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REPORT

ON THE

AGRICULTURAL PROSPECTS, NATIVES, SALMON FISHERIES, COAL
PROSPECTS AND DEVELOPMENT, AND TIMBER
AND LUMBER INTERESTS

OF

ALASKA.

1903.

BY

JAMES W. WITTEN,
SPECIAL INSPECTOR, GENERAL LAND OFFICE

WASHINGTON:
GOVERNMENT PRINTING OFFICE,

1904.

APR

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DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,

Washington, D. C., April 9, 1904.

SIR: I herewith transmit a copy of final report of James W. Witten, law clerk of this Office, who was recently detailed as special inspector to make a tour of general investigation into conditions in Alaska of interest to your Department. This report embraces agricultural conditions and prospects, natives, fish and fisheries, coal and timber. Mr. Witten has heretofore submitted reports on other subjects which have already received attention, among them a report on the propagation of foxes in that district, which was printed in your last annual report.

Such features of this report as may seem to need specific attention will hereafter be made the subject of further communications, with appropriate recommendation.

Very respectfully,

W. A. RICHARDS,
Commissioner.

Hon. E. A. HITCHCOCK,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,

Washington, D. C., April 8, 1904.

SIR: In addition to the various reports heretofore submitted on other subjects as to the result of my recent general investigations in Alaska, I beg to submit herewith a final report on agricultural possibilities and prospects, natives, timber and lumber interests, and fish and fisheries. These reports are made up from personal observations and from data collected by correspondence and otherwise, and are believed to fairly represent actual conditions in that district in so far as the Interior Department is interested in the subjects mentioned.

I am indebted to the valuable reports of Prof. A. H. Brooks, of the United States Geological Survey, Prof. C. C. Georgeson, of the Agricultural Department, and Mr. H. M. Kutchin, of the Treasury Department, for some of the facts recited in connection with other data gathered by myself, as well as for some of the photographic views used in this report.

My final report on these subjects has been greatly delayed by failure to receive earlier replies to communications addressed to persons residing in portions of Alaska which I was unable to visit personally.

Very respectfully,

JAS. W. WITTEN,
Special Inspector.

Hon. W. A. RICHARDS,
Commissioner of the General Land Office.

Agricultural Prospects of Alaska.



"ITS RUGGED MOUNTAINS, ITS GLACIERS, ITS ICEBERGS, AND ITS SNOW-CAPPED PEAKS."



"ITS ACRES OF FLOWERS, ITS WAVING GRASSES."

AGRICULTURAL PROSPECTS, NATIVES, SALMON FISHERIES, COAL PROSPECTS AND DEVELOPMENT, AND TIMBER AND LUMBER INTERESTS OF ALASKA.

ALASKAN AGRICULTURE.

Until quite recently the agricultural possibilities of Alaska have been given but little consideration, and even now this subject is not seriously thought of by many persons who visit that district. The discovery of gold and the development of mines seem to have attracted the attention and fixed the gaze of the public. To those unacquainted with actual conditions, the thought of Alaska carries with it the idea of rugged mountains, perpetual snow and ice, and a generally cold and inhospitable climate. These conceptions have been planted in the public mind by newspaper accounts of the hardships endured by the gold hunters who a few years ago had the hardihood to cross the mountain passes to the Klondike country in midwinter, many of whom were little prepared by experience or otherwise for such a journey. Every camera taken to Alaska brings back pictures of its rugged mountains, its glaciers, its icebergs, and its snow-capped peaks, and but few of them ever tell us of its acres of flowers, of its waving grasses, or its growing gardens.

The coast regions of Alaska usually visited by tourists are indeed rugged and mountainous, but what one sees of Alaska from the water is simply its rougher edges. Many people do not stop to think that Alaska reaches as far south as $54^{\circ} 40'$ north latitude, and that it stretches northwest and westward, covering an area greater than the combined area of England, Scotland, Ireland, France, and Spain; that it is larger than twenty of the smaller States of the Union; that it is four times as large as the combined area of the Philippine Islands, fourteen times as large as Cuba, eighty-eight times as large as the combined area of the Hawaiian Islands, and one hundred and sixty-five times as large as Porto Rico. They do not stop to think that more than two thousand miles of its coasts are swept and warmed by the ocean stream commonly known as the Japan Current, and comparatively few people are aware that almost this entire southern coast is open to navigation at all seasons of the year, or that it is never as cold at Sitka, the capital of Alaska, as it sometimes is in Washington, the nation's capital. In

fact, the mean winter temperature at Sitka is but 32.5° , and the thermometer seldom registers at the zero point.

It is true that the winters in the interior are long and cold, but the public seems to have an exaggerated idea of even that climate. The area through which the Yukon River flows lies between 62° north latitude and the Arctic Circle, and in speaking of its climate Lieutenant Cantwell, who spent two years in making a careful study and investigation of local conditions there, says:

The climate of the Yukon Valley differs very materially from that of the coast in the same latitude. On the coast the summer months are characterized by excessive precipitation, and cold, disagreeable rains are of frequent occurrence. The average summer temperature of the air on the coast is some 25° lower than that of the interior. * * *

The cold, misty weather of the coast during the summer season is not experienced in the interior beyond the first range of mountains, which forms a barrier between the treeless plains of the coast and the Yukon Valley, where the summer climate is tropical in character. Temperatures of 90° in the shade are not infrequent, and authentic records show that at some times the temperature has been as high as 110° in the shade for short periods. The warmest months are June and July, when the sun is practically in sight all the time. * * *

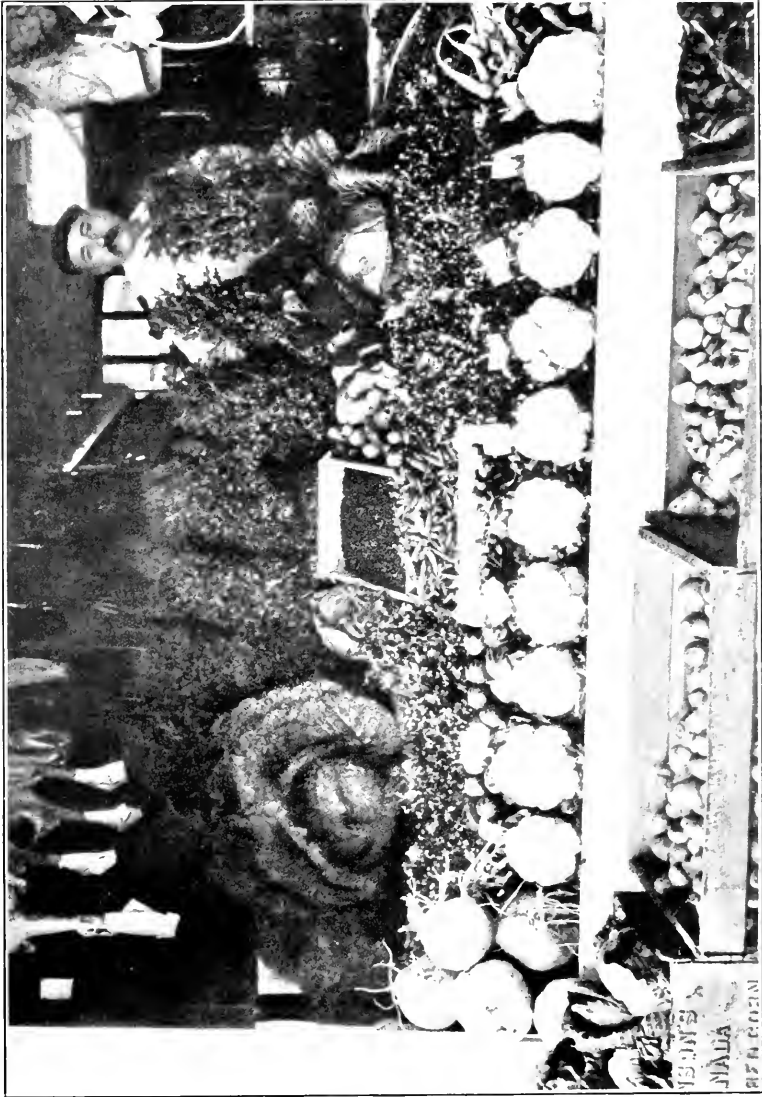
The winter climate of the interior is much colder than the coast, but owing to the excessive dryness of the atmosphere inland and the absence of wind when the temperature is very low, it is much more endurable. As a matter of fact, the consensus of opinion of those who live in the country long enough to be competent to judge is that the winter months are the pleasantest ones of the year. The approach of winter is gradual, and as a general thing free from gales and other objectionable features which usually mark the change of seasons in other localities. The periods of cold weather which render it unsafe to travel or work in the open air are of very short duration, seldom lasting over a week, and these exceptional cold periods seldom occur more than twice in the same season. * * *

From our experience in the country covering a period of over two years, and from information gathered from various authentic sources, I am irresistibly drawn to the conclusion that the winter climate of interior Alaska is superior in many respects to that of many of our Northern States.

Under the influence of the long, sunny days of April and May, while the snow is yet on the ground, and the rivers are still icebound, vegetation of all kinds bounds into life with a rapidity which is astonishing, and by the middle of June the face of the whole country is abloom with the fervid life of innumerable plants and flowers. In July the grasses are waist high, and the foliage of deciduous trees so dense as to be almost impenetrable to the eye. In August the berries ripen, and by the 20th of the month the leaves of the beeches and poplars begin to take on the gaudy coloring of autumnal decay.

Gardens are planted out of doors in May and by the end of June some of the more rapidly growing vegetables are ready for the table. Radishes, spinach, parsley, and lettuce are first to mature. After these, in rapid succession, come grain, peas, kale, turnips, and cabbage. With proper attention to location and drainage, excellent potatoes can be raised, and in addition to all these vegetables, I have seen a very good quality of celery grown at the Holy Cross Mission.

From this it will be seen that while the summers are comparatively short, the length of the days gives a number of hours of sunshine equal to those of more southerly latitudes.



Alaskan temperatures.

| Month. | Sitka. | | | Juneau. | | | Valdes. | | | Kodiak. | | | St. Michael. | | | Holy Cross. | | | Fort Yukon. | | | | | |
|-----------|----------|----------|-------|----------|----------|-------|----------|----------|-------|----------|----------|-------|--------------|----------|-------|-------------|----------|-------|-------------|----------|-------|-----|----|----|
| | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | Maximum. | Minimum. | Mean. | | | |
| January | 48 | 18 | 34 | 40 | 12 | 30 | 44 | -1 | 25 | 49 | 0 | 28 | 30 | 38 | 6 | 35 | -55 | -9 | ... | ... | -62 | ... | | |
| February | 45 | 13 | 30 | 40 | 10 | 29 | 44 | -12 | 15 | 49 | 20 | 35 | 38 | -12 | 16 | 39 | -15 | 15 | ... | ... | -44 | ... | | |
| March | 46 | 17 | 36 | 61 | 5 | 33 | 52 | 10 | 30 | 51 | 18 | 38 | 40 | -18 | 10 | 44 | -12 | 16 | ... | ... | -42 | ... | | |
| April | 58 | 27 | 44 | 64 | 30 | 41 | 50 | 19 | 31 | 54 | 11 | 37 | 44 | 26 | 17 | 48 | 21 | 24 | ... | ... | -21 | ... | | |
| May | 65 | 31 | 44 | 64 | 36 | 47 | 57 | 27 | 39 | 64 | 30 | 44 | 54 | 17 | 34 | 63 | 18 | 42 | ... | ... | ... | ... | | |
| June | 61 | 36 | 49 | 76 | 36 | 53 | 67 | 32 | 49 | 71 | 39 | 51 | 61 | 31 | 44 | 74 | 29 | 52 | 93 | 27 | 58 | ... | | |
| July | 74 | 35 | 55 | 77 | 45 | 56 | 73 | 32 | 50 | 68 | 45 | 55 | 77 | 40 | 55 | 77 | 37 | 50 | 64 | 35 | 52 | 80 | 23 | 54 |
| August | 63 | 39 | 54 | 71 | 39 | 54 | 63 | 30 | 56 | 70 | 42 | 56 | 65 | 37 | 50 | 64 | 35 | 52 | 80 | 23 | 54 | ... | | |
| September | 65 | 39 | 54 | 71 | 39 | 54 | 63 | 25 | 44 | 68 | 36 | 50 | 56 | 25 | 43 | 57 | 25 | 44 | 70 | 19 | 43 | ... | | |
| October | 64 | 26 | 45 | 55 | 28 | 41 | 53 | 18 | 42 | 63 | 22 | 42 | 53 | 9 | 21 | 41 | -14 | 28 | 48 | -17 | 47 | ... | | |
| November | 52 | 26 | 38 | 49 | 10 | 32 | 45 | 4 | 15 | 54 | 9 | 31 | 43 | 9 | 21 | 41 | -19 | 11 | 22 | -43 | 11 | ... | | |
| December | 51 | 19 | 37 | 49 | 9 | 32 | 39 | -13 | 16 | 49 | 12 | 31 | 33 | -42 | 11 | 35 | -24 | 5 | 8 | 56 | 26 | ... | | |
| Extremes | 74 | 13 | ... | 77 | 5 | ... | 73 | -13 | ... | 74 | 0 | ... | 77 | 38 | ... | 77 | -55 | ... | 93 | -62 | ... | ... | | |

Much of Alaska is not situated farther north than are parts of Scotland, Finland, Iceland, Norway, and Sweden, where agricultural pursuits give employment and sustenance to many thousands of people. The main portion of Alaska is situated between the parallels which bound Finland, yet 34 per cent of Finland is being used for agricultural purposes and supports a population of more than 2,500,000, and for each 1,000 of its population in 1895, Finland had 559 cattle, 423 sheep, and 119 horses. From 1891 to 1895, 113,743,216 pounds of butter and 1,972,185 pounds of cheese, and 6,981,000 bushels of oats were exported from Finland.

The Alaskan winters may be somewhat colder than those of Finland, but Alaska has warmer summers. There appears to be no good reason why the Alaskan climate would forbid the growing of the hardier vegetables, cereals, and fruits grown at Trondhjem, Norway, on the Orkney Islands, and in Scotland, or the raising of the same kinds of live stock raised in those countries.

Much of Alaska lies in the same zone with Iceland, and while the ocean currents may make some differences in temperatures, both topography and meteorological conditions give advantages to Alaska, yet Iceland with only 10,000 square miles suitable for cultivation and pasture, and with a population of only 76,300 in 1898, had 21,982 cattle, 44,134 horses, and 735,442 sheep, and her farms furnished in 1890 64 per cent of all her exports and maintained four agricultural colleges.

A committee of Icelanders appointed in 1874 to examine Alaska with a view to Icelandic settlements therein, after visiting the Cook Inlet region, Kodiak Island, and adjacent country, said, in their report, now to be found in the Library of Congress, in part, as follows:

To judge from the soil and the climate there is *prima facie* no reason why everything that succeeds in Scotland should not succeed in Kodiak. Pasture land is so excellent and hay harvest so abundant that our own countrymen would here, just

as in Iceland, make sheep breeding and cattle raising their chief means of livelihood. * * * The island has in nearly every respect advantages over Iceland; especially is milder in the winter time, without being warmer in summer, and summer is a great deal longer than in Iceland. We, therefore, do not hesitate to recommend those of our countrymen who are minded to emigrate that they come hither if they can, and we do this after minute and conscientious deliberation in the firm belief that it will be for their advantage, as the land seems in every respect well adapted to them and answers completely all our expectations. * * * We can not, therefore, do otherwise than express the hope that the American Government will do all that lies in its power to encourage the immigration of our countrymen to Alaska, as the land seems to have been created just for them. In like manner we think that men of our race are the best adapted, or perhaps the only men adapted, to settle and cultivate that country, and to utilize the natural resources with which it is furnished.

Both for the reasons above stated and also for the reasons, founded not merely on physical advantages, but which we will not detain your excellency in specifying, we are convinced that Alaska will suit our countrymen better than any other land on earth.

The public press has recently contained statements to the effect that many of our citizens are seeking agricultural homes in the wheat-growing regions of the Winnipeg country in British Columbia, and Rand, McNally & Co.'s recent physical map showing the corresponding climatic conditions lays an isothermal line from that cereal region north and westward to that point in Alaska where the Yukon River crosses the Arctic Circle.

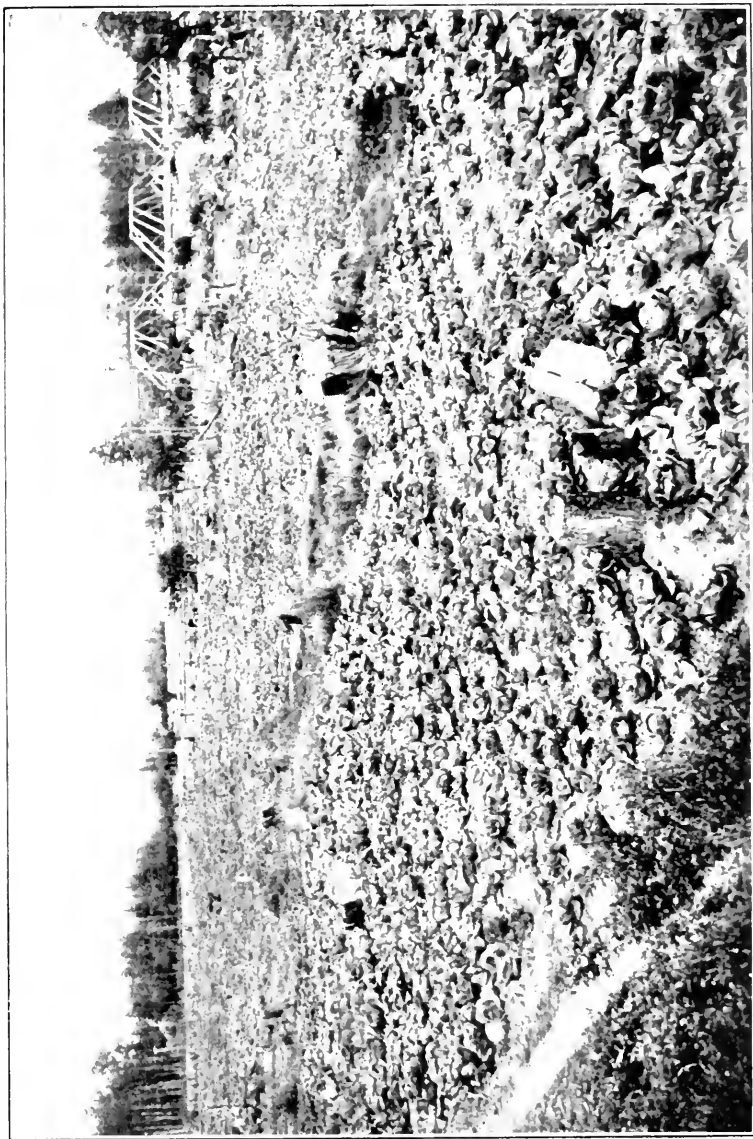
Col. P. H. Ray, of the Army, who lately commanded the Department of Alaska, said in a public address:

There has been nothing told of the diversified possibilities of the country which, if developed, would be of greater importance than all of the gold mines that have been opened up. The trouble is that too many people go there expecting too much, and consequently are disappointed. Many have the idea that there is nothing in Alaska worth going for except gold. In almost all parts of the valley of the Yukon you can ripen wheat, oats, and all kinds of grain. I have seen blue-joint grass grow 2 tons to the acre, and I have seen 1,400 bushels of potatoes grown on 4 acres of ground. Timothy I have seen standing 4 feet high, growing wild for miles around. These resources are well worth looking after and developing.

It is not, however, necessary to longer theorize on the possibility of growing cereals, forage plants, and vegetables, or of raising live stock in some portions of Alaska, for that possibility has been established through successive tests and actual experience.

AGRICULTURAL EXPERIMENT STATIONS.

In 1897 Congress appropriated \$5,000 for an investigation into the agricultural possibilities of Alaska, and this brought forth facts which encouraged further appropriations for the maintenance of experiment stations. Since 1898 these stations have been under the very energetic and intelligent direction of Prof. C. C. Georgeson, special agent of



AN ALASKAN CABBAGE FIELD.

THE
SOCIETY FOR
PROMOTING
AMERICAN ARTS
AND LETTERS
INC.

the Department of Agriculture, and an experienced and scientific farmer, and the facts disclosed by his annual reports abundantly justified this appropriation, and should encourage larger ones along the same lines.

Four of these stations have been established—one at Sitka, one at Rampart on the Yukon River, one in the Copper River Valley, and another at Kenai in the Cook Inlet country. At these stations, oats, wheat, barley, flax, and other kinds of grain, as well as many kinds of vegetables, have been brought to full maturity. While vegetables have been raised in many parts of the Yukon Valley, the most successful attempts in that direction have been made at the Holy Cross Mission, situated about 260 miles above the mouth of the River. This is a native mission where schools are maintained, and for a number of years their gardens have furnished the boarding establishments connected with the schools with a sufficient quantity of vegetables, with an occasional sale to passing boats. From these gardens there were taken last year from 400 to 500 bushels of good potatoes, which kept well during the winter, 800 heads of cabbage, two or three tons of turnips, besides peas, beans, beets, cauliflower, rutabagas, radishes, lettuce, and celery.

The grasses of Alaska are numerous in kinds, and make a very vigorous growth. Even the treeless plains along the coasts, as well as the lowlands of the interior where the timber is not too thick, are covered with luxuriant growths of very nutritious grass, which would be ample to furnish pasturage for at least six months in the year, owing to the fact that the snow does not fall to any great depth in many of these localities, and horses, mules, and cattle have been known to subsist during the entire year when running at large without any other food. The most promising field of this character is, however, located throughout southwestern Alaska, on Kadiak Island, and lands to the southwestward, as well as in the Cook Inlet country. There are at this time on Kadiak Island 250 cattle and some 8,000 or 9,000 sheep feeding upon these grasses, and which are said to be very nutritious and fat-producing.

LANDS VALUABLE FOR AGRICULTURE.

The soils of Alaska are generally of an alluvial character, particularly those in the Yukon and other river valleys, and the rank growth of vegetation everywhere to be found testifies to the fact that they are very fertile. The ground is, however, covered with a thick coating of moss and in the coast region is usually very wet, and before successful cultivation is possible in almost any locality the moss must first be removed and the soil must be exposed to the air and the sunshine and dried by subdrainage.

It is difficult to give anything like an accurate estimate of the lands in Alaska which are suitable for agricultural purposes. Professor Georgeson thinks there are something like 100,000 square miles in the entire district which may be utilized for farming and grazing, of which he places 15,000 square miles in the Tanana Valley, the same amount in the valley of the Copper River, and says that the Yukon Valley and the valleys of its other tributaries contain a still larger amount.

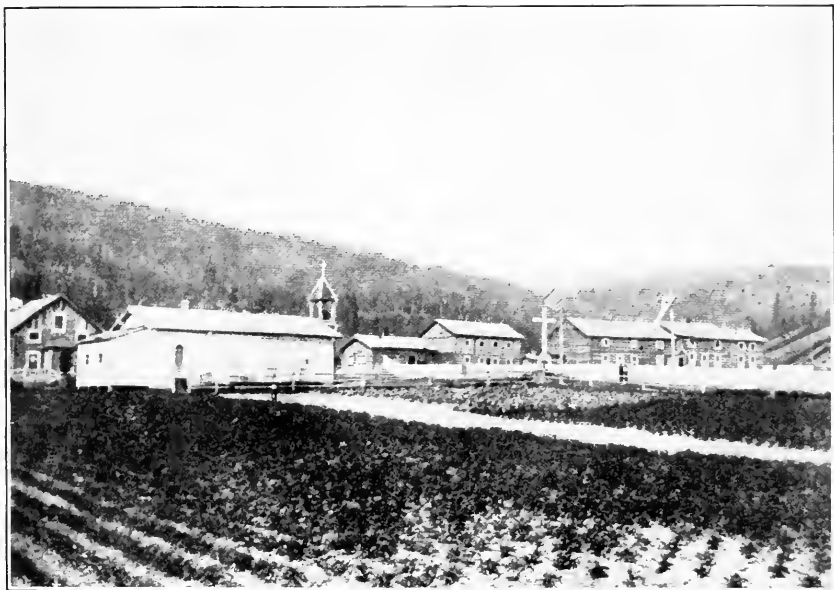
There are at Yakutat Bay from 50,000 to 60,000 acres of fine level land, much of which is covered with fine timber and the remainder with a fine growth of grass, and a Director of the Geological Survey has estimated that there are 1,500 square miles of tillable land in southeastern Alaska and 3,000 in the Cook Inlet country.

It is safe to say, however, that more than five-sixths of the entire country is too rough for successful cultivation.

THE FEASIBILITIES OF ALASKAN AGRICULTURE.

Turning from the possibilities to the feasibilities of Alaskan agriculture we find ourselves in a less encouraging field, for both economic and physical conditions conspire to check its development. In southeastern and southwestern Alaska an excessive rainfall will hinder it to a very large extent. Not only will this rainfall keep the ground thoroughly saturated with water, but it causes the cereal and hay crops to make such a rank growth as to retard ripening and cause it to fall before the heavy winds which sometimes blow there. It will be observed from the tabulated statement herewith submitted that there is but very little clear weather and an excessive rainfall during the months of July, August, and September not only throughout southern Alaska but to a greater or less extent throughout all Alaska. For instance, during the month of August there was not a clear day at Sitka, there were but two at Juneau, four at Kodiak, two at Holy Cross, and five at Fort Yukon. In the month of September it was not very different. It will be observed from the same table that there were 10.03 inches of rainfall during that month at Sitka, 14.4 inches at Juneau, 5.13 inches at Kodiak, and 5.74 inches at Holy Cross. These conditions well-nigh render it impossible to either ripen or harvest a cereal crop. The curing of hay in the sunshine is an absolute impossibility and leaves the silo as the only method of preparing forage for stock. These conditions will very much discourage stock raising all over Alaska.

Agricultural Prospects of Alaska.



HOLY CROSS MISSION.
Partial view of a Yukon garden.

