sea eggs, bird's eggs, fish spawn, salmon, etc., in great quantities. On the thirty-third day after leaving Massett, I returned to Skidegate through the Canoe Passage and Skidegate Channel, where I again refitted for the west coast of Graham Island and the Virago Sound country, next to be traversed.

NEWTON H. CHITTENDEN.

CORRESPONDENCE.

NO. III.

A forced detention at Skidegate for the recovery of a disabled hand, afforded an unexpected opportunity of becoming acquainted with Indian life in their village lodges and fishing camps, which I will more fully describe in another letter. The waters of Skidegate Inlet, during the months of June and July, were alive with canoe-loads of men, women and children, plying between the dog-fishing grounds, their villages and the works of the Skidegate Oil Company. The latter are situated on Sterling Bay, a beautiful little harbor on the north shore of the Inlet, about three miles from Skidegate. Here, as previously stated, were assembled at times a numerous fleet of canoes and hundreds of natives from all parts of the island, with their kloochnen, papooses and dogs. The latter gave us a series of concerts which will never be forgotten. Their number may be inferred from my having seen eleven dogs disembark from a medium-sized canoe, following one Indian, who alone arrived with it. The leaders of this remarkable band were ten dogs which belonged to a family of Hydah aristocracy, whose habitation was on the shore of a cosy cove about one mile distant, hidden from view by a rocky, wooded point. Three or four times during the twenty-four hours, they rounded the point, sat down on the shore, raised their noses heaven-ward at an angle of about forty-five degrees, when, with half-closed eyes, and the expression of a spirit medium when about to deliver an inspirational lecture, they abandoned themselves to paroxysms of howling and yelping.

To their first outburst, came a prompt and deafening response from every dog in the encampment, which continued with increasing vigor, until their united chorus quite baffles description. I have heard Chinese bands, Calliopes, the braying of jackasses, the love songs of Tom cats, operatic screechers, brass band and violin murderers, broken down hand organs and accordeons, Red River carts during the dry

season, the maniacal howling of the bulls and bears of Broad Street, and many other noises of like character, but none of them are at all comparable to the voicings of these Hydah dogs, when thoroughly warmed up to their best efforts by a few hours' practice.

A VISIT WITH CHIEF NIN-GING-WASH.

Nin-Ging-Wash, the ranking chief of Skidegate, is about 65 years old, thick-set, broad-faced, with a grave expression, and quiet reserved manner. He was introduced to me as the richest Indian on the island, as having the best houses, finest canoes and youngest wife. A few years ago he gave away his second wife—growing old—and sued for the daughter of Seotsgi, the leading chieftain of the West Coast. Presently she made her appearance, a sprightly young woman about 26, and we all started in their canoe for their home at Skidegate, where I had been invited. *En route* while passing a pipe from the chief to his wife, my oar caught in the water, giving the canoe a sudden lurch which would have been quite alarming to most feminine nerves, but not to the Princess for she laughed so heartily over the mishap, that I saw a smile spread over the big face of the old chief. An hour brought us to the broad sandy beach of Skidegate, opposite the chief's present residence, a plain comfortable frame house in the centre of the village. Two large splendid canoes were carefully housed in front. A small orchard in which a few half-grown apples were seen, next engaged the attention. The chief's wife carried the keys to the house and to the piles of trunks and boxes it contained. Their furniture embraced good modern beds, tables, dressing cases, mirrors, chairs, stove, lamps and other articles too numerous to mention. They opened trunk after trunk and box after box and showed me a very interesting collection of Indian wear; four masquerade head dresses reaching down to the waist covered with ermine skins valued at \$30 each; several complete dancing suits including a beautiful one made by the princess; Indian blankets, woven by hand from the wool

of the mountain sheep, masks, rattles, etc., and also a good supply of common blankets and other stores which they exhibited with evident pride.

We next ransacked their old house, a large one, still in good repair, which stood a few rods distant. Fourteen copper tows of various sizes, formerly valued at from fifty to five hundred dollars each, leaned against the broad front. The carved pole is so tall that, when erected, Nin-Ging-Wash received his present name, which signifies "the long stick." The house was filled with articles of Indian manufacture, curiously carved cooking and eating utensils, fishing implements, boxes, mats, etc. The chief's property, real and personal, is worth several thousand dollars. It is reported that he took his young wife to Victoria, and refurnished his establishment from her earnings. She apparently has her own way in everything now, the old chief being quite satisfied to get his rations of muckamuck and tobacco without troubling himself as to how it is provided.

CHIEF SKIDEGATE

Was found, with about twenty of his people, catching and drying salmon at the mouth of a small stream flowing into Copper Bay, fifteen miles south of the village. He is a cousin of Ning-Ging-Wash, younger in appearance, though nearly as old. They quarrelled bitterly over their rank for a long time, Nin-Ging-Wash, by means of his more liberal pot-latches finally prevailing, but not until two of their adherents had been killed. Skidegate handed me a package of papers, chiefly letters of recommendation from ship masters, missionaries and others. It was evident that he was ignorant of their contents. One said the chief had been "buming" around their vessel for some time demanding \$100 for alleged claims upon certain coal lands, which the captain thought had better be allowed, as he was a powerful chieftain. Another was a fatherly letter from missionary Duncan. Skidegate it seemed, had attempted to shoot a young Indian for some personal offence who fled to Duncan for protection.

The letter warned the chief never to be guilty of such an act again, assuring him that if the Indian had injured him, he should be proceeded against according to law. But Skidegate has now kept out of difficulty for several years, and like a good many white people, who sin as long as they are able to, before they reform, he has joined the church, and is trying to be a good Indian before he dies.

DOCTOR MODEETS.

My visit to the chief medicine man south of Massett was accidental. While making a trip of several days alone with my canoe, I sought shelter from a severe storm on a little islet in Skidegate Inlet, where I passed a sleepless night in the rain and wind. It was only a short distance to the Indian village of Gold Harbor, where, the following day, I landed and spread out my blankets to dry on the beach. Among the Indians squatting in front of their houses, I noticed one whose hair was tied up in a knot on the back of his head, the size of a large hornets' nest, of which it reminded me. Approaching nearer, his face was seen to be marked with small pox, a piece was missing from his nose, and altogether he presented a more remarkable than attractive appearance. I found him, however, quite talkative, and soon engaged him in conversation to the extent which my limited knowledge of the Chinook would permit.

He told me that he was a medicine Tyhee, and inviting me into his house, showed me the curious medicine dance, dresses, wands, rattles, charms etc., worn and used by him when practising the healing heart. The charms were carved out of bone, and represented whales, bears, ravens, land otters, eagles, thunderbirds, etc., and various other animals and fish, each accredited with special virtues for the cure of certain diseases. Selecting several which I desired to purchase, I placed in his hand the pieces of silver I was willing to pay for them. He counted the money, and then the charms over and over again, dwelling at length upon the wonderful curative powers of the latter, but finally accepting

my offer with the addition of a small potlatch. The occupation of the medicine man is now nearly gone, only a few old people having any faith in their practice. Modéets is the only doctor I have seen on the island who has kept the vow taken when entering upon the profession never to cut or comb his hair. His wife observing that it was an object of interest to me, unloosened the great bang, when the thick tangled ringlets spread over the old man's shoulders and reached down below his waist. To further gratify my curiosity, the chief put on a portion of his fantastic regalia, and executed a medicine dance. The doctor then dressed me in his wildest and most barbaric costume, when *by special request* I imitated his performance, in a manner which "brought down the house."

A GAMBLING SCENE.

The Indians are among the most desperate of gamblers.

They not infrequently play themselves out of everything they possess, leaving the game nearly, or quite, naked.

Chief Edensaw told me of an Indian who, having lost his money, canoe, blankets, and all his clothing, gambling at the sea otter hunters' camp on the west coast, then plunged naked into the forest, and succeeded in reaching a village on Virago Sound, the only one, so far as known, who ever crossed that portion of the island. A game of this character was in progress at Gold Harbor. There were no police to interfere or missionaries to discourage, and the players sat down in two rows, facing each other, on the beach, with boards in front. No cards or gambling sticks were used, only the tooth of a whale. This was taken by the challenging party and passed rapidly from one hand to the other, his movements being accompanied by loud singing, the beating of sticks on the boards, violent gesticulations and contortions, in which all joined, the betting being simply in which hand the tooth remained at the close of the manipulations. I reached this interesting scene just as an Indian was taking off his shoes to wager on the game, which he soon threw on

to a pile of clothing in the centre of the group, containing coats, vests, pantaloons, suspenders, shirts, etc. A big, one-eyed fellow was fast stripping the party when I left, and if his luck continued, would soon have reduced the Gold Harbor natives to their original state.

A REMARKABLE VISITATION OF CRABS.