Alaskan weather conditions.

| Month. | Sitka (1901). | | | Juneau (1901). | | | Kenai (1900). | | |
|-----------------|---------------|---------------|----------------|----------------|---------------|----------------|---------------|---------------|----------------|
| | Clear. | Rain or snow. | Precipitation. | Clear. | Rain or snow. | Precipitation. | Clear. | Rain or snow. | Precipitation. |
| | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> |
| January | 7 | 23 | 9.33 | 8 | 21 | 9.57 | 15 | 7 | 1.47 |
| February | 12 | 9 | 6.38 | 16 | 8 | 6.32 | 10 | 4 | .31 |
| March | 1 | 25 | 7.89 | 10 | 17 | 8.23 | 15 | 3 | .32 |
| April | 6 | 15 | 7.17 | 14 | 13 | 8.39 | 8 | 11 | .52 |
| May | 8 | 16 | 4.86 | 10 | 17 | 3.57 | 7 | 6 | .37 |
| June | 2 | 9 | 1.26 | 8 | 11 | 1.93 | 5 | 4 | .55 |
| July | 8 | 6 | .45 | 15 | 12 | 1.98 | 6 | 5 | .86 |
| August | 0 | 25 | 10.03 | 2 | 22 | 11.01 | 8 | 16 | 3.92 |
| September | 3 | 16 | 8.52 | 7 | 18 | 11.41 | 15 | 12 | 3.34 |
| October | 2 | 26 | 15.49 | 5 | 26 | 16.50 | 6 | 8 | 2.19 |
| November | 6 | 16 | 6.16 | 5 | 17 | 35.20 | 11 | 6 | 9.00 |
| December | 6 | 25 | 10.18 | 8 | 23 | 13.33 | 11 | 7 | 1.15 |
| Total | 64 | 211 | 87.63 | 108 | 205 | 130.47 | 120 | 89 | 21.00 |

| Month. | Kodiak (1901). | | | Holy Cross (1900). | | | Fort Yukon (1900). | | |
|-----------------|----------------|---------------|----------------|--------------------|---------------|----------------|--------------------|---------------|----------------|
| | Clear. | Rain or snow. | Precipitation. | Clear. | Rain or snow. | Precipitation. | Clear. | Rain or snow. | Precipitation. |
| | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> | <i>Days.</i> | <i>Days.</i> | <i>Inches.</i> |
| January | 11 | 9 | 2.65 | 23 | 7 | .71 | 19 | 7 | .30 |
| February | 15 | 3 | .30 | 12 | 8 | .57 | 20 | 0 | .00 |
| March | 5 | 18 | 3.85 | 22 | 5 | .50 | 11 | 5 | .12 |
| April | 10 | 8 | 1.20 | 5 | 6 | .46 | 15 | 3 | .05 |
| May | 15 | 16 | 3.45 | 5 | 11 | .92 | | | |
| June | 15 | 11 | 4.50 | 16 | 7 | 1.67 | 6 | 9 | 1.19 |
| July | 11 | 5 | 3.56 | 12 | 15 | 1.14 | 13 | 3 | .32 |
| August | 4 | 19 | 5.43 | 2 | 29 | 5.74 | 5 | 11 | 1.32 |
| September | 7 | 10 | 10.00 | 3 | 20 | 6.69 | 5 | 8 | .15 |
| October | 4 | 21 | 8.95 | 4 | 18 | 3.34 | 5 | 11 | .59 |
| November | 8 | 0 | 4.82 | 12 | 7 | 1.98 | 8 | 6 | .51 |
| December | 3 | 20 | 11.10 | 10 | 16 | 4.49 | 5 | 5 | .21 |
| Total | 111 | 140 | 62.51 | 126 | 119 | 28.51 | 115 | 68 | 5.39 |

Not only do these natural conditions have a tendency to embarrass and prevent agricultural development, but the lack of means of transportation amounts to almost a prohibition. As has been noticed, the coasts of Alaska, particularly the southern, southeastern, and southwestern, are bordered by high and rugged mountains which are almost impassable. No wagon roads have been made through these mountains, and the only means of transportation to the interior are the sleds in the winter and the backs of horses and men in the summer, over poorly constructed and at times almost impassable trails and unfordable rivers. As long as these conditions continue the settlement of the interior of Alaska will be next to impossible. There will at least be few possibilities of agricultural development until proper means of transportation are furnished, either by good wagon roads or railroads. It is useless to think of establishing an agricultural community in a locality like the Copper River Valley where the excessive cost of transportation causes three pounds of common salt to sell for \$1. The cost of transportation of a farmer's necessary implements into such a locality would be greater than the purchase price of the average farm elsewhere.

The cost of transportation will prevent exportation of nearly all of the food products, even if there were good roads to the interior. The Alaskan farmer could hardly compete with the farmers of Washington, Oregon, and California, even under the most favorable circumstances and upon an equal footing, and certainly he could not do so after the payment of carriage charges even from the coasts of Alaska. He must, therefore, look to a market at home. The food supplies for Nome and other Bering Sea points must come from the Pacific Coast States, because freight charges between Nome and Seattle are at present lower than between Nome and southern Alaskan or even Yukon River points, and they are cheaper between Seattle and other southeastern Alaskan points than between these points and southwestern Alaska. There is, therefore, under present conditions, but a very local demand for the products of Alaskan farmers, and that is a limited one.

The towns of Alaska are not at present very large. It is true that the census of 1900 gives Nome a population of about 12,000, Skagway a population of about 4,000, and Juneau and other towns a still smaller population. The population of Nome decreased after the gold excitement of that year had subsided until it can not claim a permanent population of more than 2,000 or 3,000, and the population of Skagway has decreased until there are not more than 1,200 or 1,300 people in the town. The largest mine in Alaska—the Treadwell mine on Douglas Island—employing from 1,200 to 1,400 men, will find it cheaper to buy its supplies in Seattle. From this we see that even the local demand is a limited one at present. The question of transportation, therefore, must seriously embarrass Alaskan agricultural development, as it has all other development in that district.

Again, the cost of clearing the ground of moss and timber is so great as to discourage almost any settler who had ever been used to other conditions. It will be very difficult indeed where there is timber to any great extent to prepare the soil for the plow. The character of this timber, the excessive humidity, the lack of high temperatures, especially along the southern coast, prevent the fallen timber from decaying, and the ground is consequently covered with logs and filled with the roots of fallen trees. I am told that the cost of clearing will, in some instances, amount to from \$500 to \$1,000 per acre, which is also true of parts of Oregon and Washington, although, of course, this is not true of all Alaskan lands. The removal of the moss and the drainage of the land is also a matter that will prevent many persons from undertaking to subdue the soil in the coastal regions; and even after the moss and timber have been removed and the lands fairly subdrained, it will be necessary to expose the soil to the sun and air for some time before its fertility will be fully aroused.

Agricultural Prospects of Alaska.



ALASKAN GRASSES

THE PRESENT CONDITION OF ALASKAN AGRICULTURE.

Until Congress recently turned its attention towards the encouragement and development of Alaskan agriculture, it had received but little encouragement from any source. It is true that the Russian traders many years ago imported a few agriculturists into southwestern Alaska, but it has been said that this was done more to please the Imperial Government than with any honest purpose on their part to promote agricultural development, and after these agriculturists were brought to Alaska they were put to other work. The charter granted by the Imperial Russian Government to the Russian-American Trading Company stipulated that agriculture should be promoted, but aside from a few gardens in southwestern Alaska, and aside from a small amount of stock kept in that section by the Russians and natives, no serious attempt was made by that company to promote either agriculture or any other enterprise which would ultimately people and develop Alaska, and very much the same may be said of the Alaska Commercial Company, which has succeeded under our Government to very much the same rights formerly enjoyed by the Russian-American Company. These were purely commercial companies organized not for the purpose of colonizing or developing the territory, but for the purpose of bartering with the natives for the furs of Alaska or for the purpose of taking the fur-bearing animals through their own employees. It is not strange, then, that in a country embarrassed with so many natural drawbacks, agriculture should have made but little progress, and it is not strange that, aside from a few gardens scattered here and there, one sees at present but little attempt at agriculture, and these gardens do not furnish any large encouragement, since the majority of them are very small.

While the difficulty of subduing this soil to the growth of domesticated plants is very discouraging, and the lack of ready and cheap transportation now seems to hinder and delay effort in that direction, the experience of the Alaskan farmer within the last few years affords some encouragement. While the figures, scantily collected by the last census taker, do not show a large acreage under cultivation, they do show that each of these hardy pioneer farmers was rewarded with an average yield valued at \$74.50 per acre, which is certainly not a bad showing for a country generally supposed to be worthless for agricultural purposes.

While the cost of subduing the soil, and its slowness to respond to cultivation after it has been subdued, have doubtless had retarding effects, yet the failure of our Government to provide any means by which the farmer could acquire title to the lands he found expensive to subdue has doubtless prevented many from making the attempt,

for it was not until the passage of the present homestead act, in the spring of 1903, that the settler could feel any security for his investment or know that he was to reap the reward of his own labor; but even with the benefits of that law afforded them the people have been slow to act since that time, for reports from nearly all the recording districts show that but 33 homestead claims were asserted during the first five months after the law was enacted, and it is safe to say that a very considerable proportion of these were not asserted by bona fide homesteaders for the purpose of actual cultivation.

One thing further is needed, and badly needed, in all those parts of Alaska which are likely to attract the homesteader, and that is the extension of public land surveys. At present each claimant acts as his own surveyor, and he is not required to exercise very great care either, and the result will be that many cases are likely to arise where the same lands will be located by different claimants, and costly and tedious contests arise. With the lands surveyed in advance by the Government this would be avoided.

It is believed that Alaskan conditions are such that they will not attract the farmers of the United States to any great extent, and that the real agricultural development of that country must come through the making, if possible, of the natives into a race of farmers, and through the immigration of a people who have been schooled to farm life in countries where like conditions exist—Finlanders, Icelanders, and others who would feel at home amid Alaskan conditions—who would not have to learn new ways of life.

There is a scheme on foot by which a colony of Finlanders will probably be planted on Kachemak Bay in the Cook Inlet country. The firm of Hornborg & Co., 4 Bridge street, New York, are promoting this scheme, and I herewith attach a letter from them, together with a prospectus of the Alaska Colonization and Development Company, the name under which the scheme is being promoted. This company has already built wharves and initiated claims to certain lands in that locality for town-site and other purposes. It may be reasonably expected that next spring will see the planting of the first real agricultural community that ever existed in Alaska. This enterprise should be encouraged, and to it we may hopefully look for a solution of the problem as to whether Alaskan farmers will add their product to the support of the Alaskan population, which consumed imported farm products valued at \$2,295,381 last year. In my judgment, it is to this and kindred sources that we must look for the accomplishment of that end.

Importations of farm products into Alaska for year ending June 30, 1903.

| Articles. | Quantities. | Values. |
|---|-------------|-----------|
| Agricultural implements | | \$6,857 |
| Animals: | | |
| Cattle.....number.. | 1,089 | 57,493 |
| Hogs.....do..... | 1,083 | 11,471 |
| Horses.....do..... | 714 | 71,777 |
| Mules.....do..... | 59 | 5,634 |
| All other.....do..... | | 51,068 |
| Total..... | | 200,443 |
| Breadstuffs: | | |
| Barley.....bushels.. | 4,411 | 2,208 |
| Bran, middlings, and mill feed.....tons.. | 877 | 48,249 |
| Bread and biscuits.....pounds.. | 433,718 | 24,673 |
| Corn.....bushels.. | 1,847 | 1,291 |
| Corn meal.....bushels.. | 1,485 | 5,068 |
| Oats.....bushels.. | 176,456 | 89,010 |
| Oatmeal.....pounds.. | 116,790 | 4,212 |
| Wheat.....bushels.. | 6,139 | 4,379 |
| Wheat flour.....barrels.. | 35,583 | 132,473 |
| All other.....do..... | | 91,663 |
| Total..... | | 376,196 |
| Provisions comprising meat and dairy products: | | |
| Beef products— | | |
| Beef, canned.....pounds.. | 284,584 | 31,860 |
| Beef, fresh.....do..... | 1,517,181 | 140,478 |
| Beef, salted, or pickled, and other cured.....do..... | 305,948 | 22,289 |
| Tallow.....do..... | 10,774 | 672 |
| Hog products— | | |
| Bacon and hams.....do..... | 1,170,765 | 173,892 |
| Pork, salted or pickled.....do..... | 136,588 | 12,109 |
| Lard.....do..... | 277,672 | 29,522 |
| All other meat products.....do..... | | 215,417 |
| Dairy products— | | |
| Butter.....pounds.. | 836,490 | 209,986 |
| Cheese.....do..... | 155,063 | 22,259 |
| Milk.....do..... | | 111,589 |
| Total..... | | 969,773 |
| Vegetables: | | |
| Beans and peas.....bushels.. | 9,004 | 17,886 |
| Onions.....do..... | 13,359 | 9,732 |
| Potatoes.....do..... | 110,096 | 68,921 |
| Canned.....do..... | | 151,829 |
| All other, including pickles and sauces.....do..... | | 107,174 |
| Total..... | | 355,542 |
| Eggs..... | 618,145 | 159,269 |
| Fruits and nuts: | | |
| Fruits— | | |
| Green, ripe, or dried.....do..... | | 140,162 |
| Preserved— | | |
| Canned.....do..... | | 80,582 |
| All other.....do..... | | 7,601 |
| Nuts.....do..... | | 5,843 |
| Total fruits and nuts..... | | 234,158 |
| Total value..... | | 2,295,381 |

[Hornborg & Co., general agents for the Finland Steam Navigation Company (Limited).]

NEW YORK, September 28, 1903.

DEAR SIR: Your very courteous letter of the 24th instant is at hand, and we take pleasure in complying with your request for information regarding the plans and prospects of the Alaska Colonization and Development Company, so far as it is possible to do in the brief compass of a letter.

As general agents of the Finland Steam Navigation Company (Limited), through which channel thousands of immigrants annually reach these shores from Finland,

especially during the last few years, when the pressure of Russian misgovernment is causing so many thousands of worthy people to turn their eyes and hopes to this country as a haven of refuge, the attention of our firm has naturally been called to the question of suitable locations for such of them as were desirous of building homes for themselves on the lands lately thrown open in this country for settlement.

Inquiries in this direction from Finland led our attention to Alaska, and especially that portion of it comprising Kenai Peninsula and the shores of Cook Inlet, which from all information and reports obtainable seemed to comprise the largest bodies of agricultural lands lying near the coast. Our business brings us also in contact with the Swedish and Norwegian populations, and we have some influence among them.

Deciding that the plan of locating a Finnish and Scandinavian colony at this point in Alaska was feasible, and promised success as soon as the United States Government should open the lands to agricultural settlement, an agent (our Mr. Churchill, whom you met) was sent out early in the spring of 1902 for examination and preliminary work. Upon his return and report the Alaska Colonization and Development Company was organized, and has since been steadily engaged in pushing the enterprise as fast as means could be provided. The project is warmly indorsed by many prominent men in Finland. Many applications have already been made by parties desirous of joining the colony, but the management will not consent to send any settlers there until suitable preparations are made for their reception and profitable employment. Such preparation is being made during the present year and the coming spring it is hoped will witness the comfortable establishment of the first party of colonists.

As a matter of planting a colony in a far-away and sparsely populated country is not one that appeals to the ordinary capitalist as promising speedy and liberal returns in the way of dividends, it will not be an easy or rapid task to raise the required capital which must necessarily be expended before the enterprise can become self-sustaining, and therefore the management feels obliged to move slowly and carefully, to risk no backset from undue haste. We are assured that the locality is well chosen, both for the building up of a seaport town (having a magnificent harbor) and the establishment of great stock and dairy farms, and that reasonable time and good management only are required to assure the success of the enterprise.

Answering your specific questions as to our past work and future plans, we beg to refer you to our circular just prepared for distribution, a copy of which we mail you herewith.

As to the number of immigrants we hope to establish on our lands, we have as yet made no estimate, as the numbers will only be restricted to our fiscal ability to handle them.

Sweden, Norway, and Finland will undoubtedly be able to furnish desirable immigrants as long as we can find suitable lands for their settlement.

We are glad to note by your letter that the Department of the Interior will feel interested in our work, and shall be pleased by any advice or information you can give us. Government encouragement will materially aid us and we need all the moral support the Department can extend to us. The gentlemen associated in this enterprise, while hoping for such substantial returns as will satisfy reasonable business expectations, are much more desirous of accomplishing a great work of lasting benefit to the country and especially to the thriving community we hope to establish.

Respectfully yours,

HORNBERG & Co.

J. W. WITTEN, Esq.,

Special Inspector, Interior Department, Washington, D. C.

Agricultural Prospects of Alaska.



AN ALASKAN FARM TEAM.

THE ALASKAN NATIVES.

They are an honest, inoffensive, and industrious people. It is true that cruelty and encroachments under Russian rule occasionally provoked them to bloodshed, and finally led to the burning of old Sitka (Archangel) and the massacre of its people in 1802, and that they made some manifestations of hostility during our earlier occupancy, yet if Bancroft, the historian, has correctly recited the facts they were even then more sinned against than sinning, and it is safe to say that in so far as the natives of Alaska are concerned soldiers are no longer needed there.

Occasionally a native now complains that his rights have been trespassed upon by a white man, but such complaints are comparatively few, and for many years these simple-minded, well-disposed people have lived in peace among themselves, and with only friendship, good will, and esteem for their white neighbors. These conclusions are fully justified by the impartial testimony of persons who have been longest with them and know them best.

Former Governor Kinkead says in his report for 1885: "They are peaceable and industrious," and Governor Swineford said in 1886:

They are a very superior race intellectually as compared with the people generally known as North American Indians, and, as a rule, industrious and provident and wholly self-sustaining. * * * As fast as they can obtain employment from the white men at reasonable wages they abandon the chase and the fishing grounds and serve their employers faithfully so long as they are well treated.

Governor Kinkead said in 1899:

If they had European features and talked the English language we would often forget that the race had so lately been in a condition of savagery;

and in his report for 1891, after he knew them well, he again said:

These people are peaceably and kindly disposed, measurably honest, and have great respect for the Government.

These remarks apply to the natives of southeastern Alaska only.

In speaking of Eskimos, Athabaskans, and Aleuts, Judge Wickersham, of the United States district court, says:

As a class they are honest and have decided predisposition to respect and obey the laws. I think they compare very favorably with the white residents of Alaska in that respect. The Eskimos particularly are an innocent, inoffensive, and honest race of people. The Athabaskan tribes along the Yukon are a gentle race of hunters, and seldom commit crime, except when under the influence of liquor. They are not nearly so inclined to violate the law as white men, and if this were the only standard of citizenship they would make better citizens than the same number of white men.

Judge Moore, of the United States district court of Nome, who is acquainted with the Eskimos, says:

They are a very kind, docile, and dutiful people, so far as obedience to the law is concerned, * * * and if left to pursue their own industries, separated from the

whites, they would give the administrators of the law but little trouble. * * * The Eskimos are a people who should not be allowed to become extinct; they have many of the noblest qualities which characterize the better people of our race; they are free from the savage tendencies of the American Indian.

All that these competent and impartial judges have said of the Aleuts, Eskimos, and Athabaskans can be said with equal or greater emphasis of the natives who inhabit southeastern Alaska, for they appear to be even more trustworthy and more frugal, sober, and industrious than the others.

Judge Melvin C. Brown, of the United States district court at Juneau, says:

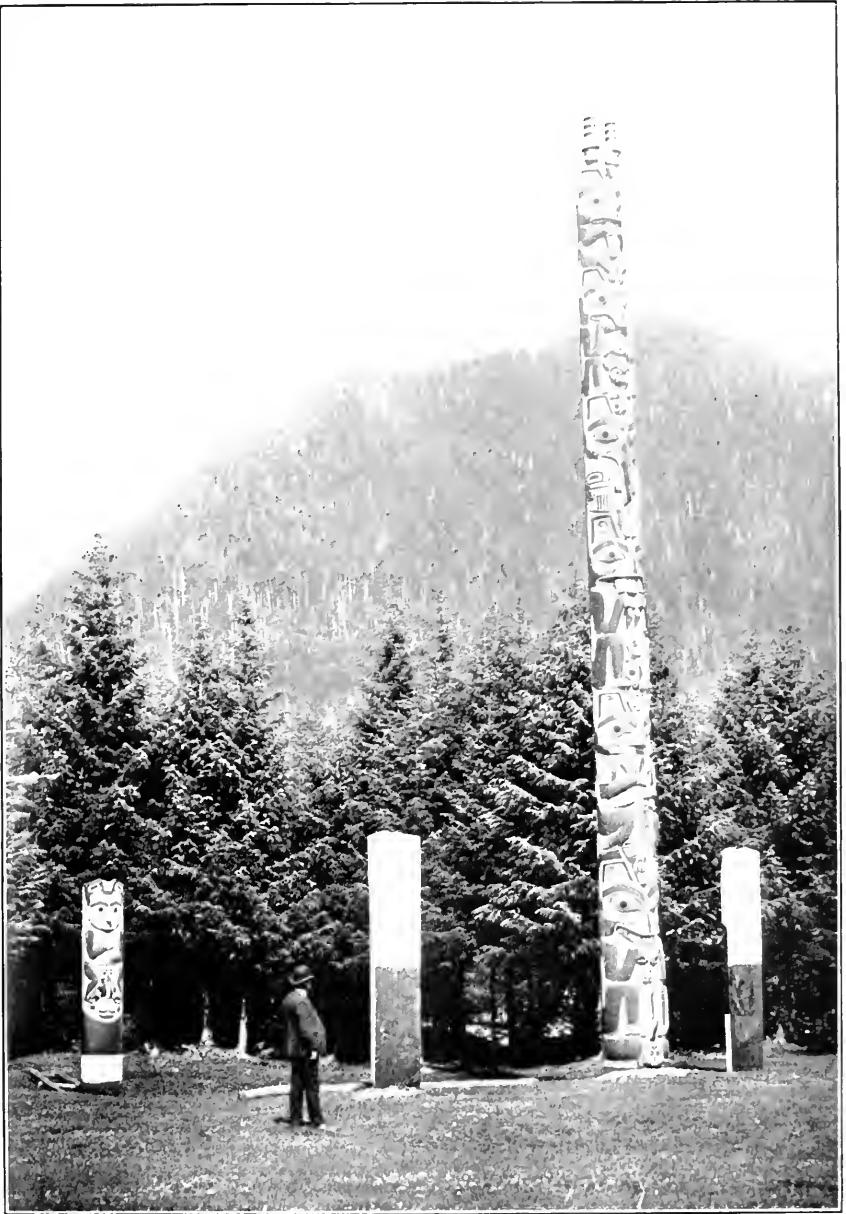
The Indians of southeastern Alaska are generally docile and obedient to the law so far as they understand it, except when intoxicated.

The welfare of such a people as these urgently demands governmental attention, and before that can be intelligently given their past history and present status must be carefully studied from all points of view in order that their actual conditions and needs may be properly appreciated and supplied. This fact seems an ample apology for the length and minute detail of this report.

Race distinctions.—These people may be divided into four classes or stocks: (1) the Eskimos, who inhabit the coasts of Bering Sea and of the Arctic Ocean, and the northern valleys for a short distance above the coast; (2) the Aleuts, who inhabit the southern coasts west of Copper River and the Aleutian Islands; (3) the Athabaskans, who live along the rivers and touch the ocean only at the head of Cook Inlet, and (4) the Thlingets, Hidahs, and Tsimsheans, on the coasts and islands east and southeast of Copper River. Of the last class, the Thlingets and Hidahs may each possibly be assigned to separate stocks from an ethnical standpoint, certainly so when their languages are compared; and if languages alone are to be the guide, the Tsimsheans may also claim to be a separate people, notwithstanding they have sometimes been classed as a branch of the Hidah stock, since their language essentially differs from that of the Hidahs, even in the structural formation of sentences.

The origin and early history of the aboriginal Alaskans can never be safely told, and they do not have any well-defined traditions on the subject. The Thlingets and Hidahs speak of a time when their people lived in a fair and beautiful land from which they were driven by a great flood that landed their canoes at their present homes. The Thlingets occupied southeastern Alaska at the time of its discovery, and nothing but their ethnical kinship to other people would indicate a possible residence elsewhere.

The main body of the Hidahs have their homes on Queen Charlotte Islands, in British Columbia, and that some of them, at a comparatively recent date, emigrated to the neighboring Alaskan islands, from



AN ALASKAN TOTEM POLE, NOW IN A PUBLIC PARK AT SITKA.

Donated by its owner to the Government.

which they drove the Thlingets, is indicated by the fact that the names of their older Alaskan villages, Howkan, Sukkan, Klinkwan, etc., are said to be Thlinget and not Hidah names.

The Alaskan Tsimsheans are recent settlers, having come to Annette Island in 1887 from Old Mehtakahla, their former home, near Port Simpson, in British Columbia. Rev. Edward Marsden, a full-blooded Tsimshean, who is now a Presbyterian missionary to the Thlingets at Saxman, and perhaps the best educated of his people, thinks they possibly came from "further south," but he mentions no very good reason for this belief. This theory, however, finds some support in the fact that some natives have vague traditions akin to the Aztec idea of the Great Spirit.

The Hidahs are said to recognize and read the meanings of Aztec carvings, and to have had in their possession copper images exactly like others exhumed in Guatemala. It is safe to accept these as mere coincidences rather than as evidence of kinship, because there are many things among these people which seem to connect them with aboriginal peoples in widely separated countries. Some of their words sound like Apache words; some of their customs and traditions resemble those of far-distant Asiatics; their totemic devices link them to Australians, South Americans, and Senegambians, and some of their implements, customs, and houses bear resemblance to those of the New Zealanders, while the personal appearance of the Aleuts, Thlingets, Hidahs, and Tsimsheans proclaim them all as Mongolians.

It is safer to say that many of these similarities are due more to like conditions of life, climate, and surroundings than to a kinship of people.

It is true that the width of Bering Strait and the fact that natives of the present day sometimes pass in open skin boats from Alaska to Siberia show it possible for Alaska to have been peopled from northeastern Asia, and it is also true that crippled crafts might be carried by the Japan Current to Alaskan shores. It is, indeed, said to be a fact, remembered by Aleuts still living, that Japanese ships have been stranded on the southwestern archipelago, and this knowledge, added to their very striking Mongolian caste, seems to indicate that all southern Alaska may have been peopled from southeastern Asia. They are said to resemble the Koreans more strongly than any other people. It is safe to say that they are in no sense akin to the North American Indian, either in appearance, habits, disposition, or aspirations. Many of the Alaskan natives are industrious, frugal, and peace loving. Unlike the American Indian, their greatest desire is to be considered respectable men, and many of them strive to imitate the white man, for whom they have great respect.

The Eskimos bear strong resemblance to some of the northern Asiatics, and are, without doubt, a branch of the stock who people the

shores of Greenland and other Arctic coasts. Similarity in language, customs, and personal appearance points to their common origin.

The Athabascans are more closely related to the American Indian than are any other of the Alaskan natives. Many things point to the fact that they belong to the great stock centering about Lake Athabasca and extending from the Arctic Circle to Mexico, from the Rocky Mountains to Hudsons Bay. That they are akin to the Chippewas, Tonto-Apaches, and other southern tribes is generally conceded.

The tribal name which a people give themselves may sometimes aid in tracing the parent stock, and among Alaskans, if they indicate anything, they seem to indicate an independent origin. The Eskimos named themselves "*Inuets*," the Athabascans call themselves "*Tinnuchs*," and the Aleuts say they are "*Ungungans*," each meaning "people" or "the people," while "Thlinget" means "man." These people all live in villages, and each separate community takes the name of its particular locality or village, notwithstanding they belong to the same stock. For instance, the Thlingets extend from Copper River to the extreme southeastern islands, yet those living at Sitka are known as "Sitkans;" those at Hoonah as "Hoonabs," etc. This fact sometimes induces the erroneous statement that they constitute different tribes.

They are divided into clans. Ethnographers tell us that man in his progress from barbarism to civilized government passes through several distinct stages in his community life. In the earlier stages women are the common property of all men, or, at least, they each have more than one husband, and children find it impossible to identify their own fathers. For this reason the mother is reckoned the head of the family. They are members of her clan, and it is through her that ancestry is traced among the Alaskans, as among other uncivilized peoples, and not through the father, as with the civilized. Children are said to have grouped themselves about a common ancestral mother and continued to multiply until they grew into a clan, and with this stage came the patriarchal government. As the membership of these clans became more numerous, subclans were formed, and in time, like Abraham and Lot, they divided the country, each clan living apart to itself, yet bound together by common ties and the ever-asserted claim of kinship. At this stage man first claims an exclusive ownership and property in things which are useful to him, and each clan denied to every other clan the right to occupy its country. Out of conflicts, over these claims war was born, and for mutual aid and protection clans claiming kinship formed themselves into phratrias, or brotherhoods. As time went on these brotherhoods joined themselves into tribes, and finally the tribes grew into federations or nations. This is said to be the course and progress from primeval anarchy to civilized government, and it is the *clan* stage of this development which



NATIVE WOMEN SELLING BERRIES AND CURIOS AT SITKA.

now interests us, because to that stage all of the native peoples of Alaska belong, a fact which the Government should constantly keep in mind in its dealings with them.

The first real semblance of organized government makes its appearance in the tribal stage, which has its chiefs and elective councils, but among the native Alaskans, as among others of the clan stage, we do not find tribal organizations. They, like other clamish people, elect no chief, select no council, notwithstanding we find men among them who bear the self-assumed title of chief, men who by their own prowess, superior intellect, or wealth (most generally by wealth) gain unusual social standing and influence and are controlling factors in the community, but none of them possesses authority either to make laws or inflict punishments; those functions belong only to the family or clan collectively.