I have seen a good many crabs in other waters, but never one-hundredth part as many as suddenly appeared on the shore of Sterling Bay, in the latter days of July. The lowest estimate by any one who saw them, was tens of thousands. The bottom in places was so thickly covered that nothing but crabs were visible, and Messrs. McGregor and Smith reported having found them two or three feet in depth. They were not the coarse, overgrown, worthless sea crab, but a good eating variety, which, for some unknown cause had come there in such great numbers, for the purpose casting their shells. They remained about ten days, when they left in a body, leaving a winrow of their old shells on the beach. Mr. Alexander McKenzie reports a similar visitation at Massett, the first known during his six years' residence on the island.

RETURN TO MASSETT—VISIT FROM CHIEF EDENSAW.

Through the kindness of Capt. Meyer, and Purser Williams, of the steamer "Princess Louise," my whole outfit, men, canoe and supplies, were taken to Massett, at which point I resumed the examination of Massett Inlet, which being concluded, we explored in succession Virago Sound, Naden Harbor, and all the bays, inlets and harbors of the west coast of Graham Island, and the streams flowing into these waters. I had just taken possession of the quarters kindly assigned me by Mr. Alexander McKenzie of the Hudson Bay Company, when we received a visit from Edensaw, oldest and ranking chief of the Hydah nation, who has erected the largest number of carved poles, given the greatest feasts, and made the most frequent and liberal potlatches. Though about seventy-five years of age, he is still quite vig-

orous, and being well dressed in a suit of broad cloth, would easily pass for a much younger man. He is the last of a race of powerful chiefs, his ancestors having been bold and aggressive warriors, making many captive slaves from the other coast tribes. He is also a distinguished brave, but never fought with his own people, and has always been friendly to the whites. On one occasion he risked his own life to release the captain and crew of a small vessel, the "Susan Sturgess," which had been made captive by the Indians of Massett. He has succeeded one after another of the chiefs of various parts of the group by virtue of the erection of carved poles to their memory, bountiful feasts and generous potlatches to their people, until he is now recognized as their greatest chief.

UP THE YAKOUN RIVER.

Early in August we had reached the mouth of the Yakoun river, the largest stream on the island. Hundreds of salmon and salmon trout were jumping out their full length, as we paddled along under the shadows of the tall spruce which cover its banks. Advancing about a mile, we camped with a party of Massett Indians, who sold us splendid silver salmon for twenty-five cents, and potatoes at the rate of eight dollars a bushel. The following day, accompanied by a single Massett Indian, I ascended the river for several miles, by means of two very small canoes, making several portages around log jams over rapids and shallow places. About three miles up, two old Indians and two naked boys, tending a salmon trap, were roasting splendid salmon trout, which they shared with us. They were living exclusively upon fish, which they ate without salt, generally cooked upon a stick inclined over the fire. For about 200 miles we coursed along the shores of Massett Inlet, whose long south-western arms reach the base of steep, high mountains, the western sides of which, from ten to fifteen miles distant are washed by the waters of the Pacific. Chief Edensaw told me that in former times the Indians to the south with whom the Hydahs were

at war, sometimes crossed over these mountains from the head of Kio-kath-li Inlet on the west coast, and taking their people by surprise, carried away captive their fairest young women.

RUNNING RAPIDS IN A ROTTEN CANOE.

Among our trips inland, was one of about ten miles up the Ain River to Coos-Yoouns lake its Source. This is a fine body of water, about eight miles in length, surrounded by a thick forest of spruce, red and yellow cedar. The river from fifty to seventy-five feet in width is a succession of rapids—log-jams and shoals almost its entire length. Following a trail about half way to the borders of a little lake through which it flows, we found a canoe. very small, old, rotten and shattered. The water poured in through a long crack in one end, nearly as fast as we could bail it out. But by battening with our provision sack, we managed to keep it afloat until we had accomplished the round trip to the lake first mentioned, by making several portages over log jams, shoals and rapids. Returning, I decided to run one of the latter, and just as my men got out to lighten the canoe over a rocky place, pushed out into the middle of the stream.

Down my little bark swept, toward a narrow passage between two rocks, around which the water was whirling and foaming. I had under-estimated the strength of the current, and in spite of my best efforts with one serviceable hand, the canoe dashed on to one of the rocks, balanced a moment on its centre, whirled once around, and then shot down stream, quivering like a frightened animal, into safe water again.

VIRAGO SOUND, NADEN HARBOR AND RIVER.