Their religious ideas were vague and undignified before Christian missionaries came among them. They attributed conscious individuality to almost every object, inanimate as well as animate, and peopled the earth and air with spirits. This tendency gave witchcraft a prominent place among them, and led to all of the evils which usually result from such beliefs. It is doubtful if they recognized the existence of any beneficent deity at all. The Great Spirit of the Western Indians was practically unknown to them, although they had some confused polytheistic notions. To them it was the business of supernatural spirits to bring evil rather than good, and they sought to propitiate rather than worship. They supplicated to the angry god of the waters when caught in a storm at sea, and threw food overboard to appease his wrath; they made offerings to the god of forests when lost in the woods, but it had not yet been disclosed unto them that "God is love." Like other primitive people, they recognized certain mythical beings to whom they ascribed peculiar powers and virtues. With the clan stage in their development they awakened to the consciousness that in a spiritual sense they were akin to something beyond themselves. A spirit of dependence taught them this fact, and they began to reach out for aid and support, and it was this effort that gives birth to their *totemic systems*.

They began to feel that the help they needed must come from some supernatural power, but they could not conceive of such a power existing outside of some material body. Hence it was that they made terms with some material object as their totem, in which that power may reside, generally with an animal, a bird, or a fish, but sometimes with a tree, a plant, or a mountain. Now, another element of their nature forced them to claim kinship with this totem. Their clansmen are all of their kin, and men of other clans were hostile to them. Naturally, then, to their minds this benevolent totem must also be of their kin, and in some instances they even look upon the totem

animal as an ancestor. The first Iroquois is said to have been a turtle which struggled upward until it lost its shell and became a man, and soon after the first Eskimo is said to have fallen from the pod of the beech pea which gave him birth, a raven appeared with food. Such notions as these bind the clansman to his totem—the totem gives its name to his clan, and while the clansman fancies he receives aid from the totem, he, in turn, protects and will not harm his totem animal.

While the relationship between the clansman and his totem is a very close one, yet the totem is seldom adored, and never deified or worshipped except in that sense in which ancestors are sometimes worshipped.

The character of the Alaskan clans and their relations to their totems are told by Mr. William Duncan, who for forty-seven years has been a missionary among them, in the following statement:

The carving and painting of the Indians in this country are symbolical of the various crests or totems, as they are sometimes called, which seem to have been adopted in far back ages to distinguish the four social clans into which each band is subdivided. The names of these four clans in the Tsimshian language are Kish poot wadda, Canadda, Lach e boo, and Lacksh keak.

The Kish poot wadda, by far the most numerous hereabouts, are represented symbolically by the finback whale in the sea, the grizzly bear on land, the grouse in the air, and the sun and stars in the heavens. The Canadda symbols are the frog, the raven, the starfish, and the bullhead. The Lacheboo take the wolf, the heron, and the grizzly for their totems; the Lacksh keak, the eagle, the beaver, and the halibut.

The creatures I have just named are, however, only regarded as the visible representatives of the powerful and mystical beings or genii of Indian mythology. And as all of one group are said to be of the same kindred, so all the members of the same clan whose heraldic symbols are the same are counted as blood relations. Strange to say, this relationship holds good should the persons belong to a different or even hostile tribes, speak a totally different language, or be located thousands of miles apart. On being asked to explain how this notion of relationship originated or why it is perpetuated in the face of so many obliterating circumstances, the Indians point back to a remote age when their ancestors lived in a beautiful land, and where, in a mysterious manner, the mythical creatures whose symbols they retain revealed themselves to the heads of the families of that day.

They then relate the traditional story of an overwhelming flood which came and submerged the good land and spread death and destruction all around.

Those of the ancients who escaped in canoes were drifted about and scattered in every direction on the face of the waters, and where they found themselves after the flood had subsided, there they located and formed tribal associations. Thus it was that persons related by blood became widely severed from each other; nevertheless they retained and clung to the symbols which had distinguished them and their respective families before the flood, and all succeeding generations have in this particular sacredly followed suit. Hence it is the crests have continued to mark the offspring of the original founders of each family.

As it may interest you to know to what practical uses the natives apply their crests, I will enumerate those which have come under my own notice.

First. As I have previously mentioned, crests subdivide tribes into social clans, and a union of a crest is a closer bond than a tribal union.

Second. It is the ambition of all leading members of each clan in the several tribes to represent by carving or painting their heraldic symbols on all their belong-



THLINGET TOTEM POLE, KETCHIKAN, ALASKA.

ings, not omitting even their household utensils, as spoons and dishes; and on the death of the head of a family a totem pole is erected in front of his house by his successor, on which is carved and painted, more or less elaborately, the symbolic creatures of his clan as they appear in some mythological tale or legend.

Third. The crests define the bounds of consanguinity, and persons having the same crest are forbidden to intermarry; that is, a frog may not marry a frog, nor a whale marry a whale, but a frog may marry a wolf, and a whale may marry an eagle.

Among some of the Alaskan tribes, I am told, the marriage restrictions are still further narrowed, and persons of different crests may not intermarry if the creatures of their respective clans have the same instincts; thus, a *Canadda* may not marry a *Lashkeak*, because the raven of one crest and the eagle of the other seek and devour the same kind of food. Again, a *Kishpootwadda* may not marry a *Lacheboo* because the grizzly bear and the wolf, representing these crests, are both carnivorous.

Fourth. All the children take the mother's crest and are incorporated as members of the mother's family; nor do they designate or regard their father's family as their relations. A man's heir and successor, therefore, is not his own son, but his sister's son. And in the case of a woman being married into a distant tribe, away from her relations, the offspring of such union when grown up will leave their parents and go to their mother's tribe and take their respective places in their mother's family. This law accounts for the great interests which natives take in their nephews and nieces, which seems to be quite equal to the interest they take in their own children.

Fifth. The clan relationship also regulates all feasting. A native never invites the members of his own crest to a feast. They, being regarded as his blood relations, are always welcome; but at feasts which are given only for display, so far from being partakers of the bounty, all the clansmen within a reasonable distance are expected to contribute of their means and their services gratuitously to make the feast a success. In the fame of the feast hangs the honor of the clan.

Sixth. What I have just written reminds me to add that this social brotherhood has a great deal to do with promoting hospitality among the Indians, a matter of immense importance in a country without hotels or restaurants.

A stranger, with or without his family, in visiting an Indian village need never be at a loss for shelter. All he has to do is to make for the house belonging to one of his crest, and which he can easily distinguish by the totem pole in front of it. There he is sure of a welcome, and of the best the host can afford. There he is accounted a brother and treated and trusted as such.

Seventh. I may mention, too, that the subdivision of the bands into their social clans accounts in measure for the number of petty chiefs existing in each tribe, as each clan can boast of its headmen. The more property a clan can accumulate and give away to rival clans, the greater number of headmen it may have.

Another prominent use made by the natives of their heraldic symbols is that they take names from them for their children. For instance, *Wee nay ach*, Big Fin (whale); *Lee tahm lach taou*, Sitting on the Ice (eagle); *Iksh co am alyah*, The First Speaker (raven in the morning); *Athl kah kout*, The Howler Traveling (wolf).

Ninth. And last but not least, the kinship claimed and maintained in each tribe by the method of crests has much to do with preventing blood feuds, and also in restoring the peace when quarrels and fighting have ensued. Tribes or sections thereof may and do fight, but members of the same social clan may not fight. Hence, in contests between two tribes, there always remain in each some noncombatants who will watch the opportunity to interpose their offices in the interests of peace and order. In case, too, of a marauding party being out to secure slaves, should they find one or more of their victims to be of their own crest, such a person would be set free and be incorporated as a member of their family, while the captives of other crests would be held or sold as slaves.

In writing of these matters it must be understood that I have kept in view the natives in their primitive state. The Metlakatlans, who are civilized, while retaining their crest distinctions and upholding the good and salutary regulations connected therewith, have dropped all the baneful and heathenish rivalry with which the clannish system was intimately associated.

While Mr. Duncan's description applies particularly to the Tsimshians, we find these totemic devices carved upon the ornaments and implements of all the Alaskan natives, and among the southern Thlingets and the Hidahs we find them represented on poles standing in front of their dwellings. The figures on these poles not only tell the family history of their owners, but recount notable achievements, and the higher a man's station the taller he makes his pole, but he is not allowed by the others to make it tell too much. The erection of a totem pole is a matter in which the whole clan take a deep interest. It is closely scrutinized, and if it is too tall, or tells too much, it must be cut off or changed. Some of these poles are carved from immense cedar trees 3 or 4 feet thick and 50 or 60 feet high, at a cost of as much, sometimes, as a thousand or more dollars. Some of them have vaults hewn in them into which the ashes of cremated bodies were deposited.

The erection of these poles is being discontinued to a great extent, and in some localities they are being destroyed by the natives themselves, as, for instance, at Klinkwan, on Prince of Wales Island, a large number of Hidah totems were cut down last winter. This, however, is done with much reluctance, as the native's reverence for them is very great—so great that one chief who had freely donated his pole to the Government refused to be present when it was taken down for removal to the public park in Sitka.

Many similar customs and conditions exist among all the native people of Alaska; they are all in the clan stage of development; fish constitutes the principal food, yet all go in pursuit of game; each person holds individual property, and is free to control his own actions, and families possess their own homes and fishing grounds, which have descended from generation to generation.

Most of the conflicts at present arising between the natives and the whites grow out of the native's idea that he has the exclusive right to take fish from a certain stream. For generations his forefathers fished the same waters, and their rights to do so were always recognized and respected by other natives, and it is but natural that he should look with jealousy upon the encroaching white man.

They all live in villages along the rivers or coasts, usually each home fronting upon the water to afford convenient canoe landings. Many of them also have additional homes at their fishing and hunting grounds, to which they move their families during the hunting and fishing seasons. A native village may have several hundred inhabitants at Christmas and be entirely deserted in May. When the fishing season

Agricultural Prospects of Alaska.

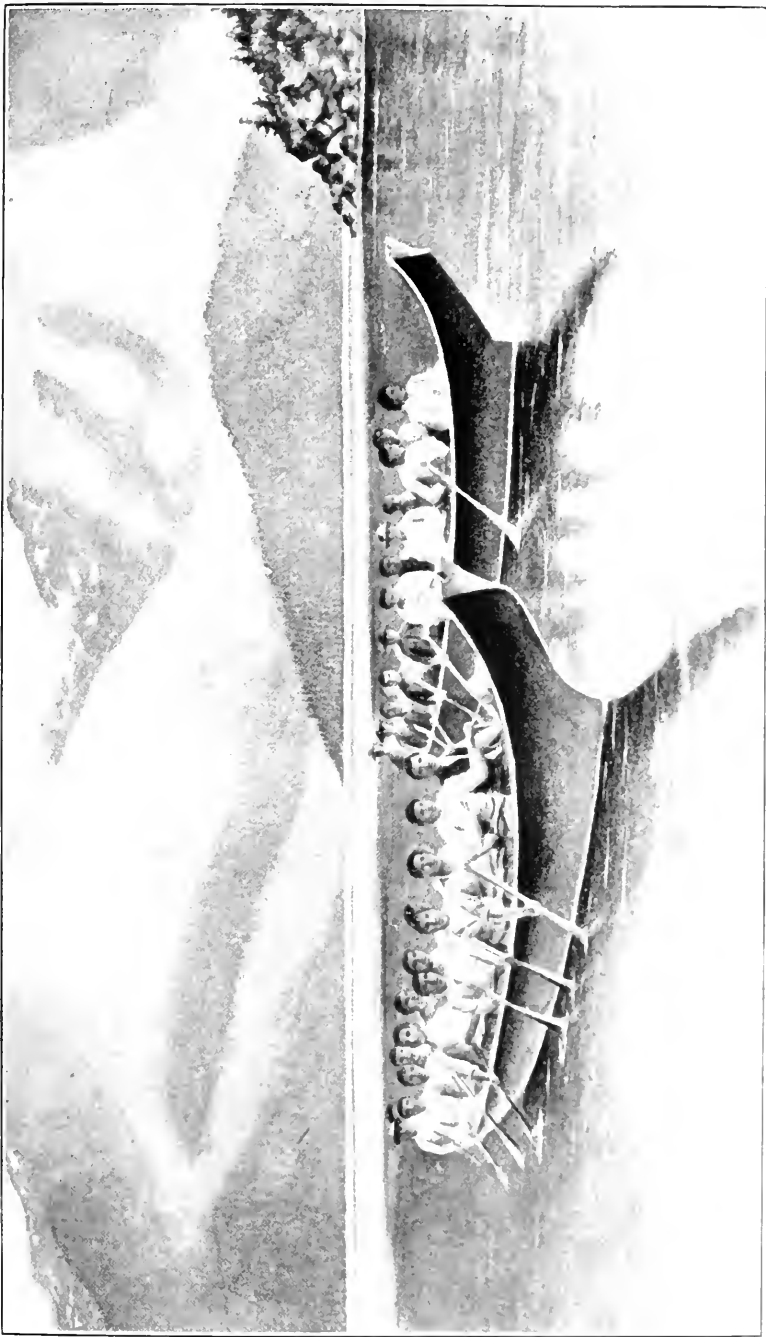


A HIDAH TOTEM GUARDING THE VILLAGE OF KLINKWAN.

Agricultural Prospects of Alaska.



AN OLD HIDAH TOTEM, SHOWING VAULT.

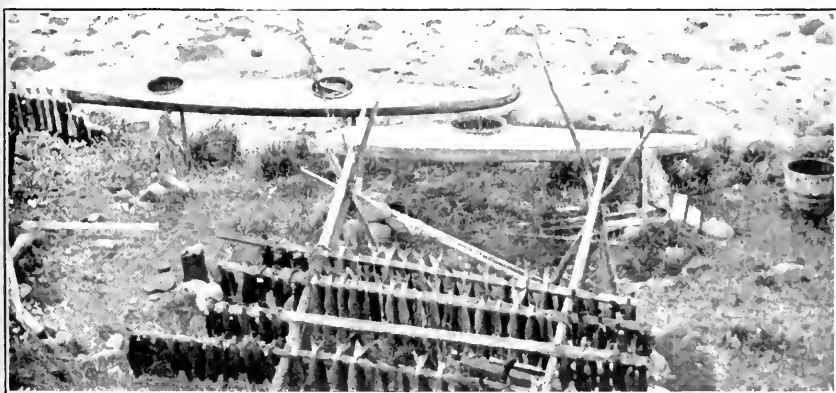


Agricultural Prospects of Alaska.



BARABARAS OF THE ALEUTS AND ESKIMOS.

The elevated structure is a storehouse.



ALEUT AND ESKIMO BOATS, BIDARKA AND KAYAK.

arrives they lock their permanent homes and are off for the temporary ones. It is curious but not uncommon to see these entirely deserted villages, and so little do they fear theft that nearly all their household goods are left behind when they go on these trips.

The canoe and boat of the southern Alaskan natives do all their carrying, since they seldom move about on land except in hunting land animals. The canoe, when not in use, is hauled out onto the bank or shore in front of the dwelling, but it is much in use by all members of the family, male and female alike, who do not sit and row, but simply squat in the boat and use a paddle. They are so young when they begin, and are so constantly in the boat that it is, perhaps, this which has given the shortened and crooked legs, the over-developed bodies and arms, and the shambling, waddling walk so noticeable in many of them.

The original canoes of the southeastern natives were dug out of the bodies of trees, the cedar being much used. They were sometimes 60 to 80 feet long and would carry from 50 to 75 persons. The canoes of the Aleuts, Eskimos, and Athabascans were usually made of skins or birch bark fastened over wooden frames. In the stiller waters of southern Alaska, as well as in other localities, sail and row boats are now much used, and the old-time canoe is fast passing away, because the native is a good boat builder and he finds the white man's craft easier built and more serviceable than his own, and the Alaskan native is quick to pick up and use the white man's ideas.

Domestic animals of the natives.—The dog is their only domesticated animal, except that lately the domesticated reindeer has come to a few Eskimos through a wise governmental effort, and cattle have been used to a very limited extent by a few Aleuts. The water, their backs, and the dog sled are the only means of transportation among the Eskimo and Athabascans, who travel over wider ranges of country than do the natives in the rougher southern parts, and both they and the white residents make large use of dogs in transporting themselves and their supplies, although the reindeer is beginning to be used to some extent for that purpose. In winter three or more dogs hitched tandem draw about 200 pounds each on a tongueless sled which is generally guided from behind like a plow, by the driver, and when there is no snow each of these faithful animals carries from 30 to 50 pounds strapped upon his back. When on a journey they are fed once a day, generally on dried fish, to which cooked meal or rice is sometimes added. While the reindeer gives much promise for the future, the dog is to-day one of the strongest factors for the development of interior and northern Alaska, and its progress would be slow indeed without him, as horses are not used there.

Native houses.—The building of a house is an important event in southeastern Alaska, and the size of a dwelling often fixes the social

status of the owner. After a native has had a successful season it is not unusual for him to tear down his dwelling and build a new one, although the new may be but little, if any, better than the old one was. The completion of a new home is frequently celebrated by a feast at which the builder is likely to squander the remainder of his wealth. In the days when slavery existed among these people, it was no uncommon thing for a master to bury the body of a slaughtered slave under each of the corner posts of his new house.

Their houses were originally built one story in rectangular form, from slabs or puncheons 3 or more inches in thickness, split from very large trees. A hole was left in the roof's center through which the smoke passed from an open fire on the dirt floor in the middle of the one large room. Platforms around the inner walls, one above another, several feet wide, served as sleeping places and storage room. The house was without windows, dark, and lacked ventilation. The corner posts, and frequently the entire front of the house, bore elaborate totemic devices.

These houses, like most of the aboriginal customs, are now passing away, for the natives of southeastern Alaska are fast taking up the white man's ways and building the white man's house of two or more stories, with windows and wooden flooring, and instead of the open fire in the center of the room, stoves are now being used at the expense of proper ventilation. Many of their houses now present a good appearance from the outside, but there is a lack of cleanliness and comfort within, and they are generally overcrowded with occupants, as many as 30 or 40 persons sometimes living in a single dwelling which could properly house not more than six or eight. This change has not proved beneficial in many respects, and is spreading disease among the people very rapidly. Among the Aleuts we find dwellings constructed of unhewn logs, thatched with grass, in all the timbered sections, which extend as far west as the middle of Kadiak Island, but after that point is passed we find the barabara, a habitation more than half under ground and covered with dirt, with a hole in the center for smoke. When not being used as an escape for smoke, this hole is covered with seal bladder, through which the light enters. The entrance to these houses is an underground passage, through which the inmates must crawl on hands and knees a distance of 8 or 10 feet. It would be difficult to imagine a more filthy or unhealthy place.

The habitations of the Eskimos are much like those of the southwestern Aleuts, while those of the Athabascans are usually built of logs thatched with grass.

The natives all over Alaska are fast learning to build the white man's house wherever lumber is available for that purpose, but lumber costs so much in some places that they are compelled to continue their old habitations.

Agricultural Prospects of Alaska.



SUMMER SETTLEMENT.

The food of the Natives.—This consists principally of fish, fresh and dried although wild game is used to a considerable extent, as well as other kinds of sea food. Salmon, halibut, and other fishes are caught and dried in summer for winter use. The seal, walrus, and whale furnish the Eskimos with a large part of their food, and oil is used in abundance among all these natives, and especially by those in the north and northwest. Fish roe, especially that of the herring, is much sought after and considered quite a delicacy. Wild fowls and their eggs are highly prized, and herbs and seaweed are also cured and laid up for winter use. Garden vegetables are cultivated to some extent, especially among the Aleuts, but this has not become general and should be encouraged.

In nearly all localities, however, these people, to as great an extent as possible, use the white man's food, as they find it much to their liking. During the summer season their wants are reasonably well supplied, but they are learning to depend more and more upon the local trader for their winter's supply, and are growing improvident in preparing their own food, and consequently many find themselves in want when summer has ended.

It is said by some that the growth of the salmon-canning industry has made fish scarce in many localities, while it is urged by others that this is not true, and that the canneries have, on the other hand, been a great benefit to them.

Marriage relations are fairly well observed among all Alaskan natives at present, although the chastity of their women is too lightly regarded. Polygamy, and perhaps polyandry, formerly existed among them to a considerable extent, but a plurality of wives is seldom found now and plural husbands are unknown.

Wives are bought and paid for, or at least it requires a generous offer of presents to gain the parents' consent, and in some instances wives are sold outright to white men and Mongolians. The wife in an Alaskan family is much more respected than in an American Indian family. While her lot is very far from an easy one, the husband contributes a fair share of the manual labor, and she seems to be the business manager of the household. She carries the purse, and no trade or sale of furs or fish can be made until she is satisfied with the price offered.

Children are not numerous, but appear to be kindly treated. Parents are affectionate and indulgent to a fault, corporal punishment being almost unknown among them. They are, young and old, playful and fun-loving people.

Divorces are said to be frequent, particularly among the newly married. If a wife does not please the husband, he can send her away, but if he does so without good cause he must divide his property with her. When the husband died his property formerly passed to

his oldest sister's oldest son and not to his own wife and children; but this rule is now being changed, and wills are being executed among them. The nephew took his uncle's house, and was obliged either to marry his widow or buy his freedom, but the dead man's children took nothing. They must look for their inheritance to their mother's brother. They are their mother's but not their father's children, and at maturity they make their homes with his mother's clan.

Slavery formerly existed to a considerable extent and may perhaps exist to-day in isolated cases. It is said not to be uncommon for orphan children to be held in bondage among some of the Aleuts. The treatment of slaves is said to have formerly been very cruel, and sometimes barbarous in the extreme. Frequently a slaveholder, desiring to display his wealth, would manumit a slave, but he was more apt to murder him, and it was no uncommon thing for them to be slaughtered on festive occasions or killed at the death of the master, so that their spirits might accompany and serve his departed spirit beyond the grave. The institution was considered at some length and overthrown by United States District Judge Dawson, who liberated one of them—Sah Quah—on habeas corpus in 1886. Judge Dawson's decision may be found in volume 31, Federal Decisions, page 327.

The dead are treated with but little respect among some of the Eskimos, as many bodies are simply carried away and left exposed upon the naked tundra, to be devoured by dogs and wild animals; but elsewhere they are treated with more decency, and not only receive proper interment, but food and sometimes weapons and implements are left exposed at the grave for use by the spirit of the departed. In southeastern Alaska very much respect is paid to departed relatives. They are not, however, allowed to die in a dwelling house, for fear their spirits will return to it after death, and in cases where death does occur in the home a hole is made in the side of the house, through which the body is taken out, and the hole closed up to keep out the returning spirit. Cremation formerly existed and burials in boxes above ground were common, but this has nearly all been changed now, and neatly fenced and housed graves, with totemic guardians, are always found on some slightly elevation fronting the water near each village.

Prevalence of disease.—As applying to all Alaskan natives, it may be said that the death rate is alarming and far exceeds that of the whites in the same locality. Pulmonary and serofulous troubles and syphilitic poison seem to be the prevailing causes of this condition. When an epidemic of smallpox or other contagious disease appears among them the death rate is greatly increased. An epidemic of measles lately depopulated whole villages. In many settlements they are entirely without medicine or medical aid. There is only one physician within a radius of 150 or 200 miles of the island of Kadiak.



A THLINGET TOTEM GUARDING GRAVES AT KETCHIKAN.

The prevalence of disease among them is due in a large measure to their habits and modes of life and to the food upon which they now feed themselves. They were originally a fish-eating people, with but little vegetable diet. The Eskimos subsisted largely on oils and fats from the seal, walrus, and the whale, and, habituated for many generations to this diet, the demands of their constitutions can not be satisfied with the starches and sweets which their white neighbors have recently brought them and for which they have formed an appetite. The change from their skin and fur-lined clothes to the woolen and cotton of civilized life leaves them subject to colds which soon develop into consumption, and these influences are true to a greater or less extent of the other Alaskan natives.

The unsanitary condition of their homes, the fact that many of them crowd into and sleep in the same room, sick and well together, their imprudence and lack of knowledge, and the lack of both medicine and medical advice, make them an easy prey to every coming contagion, and the idea is very generally expressed that their days will be speedily numbered unless some change comes and comes soon.

Educational schemes for the natives.—Much has been done, and is being done, for their betterment by the missionaries of Alaska; but they, in the main, are not equipped for the work, and there is a lack of concerted effort among them. The principal effort heretofore expended in their behalf has been to Christianize them and to educate them after the fashion of our own public schools. It is well enough to teach them the white man's alphabet and teach them to use the white man's pen, but it would be much better to teach them the white man's manner of using the hoe and other implements of productive industry. If there has been a misdirected effort in the behalf of any aboriginal people it is the effort which seeks to at once raise them to the same intellectual plane upon which the white man stands to-day after centuries of mental culture and development. These natives should first be taught how to procure bread and meat, how to use hygienic measures, how to live in their homes, and when this is done it will be ample time to undertake to develop them along the line of the white man's intellectuality. In teaching a native it is bad policy to forget that he is the white man's inferior; that he must of necessity be so, and the sooner we recognize the fact that he is an Indian, and should be taught as an Indian, the better it will be for him.

There may be isolated cases in which our schools will develop a man of ability among them, as has been the case of Rev. Edward Marsden, but it is idle to think that the educational methods which fit the white man's child for the field of usefulness which will open for him at manhood can be applied to the children of these fish-eating people, who are yet in the clan stage of development. It is idle to think that our schools can bring the child of the foul-smelling, witch-infested abo-

iginal hut to a status where he can compete with the white men. Such an effort may result in educating a portion of them out of their present station, but it can never educate this generation into the white man's status and must result in leaving them between the two, without a place of their own, standing alone.

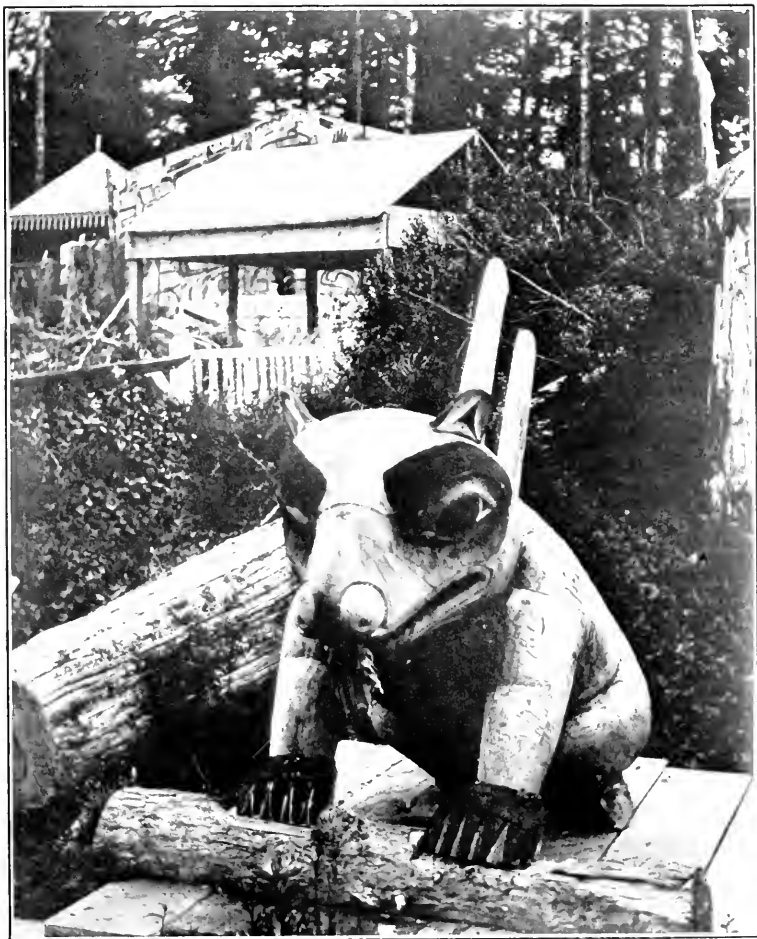
Take an Aleutian girl from the foul-smelling barabara where she was born, from the coarse food upon which she has been fed, from the rough, vermin-infested clothes she has worn, and the vulgar society in which she has grown, and transplant her into the refining atmosphere of a boarding school and keep her there until she falls in love with a new life, and then send her back to the barabara, and what will be the result? Is it possible for her to forget the Eden she has just left and settle down amid environments of squalor and want as the wife of a common native? It may be so in some rare instances, but the chances are that she will loathe her home, spurn her people, and become the concubine of the first renegade white man who crosses her path.

The Alaskan native does not need higher education now, and he should never be sent from among his people to obtain it, except in rare instances where remarkable ability has been disclosed in the local school. Such is the experience of Mr. William Duncan, who, after nearly a half century's consecrated effort among them, testifies as follows:

I desire to say that I entirely disagree with the plan of taking the youths of Alaska to the Indian reservation schools or to Carlisle. These schools, though they may be appropriate for the Indians of the interior, for whom they were designed, where the youths have but few avenues of usefulness open to them in which to develop a true manhood, are not suitable for Alaska. Here in this country of vast resources there are openings for obtaining employment on every hand, and all the school education our natives need to fit them for posts of usefulness is here at hand. To me it seems a great mistake for young, stalwart men, from 20 to 25 years of age, and young women of marriageable age to be taken from Alaska to these distant schools. They go or are induced to go ostensibly for higher education, but in reality many go to be fed, clothed, and have a good time at the Government's expense. When they return home we find that they have developed a fatal glamour of conceit, but are not one whit better fitted for facing the temptations of life or more willing to be harnessed to hard work.

In saying this Mr. Duncan had the Tsimshians more particularly in mind, but what he has said applies in many respects with greater force to other Alaskan natives, and it can not be said that his views grow out of his prejudice for the system he has built up, because his opinions are held by other missionaries, and particularly by Judge Brown, of the United States district court, who says:

Schools, in my opinion, should be established by the Government and maintained under proper surveillance at the native villages, where the children may board in their own homes and live with their parents while acquiring some useful knowledge. And I would recommend that in these schools they be educated in useful arts,



A THLINGET TOTEM.
In a cemetery at Ketchikan, Alaska.

mechanics, etc. * * * They are not a governing race and never can be; their education should, in my opinion, therefore, be on the lines before indicated—instruction in the simpler arts and industries whereby they may be enabled to earn a living. * * * Perhaps I should state that boarding schools where these children are taken away from their parents and homes often result in great injury. They acquire habits of living and a desire for food such as they do not get in their own homes, and having once acquired a taste for these they can not live without them, and the young women when released from these schools become a frequent prey of the white men—so frequent as to render their condition in this country most miserable.

Political or legal status.—Although our treaty with Russia declared that “the uncivilized tribes” of Alaska should be subject to such laws and regulations as Congress should prescribe, the political or legal status of these people has never been defined by that body.

Even before the establishment of a civil government by the act of 1884, Alaska was held not to be an “Indian country,” and it has been repeatedly determined that an Alaskan native is neither a citizen of the United States nor an “Indian” in the sense in which that term is commonly used by Congress. It has been suggested that inasmuch as all members of the Græco-Roman Church are considered citizens of Russia, such of the natives as were communicants of that church at the date of cession had ceased to be of the “uncivilized tribes” and have become citizens of the United States under the terms of the treaty.

It is unnecessary to here enter into a detailed discussion of these questions, or to do more than to call attention generally to instances in which these and kindred questions have been considered: 16 Opinions Attorney-General, 141; 18 *id.*, 557; 2 Sawyer’s Reports, 118 and 311; 4 *id.*, 121; 5 *id.*, 155; 6 *id.*, 406; 12 *id.*, 467; 108 Mass. Reports, 133; 129 *id.*, 469; 6 Pet. Reports, 515; 6 Cranch Reports, 87; 112 U. S. Reports, 94; 12 Land Decisions, 583; 19 *id.*, 323; and Governor Knapp’s Report, 1899.

The only legislation enacted by Congress which in any way specifically affects these people are the statutes which protect their possessory rights and forbid the sale to them of intoxicants and firearms.

No Indian reservations have been created for the Alaskan natives except the small island of Annette, which was, by act of Congress, set apart for the exclusive use of the Metlakahtlan Tsimshians, and such others as might join them. No Indian agents have been provided to look after them, no effort has been made by our Government to control their actions, direct their efforts, improve their conditions, or provide for their wants, aside from small appropriations for schools, and occasional assistance through military posts when they were in dire need. When the Russian-American Trading Company ruled Alaska, hospitals and medical aid were provided and some effort was made to better the condition of these people, but during the thirty-six years

they have been wards of our Government comparatively nothing has been done for their encouragement or betterment except by the Christian missionaries supported by the churches of this country and Russia. The Greek Catholic Church, supported by the Russian Government, maintains perhaps more mission stations there than does any other organization, and our Government has not appropriated as much money for their advancement as the maintenance of these missions has cost the Russians.

It is true that Congress has forbidden white men from taking their homes from them by force, but this is about all it has done.

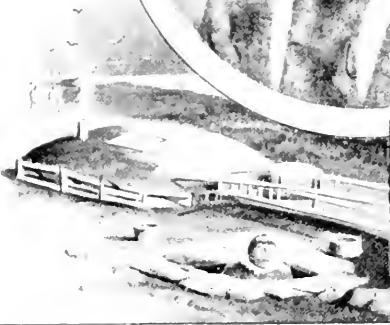
The American Indian, who turns with much reluctance from a century of hostility to our people, has had money, food, and raiment voted to him, agencies and schools have been maintained for his encouragement and protection, white men have been forbidden on his reservation, stores have been authorized where he could trade without being robbed, and, finally, he has been clothed with the dignity of American citizenship and granted the privilege of owning lands, while the Alaskan natives, vastly the Indian's superior in everything but cunning—these natives who have "many of the noblest qualities which characterize the better people of our race," this simple-minded people who "are not nearly so inclined to violate the law as white men are"—have had comparatively no help and no encouragement, but have been left to the mercies of greedy traders and the contaminating influence of the worst element of our own people, who have gone among them for illicit purposes. They have none of the rights of citizenship except the naked right to live in homes of their own building, to which the Government still holds title. They can not become citizens, can not homestead lands, or even lawfully act as pilots on the smallest steamer, yet Judge Wickersham, who knows them well, says they "have a decided predisposition to respect and obey our laws."

THE CONDITIONS AND NEEDS OF THE ALASKAN NATIVES.

The conditions of the Eskimo call loudly for help. He occupies a cold and inhospitable climate, with no timber to furnish either employment or fuel, and, with very few exceptions, there are no white settlements at which he can find either assistance or employment. The condition of the Eskimo and its cause is tersely and forcibly told by Governor Brady, as follows:

We have invaded his country and killed and driven off the whales, walrus, seals, and caribou, and in places have made fish scarce. We have gone along the shores of Bering Sea and have burned up the trees and driftwood on the beach, set fire to the tundra, have driven off the birds, and in our mad rush for gold have burrowed under his rude barabara and allowed it to tumble, even when the inmates were sick and dying.

This has all been so sudden that he has been fairly stunned. The reindeer skin, for which he bartered with his neighbor and out of which he made his winter



ALASKAN ESKIMOS.

clothes, is now almost beyond his reach, for they have gone up several hundred per cent in price and are gathered by trading schooners. We should be very solicitous for these fine people and not let them go to destruction without an effort to protect and save them.

The conditions of the Athabascans are in some localities as bad, or worse, if possible, than those of the Eskimo, particularly in those parts of the interior which are distant from the Yukon River and the seacoast. There is little or no employment for them to obtain from the whites. Formerly those along the Yukon earned something by cutting cord wood for boats plying on the river, but these boats are now using oil and coal as fuel to a great extent. Judge Wickersham has perhaps a more intimate acquaintance with these people than with any other of the Alaskan natives, since his home has for several years been among them. He says:

The Athabaskan tribes along the Yukon River are a gentle race of hunters, and seldom commit crime except when under the influence of liquor. They are not nearly so inclined to violate the law as the white man, and if that were the one standard of citizenship, would make better citizens than the same number of white men. As you know, there are no reservations in this district and no public fund to be expended in behalf of the natives. Two years ago whole villages died from an epidemic, and I am afraid that many of the Indians of the Yukon River will die this year from starvation. The wholesale slaughter of their fish by foreign cannery men has destroyed their one source of food supply, except caribou and moose. The latter they may kill possibly for their own use, but can not sell any part. They have always heretofore depended upon the sale of meats and skins to supply themselves with other necessities, and it bears very heavily upon them to have this source of supply cut off.

In speaking of the natives of the Copper River Valley, Mr. R. Blix, manager of the Copper River Mining, Trading and Developing Company, says:

Their means of support in the past was salmon and game, but since the canneries have been built at the mouth of the Copper River and the prospector has frequented the Copper River Valley, both salmon and game are very uncertain. The condition of these Indians during the winter season is often most pitiable, many of them on the verge of starvation and some of them actually starving. They are a people anxious to learn the white man's ways and crave the white man's food. They are apt to learn, and most of them will work when properly nourished.

It is feared that their condition during the present winter will be much worse than heretofore, for, as has been stated, the fact that the boats on the Yukon are not now using the same amount of wood they used formerly has deprived them of labor during the past summer, and a report from Postmaster Mountfield, who is also manager for the North American Transportation and Trading Company at Fort Yukon, states that the fishing in the river during the last summer has been practically a failure, "as there has been little or none caught here, in consequence of which the dogs, their only means of transportation in the long winter, will probably starve."

The Aleuts are in but little if any better condition than their northern neighbors. They learned many years ago to use the food of the white man, their section of the country having been largely occupied by the Russians at an early day. Their money supply originally came from hunting the sea otter, which of late has almost entirely disappeared. Judge Wickersham says:

The Aleutian Islands, too, have suffered greatly by reason of the laws restricting the hunting of seals and other fur-bearing animals, and they are nearly at the point of starvation for that reason. If the Government would judiciously place reindeer among these people it would help them in time and possibly save some remnant of them from destruction; but they are unable to meet the pressure of the Anglo-Saxon, and especially his game and fish laws, and are being rapidly exterminated by such legislation.

They do not find employment from the white man as readily as do the southeastern Alaska natives. There are few white settlers in this section to give employment, fewer mines, and but one sawmill. The timber is scarcer and of a poorer quality, and a large portion of the territory occupied by them is treeless. The salmon canneries furnish about all the work they get to do, and their lack of industry, their lack of trustworthiness, and their predisposition to drunkenness make their services generally undesirable about the canneries. This is shown by the fact that at least 50 per cent of the hands employed in some of the Pacific Packing and Navigation Company's southeastern Alaska canneries last year were natives, while several of the canneries among the Aleuts in southwestern Alaska did not employ any of them.

Perhaps the most destitute of the Aleuts are those who inhabit Afognak Island, about 350 in number, and their condition and the cause of their destitution is told by Mr. Howard M. Kutchin, special agent of the Treasury Department, in his official report, as follows:

The particular hardship to which these people have been subjected is explained by the fact that Afognak Island was some years ago made a Government reservation and two salmon canneries located there had to be suspended. At these the natives found work and also a market for the salmon they caught. The reservation order forbade them taking salmon except for domestic use. By a liberal construction of the law they were permitted to sell their surplus ukala (or dried salmon) to the trading companies having stores on the island. But for the fact that their appliances for catching fish were of the most primitive sort, they could have gotten along fairly well under these conditions. It was to relieve them in this regard that a little help was asked for them. Their entire means of subsistence was what they earned in this manner and a mere trifle in addition by engaging in sea-otter hunting, which was practically at an end at the time the Executive order went into effect.

Latterly their case has become even more hopeless by reason of the fact that the stores have ceased to buy ukala. The people have been educated to require more than the bare necessities of life, and they now find themselves reduced to dried fish. It is true that some of the men procure work at the neighboring canneries and so earn a little money to help themselves, but their situation is a hard one and entitles them to something more than empty commiseration. It is to be remembered that

their village contains several hundred souls and was in existence a very long time before the island was made a reservation. They were perhaps the most prosperous and happy native people in Alaska, as their surroundings were certainly the most pleasant and they the most civilized and prepossessing in life and usages.

It should be remembered that these natives early learned such civilization as the Russian traders taught them, and that for many years the profits of the sea-otter hunting had enabled them to live comfortably and encouraged them in buying the white man's food, and now that the sea otter has disappeared from the waters and that they have been deprived of the benefit of selling fish caught on their island, they are indeed in a pitiable condition and their needs call loudly for relief.

The Hidahs and Thlingets are in a large measure self-supporting, although their improvident use of money sometimes leaves individual families in want during certain seasons of the year. They live nearer the white settlements and find employment much more readily than the other natives. They live in a much milder climate, and are surrounded by an abundance of fuel and fish, and, unmolested, will succeed by their own efforts.

The Tsimshians are by far the most civilized and frugal of all the Alaskan natives, and their condition is due to causes which are not only well worthy of recital here, but their history affords perhaps the best illustration of what can be accomplished by an intelligent effort which looks honestly to the simultaneous development of the heads, the hands, and the hearts of an aboriginal people. Fifty years ago they inhabited the coasts of British Columbia, about the fifty-fourth parallel north latitude, in the country tributary to the Skeena River in the vicinity of Fort Simpson, and like other Alaskans, at that time they had no well-defined religious ideas and no established form of government, either tribal or otherwise.

The shaman or medicine man was the strongest force then among them, as he has since been among the other Alaskans. To him was attributed secret or supernatural powers which enabled him by incantations and other sorcerous practices to heal disease, foretell events, ward off evil, or detect witchcraft. He has always been without doubt the most potent factor for evil among these simple-minded people, and to his influence may be traced many of their graver faults.

Cannibalism.—These shaman not only inspired the idea of their superiority by their legerdemain and sorcery, but they terrorized the simple-minded by inhuman and unnatural acts. Less than fifty years ago it was no uncommon thing for a quiet settlement of Tsimshians to be startled by the diabolical yells and fiendish howls of a band of shaman who would suddenly break in upon them, entirely nude, with their long hair streaming in the wind, and in the presence of the terror-stricken people proceed to eat the body of a slave who had been first murdered for their demoniacal feast. The shaman's failure to cure the

sick was often attributed to witchcraft exercised upon the patient by some other member of the community, and it was part of the shaman's business to discover the witch whose life must pay the penalty.

Blood feuds.—The doctrine of "an eye for an eye and a tooth for a tooth" was then seriously invoked among them, as it has since been, and to some extent is now, by the other natives. Not having an organized government with an executive head, the enforcement of rights and the reparation for wrongs were left to the injured person or his clan. An unwritten law demanded a life for a life, and unless the family of the murdered native consented to accept a payment of blankets or other property in lieu of the murderer's death, the murderer or some member of his clan was compelled to forfeit his life, but the life forfeited must be that of a native equal in social standing to that of the murdered man, otherwise the lives of two natives of a lower standing must pay the penalty. The murderer not infrequently surrendered himself to be executed, but if he or some member of his clan failed to do so, each member of the murdered man's clan at once set about to avenge the murder by killing some member of the murderer's clan as soon as convenient opportunity came. The law thus invoked extended in minor degree to lesser wrongs than murder, and gave uneasiness to every white man in any community where the members of any clan had cause to think that one of their number had suffered at white hands.

The treatment received by the natives of Alaska at the hands of the traders during the first half of the last century did not make them friends to the white men. Serious engagements had occurred between the Russian-American Trading Company and the Thingets. Bad blood had been engendered all along the coast, and the settlement at Archangel (Sitka) had been surprised and nearly all the white people of the town massacred and their homes burnt.

These conditions induced the Hudson Bay Company and the Russian-American Trading Company to surround their trading posts at Fort Simpson and elsewhere with high stockades and protect them by blockhouse forts, and so hostile were the natives that but few of them were admitted at one time into the stockade, even when they came peaceably to trade their furs for food and other supplies.

WILLIAM DUNCAN, A SUCCESSFUL MISSIONARY.

These were the conditions of the Tsimshians of 1857, the most savage, perhaps, of all the Alaskan aborigines, and it was to minister to these people that William Duncan, the present missionary in charge at Metlakahla, came in that year as a lay member from the Church of England. When he arrived at Fort Simpson the authorities in charge believing that it would be unsafe for him to live among the Tsimshians, detained him within the stockade. The language of the Tsim-

Agricultural Prospects of Alaska.



THE TSIMSHEAN CHURCH AT METLAKAHTLA.

sheans was at that time unknown to the whites and none of the natives could speak English, all the bartering being conducted in the Chinook language, a mere jargon improvised by the Hudson Bay Company as a universal trading language. Its limited vocabulary, however, made it comparatively useless to the young missionary, and he at once set out acquiring a new tongue, without an alphabet and almost without a teacher. This he accomplished within a remarkably short time by the aid of a native, who was allowed to come within the stockade for that purpose, and a few months after his arrival Mr. Duncan was permitted to go outside for the purpose of preaching and teaching. Very soon he had gained such favor with them as to warrant his permanent residence among them, and he has since then made their home his home.

Although his course may seem a strange commentary upon the effects of our civilization, Mr. Duncan soon concluded that his people could be most easily civilized and reclaimed from barbarism when segregated to themselves and separated as far as possible from contact with white settlements; and a comparison of the status of his people with that of other natives in Alaska to-day abundantly demonstrates the wisdom of his conclusion, notwithstanding the fact that the other natives referred to have sat under the teachings of Christian missionaries and mingled with white communities for more than a century.

In compliance with Mr. Duncan's desire the government of British Columbia set apart for the exclusive use of his people a reservation of 50 square miles at some distance from the trading post, to which he removed them in 1862. Their new home was named Metlakahla, and here it was that their real progress toward civilization began. Mr. Duncan recognizing the fact that no man can fully esteem himself who is not self-sustaining; that no man can build to the highest measure of his own possibilities who remains dependent upon another—at once set about to make each and every one of his people able to stand alone. Being of a practical turn of mind himself, he was able to give intelligent direction to their efforts. He induced them to abandon all former customs and practices which would in anyway retard their development, but first prepared their minds for the change; prepared the soil for the seed he came to sow. He taught improved methods of fishing; taught them to make better boats and build better houses; taught them to manufacture lumber and to can fish; taught them to read and to write; taught them music, and at the same time schooled them in the truths of the religion he had come to preach to them.

In their settlement in British Columbia they soon became self-supporting, and under Mr. Duncan's guidance were prosperous, happy, and contented, until a supervising ecclesiastic of the church undertook to interfere with their simple forms of worship by peremptorily insisting upon ritualistic observances, for which their minds were not pre-

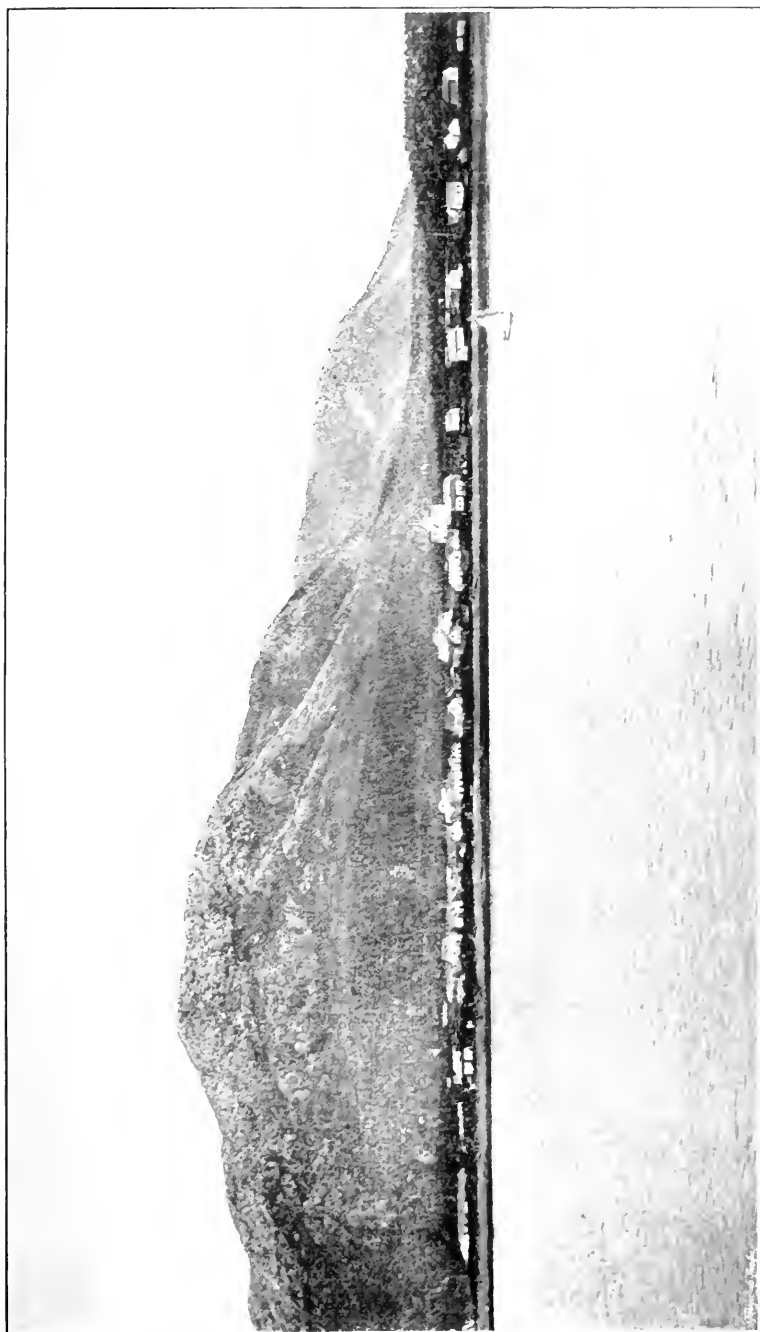
pared. Mr. Duncan, knowing the condition of his people, knowing their incapacity to receive and appreciate the theological dogmas thus prescribed, declined to accept the suggestions, and was supported by his people in so doing. The relations between the Metlakahtla congregation and the mother church became such as to make a new dwelling place on our free soil desirable, and they sought for and received permission from our Government to build new homes in Alaska, whereupon 823 of them loaded their personal effects into their canoes, left good, comfortable homes, a church, a cannery, a sawmill, and other buildings, the products of their own labor in old Metlakahtla, and in 1887 landed upon the houseless shores of Annette Island, where each of them took an oath of allegiance to the United States and publicly subscribed to the following declaration:

We, the people of Metlakahtla, Alaska, in order to secure to ourselves and our posterity the blessings of a Christian home, do severally subscribe to the following rules for the regulation of our conduct and town affairs:

1. To reverence the Sabbath and to refrain from all unnecessary secular work on that day; to attend divine worship; to take the Bible for our rule of faith; to regard all true Christians as our brethren, and to be truthful, honest, and industrious.
2. To be faithful and loyal to the Government and laws of the United States.
3. To render our votes when called upon for the election of the town council, and to promptly obey the by-laws and orders imposed by the said council.
4. To attend to the education of our children and keep them at school as regularly as possible.
5. To totally abstain from all intoxicants and gambling, and never attend heathen festivities or countenance heathen customs in surrounding villages.
6. To strictly carry out all sanitary regulations necessary for the health of the town.
7. To identify ourselves with the progress of the settlement, and to utilize the land we hold.
8. Never to alienate, give away, or sell our land, or building lots, or any portion thereof, to any persons who have not subscribed to these rules.

Fearing that they soon might become dissatisfied with the change and want to go back to their comfortable homes which stood tenantless on British Columbian soil, awaiting their return, it was concluded not to erect any buildings until the following season; and in the meantime they lived and worshiped during the ensuing fall and winter in tents and improvised huts along the seashore. The coming spring of 1888 found their determination unchanged, and they set to and built a town which would do credit to any people, and of which former Governor Swineford says in his published book, Alaska. "a neater, more orderly, or better contented Christian community can not be found in any State or Territory in the Union."

Before beginning building operations, they selected a suitable place for their town and surveyed proper sites for their church and other public buildings, and also platted 264 blocks or squares (each divided into four lots 80 feet wide and 90 feet long), separated by streets of



NEW METLAKAHTLA,
Partial view.

appropriate width. Then they cut away the timber and did proper and necessary ditching on the sides of the streets for drainage purposes, and now have comfortable homes and about 3 miles of well-constructed board sidewalks, 8 feet wide. A conveyance issued to each head of a family for one lot, and the remaining lots were held in reserve for later families. The possessory title to the property in the town is held individually by the natives and by the Metlakahtla Industrial Company, a corporation created under the laws of the State of Oregon. The natives own, individually, their dwelling houses, eight storehouses, and their shops, and the corporation holds a fish cannery, a sawmill, a store building, a dwelling house and office building, a guests' house, and, in addition to these, there is a church building, a schoolhouse, a home for girls, and a hospital. To give an adequate idea, I will mention the size and approximate cost of each of the buildings.

The cannery has a floor space of about 42,294 square feet, costing approximately \$15,000 for buildings, including wharf, and produced 19,677 cases of canned fish in 1891 and 16,767 in 1902. The cost of equipment was about \$6,000 and cost of two small steamers \$10,000.

The sawmill covers 8,000 square feet and cost approximately \$3,000 for building and \$3,000 for machinery and equipment. It produced 190,000 feet of lumber in 1902.

A system of waterworks, which cost about \$10,000, brings excellent water through iron pipes, both for power and the domestic uses of the town, from a mountain lake situated $2\frac{1}{2}$ miles distant, at an elevation of about 800 feet.

The church is 70 feet wide and 100 feet long, and cost \$10,286.86. The church is well built and splendidly furnished, and would be a credit to a white settlement many times larger than Metlakahtla. It is by far the best church in Alaska, and is the only one now supplied with a pipe organ.

The schoolhouse, which contains 2 rooms, gymnasium, and a public hall, cost about \$4,500. A doctor's residence and home for girls contains 26 rooms and cost about \$4,000, while the guests' house contains 13 rooms and cost about \$3,000. A guests' house for natives (strangers) cost about \$200.

From this it will be seen that what may be styled the public property of Metlakahtla amounts in value to about \$69,000, and when we add to this the value of the individual homes, which range in cost as high as \$1,000 and contain as many as 10 rooms, we get some idea of the thrift and industry of this band of Tsimshian natives, for it is all the product of their labor—they earned the money which paid for their homes, and contributed to the earnings which produced the public buildings; and the mechanics who did the building were all Tsimshians.

In addition to this property in Metlakahltla, mention should be made of the fact that Verney Brothers and Hamilton, Simpson & Co. (Metlakahtlans) have established two sawmills in the neighborhood of Ketchikan, the former at North Saxman and the latter at Gravinia. Verney Brothers report the value of their plant at \$20,000, and their output at 600,000 feet in 1901 and 700,000 feet in 1902, while the other firm can make equally as good or better showing.

That the Metlakahtlans are an industrious and frugal people is abundantly proven by the fact that they have accumulated practically all their property within the past fifteen years, for it must be remembered that they received nothing for the property abandoned in British Columbia in 1887.

The business of the mill and cannery is conducted by the Metlakahtla Industrial Company, capitalized at \$25,000, and all shares are owned by Mr. Duncan and the natives, except two of \$10 each, one of which is owned by Mr. Ladd, its president, and the other by T. N. Strong, its secretary. This company employs native labor exclusively, and Mr. Duncan's books show that they were paid wages from 1888 to 1902 amounting to \$413,817.38. There are eight stores in the town which are conducted and owned exclusively by natives, as well as are the shops of the mechanics.