Fifteen miles west of **Masset** the ocean indents the land for about thirteen miles from eight miles to one-eighth of a mile in width forming what is known as Virago Sound and Naden Harbor, the latter being the most accessible and safest anchoring ground for vessels on the north shore of the island. Into this harbor flows the Naden River, the second largest stream

of the Queen Charlotte group. From Massett Inlet touching at the abandoned village of Yan situated at its entrance, we proceeded to those waters and advanced ten miles up the Naden River three miles by canoe and thence on foot through a thick forest of spruce and cedar with a dense undergrowth of intertwined salal, salmon, whortleberry and other bushes. Bear tracks and traps were numerous, but no game was started except grouse, which were very tame and plentiful. Night overtook us several miles from camp, wet to the skin and without blankets! But further progress in the darkness being impossible, we built a roaring fire at the base of a great spruce tree, and lay down until daylight. The following night occupying one of the three habitable houses in the old village of Kung, situated at the entrance of the harbor, we found Chinese pottery, and in the burying ground the largest carved figures of men we had seen, about seven feet in height.

Around North Island into Cloak and all its other bays, visiting the deserted villages of Kioosta Yakh and Henslung.

Thirty-five miles further, stopping *en route* to examine the old village of Yatz and the Yalan River, brought us to the extreme northern land of the Queen Charlotte Islands, North Island. Here Capt. Marchand lay with his ships trading with the natives nearly one hundred years ago. The Hydahs were then at least ten times their present numbers, swarming in the waters and on the shores around the villages of Kioosta, Yakh and Tadense, where now only carved poles, houses in ruins, and numerous graves attest their former greatness. Two Indian dogs were the sole occupants of the fishing and hunting village of Tadense, at the time of our arrival. They had been left behind by sea otter hunters, with an abundant supply of whale blubber—but were so lonesome that they followed us for a long distance along the shore, evidently for the purpose of being taken into our canoe.

A beautiful clear, still day, favored the circumnavigation

of North island, and the careful examination of its coast line. A thick forest of spruce of small growth covers its entire area, down to its rocky shores, which are generally low, though rising to bold perpendicular bluffs from 50 to 200 feet in height at North Point and around Cloak Bay, the highest elevation on the island not exceeding 400 feet above the sea. There are four small bays on its north-eastern side, from one to two miles in depth, open to easterly winds, with fine sandy beaches at their heads where the remains of former habitations were visible. Cloak Bay, a much larger indentation on the south-western shore, is exposed to westerly storms. The safest anchorage these waters afford is found in a little cove on the south shore of the island between Cloak Bay and the village of Henslung.

Parry Passage, which separates North Island from Graham is about a mile and a-half in width, though the ship channel—very rapid except at flood tide—is narrowed by reefs, and Lucy Island, to less than two thousand feet. Camping at the deserted village of Yakh, near Kioosta, we found large beds of strawberry vines of most luxuriant growth, and carvings of male figures complete.

THE WEST COAST.

Rounding Cape Knox for nineteen days, thirteen of which were stormy, we fought our way along about 275 miles of shore line, traversing to their head every inlet, harbor, sound, port and bay, fourteen in all, from three to ten miles in depth, nearly all hitherto unknown, except to a few of the oldest Indians.

A rocky, ragged uninviting shore, from which project far out to sea many rocky points with outlying reefs, white with breakers, except during the calmest weather; precipitous mountains from one to four thousand feet in height, clothed with forests of pruce and cedar down to the sea; beautiful land-locked harbors, with short stretches of fine sandy beach at their heads; long winding inlets, down whose mountain walled sides roaring cataracts are plunging; numerous small

streams in which salmon and salmon trout were seen by the hundreds; scores of islands, islets and cozy coves, where seal and wild geese abound, describes the general physical features of the west coast of Graham Island.

A SUBMERGED FOREST.

Tledoo is the name of a summer rendezvous of the sea-otter hunters of Massett, situated about fifteen miles south of Cape Knox. We had landed at Klik-a-doo, a short distance above, the only place visible where the sea appeared not to be breaking, and in examining the coast on foot several miles southward, discovered the tall pole which marks the site of the three cabins of Tledoo. At first view, the sea seemed to be breaking along the entire front, but a more careful examination disclosed a narrow entrance between the rocks through which we were able to enter a perfectly sheltered little canoe harbor with a fine sandy beach at the landing place.