The municipal affairs of the town have long been controlled by a native council elected by popular vote, it having been Mr. Duncan's policy to teach them to govern themselves. The present council consists of seven members: Edward Mather, Edmond Verney, Andrew Usher, Benjamin Booth, Frank Allen, Mark Hamilton, and Peter Simpson, all of whom are natives. The only tax levied by them for municipal purposes is a poll tax of \$3 on each male voting citizen of the town, yet they paid into the United States Treasury last year nearly \$800 as occupation taxes, in addition to internal revenue and customs charges, notwithstanding the fact that the Government failed to conduct a public school in the town or return a dollar of this money for their benefit in any other manner.

No person can be a citizen of the town unless he is either a Metlakahtlan or belongs to the native people of Alaska; and he is not then admitted to citizenship, or permitted to hold property there, until after he has publicly subscribed to the above-quoted declaration.

The total population of Metlakahtla is not correctly represented by the last census, because that enumeration was made in the summer, at a time when very many of the people were away from home working and fishing. It is a custom of these people—in fact, of all native Alaskans, as we have seen—to lock up their winter or permanent homes, and go abroad with their families to their fishing grounds, or to any other locality in which they may be employed, for the summer. This was plainly apparent at one native village, Saxman, containing



THE METLAKAHTLA CORNET BAND.

All full blooded Tsimshian natives with Rev. William Burney in the rear.

thirty-six houses; yet a census enumerator would not have found a single person there on May 19 last. This condition is further shown by the fact that Edmond Verney and Mark Hamilton are both members of the native council at Metlakahltla, notwithstanding they own and operate sawmills at North Saxman and Graynia.

Metlakahltla may be unqualifiedly pronounced the most orderly and best-governed town in all Alaska, and it has but few, if any, superiors in this respect in any country. Its native brass band of about 25 pieces will find but few equals in any town of 20,000 inhabitants, and its homes will compare in cost, size, and appearance with the dwellings of almost any white man's town.

The success of the Tsimshians in their progress toward civilization fully illustrates the possibilities of the Alaskan native, and demonstrates that they, if given proper direction and encouragement, may prove themselves one of the most potent factors in the development of that district; but before they can do this they must be divorced from the contaminating influences which surround them in some localities.

The use of intoxicants has a more demoralizing effect on these people than all other evil causes combined. They seem to have an unconquerable appetite for strong drink. Judge Brown, of the United States district court, says of the Thlingets:

They resort to all possible means and tricks to obtain liquor, and there are always to be found in such a community as this white men who are mean enough to profit in all possible ways by the apparently unnatural appetite of these people for intoxicants. The Indians resort to Jamaica ginger, Florida water, and anything that they can get hold of that will produce excitement or intoxication.

This they sometimes do at the cost of life, for last spring several of them were killed at Ketchikan by drinking Florida water made from wood alcohol, while more recently deaths occurred at Kassan from their drinking a liniment. They themselves manufacture a vile drink from flour, potatoes, molasses, sugar, etc., which the Thlingets call "hoochinoo" and the Aleuts call "quass," which is said to have an unusually maddening effect. This is a matter which demands the most serious consideration.

The Aleuts suffer much more from the effects of liquor than the natives of any other locality, as the restrictions against its sale seem to be more loosely enforced in southwestern Alaska than elsewhere, due, perhaps, to the fact that many of the half-breeds, or creoles, claim to be citizens and not natives, and consequently are given the same purchasing privileges as white men. They are said to willingly sacrifice anything for rum—even the chastity of their wives and daughters—and when intoxicated are inclined to quarrel and are generally unreliable. So debasing is its effect upon this otherwise innocent and peace-loving people that the law would be justified in declaring any illicit sale

to them a felony, and the seller should be treated not only as a felon, but spurned by all good people as an enemy to mankind.

Needs of the natives.—Our courts have said that these people “are practically in a state of pupillage, and sustain a relation to the United States similar to that of a ward or guardian.” If this is true, the relation creates reciprocal duties, and we have seen how well these simple-minded wards have met the obligations thrust upon them by yielding in obedience and respect to our laws; but with what reciprocity has their guardian met its obligations? Aside from forbidding the sale of intoxicants, scant appropriations, and the attention, kindnesses, and aid they have received from army and naval posts, no act has been done to advance the interests or better the conditions of its wards, although its guardianship has existed thirty-six years. Their former guardian, the Russian American Trading Company, although in some instances a cruel taskmaster, not only maintained schools and missions, but it supported public hospitals at Sitka, Hot Springs, Kodiak, and Unalaska at an annual cost of \$10,000, to eradicate the diseases which even then, as well as now, threatened their extinction, and it is said that death came to only 34 out of 14,500 patients treated in them during the year 1860, yet repeated instances have recently occurred where whole villages have been swept away by epidemics, where the encroachments of our people have brought starvation, and hundreds die from chronic ailments, and our Government has hardly raised its hand to help them.

Not only did Rus. do more during its guardianship than we have ever done, but if, as asserted by one of Alaska's former governors, the Russian Government is now maintaining its Alaskan missions at an annual cost of \$60,000, it is still doing vastly more for them than our Government is doing. There are a number of things which our Government should do for these people, and do them now.

Hospitals and medical aid.—All of the governors have called loudly for hospitals and medical aid. The energy with which these calls have been made appears from the following quotations. Governor Knapp said in his report:

I am profoundly impressed with the idea that as a nation we owe it to ourselves and to the natives of Alaska that we build, equip, and support hospitals in various parts of the territory for the care of the sick and chronically diseased. Humanity demands it, treaty obligations require it, and self-interest ought to prompt it. Leave alone all our expensive explorations and scientific investigations if you must, omit all appropriations for schools if our great, rich nation can not afford to educate its wards, withdraw missions and other civilizing influences if it becomes a necessary alternative, but do not fail to afford relief to suffering humanity, to whom relief is impossible except through these agencies.

Governor Swineford said in his report in 1886:

The appeals for help from these poor, suffering people are incessant, and I see them dying almost daily for the want of the medical care and attention which it



PUBLIC BUILDINGS AT METLAKAHTLA.

seems to me a humane government ought not to hesitate to provide for them. Shall it continue to be said that our free and enlightened Government is less regardful of the imperative needs of this helpless, suffering people than despotic Russia was?

Rights of citizenship.—While these people are even now far better qualified to exercise all the functions of citizenship than many of the American Indians who have already been made citizens, they do not appear to urgently need the elective franchise, if, in fact, the right to vote would not bring them into conflict with the whites, which it would be sure to do in all incorporated towns where they were in the majority. There is not any very good reason, however, why they should not be clothed with all the other rights of American citizenship except that of voting, especially those enjoyed under the public land, mining, and navigation laws. If encouraged to engage in prospecting, their familiarity with the country might lead to the discovery of valuable mines, and the right of homesteading lands might encourage them to follow agriculture, while their knowledge of the uncharted waters now makes their services absolutely necessary to the uninformed white navigator who ventures there; yet, under the law as it now stands, they can acquire neither a mining claim, a homestead, nor even title to the lands upon which their homes stand, and licenses under the navigation laws can not be issued to them.

An agent should be appointed to look after their needs, protect their interests, encourage and instruct them in farming and mechanical pursuits, and teach them how to live and care for themselves, how to keep their homes clean and healthful, and how to care for the sick and treat prevalent diseases. Such agent should be empowered to appoint deputies to perform these duties in localities remote from his headquarters.

It is believed that such agents and deputies should, as far as possible, be selected from the army officers on duty in that district, for the reason that they are already supplied with means of communication and transportation. They are generally men of education and integrity; men already skilled in the performance of duty and in the power to control others, and, above all, they would be more likely to divorce themselves from all local influences inimical to the good of the natives. Better and more disinterested and impartial service may be expected of them than of persons selected from civil life at random for this purpose.

Reservations.—It is doubtful if the reservation system should be extended to these people. They have always come and gone at their pleasure, and they particularly desire to control their own movements, but if they could be induced to settle in communities apart from the white settlements it would undoubtedly be better for them.

Supply depots should be maintained. In many localities of Alaska the natives find a market for their furs and a place for the purchase of

supplies only at the store of the local trader, and frequently only at the store of some large trading company which maintains a system of stores throughout a particular region. While it would doubtless be unjust to say that all these traders take undue advantage of the necessities of these poor people; yet the temptation to do so would be very great, and it is an undeniable fact that in some localities they pay from two to five times as much as the article costs in Seattle or San Francisco, and it is said that they are often required to pay more than white customers are required to pay at the same stores, while the price paid for furs may not be high enough.

These conditions do not apply to any considerable extent in southeastern Alaska, or in other localities where the stores are maintained principally to supply white settlers. It is most likely to exist where stores are operated largely for the native trade. On this subject Governor Swineford, in his official report for 1888, in speaking of a company to which the Government had granted a fur monopoly, said:

Within a wide limit the creoles and natives are little, if any, better than mere serfs of that powerful corporation. In many places they are subjected to the double robbery of being compelled to part with their furs at less than half their value, and in return are charged two or three prices for the goods they can only buy at the company's stores for the simple reason that there are no others. * * * If they become contumacious or stubborn, and refuse to sell their furs at the prices the company offers, or dare to seek purchasers elsewhere, they are starved into submission. * * * The company does rob the creole and the native in the price it compels him to accept for his furs, and it robs him again in the price it charges him for the goods he must buy at their stores. I speak advisedly and on the strength of personal observation and knowledge.

That our Government has not had the utmost confidence in the fairness and generosity of those who trade with Indians is shown by its forbidding anyone to go unlicensed upon an Indian reservation within the United States for that purpose, and licenses are not issued until the trader enters into a bond in the sum of \$10,000, under the terms of which he could not sell his wares until he had scheduled his prices and had them approved, and in all cases his prices were limited to a profit not exceeding 35 per cent, and a list of these prices, printed in both Indian and English, must be posted in the store.

Such is the protection given the American Indian, yet the poor Alaskan has no protection whatever.

Trade with the Greenland Eskimos.—The Greenland Eskimos have received much more protection from the Danish Government than their Alaskan cousins have received from ours. The Crown monopolizes the trade of Greenland, and it sells European articles of necessity to the natives at prime cost, while the price it receives for bread and other staple articles scarcely pays for the purchase and the freight, and nothing is sold for more than 20 per cent above the cost price in Denmark.



GUESTS' HOUSE AT METLAKAHTLA.



A METLAKAHTLAN STREET.

The lack of a reservation system, and the hesitancy of our Government to enter into business in competition with its citizens, make such a scheme impossible in Alaska, yet it is not seen why supply depots can not be maintained through the very efficient military and naval posts in that district.

Permission has already been given our court and other civil officers to purchase family supplies from these posts at prices very much below those of the stores, and no very good reason appears why such purchases by the natives could not be authorized and in some measure relieve the condition indicated by Governor Swineford.

In order that the exact conditions and the actual needs of these people may be fully appreciated and reliably known the judges of the Alaskan courts, the postmasters, the physicians, the missionaries, and others located in all parts of the district have been asked to furnish testimony on these subjects, and from the mass of testimony so collected representative statements have been selected and are here given. These statements are so arranged in this report as to furnish expressions from various sections, beginning, after the statement of the judges, with the extreme southeastern part of the district, then passing west and north along the coasts, and then up the Yukon River.

TESTIMONY RELATIVE TO THE CONDITIONS AND NEEDS OF ALASKAN NATIVES.

Hon. M. C. Brown, judge of the first division of the United States district court of Alaska, says:

The Indians of southeastern Alaska are generally docile and obedient to the law, so far as they understand it, except when intoxicated. They resort to all possible means and tricks to obtain liquor, and there are always to be found in such a community as this white men who are mean and low enough to profit in all possible ways by the apparently unnatural appetite of these people for intoxicants. The Indian resorts to Jamaica ginger, Florida water, and anything and everything that they can get hold of that will produce excitement or intoxication. When intoxicated they are more or less vicious and resist all efforts at restraint.

Again, when the law runs counter to their training and superstition, such as witchcraft, they resort to their own method of treating witches, and sometimes commit murders by destroying the person or persons they deem to be witches. The expense of enforcing the criminal laws in commissioners' courts is caused more largely, I think, by Indians than other classes of people in proportion to their numbers. They gather about towns and places where intoxicants are obtained.

In my opinion extending the rights now enjoyed by white citizens, under the public-land laws, would not be the best policy. The experience of Father Duncan upon Metlakahla Island seems to indicate that the only way of benefiting these Indians is to sever them as much as possible from connection with the white population of the country, and to set aside certain portions of the country, or certain lands or islands, where they may take their lands in severalty and have absolute ownership of the same. To extend the rights of white citizens, under the land laws, generally to the Indians, would be to give them opportunities to take land that they would never utilize and make them a prey to speculators or dishonest white men

without resulting to benefit the Indians. The Indians of Alaska are prone to live in villages, and while they can go out from these villages and hunt and fish during certain seasons of the year they return to them again for their recreation and such comforts of home as they enjoy or appreciate. For this reason I would suggest that lands be set apart to them where they may have their villages and homes with absolute property rights therein; where they may take such homesteads and land outside of their village as they may desire, having them accurately surveyed and set apart in severalty to each of them or each of the males.

Schools, in my opinion, should be established by the Government and maintained under proper civilians at these native villages, where the children may board in their homes and live with their parents while acquiring some useful knowledge, and I would recommend that in these schools they be educated in useful arts, mechanics, etc. Some of them are valuable as pilots and an occasional one a competent engineer. Such Indians, in my opinion, should have the same rights extended to them under the navigation law that are extended to white people. I think they should be permitted in their own villages to establish quite largely their own rules and regulations of government, but that the elective franchise generally should not be bestowed upon them. They are not a governing race, and never can be. Their education should, in my opinion, therefore, be in lines before indicated—instruction in the simpler arts and industries, whereby they may be enabled to earn a living and to aid in the great work of the world. To bestow upon them the general right of franchise would be to bring a mass of ignorance to the ballot box, that would be taken advantage of by the dishonest, and would bring no advantage to the Indians but to educate them in rascality. These are my honest convictions growing out of my experience among these people.

Perhaps I should have stated that boarding schools, where these children are taken away from their parents and homes, result often in great injury. They acquire habits of living and a desire for food such as they do not get in their own homes, and having once acquired a taste for these, they can not live without them, and the young women when released from these schools, because of their desire for better clothing and the necessity of living as white men do, become a frequent prey of white men; so frequent as to render their condition in this country most miserable.

Hon. Alfred S. Moore, judge of the second division, United States district court, at Nome, says:

The Eskimo natives are descendants of the original inhabitants of this section of Alaska. They are a very kind, docile, and dutiful people so far as obedience to the law is concerned. They are remarkably exempt from violence and crimes of the higher grades. I find that so soon as they contract commercial relations with the white people they begin to degenerate. They are apt learners of the vices of the whites, and if left to pursue their own industries, separated from the whites, they would give the administrators of the law but little trouble.

I do not believe that the Eskimos have arrived at such a state of advancement in civilization that they are prepared to become citizens on equal terms with white Americans. I believe that if they were taught other pursuits and occupations than those which mainly absorb their energies—i. e., hunting, fishing, and trading in furs and ivory—they could, in the course of twenty-five years, become qualified, in many instances at least, for citizenship under our flag. They are a kind, docile, and truthful people. When called as witnesses before the courts, they adhere to the truth, even when their testimony will endanger those who stand in the relation to them of friends and neighbors. In this respect they set an example which the whites in this section of the country would do well to follow. The Eskimos are a people who should not be allowed to become extinct. They have many of the noblest qualities

which characterize the better people of our race. They are free from the savage tendencies of the American Indian, are quick and apt at learning, have religious tendencies, and by training might be made a happy, contented, and useful people. Some of these people have been given the opportunity to become the owners of reindeer, and some few have already accumulated considerable wealth in that way. Commissioner Lee, of Cape Prince of Wales, informs me that the young men of the natives are anxious to become owners of reindeer. The efforts of the Government to give them ownership have, as I believe, been successful.

Hon. James Wickersham, judge of the third division of the United States district court of Alaska, says:

I am not acquainted with the Thlinget people in southeastern Alaska, but have some considerable information and knowledge about the Eskimos and Athabascans. As a class they are honest and have a decided predisposition to obey the laws. I think they compare very favorably with the white residents of Alaska in that respect. The Eskimos particularly are an innocent, inoffensive, and honest race of people. In St. Michael I saw them behind the store counters taking down boxes of small knives and various useful articles of hardware of that kind and examining them, then placing them back in the boxes and on the shelves. They crowded behind the counters and made their examinations of such things, and when they found what they wanted carried it to the storekeeper and asked its value. I called his special attention to this habit, which they indulged in seemingly in all of the stores, and asked him if he was not afraid they would steal. He answered, saying that on no occasion had he ever discovered the loss of a single item from theft by an Eskimo. He smilingly proffered the remark that he would not permit white men to make such free use of their opportunities, and that in the same number of white men there would be at least one thief. The same confidence seems to be given to Eskimos everywhere they are known.

The Athabaskan tribes along the Yukon River are a gentle race of hunters and seldom commit crime, except when under the influence of liquor. They are not nearly so inclined to violate the law as white men, and if this was the only standard for citizenship would make better citizens than the same number of white men.

There are no reservations in this district and no public fund is expended in behalf of the natives. Two years ago whole villages died from an epidemic, and I am afraid many of the Indians on the Yukon River will die this winter from starvation. The wholesale slaughter of their fish by foreign cannery men has destroyed their only source of food supply except caribou and moose. The latter they may kill possibly for their own use, but can not sell any part. They have always heretofore depended on the sale of meat and skins to supply themselves with other necessaries, and it bears heavily upon them to have this source of supply cut off.

The Aleuts, too, have suffered greatly by reason of the laws restricting the hunting of seal and other fur-bearing animals, and they are nearly at the point of starvation for that reason. If the Government would judiciously place reindeer among these people it would help them in time, and possibly save some remnant of them from starvation; but they are unable to meet the pressure of the Anglo-Saxon, and especially his game and fish laws, and are rapidly becoming exterminated by such legislation. I can see no future for the Athabascans except extinction, and very little better hope for the Eskimos. There is a strength and virility in the Eskimos, however, which the Yukon Indians do not possess, and if the Eskimos could be turned into a reindeer people they would be an advantageous population in Alaska.

The Thlinget are a stronger race than the Eskimos and more rapidly and readily assume the white man's civilization. They are more able to compete with the situation than any of the others, and for that reason would make the ideal Indian citizen.

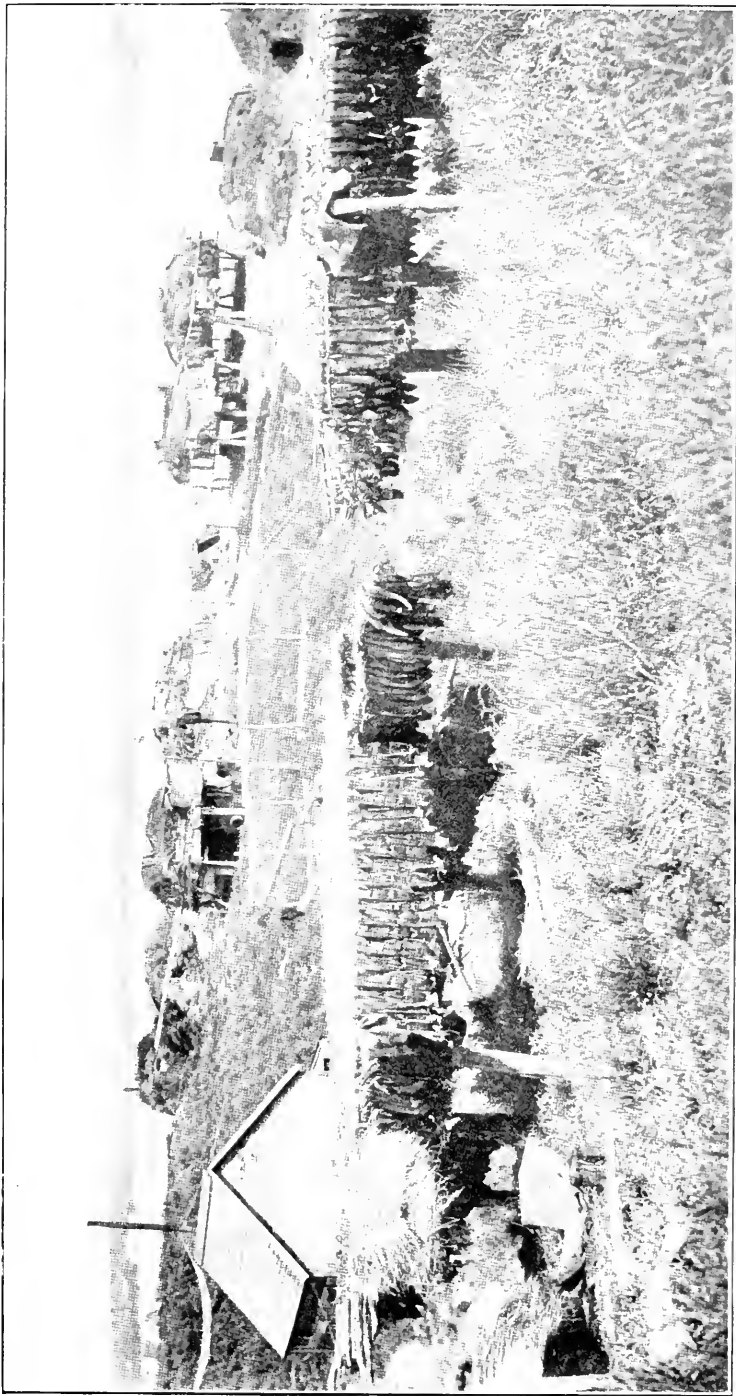
In my judgment, the land laws ought to be extended to the natives of Alaska. There ought, also, to be such legislation with regard to game and fish that the Indians would get the benefit of both before the white man exterminates them, as he is soon bound to do, and especially should restrictions be removed along the Aleutian Islands. Those people ought to be made free and ought to be allowed to hunt the fur seal and any other game that comes within their reach, save within 3 miles of the islands upon which they live. A few reindeer on the Aleutian Islands would be a godsend to these people. The natives of Alaska are neither vicious nor lazy. They are simply weak and the white man's vices are more readily forced upon them. If they were protected from the white man and permitted to remain in their natural state they would continue to hold their own and increase as they formerly did. It is our form of civilization which is exterminating them and not their own vices or follies.

I doubt if the land laws were extended to the natives of Alaska whether they would take advantage of them and procure titles to their homes. They know nothing of our laws and are children. If the law extending the right of homestead to the natives of Alaska provided for a special agent who should investigate their several town sites and have authority to enter the lands for them in case they did not voluntarily do so and thus secure somewhat of a reservation, it would be of great practical value to them. Without that feature, I am inclined to think that it would be little use to them. I am not inclined to view the question of Indian education as very important. I have been intimately acquainted with Indian tribes of the Pacific coast for twenty years, and I have found the better natives always to be those who lived their own lives without being spoiled by any attempt to make white men out of them. What the Indian needs is to be let alone by his fool friends but of course, this is too much to expect. The system of Indian reservations, as we know it in the United States, ought never to be extended to Alaska.

The testimony of the following witnesses will be given in the order of the localities in which they reside, beginning with the extreme southeastern Alaska.

Rev. William Duncan, living at Metlakabla, who has for nearly half a century lived among these people, and who has given them as much study and devoted to them as much consecrated effort as any other person, says:

Steps for the public weal of the natives of Alaska are becoming more and more urgent every year. These natives to a great extent are now loosened from their ancient moorings, and in the absence of a definite governmental policy being initiated for their benefit and protection they are drifting, and when it is admitted, as undeniably true, that human nature finds it easier to drift toward the bad than toward the good, the perilous position of the natives is clearly to be seen. The Government should set aside a suitable location for each Indian band, on which might be built improved homes, away from white settlements, and where saloons could have no footing. Each such location should contain some natural advantages, a salmon stream and timber, so that the natives would have no reason to complain for lack of food or fuel. Each Indian village should have its school and the teacher be armed with a commission to maintain law and order, assisted by native police. These villages should not be under the Indian-reservation system, which is justly condemned, but, being especially reserved and protected by the Government, would encourage each band to grow in civilization up to citizenship. Though the want of citizenship entails no great loss to the mass of our people while Alaska is but a district, yet to some it forms a barrier to their obtaining positions of usefulness for which they feel themselves fully



NATIVE ALEUT VILLAGE AND FISH-DRYING RACKS.

qualified. I trust the time is near when some at least will be permitted to reach the goal of their aspirations among civilized men, and for which they have been long preparing themselves.

Mr. Duncan's views on the subject of Indian education are quoted at length in the foregoing report.

Rev. Thomas Jenkins, Episcopal missionary in charge at Ketchikan, says:

There are about 150 natives who call this their home. They live in houses of their own and dress as white people. Generally they have left their tribal customs and manners. There are some marked exceptions to this, however, as the law of blood revenge is sometimes practiced, and potlatching is common. They are mainly hunters and fishers. A few of them are mechanics, boat builders, and carpenters. Some of them work in sawmills and on steamboats, but only a few. For half a year they are quite poor. They have not yet learned the value of money, and are improvident with what they get. Their moral status is just what the whites make it. In this frontier life it is expected that evil influences will exist. One thing more than any other that should be remedied in this respect is the illegitimate living together of white men and Indian women. It would be unwise to attempt to prevent marriages between whites and Indians. The enforcement of marriage laws would reduce the prostitution of the Indian women. This evil is the source of many others. The laws should be better enforced. The illegitimate sale of liquors to natives is blighting many defenseless and helpless women and children. A still greater curse than the sale of whisky is the sale of patent medicines containing alcohol. Patent medicines of this kind should be placed under the ban, or else the Indian should be allowed to buy whisky. We have at this time three cases of poisoning by Florida water, sold to natives by a milliner who knew they bought it to drink. She created the trade and then pushed it. The difficulty is in getting juries to enforce the law. I believe citizenship would do more to elevate the ideals and habits of the natives than anything else. They desire citizenship and resent the idea of reservations. There are a good many examples of unquestionable worth and fitness. I am strongly convinced that Government schools are poor means to the end desired. The teachers are often not of the first order, and their work is poorly supervised and the results poor. Educational work seems to presuppose an inherent intellectual force which in no sense exists. The native child is not a white child. He must be educated as a native and not as a white. No text-books have been produced which are fitted for the native mind, so far as I know. The schools are poorly equipped. We need a system arranged by experienced men and supervised by Alaskans. The rights of the natives are often trespassed upon by whites, but no more, perhaps, than in other places where they live side by side.

Rev. Harry P. Corser, Presbyterian missionary at Wrangell, says:

There are about 350 natives in this vicinity. In their mode of life they imitate the white man, tribal customs, potlatchings, etc., being a thing of the past. They make wills giving their property to their wives and children instead of to their sister's family. Their vocations consist principally of hunting, fishing, logging, plain carpentering, and steamboating. The communal houses are disappearing. It is the desire of each family to have a home of their own, but they know little of the Anglo-Saxon's idea of home life. Most of them have fishing and hunting houses where they pass about three months of the year. They have always been self-supporting. The moral status of the men is higher than that of the women. It is improving. They are faithful to a trust, though somewhat unstable. The Salvation Army has 24 adherents among them. The white people, as a rule, sympathize with them, and are

trying to treat them justly. The chief cause of complaint is the licensing of saloons that are notorious resorts for "boot leggers," and the maintenance of houses of ill repute (white) near the buildings occupied by the Indians. A change of the closed fishing day from Saturday to Sunday is needed. This is necessary for their moral growth. The enforcement of the compulsory-education law of our code is needed. The granting of 320 acres of land to each Indian, not to be sold by them under ten years, would help them. Their rights on their hunting and fishing ground should be protected. They should be given the same rights to locate lands and mineral claims that are now enjoyed by the whites. The repeal of the game law, except as to the clause forbidding shipping of deer skins from the territory, would also help them. Teachers should be employed in the schools who could combine industrial work with regular teaching. As a general rule, the sending of a boy away to school does him harm. There should be a better equipped class of teachers for our Indian schools.

Rev. S. A. Jackson, missionary of the Friends' church at Douglas, says:

There are about 200 natives residing here, though their summer months are spent elsewhere—hunting, trapping, and fishing. Some of them work in the mines during most of the year. They are a simple-minded people, with about as much reason as white children from 10 to 14 years of age. Many native women are seduced by white prospectors, miners, and fishermen. There are some cases where white men are living with Indian women without being married to them. There was an enrollment of 36 in the school here. Bad element of the white people have been very degrading to them. Several native girls educated in the mission school have been seduced by white men. The Indians' possessory rights are not well defined, some saying that they have only the right to the ground on which their cabins set. They should have garden patches and their salmon streams should be protected. White miners have crowded their cabins in between the natives' cabins here, and their influence is against better civilization. The natives should be settled in industrial communities and be compelled to send their children to school a given number of months in the year. The family is the unit on which to work, and the home should be elevated; marriage relation should be made more sacred. It is not good policy to educate the children and turn them back to heathen homes, as the girls so educated often resort to prostitution rather than go back to the old life, and the boys so educated, being unable to compete with the whites on account of prejudice, go back to their fathers' ways. They will do better settled to themselves if they can have sufficient capital invested in fishing, lumbering, and mining enterprises.

Rev. L. F. Jones, Presbyterian missionary at Juneau, says:

Their mode of life is variable. Some live as whites, each family having separate homes, and live cleanly and respectably. Others, particularly the older ones, live in the communal style, several families in the same house, with only one room. Such houses are dirty and unhealthful. They follow variable vocations. Some work in the mines part of the time, then change to fishing, then to hunting. They stand ready to do anything by which they may make a dollar. The women make baskets, moccasins, fancy beadwork, etc., for which they find ready sale. The native's great drawback is his lack of application. He soon tires of working at one thing. He works very well for a while, and then lays off for days and weeks. He does not count much on doing anything but feasting during the winter. Their conditions in most instances are deplorable, having few of even the necessaries of life, living in mere shacks. Most of them eke out a miserable existence. It is especially hard on the children, the aged, and the cripples. For most of these the winter months are severe and many cases of extreme suffering come to my notice every winter. Not a

few of them are genuine Christians and stand true to their profession. These are morally good and trustworthy. Some are professors only of religion, without conforming to its principles. The moral state of many is low and these are untrustworthy. I find it with them as with the whites; they have good, bad, and indifferent. The great curse of the country is drunkenness, for which the white man is to blame. The native girls and women are a constant prey for vicious and unprincipled white men. If these two evils could be abated, immorality would be reduced to a minimum. To bring this about a different penal system is needed. Placing men and women in jail is too much like placing them in good, comfortable homes without work. The marshals of the district should be salaried and not paid fees. About 75 per cent of the population are communicants of the different churches here. There were about 75 children of school age, with an enrollment of 35 in school; average attendance, 18. I think their possessory rights in this section are generally respected. Nothing would produce better results among the natives than a good sanitarium and a home for the aged and helpless. It is pitiable what suffering they endure through sheer want. They need sanitariums because they have not the means to go into white hospitals to be treated or to be treated by white physicians. Many of them lie and suffer because they can not employ a doctor. They know nothing about medicine themselves, nor have they suitable places to treat the sick. The Government ought to provide a hospital. The white man owes them this much for crowding them away from their fishing streams and hunting grounds. This used to be a splendid hunting section before the white man came, but game is now a thing of the past. The canneries check their fish supply, and now comes the homesteader locating every desirable site. They all supplant the native and make his livelihood more and more precarious.

Rev. Norman B. Harrison, Presbyterian missionary at Haines, says:

There are about 250 or 275 natives in this locality, who for the most part are striving for cleanliness and giving up the large communal houses. These people, the Chilkats, formerly had a reputation for being a fierce and warlike people, but this has passed away. Their greatest moral drawback is the presence of those who are ready to sell and give intoxicating drink, and the difficulty here is to get a jury to convict the offender. On the whole, good progress has been made in their moral status. They are an independent, self-supporting people and have but few paupers, which is remarkable considering their frequent sickness and the expense of living here. The recent poor fishing and the presence of fish traps, allowed by law, has worked a hardship, since fishing was their principal means of livelihood. Their principal means of support is hunting, fishing, drying salmon, putting up berries, ferrying up the Chilcat, carpentering and cutting wood, and day labor. They are quite trustworthy, as far as honesty is concerned. We have some who are decidedly reliable in every respect. Their relations with the white people are not usually helpful, as many of the whites here care very little for their real welfare and limit their interest in them to the gain derived from their trade. I think the law permitting fish traps should be modified. A law compelling the attendance of the children at school is needed.

Dr. H. B. Runnells, of Skagway, says:

Prior to coming to Alaska I was physician in charge of an Indian agency in Washington. I have had a large practice among the natives and am familiar with their ailments and social conditions. Enlargement and disintegration of the lymphatic glands, most generally the cervical ones, is what the majority of them suffer from, and this is commonly attributed to syphilis, but my opinion is that it is due to indiscriminate cohabitation. This indiscriminate cohabitation has long existed, and as a consequence they are ignorant of the identity of their fathers, which leads to

intercourse between blood relatives. This condition produces glandular degeneration and more than likely accounts for small families and the sterility of many of the females. Whenever a native woman bears children by a white father the offsprings are healthy, well developed, and I believe entirely free from glandular disintegration. The next common abnormal condition is curies of the teeth. I attribute this to the altered food conditions. Prior to the advent of the white men they lived upon hard and partially cooked foods, which required a great deal of mastication, necessitating strong jawbones and powerful muscles, which is the physical characteristic of the old Indians. Their jaws are large and square, with well-developed masticating muscles, thus giving the teeth plenty of room, with no overcrowding; but it is different with the younger generation, with whom we find jaws that are small and fragile, ill-developed muscles, teeth irregular and overcrowded. This is one of the penalties they suffer for acquiring a taste for our food and adopting our culinary process. Venereal diseases of all types are frequently seen in all their various stages, due more to the fact of their inability to take care of themselves and their own application of the laws of heredity. Pulmonary diseases are not any more frequent among them than with other people. Other diseases are rare, and, like the white population, they are particularly exempt from those ailments which are so common elsewhere, this being one of the healthiest countries I have ever lived in. "Senile cataract" is frequently met with, and apoplexy is the common cause of death with the old. They enjoy alcoholic beverages, the ravages of which are more due to the quality of what they are able to buy than to the quantity they drink. I think the most humane thing the Government can do to improve their condition is to make them more independent. Give them a practical and technical training in gardening, the care of children, cows, and pigs; teach them how to build fishing boats and make fishing nets. Let them be taught the art of curing the fish with which these waters abound, and provide them with the means of putting their produce on the market. In this way would be developed a hardy race of tribes by the sea and the world at large reap a benefit from this great storehouse of fish food. Let their education be practical and technical, and less religious, for while both are good, the first is of paramount importance.

Dr. S. M. Fraser, surgeon of the Canadian northwestern mounted police, at Pleasant Camp, says:

The prevalent diseases among the Chilcat tribes are phthisis, scrofula, pneumonia, rheumatism, syphilis, gonorrhoea, and diseases of the eyes. The death rate from these is much larger than it should be, and the general death rate is very much larger than among the whites. I believe that it is greater than the birth rate. They raise comparatively few children, largely due to the exposure of the women in the water while traveling up and down the rivers. Whether they take special measures to prevent pregnancy I do not know, but it is a fact that very many do not bear children. The cause of many of these diseases will suggest themselves. There are many measures which might be taken to reduce the present death rate and to mitigate the prevalent diseases. These are principally hygienic and sanitary. In the summer they live more or less under canvas; in the winter in houses nearly square, without partitions, the center of the roof being open, a raised platform extending around the interior of the building, about 8 feet wide, being the living, sleeping, and eating space, the center being reserved for an open fire. In one of these buildings many families live. Their mode of living, it is evident, would be conducive to all diseases caused by cold and exposure, and particularly favorable to the propagation of such diseases as phthisis, etc. No precautions are taken in the disposal of secretions and excretions. I have frequently seen children come out and evacuate within 5 feet of the door, while the older natives pass along a path into the thick growth to the rear of the building. The vegetation grows rank immediately around the buildings.

Either into this or around the door general refuse is thrown. The buildings are from 50 to 150 feet from the water, and the space seems to be utilized as a dumping ground. In the fall, after the fishing season, the stench is such that only the initiated can pass without being nauseated. Considering the above conditions, which have been going on for years, is it to be wondered at if the Indians are unhealthful and the above diseases prevalent, or will it be strange if a severe epidemic occurs among them and carries off the greater part of the population? My observations among them for the past five years, while living in this vicinity, induces me to believe that such must be the case, unless very active measures are taken for its prevention before it has taken hold. To give you an instance how disease may spread before any action may be taken, about two years ago smallpox was prevalent along the coast, a few authentic cases existing at Skagway, and it was reported to be among the Indians at Haines and Klukwan. A female native of Klukwan was reported to be ill with the disease and had been laid up a week or so with fever and subsequent rash, during which time natives were in and out of the building. In the interests of my Government, and with a view of finding out definitely the nature of the disease, I visited her, at which time she was surrounded by about one dozen natives. The case was not smallpox. I mention this case to show you that, as it was no one's business to go, none went. The nearest physician refused, and the people of Poreupine went to considerable trouble to keep all Klukwan natives away, until I reported the case not to be smallpox. In conclusion, it is my opinion that much might be done to better their condition, and I consider these relate principally to sanitation and hygiene, including compulsory vaccination. In fact, any action taken must be compulsory, and the same as would be directed by any competent board of health in a civilized community.

Mr. William M. Carle, of Hoonah, says:

There are about 500 natives here and possibly 200 in adjacent settlements. In summer they scatter over their fishing grounds for a radius of 75 miles from this village, each family having its own salmon stream, in which others do not fish. Hunting and fishing have furnished them subsistence. They do some planting, but have no tools; raise some garden vegetables; gather large quantities of berries, which they preserve in seal oil. Lately many of them work for the canneries in summer. Sea otter has been a large source of revenue, but it has almost disappeared. Every man his own carpenter; they build their own houses. They live for the most part in communal houses. Some are very dirty in their habits; others are clean in appearance and in their houses. Inoculated with syphilitic poison and fall an easy prey to consumption. Chronic sores which can hardly be healed are common; sore eyes almost universal. The white man owes to the Alaskan native a large bill to make up for the curse of the civilization he has brought. Polygamy and polyandry previously existed; but one case remains at present. They have been very impure in their social habits and adultery is still frequent. They tell the truth, except where their personal welfare is at hazard. Life is safer among them than among the whites. Theft is uncommon. I would not hesitate to trust them with any sum of money for safe-keeping. They do not think it wrong to cheat a white man in a trade. Drunkenness is less common among them than among the whites. There are very few whites here—not enough to cause any friction among the natives. They make complaint against the canneries taking possession of their streams. I feel that wrong has been done, but can not go into details. Am fearful the homestead law will bring settlers among them. They fear that they will be placed on a reservation. They have been the victims of dishonest lawyers; give improper advice as to their rights and charge them exorbitant fees. They are simple minded and think that any written statement from a white man is a guaranty of title. Education should be compulsory; hospitals should be provided; citizenship should be provided as soon as they abandon

their heathen feasts and potlatches and tribal government; free legal advice should be given by some person worthy of giving it. The homestead law should be extended to them, but its requirements should be lax.

William A. Kelley, superintendent Indian industrial training school at Sitka, says:

The natives of Sitka are self-supporting and anxious to improve their mental and moral conditions. They are teachable and amenable to law and order and worthy of sympathy and encouragement. They are in a stage of transition and handicapped by traditions, environment, and the white man's anxiety for their extinction. In point of sobriety and integrity many of the pupils from our school put to shame those who speak ill of them. The natives of the Copper River are in a pitiable condition and unable by their own efforts to rise from the condition of squalor and poverty. They need food and clothing. The natives of the Kusokwin are in destitute circumstances; their sources of food supply well-nigh cut off. The rights of citizenship should be extended to all respectable, self-supporting natives. To those who have renounced old customs and can read and write should be granted the right to vote. This privilege would be a great incentive to them to educate their children and sever their tribal relations. The totem is the basis of their patriarchal form of religious government. Around the totem is grouped shamanism, witchcraft, potlatches, and other attendant evils.

Dr. J. C. Koosher, health officer at Sitka, says:

During my residence of fourteen years here I have been thrown much into contact with the natives professionally. I have failed to notice any betterment either in his physical, moral, or intellectual condition. If anything, there has been a retrogradation. There are about 1,000 of them here, with an increasing mortality. Tuberculosis and venereal diseases are rapidly divesting their ranks, which is due to unhygienic surroundings and absence of medical advice and relief. The houses are all two-story, consisting of one large room on each floor. The occupants of each room average about 20. Persons affected by tuberculosis expectorate on the floor as a rule, with the inevitable result of contamination of the rest. The excreta of each individual is deposited on the ground close to the house. The interior of the average Indian dwelling is the filthiest imaginable. After deaths from contagious diseases their crowded rooms are never subjected to airing, fumigation, or cleanings in any form. The result is the numerous mortality, but as long as these conditions prevail there will be a gradual increase in the death rate. No water-closets or privies exist. No fresh-water supply is available except from a little ditch in the center of the village, coming from a cemetery, and doubtless passing through many graves. At the end of the village they get a supply from a pipe leading from a swamp where there is a large mass of decomposed vegetable matter. All garbage and refuse is thrown out on the ground before the house, where the accumulation of years and years of filth results in numerous disease-producing organisms, especially of tubercle bacillus, and unless some vigorous measure is adopted very shortly the sick Indian will be a traditional personage.

Congenital deformities are very prevalent, due largely to unskilled assistance during childbirth. They seldom call physicians in these cases. Venereal diseases are very prevalent. I would suggest that a physician be appointed to visit the village semimonthly, armed with authority to make a house-to-house inspection, and to instruct in cleanliness and to demand its enforcement. Consumption can only be eradicated by isolation of those affected. This can only be accomplished by the erection of hospitals.

As shown by the church records, there were among the communicants during the three years 73 births and 95 deaths.

Rev. Alvin Johnson, of the Swedish Evangelical Mission at Yakutat, says:

Our people live by hunting, fishing, and working for the white man. Their morals are not very good. Often sell their girls to the white man. Married women are not faithful to their husbands. Government should, if possible, keep bad white men from the Indians. No white man should be allowed to settle among the Indians. The white men living with Indian women should be made to marry them. More officers to enforce the law are very much needed. It takes too long for officers to come from Sitka or Juneau. We need a law to compel the children to go to school.

W. J. Shepard, postmaster at Orca, says:

With few exceptions they are honest and harmless. Morality not of the best. No schools nearer than 40 miles. Natives depend almost entirely upon the canneries for a living. They naturally drop their hunting and trapping when they learn the white man's ways. Their possessory rights have not been affected here. Schools are needed.

Dr. W. C. Stull, of Valdez, says:

Health of the natives below par; death rate high. Prevalent diseases are pneumonia and spinal meningitis. Urgent needs are food and clothing. Future needs are reservations in agricultural districts. They should be provided with suitable seeds and implements, and taught how to use them. They must succeed in the future by the cultivation of the soil.

Dr. John Tiedmann, formerly of Valdez, says:

With regard to the Copper River Indians, they are, with few exceptions, covered with vermin, poorly nourished and clothed. Tuberculosis is the prevailing disease; death rate about five to one as compared with the whites. Bronchitis is common. Disease due to exposure, poor food, and insufficient clothing. The younger natives should be educated, if necessary, compulsorily. Relief stations should be established, at which medical and other aid might be obtained when necessary. An attempt should be made to isolate those suffering from tuberculosis.

Rev. Ivan Batnovosky, priest of the Græco-Russian Church at Kanai, Alaska, says:

The native population of the Cook Inlet country amounts to 1,064. They live by hunting in winter, fishing, and working wherever they can get employment in the summer. Their hunting grounds have been badly abused by unscrupulous white men, who use poison and other vile means, and the fishing companies bring all their help with them and place large fish traps in the rivers along the coasts, depriving them of employment and of fish for their families in winter. The fish companies take all and give nothing, which seems unfair to honest-thinking people. There is no doctor in this country and no medicine for the natives, except what the church furnishes.

George S. Mearns, postmaster at Kanai, in the Cook Inlet country, says:

Since the Government established schools I have noticed quite an improvement in the children, and even in the grown persons. The relations between the whites and natives seem to be amicable. Since the agricultural experiment station was established here and garden seeds distributed among them gardening has increased to a great extent, and every native family have their vegetables, in some instances growing enough potatoes to sell after supplying their families.

Rev. Curtis P. Coe, superintendent of the Baptist Orphanage and Industrial School, on Wood Island, near Kodiak, says:

For the most part they live in comfortable homes, raise vegetables, such as potatoes and turnips, sufficient for home consumption. They dry and salt fish, which composes the larger part of the food of the poorer people. They work occasionally, but there is no satisfactory work for them. For the most part they are very poor. Virtue is not altogether unknown. They are trustworthy so long as hunger compels them to work, but when they have a little money their desire for liquor gets the better of them.

The relations between the whites and natives are amicable. These people will soon pass away unless some substantial aid is given them. The officials and representatives of the Government should live more decent lives. They should be provided with salaries sufficient to support them and not be dependent upon fees collected. The exact legal status of many of these people should be determined, since those who are descendants of Russian fathers assert their American citizenship and claim the right to purchase liquor. Saloon-license laws should be strictly enforced, if not abolished. The children make good progress in school, and compulsory education should be enforced. Alaska should be divided into school districts and a supervisor placed over each district who would visit the schools. Gratuitous distribution of supplies would induce laziness. I do not believe in rationing the natives except in cases of sickness and dire destitution. Officers similar to Indian agents should be appointed to teach these people in agriculture and stock raising, and the Government should aid them in founding herds of cattle, sheep, poultry, etc. Cattle in many places can live in this locality through the winter without food or shelter. The natives can not undertake this alone, as they are too poor. They should be encouraged in gardening and agriculture. No plans should be adopted which would obliterate family ties. Poultry does well here and could be supplied without great outlay. Cows do well and give large quantities of milk. By careful instruction these people would soon learn to become self-supporting from agriculture. There are many large areas of tillable soil in this locality.

J. G. Kapp, postmaster at Karlack, says:

The natives fish for the canneries during the summer season and some find employment at other times. They hunt and trap in the winter. Their moral status and trustworthiness is not of a high order. They are generally communicants of the Greek Church and have so many holidays to observe that their services are not desirable among the canneries, consequently men are brought in by the companies each season. And again, they are so given to intoxicating drink as to make their services undesirable. The companies usually bring Italians and Chinese, who fetch with them large quantities of very inferior liquor, which is illicitly sold to the natives. The white man takes this vile stuff among the natives for immoral purposes. It has been reported to me that on several occasions the native men have sold the use of the wives to white men for liquor, in one instance one woman to 13 Italians for 1 gallon of liquor, and at other times to Chinamen for a bottle. There are a few natives here who do not use liquor, the chief being one of them, but he is powerless to prevent it among the others. As far as I know, there has been no encroachment on their possessory rights by white men. A strict enforcement of the law preventing the sale of liquor is the greatest need in this locality.

M. R. Brown, postmaster at Apollo, says:

Their condition is generally pitiable. They are diseased and frequently have not enough to eat. Live principally by hunting and fishing. Occasionally some of them are employed in the mines here, but can not be depended upon for satisfactory work;

not so trustworthy as formerly. Morally one can find little fault, except in their loose sexual relations and drunkenness, but in this they are not lower than the white men who lead them into excesses. They all belong to the Greek Church. There is a private hospital belonging to the mine in this town, but it is not open to the natives, although the physician at the mines treats them when called upon. Their relations with the whites are friendly, but not conducive to their welfare. They derive a great deal of their revenue from the sea, formerly from the sea otter, which has almost disappeared. Owing to the location of the mines here, their situation is better than that of their neighbors, whose conditions are most pitiable. Most of them have a morbid appetite for liquor. The only way to help them is to have honest, married, paid police officials. Without medical aid to put them on their feet again but little can be done for them.

Dr. Joseph A. Silverman, of Apollo, says:

Pulmonary tuberculosis prevails among them. The vast majority of my cases have been of a venereal nature. Nearly all of the women have some uterine or ovarian disease, due to sexual excess and lax morals. The only governmental action needed lies along moral lines, and that is needed badly. I have never seen so many people living in open adultery. Could these people be made to lead moral lives and forbidden the use of alcoholic drinks, the health in this community would be good. A commissioner should be appointed at this place, which would be a great help in settling a majority of the troubles here.

Mr. A. W. Newhall, superintendent of the Jesse Lee Home, Unalaska, says:

The Aleuts live in sod huts built partly under ground, containing one small room. Except in villages where white men live they are hunters and fishers, and many of them here find employment in coaling vessels. The moral standard is not high. They are much given to drunkenness, both men and women. When not drunk they are law-abiding, yet are much given to falsehood, though theft is quite rare. Much harm has resulted from the presence of saloons.

Mr. A. E. Bain, postmaster at St. Michael, says:

Their condition and environments rival the filthiness of the Digger Indians. Poor food, worse ventilation, and 10 to 15 persons living in small huts have induced consumption and syphilis, which have become hereditary. It is only a question of time when the race will become extinct. Their principal occupation is fishing and trapping. Many of them are deck hands, laborers, etc., since the advent of the white man. Their sole supply is fish, supplemented by trading skins for a little flour, tea, and sugar, and as the catch of fish this year has been very light there is bound to be great suffering this winter. The condition has never been as bad as now, there being no work for them during the winter. The moral status is good and they are docile and peaceable. The whites have treated them with justice and moderation. Schools have been recently established and the progress of the young is astonishing. If all of these natives were gathered and planted in the Tanana or some other agricultural district and there taught to work in the right way, it would only be a question of time when they might be self-supporting. This, to my mind, seems the only feasible plan of saving them from extinction.

Lieut. L. M. Hathaway, assistant surgeon of the army post, Fort Davis, at Nome, says:

The natives are not of a robust type, and being a small child-like race, do not know how to provide against the hardships of life in this rigorous climate. Their

food is often insufficient, consisting chiefly of fish, salt fish, and oil, with some game and whatever they can get from the white man. They are very filthy and live crowded together in tents during the summer and sod huts during the winter, the latter having no provision for ventilation, the one object being to keep out the cold. The poor and insufficient food, over-crowding and vile air, and the intense cold predispose the contraction of many diseases and render them very feeble. There is evidence to show that the native population was formerly much larger in this vicinity than at present. The beach is dotted with the remains of sod houses, and at Safety Harbor there is an old burial ground four miles long, over which their graves are thickly distributed. During the years 1836 to 1840 smallpox prevailed extensively among them and has occurred periodically since then. The scourge of the race is tuberculosis, which prevails in pulmonary and other forms. Pneumonia and bronchitis are very prevalent, and rheumatism, typhoid fever, and measles often occur. Venereal diseases are fairly prevalent. Many other diseases exist among them, but the ones mentioned, together with starvation and the effects of the intense cold, appear to exert the greatest influence in decreasing their number. It is difficult to see what action the Government might take for their betterment. They are a roving race and would not do well if restricted to reservations, though stations for the issue of rations might be provided and placed in charge of reliable agents, and a hospital be provided for the treatment of the sick.

Dr. Edward N. Hill, health officer for the city of Nome, says:

The principal cause of death is tuberculosis and next come bronchitis and kindred lung troubles. They succumb very quickly to any kind of lung trouble. There should be a law making the sale or giving of whisky to them a felony, as nearly all of their troubles are attributable to whisky. I am a drinking man myself, but say without fear of contradiction that whisky is the curse of the natives. The death rate exceeds that of the whites here 50 per cent. There should be appointed at once some reliable man who understands the native language, as a sort of agent for the natives on this coast, with power to send to the commanding officer of the army post such natives as are needy, for rations, or who should be given a stock of goods to trade with these Eskimos who should wish to trade. They are a kindly disposed people, grateful for what is done, but lack order, and are very shiftless.

Dr. A. L. Derbyshire, assistant surgeon, Marine-Hospital Service, Nome, says:

I have found them to be tractable and appreciative, and with proper handling they might become self-supporting and useful. During the summer months they manage to subsist comfortably, but fail to provide for the long winters. Fishing and hunting stations might be provided at suitable places along the coast and the natives supplied with implements and a portion of their products retained by the agent and stored in warehouses, to be issued to them when needed or sold for their benefit. Proper food, shelter, and a liberal supply of soap and water would simplify the medical question. Contracts should be made with established hospitals at reasonable rates, or the hospitals at Fort Davis or marine hospital here kept open continuously for their benefit. The prevailing diseases are those incurred from too intimate association with civilization, such as syphilis, tuberculosis, parasitic skin diseases, and ailments produced by change of diet and habits of life. Measles carries off numbers of them. Pneumonia and la grippe are prevalent at times. Should smallpox get a footing it would make havoc. There should be some provision for compulsory vaccination.

Hugh J. Lee, United States commissioner, Wales, Alaska, north of Nome, says:

There are about 500 natives in this vicinity. The principal vocation is hunting and fishing. In 1902 eight whales were caught, which made food plentiful during that year. During this season no whales and but few walrus have been caught, with the result that all but two or three families have left the village—gone mostly to Nome to trade in curios—for the purpose of getting as much white man's food for the coming winter as possible. They did not leave here until after all chance of killing walrus had passed. They are more thrifty here than those nearer the centers of civilization. One native here has a store, which he manages himself, and is quite a business man. Their code of morals would hardly do in some parts of the United States. They marry and live together for a time and then change. They take wives, as it were, on probation. If satisfactory, well and good; if not, they try another. In a great number of cases they leave their first wives, but they find congenial spirits and live together. Middle-aged couples seldom separate. They are trustworthy in every way. I would not hesitate to send any amount of money by them. Their rights are not interfered with, except in the matter of drift wood. It is a custom among the natives to lay one log of drift wood across another, or to stand it up against an old stump or rock. That means that it is taken, and no native except the one who places it there would take it. The white man does not recognize this right, and when he takes the wood in this condition the native thinks he is stealing. When they live about white settlements they form a desire for white man's food, and failing to lay up a supply they become tramps in winter, and are a nuisance to the white man. We have a reindeer herd of about 1,500 here, about half of which belongs to the natives. I am told that the natives 75 or 100 miles up the coast are without food now (September 12, 1903), and I fear that the natives who have left this village to trade will not secure food enough to last them through the winter. I think the reindeer business, properly carried on, would be a good thing for the natives. I was in Greenland in 1893, 1894, 1895, 1896, and 1897, and saw a great deal of the natives, who are just like these. The government there cares for the natives while running commercial companies which buy all furs, oils, etc., so that the natives get goods at cost, and they get full value for their produce. While the Danish Government does not make money out of it, it is not making paupers out of the natives. It might be a good plan in Alaska.