A strong south-east wind caused a very low tide the following day, laying bare a sandstone flat about an eighth of a mile from the beach, upon which black objects were visible. I had already found on the shore opposite at high tide, large pieces of lignite coal and petrified wood. Putting on my long boots, I soon discovered the base trunks of hundreds of forest trees from one to six feet in length extending as far out to sea as I could wade—some lying down and formed into lignite coal, but the greater number standing and petrified as hard as rock. The rocks along the north coast for hundreds of miles, show unmistakable evidence of violent volcanic action, and though the ocean has receded within the memory of Indians now living, these islands are probably the mountain tops of a submerged land, separated from the main body of the continent by the sinking of the earth's surface.

AN INTERESTING RIDE.

September with its gales had arrived, the last of the sea-otter hunters, except Captain John and family, we had met

beyond North Island, leaving the coast for the winter; our rations were getting short, everything induced me to push forward as rapidly as possible, and after lying for several hours on Frederick Island waiting for the sea to run down, I decided to advance. When we had rounded the first point and were fairly into the midst of the great rollers—"turn back! turn back!" exclaimed one of my men, which refusing to do he added: "My God! See the distance we must go." We had already on two or three occasions encountered sufficiently rough seas to give me great confidence in the seaworthiness of my canoe, which, though I had ribbed and decked fore and aft, every Indian who saw it thought unfit for the expedition, being, they said, too small, weak and cranky. I wished they could have seen her ride the great seas which come rolling in like mountains, before we reached land again. Ben Melin, a sailor of thirteen years experience on the Atlantic and Pacific Oceans, says he never saw so small a boat out-live such a sea. "We will all be drowned," said Bill, a young Hydah Indian, at the same time stripping off his clothing as I turned the prow of our little ship towards the shore. And yet we had not taken aboard two buckets full of water, which swept over the covered prow and would have swamped us, but for the decking. But everywhere along the shore we were nearing, and which had been described to me by Chief Edensaw as affording a good camping place, the sea was breaking with a loud roar. Surveying it carefully we discovered a narrow opening between two great rocks, where the interval between the breakers was thought to be sufficiently long to enable us by skillful management to pass through it. I had steered thus far with my left hand—my right hand being entirely useless—by strapping the paddle to the side of the canoe near the stern, and after directing my men to assist me with their oars upon a given signal, decided to go through. First, with the assistance of Bill removing my heavy boots and rubber coat, just after a great sea had broken "Pull both oars, heavy, right oars, now both oars,

with all your might! were the orders as we rode through in splendid style, on the crest of a great wave; but when we supposed we were beyond their reach, a heavy cross breaker rolling in unobserved, struck the canoe broad-sides and dashed it violently against a sharp rock. Bill being nearest the prow, and almost naked, was the first to jump overboard, myself following, and both placing ourselves between the canoe and the rock, clinging to the former, saved it from destruction by the two succeeding breakers, which swept us so near land, that by great effort we were able to lighten the canoe by throwing things ashore and then haul her on the rocks. A split about three feet in length, above water line, was the only injury it sustained.

Camping in a Cave, we are driven out double quick at midnight by a very high tide.

We had sought refuge from a storm in a little rock-bound cove on the south shore of an inlet called by the Indians Athlow, where we built a fire and spread our blankets in a big cave washed out by the sea. As night approached the more prudent suggested that the storm might cause a high tide to rise over us while sleeping; though the opinion prevailed that only the full moon tides in conjunction with severe northwesterers ever reached so high, and why take the trouble to pitch a tent, when our ready made house of stone afforded us so much better protection from the rain and wind. And so while we lay unconscious the storm increased, the tide rose higher and higher, until at midnight the sound of the waves dashing against the mouth of the cave awakened me. Arousing my men, who were still sleeping soundly, with all possible despatch, nearly cracking our skulls against the sides of the cave in the darkness, by clambering over the rocks at the base of a high precipice between the breakers we succeeded in removing all our supplies and camp equipage to a place of safety.

A HYDAH MOTHER'S REJOICING OVER THE RETURN OF HER SON,
SUPPOSED TO BE LOST.

A hard pull up the swift rapids which extend for about two miles across the divide where tides of Skidegate Channel meet those of Skidegate Inlet, brought us into the waters of the latter, in which we soon passed several parties of Indians camping at, and *en route* to salmon streams for their winter supply of dog salmon. Bill having heard that his mother was with one of these parties, asked permission to land and see her. When the old woman saw her son approaching, she ran down the beach to meet him, and falling on her knees, uttered a wild strain of joyful exclamations over his safe return.

NEWTON H. CHITTENDEN.