The superintendent of the Holy Cross Mission, the largest mission on the Yukon River, and one of the largest in Alaska, says:

Universal poverty exists among the natives here, caused by the conditions of the country and the character of the people themselves. Fishing, hunting, and trapping are their principal vocations, but trapping yields meagre results in this district. They chop wood for the steamboats, but this is on the decline, as the available timber is nearly all used, since navigation increased in 1898. A few men work as deck hands on the steamers for a couple of months in the summer. Small stores supply flour and other imported provisions to those who have money, skins, or wood to give in exchange. However, to many the high cost of store articles renders them unattainable. Flour is \$20 a barrel, and other goods in proportion. They are easily spoiled with contact with the whites. They were originally honest, trusty, peaceable, and moderately industrious, but contact with the whites has made them gamblers and drunkards, and many of them are thieving, licentious, idle, and quarrelsome. The custom of white men taking native women for temporary wives is very demoralizing. The officers are too far away to enforce the law. The destruction, to a large extent, of the most available timber was where the white wood choppers

have greatly injured the natives in this barren, frigid country. The proposed establishment of fisheries and canneries at or near the mouth of the Yukon and Kuskokwin rivers, would be a fatal blow to them. The seduction of native women is very general. A reservation of timber lands and fishing grounds should be made for them. The appointment of a surgeon or physician is also needed. They should be given free entrance into military hospitals. The writer speaks from long experience in the country, having had no other employment but the uplifting of the natives. This mission furnishes what medicine it can, but it is not properly supplied. Liquor licenses should be withdrawn and refused. Licenses to sell to whites only is exactly the same as a license to sell to the natives. The shaman, or medicine man, should be suppressed. They are the worst enemies of civilization. Tools for farming and seeds should be furnished, and they should be encouraged to till the soil. This is a very important feature. They should be supplied with food and clothing when absolutely in need, but this should be given prudently. If possible some work should be required for them. Too free giving makes them lazy. They are continually sick from lack of proper food, scrofulous, and largely consumptive. Many of them are blind and crippled. Rheumatism is widely prevalent. Large supplies of cod liver oil are very much needed. Pestilence in 1900 swept away 30 to 50 per cent of the entire population of this section. It is full of broken families.

Rev. John W. Chapman, Episcopal missionary at Anvik, on the Yukon River, says:

There are something over 500 natives in this vicinity. I have lived among them for sixteen years. There are few white people here. They used to live almost entirely upon fish, game, and berries, with a small supply of native roots. The most important food supply at present is the salmon run in summer. When the run of salmon is small, their living is precarious. Their methods of fishing are not destructive. The establishment of canneries at the mouth of the Yukon might result in great distress. They need fish, both for themselves and their dogs. Ordinarily the people are able to support themselves, especially since the coming of the whites has furnished greater demand for their labor. Their industry is commendable and intelligence as workmen fair. Ingenuity with the use of tools—their underground huts have mostly been replaced by cabins, even in remote villages. Their morals are about like those of the average white community in the States. Drinking is confined to a few individuals, and gambling, except in a very trifling way, is practically unknown. Brawling is uncommon. The power of the shaman is partially broken. There is some deceit and petty thieving among them. Illegal births are uncommon, and the number of really depraved men and women probably small. They observe the marriage relations fairly well. Only three divorces have resulted from the 53 marriages performed at this mission. We have been fortunate in the character of the white men who have located here—generally men of good disposition. There has been no interference by them, either with the possessory or domestic rights of the natives, with one exception. Difficulties of this character come mainly from transients. We need a commissioner at this place. They should be encouraged in agriculture, and an agricultural experiment station should be located here, with a herd of reindeer. The United States commissioner should be a salaried officer, and not tempted for the sake of fees to magnify petty offenses. The natives should not be supported at public expense.

Mr. H. R. Montfield, postmaster and manager of the North American Transportation and Trading Company's stores at Fort Yukon, says:

I have resided here nearly four years, and am in close touch with the natives, as most of our business is with them, and feel fully qualified to give information. This is the central point for about 400 natives. They fish, hunt, and trap; live in cabins

of log construction. The advent of the white trapper and miner has curtailed the supply of game. It is only a matter of time when they will have to seek other means of support. As a rule they are honest, and settle for goods they buy when they are successful in hunting. The fishing this season (1903) is a failure, as there have been little or none caught here; in consequence of which the dogs, their only means of transportation, will probably starve. Immorality and trustworthiness are about the same as the usual run of natives. No schools are maintained here. A hospital, school, and home should be established, and an agent should be appointed to look after the natives of the Yukon Valley, especially for the orphans and old people. A reserve should be set apart for them, though not a compulsory one.

L. P. Thompson, postmaster at Eagle, Alaska, says:

Morally they are good, fairly trustworthy, live by hunting and fishing. Schools should be established for them, and their hunting and fishing grounds protected.

Dr. C. A. Trenholtz, surgeon, formerly stationed at Fort Egbert, Eagle, Alaska, says:

For two and one-half years I was in constant touch with the natives. The prevailing diseases among them are tuberculosis in every form, including scrofular, pulmonary, meningeal, and peritoneal. The death rate is very high and they are rapidly becoming extinct. The locality is a very healthy one for white people. I have seen several native families, in one case consisting of 6 and another of 12 persons, entirely wiped out by tuberculosis. They are filthy in their habits—expectorate all over the floor, and thus readily contract the disease. The blankets, etc., of the dead are distributed among the living relatives, and these are fruitful sources for spreading the disease. I saw two epidemics of measles during my stay in Alaska. The mortality was low. The most disastrous results of these epidemics were, in a large number of cases, tuberculosis. They do not seem to suffer the want of food, as hunting and fishing are good, unless sickness strikes the family. They never prepare for a rainy day. I would suggest that they be put in clean, uninfected cabins, and that they be taught cleanliness from a sanitary point of view. This could only be done by constant care and vigilance of an agent for each village. Of minor importance is that provision should be made for medical attendance and the supply of necessary medicines.

Mr. R. Blix, of the Copper River Mining, Trading and Developing Company, Copper Center, says of the Copper River Indians:

There are 250 or 300 natives in this vicinity. Their means of support in the past was salmon and game, but since canneries have been built at the mouth of the river, and the prospector has come to the valley, both salmon and game are very uncertain. The condition of these natives during the winter season is often most pitiable—many of them on the verge of starvation. They are a people anxious to learn the white man's ways and crave white man's food. They are apt to learn, and most of them will work when properly nourished. There are some sick ones not able to work. I would not advise giving food to them, except in cases of old age and sickness. I would strongly urge that the Government make some provision whereby they may obtain necessary flour, sugar, etc. Flour is 30 cents a pound here; other things, 35 cents a pound. If these people could purchase food here at a little more than Valdez prices, they could make money enough for a fair living. They could then be taught to raise vegetables, as well as hunt and fish, and could be brought at once to be self-supporting. They have no means of getting provisions from Valdez except as they pack it on their backs, and by the time they reach Copper Center all a man can pack has been eaten on the way. The Government should make arrangements to sell them the necessary food at cost. They should be permitted to purchase only

what they need for their support. They should be permitted to hold lands and mining claims the same as white men. The children learn rapidly in school. They are in constant fear of starvation. They need help at once of the kind indicated, and such help would greatly aid efforts in their behalf.

Rev. G. S. Clevenger, in charge of the Baptist mission at Copper Center, says of the Copper River Indians:

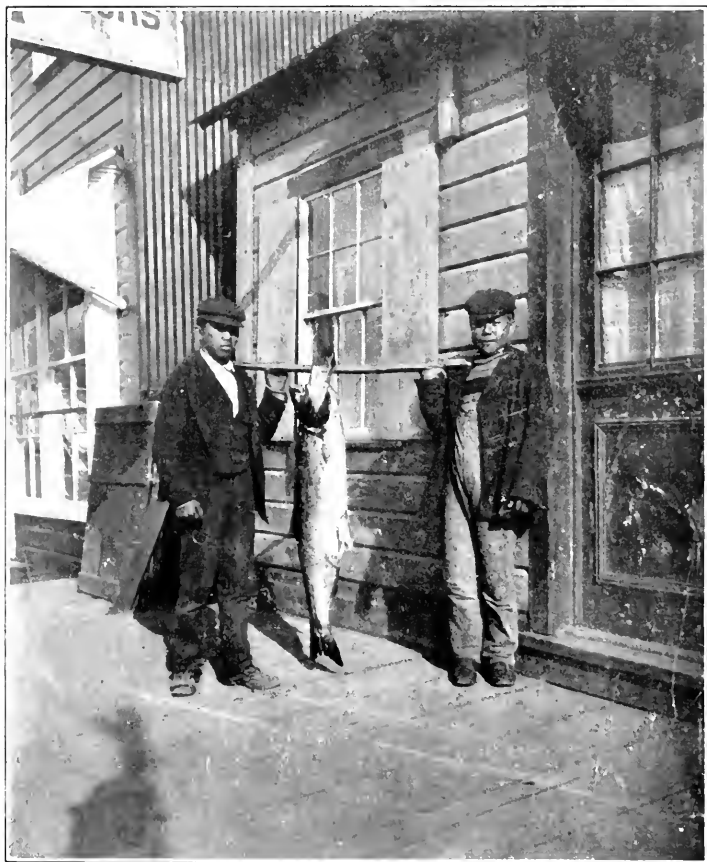
They are anxious to learn the white man's ways. Dress as white people as far as they can. There are possibilities in these people which should be developed. Their fish and game are now uncertain. They must have some white man's food to help keep them from hunger. The cost of provisions is very high here—flour, 30 cents a pound; sugar, 35; other things in proportion. He can not carry his food from Valdez on his back, because he would start with only a supply sufficient to bring him here. I strongly urge that the Government permit the natives to buy a limited quantity of food from the commissary here at Copper Center, at actual price of getting it here. It is not wise to give them food, but make the price so that they can make a living. They are kind, as a rule. They should be permitted to take lands as the white man does. The most urgent need is cheaper food.

ALASKAN FISH AND FISHERIES.

This subject comes more properly under the supervision of the Secretary of the Treasury and the Commissioner of Fish and Fisheries; yet in its economic relations, and in so far as it affects the natives, it is one in which the Department of the Interior is interested, and for that reason I beg to submit a report on partial and hasty investigations along these lines, pursuant to instructions, leaving to the representatives of the Commission and of the Treasury Department the task of reporting on closer inspections.

While the fisheries of Alaska constitute one of its principal, if not its largest, individual source of wealth, they make small contribution to its material development, for the reason that their activities extend over but a short period of time during the year, and for the further reason that they are to a large extent operated by nonresidents of that district. Their plants are scattered along the coasts, but few of them in the immediate vicinity of the centers of population. Their supplies and much the larger part of their employees are brought with them from the Pacific coast States, and the larger part of the wages paid are carried back by these employees to those States, but little being left in Alaska. Of the 77 plants operated in Alaska in 1902, but few of them had their headquarters there, or were owned by Alaskans, and of the \$6,406,750 invested in this enterprise, but \$83,500 belonged to the Alaskan concerns, and of the 13,822 hands employed only 446 were employed by them. The industry is, however, one that makes large contribution to the general good, and is one that should be carefully studied, zealously guarded, and promoted to the greatest possible extent by all legislation which will tend to advance its interests.

Agricultural Prospects of Alaska.



THLINGET FISHERMEN.

Salmon canning and packing constitute by far the most important part of Alaskan fisheries, although halibut, herring, and cod contribute in some measure to their total output, and if properly fostered would undoubtedly prove another fruitful source of wealth. The first attempt at salmon canning in that district was made by the Cutting Packing Company, with an establishment near Sitka, in 1878. This beginning has been followed by numerous other ventures until 1902 found 77 plants—canneries and salteries—in active operation. The annual output has grown from 14,854 cases in 1878, valued at \$59,416, to 2,631,320 cases and 25,384 barrels in 1902, valued at \$8,667,673. The total value of the salmon fisheries alone from 1878 to 1902, inclusive, amounted to \$58,307,792. The magnitude of this business can be more fully appreciated when it is remembered that the output of the salmon plants in 1902 exceeded by \$1,563,273 the estimated output of all the Alaskan gold mines for 1901, and that their output since 1878 is nearly \$20,000,000 greater than the output of gold for the twenty-one years preceding 1902.

The companies operating in Alaska in 1902 were capitalized at \$25,799,500, and the plants themselves, with their equipments, were valued at \$6,406,750. This excess of the capitalization over the amount actually invested is an unfortunate feature in the enterprise, and this overcapitalization, with other causes, has had its effect, as we shall see further on. The growth in this industry since it began in 1877 can be seen from the following table:

Amount and value of salmon packed in Alaska from 1878 to 1902, inclusive.

| Year. | Canned salmon. | Salted salmon. | Combined value of canned and salted salmon. |
|------------|----------------|-----------------|---|
| | <i>Cases.</i> | <i>Barrels.</i> | |
| 1878..... | 14,854 | | \$59,416 |
| 1879..... | 12,560 | | 50,240 |
| 1880..... | 13,198 | 2,079 | 72,107 |
| 1881..... | 16,719 | 1,760 | 82,716 |
| 1882..... | 24,652 | 5,890 | 151,618 |
| 1883..... | 42,056 | 7,251 | 230,183 |
| 1884..... | 66,810 | 6,106 | 322,311 |
| 1885..... | 69,100 | 3,230 | 301,470 |
| 1886..... | 126,735 | 1,861 | 550,689 |
| 1887..... | 175,664 | 3,978 | 738,458 |
| 1888..... | 350,839 | 9,500 | 1,188,856 |
| 1889..... | 696,732 | 6,157 | 2,816,912 |
| 1890..... | 682,332 | 7,300 | 2,808,000 |
| 1891..... | 789,291 | 9,000 | 3,238,000 |
| 1892..... | 685,343 | 12,000 | 2,760,000 |
| 1893..... | 646,345 | 21,000 | 2,560,000 |
| 1894..... | 675,011 | 22,011 | 2,640,000 |
| 1895..... | 619,379 | 18,000 | 2,375,000 |
| 1896..... | 949,645 | 10,000 | 2,383,757 |
| 1897..... | 909,538 | 15,888 | 2,977,019 |
| 1898..... | 1,028,317 | 20,000 | 3,704,000 |
| 1899..... | 1,115,379 | 23,582 | 3,843,731 |
| 1900..... | 1,602,899 | 19,909 | 6,380,000 |
| 1901..... | 2,076,661 | 18,887 | 7,075,000 |
| 1902..... | 2,558,297 | 25,384 | 8,667,673 |
| Total..... | 15,948,419 | 217,073 | 58,307,792 |

The business is at present under the control of two large companies—the Alaska Packers' Association, of San Francisco, and the Pacific Packing and Navigation Company, with headquarters at Seattle. These two companies in 1902 packed more than two-thirds of the entire output. The Alaska Packers' Association has been in the field with well-equipped plants for a number of years, and was without competition, except from the smaller establishments, until 1901, when the Pacific Packing and Navigation Company was organized under the laws of New Jersey, for the announced purpose "to consolidate into one corporation the properties and privileges of those companies and firms, thereby controlling about four-fifths of the canned salmon product of the world." This company entered the field with a capitalization of \$12,500,000 and attempted to absorb all of the Alaskan plants, but failed to secure the properties of the Alaska Packers' Association and of a number of the smaller establishments. There were 77 in operation, and it operated but 14 plants in 1902, valued at \$1,243,000. It failed to acquire the property of the 21 plants owned and operated in that year by the Alaska Packers' Association, valued at \$3,000,000. The Alaska Packers' Association demanded a cash payment for its property at its own valuation, and while the new company was willing to promise payment of the amount demanded, it refused to make that payment in cash, offering only to pledge a part of the proceeds of the season's pack, to mortgage the property purchased, and transfer stock to the old company. It is said that many of the smaller plants absorbed were paid for in this manner, much to the detriment of the original owners, for the new company soon became involved and some of the persons who accepted its obligations in payment for their property have been ruined financially by its subsequent embarrassment. As soon as the new company entered the field strong competition sprang up between it and the Alaska Packers' Association. The larger part of the Packers' Association's products was packed in southwestern Alaska, where Red and King salmon, the more valuable species, are abundant. It was already in the field, fully equipped, with an established business and a thorough organization when its new competitor appeared, embarrassed by heavy indebtedness, to operate plants many of which were situated in southeastern Alaska and other localities where the more valuable species were scarce. The conflict was an unequal one, with conditions largely in favor of the Alaska Packers' Association, and it is not strange that, under the circumstances, the new company became embarrassed, and that we found its affairs in the hands of a receiver last summer.

Some of the causes which affected the business of the new company and also embarrassed the smaller packers in southeastern Alaska, where Pink and Humpback salmon abound, and where the more valuable species are scarce, may be seen from the following:

Number of salmon taken from Alaskan waters in 1902.

| Name of company. | King. | Red. | Silver. | Pink and Humpback. | Total. |
|---|---------|------------|---------|--------------------|------------|
| Alaska Packers' Association | 83,975 | 13,528,280 | 316,811 | 2,758,992 | 16,688,091 |
| Pacific Packing and Navigation Co. | 61,476 | 4,326,501 | 111,887 | 4,116,772 | 8,616,635 |
| Forty-three smaller companies..... | 52,225 | 5,070,581 | 198,920 | 5,628,603 | 10,950,329 |
| Total | 207,676 | 22,925,362 | 627,651 | 12,504,367 | 36,265,056 |

It has been urged that the Alaska Packers' Association has been able, by the facts shown in this statement, to manipulate the market and force the price of the Pinks and Humpbacks so low as to discourage their output. Mr. J. A. Kerr, receiver for the Pacific Packing and Navigation Company, says:

Red Alaska salmon opened this year at \$1.30 a dozen, and the Alaska Pinks are quoted at 50 cents per dozen. This difference in price has never been known, and it is possibly the result of the attempt of the Alaska Packers' Association to break down the canneries in southeastern Alaska.

I am not sufficiently informed on the subject to assert that this is a fact, but an analysis of the foregoing tabulated statement will tend in some measure to show that it was possible for the Packers' Association to accomplish this result. From that statement it will be seen that of the 22,925,362 Red salmon taken the Alaska Packers' Association took over 13,500,000, while of the 12,502,367 Pinks and Humpbacks it took less than 3,000,000 at its 21 plants, while the 43 plants owned and operated by smaller companies took 5,070,581 Reds, or less than one-fourth, and, on the contrary, took 5,628,602, or nearly one-half the entire catch of Pinks and Humpbacks. In connection with these figures it is well to remember that more than 88 per cent of the Reds and Kings were taken outside of southeastern Alaska. It will be observed that the Alaska Packers' Association took 2,758,992 Pinks and Humpbacks, which, with their excessive holdings of Reds and Kings, would seem to enable them in some measure to control the market.

Whatever may have caused this unprecedented decline in the price of the lower grades of salmon, it is safe to say that it is greatly injuring the smaller individual packers, who are forced to fish for these cheaper grades. This was evidenced from the fact that some of the plants in southeastern Alaska were not operated at all last summer.

It is urged that the ability and disposition of the larger companies to monopolize the patented labor-saving devices serve to injure the individual operative, and it is plainly apparent that the present system of taxation places a heavier burden upon the packers of the cheaper varieties than upon the large companies, who pack most of the valuable salmon, since there is a fixed tariff of 4 cents a can and 10 cents per

barrel, regardless of the value of the fish. This would also give an advantage to the larger establishments over the smaller ones.

Mr. George E. King, whose testimony is attached hereto, suggests another reason for the present embarrassment of the plants engaged in the salting business. He says:

The trust or syndicate which has imposed the heaviest burden upon the salters for the present and past two seasons is the so-called salt trust, properly named, we understand, The Federal Salt Company. The price of salt in Seattle for 1901, 1902, and 1903 has been nearly three times that of 1900.

In so far as the effect of the fisheries of Alaska upon the natives is concerned, I find a diversity of opinion. There is some complaint to the effect that the canneries, particularly in certain localities, tend to lessen the food supply of the natives, while this is denied by others. My opportunities for personal observation were not sufficient to justify the expression of an opinion on this subject. It is undeniable that the employment which the canneries have opened to the native is greatly to his benefit and affords him a new source of income. I am impressed with the idea that all well-disposed and industrious natives have no difficulty whatever in securing employment during the fishing season. This is plainly apparent from the fact that the scarcity of laborers in that locality creates a great demand and has recently caused an increase in the price of wages. There is no reason why the operatives would not employ native labor whenever it is reliable and can be depended upon. It must be remembered that the fishing season is short; that the canneries, particularly the larger ones, must have reliable employees, especially for the operation of the cannery itself. This fact and the well known industry and fidelity of the Chinese laborer have resulted in filling most of the canneries with Chinamen. During the season of 1902 13,882 hands were employed. Of these 5,576 were Chinamen, 5,767 were whites, and 2,679 were natives of Alaska. That well-disposed natives can always secure employment is shown by the fact that some of the larger companies operating in different sections employ a great many natives at some of their establishments and none at others. For instance, we find the Pacific Packing and Navigation Company at Orca, Chignik Bay, Kenai, Uyak Bay, and Nushagak River plants employing 1,262 hands, not a single one of whom is reported to have been a native, while at their Hunters Bay cannery 150 out of 280 hands employed were natives, and at Metlakatla of the 151 people employed 150 were natives. No other conclusion can be reached but that the Aleuts, who inhabit the regions of the canneries first named, are not as reliable as the Hidahs, who are employed at the Hunters Bay cannery, or the Tsimshians of Metlakatla. Nearly all the companies and operators claim that they offer all possible encouragement and inducement in the way of instructions and otherwise to induce the natives to enter their employment.

GOVERNMENT HATCHERIES.

As has already been said, so fruitful a source of wealth as the Alaska fisheries should receive all possible encouragement, and this fact leads to the inquiry as to whether or not the Government should make an active effort to continue the supply of fish in Alaskan waters. The fact that more than 36,000,000 of one species, salmon, are taken in the short space of a few weeks shows that nature has given a bountiful supply, and the Government should certainly not stand by and see that supply exhausted.

Under the present regulations, it is incumbent upon the persons operating canneries and fish-packing establishments in Alaska to plant each year in the waters of that district ten red salmon fry for every fish taken by them during the season. This requirement is made to prevent the extermination of this the most valuable fish of the Alaskan waters.

In order to do this under present conditions, hatcheries must be maintained by individual operators, and past experience has shown that this plan has not proved satisfactorily successful.

The Alaska Packers' Association conducted two hatcheries in 1902—one at Karluk, Kodiak Island, and one at Naha Stream, near Loring, on Revillagigedo Island. From these hatcheries it planted 52,500,000 fry, or 114,380,910 less than it was required, its catch having been 16,688,091 fish.

The Pacific Packing and Navigation Company maintained three hatcheries—one at Freshwater Bay, one at Lake Hetta, and one at Quadra Bay—from which it planted only about 8,000,000 fry, when it should have planted 86,166,350, having taken 8,616,635 fish.

Not only did these large companies thus signally fail to meet the demands upon them, but many smaller operators made no attempt whatever to do so, because of lack of means and lack of natural facilities arising from the unfavorable location of their packing plants. On this subject Mr. Howard M. Kutchin, special agent of the Treasury Department, who has had long experience and has an intimate knowledge of these matters, says:

There has been pointed out in these reports (his reports to the Treasury Department) from time to time that local, climatic, and pecuniary conditions must fatally interfere with anything like a universal enforcement of the departmental regulations requiring each packer and salter to restore to the streams fished a given ratio of salmon taken. What these difficulties are may be realized when it is stated that fish culture is a scientific field of effort requiring special training and practical knowledge on the part of the hatchery operator, and that few or none of the persons engaged in the business of packing salmon are competent to pursue it, and that trained men are not to be easily procured; the local situation of many of the packing plants does not offer the necessary hatchery sites, with suitable grounds for buildings, pure water, and other essential adjuncts; that in some portions of the district, notably in southeastern Alaska, at least ten to one of the streams fished do not flow from fresh-

water lakes and are consequently useless for the planting of Red Salmon fry; that several of the canneries and nearly all of the salters do so small a volume of business that the meager profits absolutely preclude the greatly disproportionate expense of maintaining propagating plants.

The fear that the Red salmon, the most valuable of all Alaskan fishes, will eventually fail from its waters creates an urgent demand for artificial propagation, and so far as I was able to learn while recently in Alaska there is a strong necessity for governmental action in the matter. The forthcoming reports of the Fish Commissioner and of the Treasury Department on this subject, as I am informed, show a falling off of this season's catch from that of last. The total catch of last year was 36,265,056, and of this 22,925,362 were Red salmon. On this subject I again quote from Mr. Kutchin's last report of last year, as follows:

It has been my constant plea, reiterated so often that I hesitate to repeat it, that the intervention of the Government in salmon culture in Alaska is imperatively required to save these great fisheries from ultimate extinction.

As far as I was able to learn while in Alaska the operators there are apparently unanimous in the desire that the Government should assume control of and operate these hatcheries.

TESTIMONY TOUCHING CONDITIONS AND NEEDS OF ALASKAN SALMON FISHERIES.

I hereto attach testimony given by a number of the principal operatives, which will show present conditions and needs and give some idea of the relations existing between the packers and the natives. The same questions were propounded to each of them, but these questions are here omitted from all the statements except the first.

O. P. BROWN, special agent, Tonka, Alaska, Pacific Coast and Norway Packing Company:

1. Q. Please state your name, post-office address, and the name of your company.—A. O. P. Brown; Tonka, Alaska; Pacific Coast and Norway Packing Company.

2. Q. Please state the nature of the business in which your company is engaged, the length of time it has been in business, the number and kind of establishments operated by your company in Alaska, the location and average annual output of each of them.—A. Canning and salting business. We have been in operation three years and are now in our fourth year. We have just the one location, at Tonka, Alaska. Our output for 1900 was about 600 barrels of herring; for 1901, 1,000 barrels of herring and 20,000 cases of salmon; for 1902, 1,150 barrels of herring and 35,231 cases of salmon.

3. Q. Do you consider the present tax imposed by law equitable and just; and if not, why not? Suggest some needed change.—A. We consider the present tax imposed by law as being all right in regard to Red salmon, but think that there should be a reduction of one-half of this tax on the cheaper grades of fish, as it works a hardship on the canneries in southeastern Alaska, who can and salt a larger per cent of cheap salmon, while the canneries to the westward have all Red salmon, which brings a higher price in the market, and at the present time pay the same tax as the canneries that put up cheap fish, which sells for one-half the price of Red salmon.

4. Q. Would it be advisable for the Government to require all persons engaging in either the business of catching, canning, or salting fish from Alaskan waters for the market to be either natives of Alaska, citizens of the United States, or persons who have declared their intentions to become citizens?—A. We think it would be a good plan.

5. Q. Would it be advisable for the Government to limit the annual catch of fish in Alaskan waters? If not, why not?—A. We think it would not be a good plan for this reason: Some years there is an extra heavy run of fish, and in such years there is a great number get up in the streams to spawn; and take it in a year such as 1902, when there were heavy rains and a great number of the fish got up in the streams before they got a chance at them with the seines.

6. Q. Would it be advisable for the Government to maintain hatcheries in Alaska for the purpose of selling fry to persons engaged in the business at the cost of production for restocking the waters?—A. We think that if the Government would maintain hatcheries in Alaska and sell fry to the canneries and packing plants at the cost of production that there never would be a shortage of fish in Alaskan waters. We also think that the Government should not only maintain hatcheries but should place the fry in the streams and not leave it to men who never had any experience whatever in such work.

7. Q. What per cent of the labor in and about your establishment is performed by natives of Alaska?—A. About 50 per cent.

8. Q. What per cent of the fish consumed by it are caught by them?—A. Seventy-five per cent.

9. Q. Please state why a larger number of natives are not employed?—A. We could not get them this year.

10. Q. Do you find the natives sober, industrious, and trustworthy?—A. The majority of them are so.

11. Q. What methods do the natives use in catching fish?—A. Beach seines, purse seines, and gill nets.

12. Q. Does your company furnish them with nets and give them instructions in modern and improved methods of taking fish?—A. We do.

13. Q. Do you pay them stated wages for fishing, or do you buy their catch?—A. We buy their catch.

14. Q. Have the natives in your community had any controversies with the white men over fishing streams or other property claimed by them? If so, please state fully the names of both the natives and the white men and give the circumstances in detail.—A. None whatever.

15. Q. Would it be advisable for the Government to set aside and reserve certain fishing streams for the sole use of the natives; and if not, why not?—A. No; for this reason: The natives are a peculiar people. If they had the control of a stream and it was overrun with fish and they took a notion that they did not want to fish or that they wanted to go hunting for two or three weeks, those fish would all go to waste. Another reason would be that it would give a chance for one or two canneries to buy up these natives and get sole control of the streams, and as there has never been any controversies in this section that we know of, we think it advisable to leave all streams open for anyone to fish.

The cannery men in general in southeastern Alaska prefer the Indian fishermen to the white fishermen, and any Indian who wishes to work, either in the cannery or fishing, does not need to be idle in the summer time. We understand this year that there are a number of canneries that are short of natives for their work. We could have used 20 to 30 more Indians at this place if we could have got them. In reference to what effects the formation of large companies has had on the business of the small canneries and the natives employed in fishing, would say that we do not think they have been injurious at all here in southeastern Alaska. If anything the

larger companies have been a benefit to the natives, as it has given them plenty of work to do, whereas the smaller companies do not use any native labor, but do the salting and fishing themselves.

16. Q. Please suggest any law or regulation which would in your judgment tend to advance the fishery interest or better the condition of the natives.—A. We think that there should be several changes in the present law regarding salmon fishing.

First. The season should open June 20 instead of July 1, as there is a very light run of spring salmon after June 15, and we understand from the people living near the streams where the Sockeye run that there was an early run of Sockeye this year, and we know that on Stikine River our first day's fishing was about the heaviest we had, and we think it was a mistake in having the season closed till July 1.

Second. We should have a closed day on Sunday instead of Saturday, as the Indians think it strange that we send missionaries here to teach them to keep the Sabbath and to Christianize them and then, when they come to fish for the white people, the white people say that the Indians must fish on Sundays or they will not give them boats or seines. The writer knows of instances here where the Indians have refused to work on Sunday.

Respectfully,

PACIFIC COAST AND NORWAY PKG. CO.,
By O. P. BROWN, *Special Agent.*

WILLIAM DUNCAN, missionary in charge of the Metlakatla native settlement:

1. Q. Do you consider the present tax imposed by law upon fish products equitable and just?—A. As the canning of salmon is the only fish industry we undertake at Metlakatla, I confine my answer to the tax on canned salmon only.

The tax is 4 cents on every case packed. Now, while it does not become me to question the justice of the tax, yet as to its being equitable I have my doubts, inasmuch as the tax does not discriminate between the high and low grades of the salmon packed. For instance, a case of salmon which sells for \$1.50, or even less, is taxed the same as a case selling for \$4. This anomaly will appear more clearly in comparing a pack of 20,000 cases of high-grade salmon, worth \$80,000 (and fairly remunerative), and the same quantity of inferior grade selling for \$30,000 (yielding little or no profit), yet each taxed the same amount, viz, \$800. For the tax to be equitable, I think it should be levied on the market value of each grade.

2. Q. As to whether none should be permitted to engage in the fishery business of Alaska other than natives and citizens, I would leave for those to decide who are versed in diplomacy.

3. Q. "Would it be advisable for the Government to limit the annual catch of fish for the market in Alaskan waters? If not, why not?"

This question suggesting legislation for preventing the depletion of salmon life in Alaskan waters is a very good one, and one with which I entirely agree. I would recommend the limit to be 30,000 cases (cases rather than salmon, as the latter vary so much in size in different streams) to a cannery, and also that no more canneries be allowed in southeastern Alaska than those already in operation. As a further protection to the salmon, I would suggest a limit for the size of the nets used, and that every fisherman should have a license, to obtain which he should take oath to fish only in accordance with the law. The close season each week, I sincerely hope, will be changed from Saturday noon to midnight Sunday, to promote Sabbath observance.

4. Q. "Would it be advisable for the Government to maintain hatcheries in Alaska for the purpose of selling fry at the cost of production to persons engaged in the business of furnishing fish for the market?"

I fully indorse this suggestion. To me it appears the only satisfactory solution of the hatchery question, and the best guaranty for success.

Questions 5 and 6 ask what per cent of our labor is performed by natives, and what per cent of the fish we use are caught by the natives. My answer to both of these questions is, 100 per cent.

So that question 7, which asks why a larger number of natives are not employed, does not, therefore, apply to us.

Question 8 is, "Do you find the natives sober, industrious, and trustworthy?" To this question I hope to reply fully in another letter, which I purpose writing you on the present condition and prospects of the natives.

Questions 9 and 10 ask what methods the natives use in catching fish, and whether we furnish them with nets.

In answer to these questions I have to say that for many years past our people have been experts both in making and using the nets we supply them.

Question 11 is, "Do you pay them stated wages for fishing, or do you buy their catch?" Answer: Both these methods are used; the natives fish in companies, and nearly all prefer selling their fish, but when a company is doubtful of success they prefer to work for wages, and get \$2.50 a day.

Question 12 asks if our natives have any controversy with white men over fishing streams. My answer is, not at the present time. The trouble one frequently hears of is between native and native, the one arrogantly asserting his exclusive right to a certain stream, which the other native denies. This is partly due to the change which the law of the whites has made upon the Indian's mind in regard to inheriting property. An Indian's heir is his nephew. The whites' heirs are sons.

H. BELL-IRVING & Co. (Limited), Vancouver, British Columbia:

1. H. Bell-Irving & Co. (Limited), Vancouver, British Columbia, agents for Fidalgo Island Canning Company, of Anacortes, Wash., the owners of Ketchikan Cannery, Ketchikan, Alaska.

2. Our business is that of agents and managers for salmon canneries. We have been engaged in this business in British Columbia since 1890 and connected with it on Puget Sound since 1896, and in Alaska since 1900, where the Fidalgo Company has one cannery only. The average pack in Washington is about 80,000 cases; Ketchikan, 50,000 cases; and in all, including British Columbia, 250,000 cases.

3. We consider the present tax of 4 cents per case most unjust, as Ketchikan cannery packs almost exclusively Humpbacks, which sell at a loss, while the pack of Red fish in Bering Sea are taxed an equal amount and produce a profit of over \$1 per case.

4. Being British citizens, we do not care to express an opinion.

5. We do not think a limitation of the catch of fish by the Government is desirable unless there is fear of depletion of the fish supply.

6. We think suitable hatcheries should be maintained and operated by the Government only, the cost of maintenance being paid for by proceeds of taxes upon output of canned salmon. These taxes should bear some relation to the profits made on different grades of fish. Low grades, we believe should, for some time at least, be exempt from taxation.

7. Seventy-five per cent.

8. One hundred per cent.

9. Answered by our answer to question 8.

10. Yes, pretty well.

11. Purse seines.

12. Yes.

13. Most fishermen are paid so much per fish; a very few are paid by the month.

14. No word of any trouble in our vicinity.

15. We should think it wise for Government to make such reservations.

16. Government hatcheries. Alterations of method of taxation, as already stated.
Reservations for Indians.

In reply to the latter portion of your letter, the formation of large combines has, in our opinion, acted in many ways injuriously to the smaller concerns; for instance, they buy up the sole right of any new labor-saving canning machine which is brought out, to the exclusion of others; they send men to fish the streams adjoining the cannery of any small concern and try to hamper them in many ways by competing with fish traps and seines, and by interfering in every conceivable way, and generally, by lawsuits and otherwise, making life as uncomfortable as possible.

Trusting this information is what you desire, we are

Yours, truly,

H. BELL-IRVING & Co. (LTD.)

M. HERRICK, Lake Bay, Alaska:

1. Canning of salmon. This is the third year at Lake Bay, Alaska. One establishment. For the two seasons it run the pack was about 20,000 cases each year.

2. The tax is just and right, as large fortunes have been made, and in my opinion they do not pay enough.

4. They should be citizens of the United States.

5. It is advisable to limit the catch, as I can see fish going up this Lake Bay now to the lakes beyond, and as no one is molesting them, of course it must be of a great help to their increase.

6. Make the canneries maintain their own hatcheries. They get all the benefit; what benefit does the Government get?

7. A very small per cent, as the canning is all contracted to Chinamen; but as they are getting scarce, perhaps more natives might be used; but they are poor to depend on, never having any idea of time or discipline.

8. Can not say, but think very small, as all the companies have to bring their own men to fish.

9. Unreliable.

10. In a very few cases.

11. Modern gear furnished by the canneries in most all cases.

12. Yes.

13. Generally give so much a fish; take out per cent for net or seine.

14. I have never known of any.

15. Don't think so, as Indians always have all the fish they want when fishing for the cannery.

16. I hardly know of any suggestion to make. As the pack of red salmon is limited, there is not enough of them to run all the canneries, and the cheap grade of fish there is no demand for at a price that there is a profit in; therefore they can not run the canneries at a profit, as a small pack will not pay to bother with. That is the reason quite a number will not run, this one with the rest, and it looks like the big ones were going to have it all their own way; therefore let them breed their own salmon if they are going to monopolize the business, which looks mighty like it now. Don't know of any remedy I can suggest.

Yours, very truly,

M. HERRICK.

W. F. Brown, president and manager Seattle Scandinavian Fish Company, Tenakee, Alaska:

1. William F. Brown; president and manager of the Seattle Scandinavian Fish Company; Tenakee post-office, Chicagof Island, Alaska.

2. Salting and curing fish. This is the second season. Have only one establishment, and that is at Snug Harbor (7 miles from Tenakee). Output last season, 1,145 barrels; probable output this season may reach 2,500 or 3,000 barrels.

3. I do not consider the present tax unjust or exorbitant.

4. I do not think it advisable to exclude aliens, although I do not employ any yet; but labor unions might drive me to do so or shut down. My natives have struck

once already this season, and then returned to work only when I stated to them that such actions would force me to employ Chinese labor, as larger concerns had done.

5. I do not think it necessary to limit the catch of salmon if hatcheries are established and maintained (by the Government) and stringent measures taken to protect the salmon from their natural enemies, such as the herds of trout (that have no market value here and destroy many times more salmon than the fishermen do). In June of this year I saw trout by the million come into June River (that empties into Snug Harbor), ready to waylay the female salmon and rob her deposit of eggs (as she lays them on the rattles), and catching some of these trout I found their stomachs filled with salmon eggs, and later they will waylay the young salmon; and it is only a small proportion that it seems possible can run the gantlet of all these pirates. It is astonishing that any get back to salt water. If certain streams were set aside for trout reserves (if they must be cherished) and the Government offer a premium to fishermen to sweep the other streams of trout in June, that, to my mind, would settle the supply of salmon.

6. I think it would be advisable for the Government to establish hatcheries and sell young fry to such as have no hatcheries or to all. For instance, I have no red fish in any of the waters that I fish in; therefore I have to get my supply from some station away from here or establish an eying station of my own at great expense and inconvenience.

7. About two-fifths is performed by the natives. They give good satisfaction, except that there is an old chief, named "Jake," who insists that I must pay tribute to him, for he owns all this part of Alaska. He has a son, wife, and daughter in my employ, and insists on them and all the rest of the natives quitting until his demands for tribute are settled; but I talked them out of it every time so far. Now he has gone to setting stakes on shore to insist that I can not fish without his consent. The native crew return to work under the threat that if they will not work I shall have to employ other labor next year, and if I did not have the Chinese or Japanese labor as a threat to hold over their heads I would have to close down.

8. All my fish so far this season have been caught by native laborers.

9. I think in time I could get natives broken in to handle fish in all the different branches, but they were not accustomed to work before I came here and can only do the common labor. However, I have one I am trying to break in to general work. Have him in the tanks, but it is difficult to impress on his mind that if he expects a white man's wages he must be reliable and do the work as a white man does.

10. I find those I employ sober and industrious. I am trying to teach them that they must endeavor to do right and deal honestly with me so that I can employ them every year. They are very religious and have approached me on the question of assisting me to build a church here. I have reserved my answer until I see how we get along, for I tell them that if we keep having this old tribal claim to the country flung up every few weeks by their chief I do not think they will want a church here, as I shall not employ any natives next year that continue to make me trouble this year; but by present indications I think we will probably help them out on the church.

11. They use my boats and shore seines.

12. I show them all that is possible in the manner of catching fish for their benefit and improvement.

13. I hire them by the day.

14. The chief, "Jake," I referred to has some houses near the hot springs, and the whites have been crowding them, beyond doubt. It seems to me it should be looked after. There is no controversy concerning fishing streams, only this same chief has staked all the bays, whether he had improvements or not, and if he had his way there would not be a single settler in Tenakee Inlet, which is 35 miles long and has about a dozen bays, every one of which he stakes and claims.

15. If the natives are to take their places in the future as citizens, the more they come in contact with the whites the better they will be qualified to do so. The natives in my employ are, of all the Indians I have ever come in contact with (and I have had a good deal of experience in dealing with them in Wisconsin, Minnesota, and twenty-seven years on Puget Sound), the best physically, mentally, and morally. To illustrate, will mention one case: I sent two natives to get a deer, giving them particular instructions to shoot only a buck. Near evening we heard a call from the opposite side of the bay, and I sent a white man across to get them. As he neared shore all he could see was two Indians behind rocks aiming guns at him. Calling to them, he received no reply, and started to pull away, when they came forward and said they were only joking. He brought them across, but reported the case to me. I took the natives to task about it and gave them a good lecture, and explained I could not have such work and could not employ them if they played such jokes. I had them apologize to the young man, first instructing him what to say, and since then they have looked on that class of joking altogether differently.

16. I think my residence of only one year and limited range of observation tend to disqualify me to pass an intelligent opinion, but I have an opinion that the limit of July 1 for the beginning of the season is unfair, as there is no chance given to catch king salmon unless they never cease fishing; then they would not have to begin; and the discrimination in favor of Cook Inlet and Bristol Bay is unjust, giving them a great advantage over southeastern Alaska. It seems to me what Alaska needs is actual settlers, not big corporations who come here with an outfit of dissipated and dissolute labor, who are only here for a season and do not care what becomes of the natives or of the fish. But, first, reserves like the Alexandrian do not encourage settlers and only assist to maintain present conditions. I am a sufferer from the Alexandrian reserve, for there is room here for twenty actual settlers, who could raise stock and vegetables and engage in fishing; good range for cattle and sheep. I have three head of cattle; cows give plenty of milk; two hogs that are fat on the rice grass. I could run a number on the bottom lands here, and red-top grass would cut 3 tons to the acre. It does seem that these conditions could not have been known and understood. The natives only need assistance here; they are good workers. I talk to them about learning English, so they can fill positions of some responsibility, and they seem to agree with me. I have finally got them taught to be punctual, in order to get in a good day's work.

CARL SPUNX, president of the Alaska Oil and Guano Company:

1. Killisnoo, Alaska; president of the Alaska Oil and Guano Company, of Portland, Oreg.

2. The Alaska Oil and Guano Company, incorporated in 1899, is located in Killisnoo, Alaska, and is engaged in the manufacture of oil and guano and salt fish; output in 1902, 2,345 barrels of oil, 814 tons guano, 412 barrels salmon, and salmon bellies, 300 barrels and 500 half barrels.

3. Taxes on fish products are: Salmon canneries, 4 cents per case; salmon salteries, 10 cents per barrel; fish oil, 10 cents per barrel; fertilizer, 20 cents per ton—or, say, about 1 per cent on the gross value of the products. Taxes on fisheries are based on the output—i. e., the income—which is not the case with other enterprises. For instance, quartz mills pay \$3 per stamp per year, which is a mere trifle compared with the tax on fisheries. Placer mining companies are not taxed at all. The tax paid by us goes into the General Treasury and our settlement derives no benefit from it.

4. A law requiring all persons engaged in fishing to be either natives of Alaska, citizens of the United States, or persons who have declared their intention to become citizens, would exclude Japanese and Chinese, whose services are most valuable, in fact indispensable, to salmon canneries. Such laws do not prevail in any State of the Union, and why make them for Alaska?

5 and 6. Unless hatcheries are established the sockeye salmon in southeastern Alaska, with the exception of such rivers as the Chilkat, Tekoo, Stikine, etc., will soon be fished out. Government hatcheries, managed scientifically, are the only and proper solution of this problem. Few, if any, private hatcheries would and could be properly handled so as to give satisfactory results. No restriction as to catching and hatching should be placed on dog and humpback salmon. This grade of fish is very abundant in southeastern Alaska, and the greater part of them die in ascending the small rivers and creeks, before and after spawning, and unless made use of would all go to waste.

7. We employ from 30 to 40 natives out of a total of 110 employees.

8. This question refers to salmon fishing, in which we are not engaged. We fish for herring in deep water. Of the three gangs we run, there are 11 natives and 45 white men.

9. We would like to have a larger proportion of natives, but during the fishing season good native labor is scarce and poor native labor is not worth having.

10. As a rule the natives are unreliable and not industrious; a great part of them is addicted to drink.

11 and 12. Herring are caught by purse seines in deep water. It requires steamers and steamer appliances. No gang of natives without the assistance of white men could do such fishing. I understand that salmon canneries have small native gangs at the different creeks and supply them with boats and nets.

13. We pay stated wages—some by the month, some by the day.

14. Do not know of any controversy between natives and whites as to salmon streams in our vicinity.

15. The different streams are under the tribal regulations, the property of entire families, who alone are allowed to fish them. If any one particular stream was set aside for the Indians, it would benefit the owners of the stream, but no other Indians.

16. I consider the natives of southeastern Alaska well provided for. All who care to work earn good wages; there is plenty of food and fuel at their very door for the taking.

I consider the discrimination made between southeastern Alaska and western Alaska unjust. To the westward fishing is allowed everywhere and at all times, while the restrictions in southeastern Alaska are most severe. If the Government is to divide Alaska into different fishing districts, do not stop at two as at present. Fishing conditions vary in *every* locality with *every* little creek and stream. I consider Alaska's fishing laws should not differ much from those in other States of the Union, and, above all, no laws should be passed without first giving the people in interest an opportunity to present their side of the case. No taxation without representation.

J. A. KERR, receiver Pacific Packing and Navigation Company:

1. The Pacific Packing and Navigation Company is engaged, among other business, in canning salmon in Alaska. During the season of 1903 the company operated salmon canneries at Nushagak, Uyak, Chignik, Kenai, Orea, Dundas, Sitka Bay, Hunters Bay, Chilkoot, Taku, and Yes Bay, Alaska, and canned at said canneries about 380,000 cases of salmon, of which 275,000 were Alaska Red fish, the balance medium Reds and Pinks.

2. We have no complaint to make as to the present tax imposed by law upon the canneries. We think, however, that the tax should be used by the Government for the protection of fishing interests in Alaska and in the propagation of salmon.

3. In western Alaska the salmon are taken largely with purse seines or gill nets. The men engaged in that business are, for the most part, Italians and Norwegians. None of the canneries have ever been able to utilize the natives to any extent in handling these nets. We do not believe that a law requiring fishermen in Alaska to

be citizens of the United States, or persons who have declared their intention to become such, or natives, would be wise. The fishermen in western Alaska have recently organized a union, and during the last season succeeded, by combining, in increasing the cost of raw fish to the canneries about 50 per cent, and such legislation enabled them to make still further exactions from the packer. The fact that these fisheries are located at such a remote point from all courts, and the fact that the packer must invest a very large sum of money in his business to be conducted in the Bering Sea, which investment would prove a very serious loss in case of a strike during the packing season, affords the best reason, in the judgment of the writer, for leaving the packer unrestricted by legislation as to the source from which he shall draw his labor supply.

4. We believe it would be advisable for the Government to limit the annual catch of fish in Alaska, provided some equitable and fair basis of limitation could be reached—a basis that would operate equitably upon all interests in that section.

5. Yes; the Government should maintain hatcheries in Alaska by all means. In our judgment the whole matter of propagation should be taken from the packers and handled by the Government itself, placing the burden of maintaining the hatcheries upon the canneries themselves. The suggestion that the Government sell fry to the canneries is proper enough, but when it comes to embodying the idea in legislation it should be put in such a way that unless the purchase was made promptly a tax equal to the amount of fry to be purchased should be imposed upon the packer and made a lien upon the packer.

6. We employ in our canneries in Alaska all of the native help we are able to get; the percentage, however, of natives employed is very small, but is increasing from year to year.

7. At some of our canneries the natives catch from 25 to 60 per cent of the salmon manufactured by us; at others they catch very few. Of this year's pack, the natives probably took, approximately, 10 per cent of the fish manufactured.

8. A larger number of natives would be employed if we could procure them.

9. We find the natives sober, industrious, and for the most part trustworthy. They have certain customs which they do not allow their labor to interfere with, and are not wholly reliable as fishermen for that reason. For example, should a death of a native occur at one of the canneries, they celebrate the event with a "potlatch" lasting from two to four days, during which time they will perform no work.

10. The natives at two of our canneries use purse nets and at Chilkoot take the salmon with spears and gaffs.

11. We furnish the natives with nets and give them instructions in modern methods of taking the fish wherever they are willing to use them.

12. We buy the fish caught from the natives, paying them the same price as white fishermen.

13. There have been no conflicts between the natives and the white men at any of our canneries.

14. It would not be advisable for the Government to reserve fishing streams for the sole use of the natives. The growth of the cannery business in Alaska has been a source of great benefit to the natives of Alaska. We do not believe that there is a cannery in Alaska at which the natives can not find employment if they are disposed to engage in fishing operations. There is an abundant supply of fish for food purposes anywhere in Alaska for the natives, as they use for the most part the hump-back salmon. The streams into which that species of salmon run are not utilized by the canneries.

15. In the judgment of the writer the most pressing subject for legislation in connection with the fisheries in Alaska is that of Government maintenance and control of hatcheries and the staking of the mouths of streams. We have no sug-

gestion to make as to legislation touching the condition of the natives. The writer has no personal recollection of any legislation attempted on behalf of the natives in Alaska or elsewhere, aside from that of securing their land titles, that has been of any benefit to them. Under the present laws of Alaska the native has the same rights as the white man, nor do we know of any instance in Alaska where those rights are denied or the native is not afforded the same opportunity as the white man to get along and acquire a competence.

16. In answering your sixteenth inquiry it would involve us in a very considerable amount of labor. I inclose you herewith a clipping from one of the trade journals, showing the prices at which the different grades of salmon have been opened for several years last past, which affords you a fair criterion of the prices at which disposition was made during each of said seasons. The entering into a discussion of the reasons for the variation in prices would involve us in a very long discussion. For example: This year Columbia River tall Chinooks sold at \$1.35 per dozen, whereas Puget Sound sockeyes sold for \$1.50 per dozen. This year is the first time in the history of packing business when the Columbia River Chinooks sold for less than the Puget Sound sockeyes, as the markets of the world have always regarded the Chinook as the choicest salmon. It is probable that the reason for this was the short pack of sockeyes from Puget Sound and the Fraser. Again, red Alaska salmon opened this year at \$1.30 a dozen and Alaska pinks are quoted at 50 cents per dozen. This disparity of price has never been known, and is probably the result of an attempt of the Alaska Packers' Association to break down the canneries in southeast Alaska heretofore manufacturing the cheaper grades of fish. There have been variations in the prices from year to year, due to first one cause and then another.

Yours, very truly,

J. A. KERR, Receiver.

ALASKA PACKERS' ASSOCIATION.

1. Business, canning salmon; length of time in business, since 1893; canneries operated, output, etc., as follows:

Number cases packed.

| Location. | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | Total. |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|
| Alitak | 25,777 | 27,720 | 15,336 | 23,155 | 37,401 | 34,168 | 28,294 | 32,342 | 41,614 | 45,145 | 310,952 |
| Chignik | 57,553 | 55,352 | 69,962 | 48,360 | 38,159 | 50,418 | 34,674 | 40,396 | 40,681 | 60,155 | 495,710 |
| Cook Inlet..... | 31,665 | 34,037 | 36,188 | 34,804 | 32,532 | 39,566 | 28,815 | 33,781 | 31,082 | 41,455 | 343,925 |
| Prince William Sound | 28,999 | 28,378 | 21,453 | 39,874 | 25,301 | 32,158 | 31,931 | 39,410 | 40,673 | 45,486 | 333,663 |
| Egegak | | | | | | | | 21,652 | 31,740 | 31,375 | 84,767 |
| Fort Wrangell..... | 22,728 | 25,281 | 27,465 | 44,236 | 45,918 | 49,332 | 50,201 | 58,518 | 59,027 | 64,202 | 446,908 |
| Karluk | 149,317 | 160,674 | 111,203 | 161,642 | 156,375 | 89,394 | 91,548 | 165,900 | 192,426 | 204,190 | 1,482,669 |
| Koggiung | | | | 29,741 | 55,508 | 93,963 | 116,651 | 147,032 | 107,410 | 192,921 | 743,286 |
| Loring | 25,153 | 26,869 | 32,554 | 61,440 | 62,010 | 59,343 | 63,390 | 67,158 | 88,954 | 96,897 | 583,798 |
| Naknek | | | 22,739 | 27,201 | 34,676 | 34,870 | 43,790 | 62,334 | 74,801 | 125,741 | 426,155 |
| Nushagak | 107,786 | 91,450 | 101,405 | 112,345 | 107,856 | 123,279 | 135,721 | 187,329 | 178,853 | 209,810 | 1,355,837 |
| Pyramid Harbor . | 13,672 | 38,791 | 35,383 | 47,461 | 37,456 | 39,669 | 53,237 | 55,601 | 30,709 | 32,211 | 384,190 |
| Ugashik | | | | 19,761 | 38,272 | 38,501 | 44,984 | 54,682 | 40,837 | 73,609 | 310,646 |
| Total | 462,650 | 488,552 | 473,688 | 650,020 | 671,494 | 684,661 | 723,239 | 966,195 | 958,807 | 1,223,200 | 7,302,506 |

Canneries operated.

| Location. | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|
| Alitak | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chignik | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Cook Inlet | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Prince William Sound | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Egegak | | | | | | | | 1 | 1 | 1 |
| Fort Wrangell | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Karluk | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 2 | 2 |
| Koggiung | | | | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Loring | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Naknek | | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Nushagak | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| Pyramid Harbor | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Ugashik | | | | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Total..... | 13 | 12 | 14 | 16 | 17 | 17 | 17 | 18 | 19 | 20 |

2. The present tax of 4 cents per case on canned salmon is manifestly unjust.

First. Because it is a fixed charge of about one and one-half per cent of the average total value of the output in Alaska, and of which there is included material taken to Alaska each season and used in the process of canning to the extent of about one-half the total value of the completed product;

Second. The canners are compelled by law to maintain salmon hatcheries at their own expense, and reproduce young salmon for all fish caught at the rate of ten to one, therefore the tax is oppressive;

Third. The United States Government imposes this four cents license tax only on salmon packed in the Territory of Alaska. There is no United States tax on salmon packed in Washington, Oregon, California, or elsewhere.

3. Emphatically no. There should be no naturalization restrictions upon the people employed in the business.

With reference to the natives of Alaska, there are neither enough available nor are they skilled and qualified to carry on one-hundredth part of the business.

This company employs all available native labor at its different stations each season, pays them good wages, feeds them, gives them free medical attention, and in various ways improves their condition, but they do only a trifle of the aggregate work, and none of the skilled labor. To be compelled to depend solely upon them would result in being forced to instantly abandon the business.

Chinese and Japanese (especially the former) constitute an important and necessary element of the cannery labor, particularly the skilled work, and of course can never become citizens. The fishing is done by all classes (except Asiatics, who do not fish), and it is now quite difficult to secure enough competent and industrious fishermen.

4. No; because there is no diminution in the supply of salmon in Alaska. Not one-tenth of the salmon-producing streams have ever been fished for commercial purposes, and salmon can be reproduced infinitely by artificial propagation.

5. It would be advisable for the Government to maintain hatcheries and plant salmon fry free of cost, as it does in other localities and with other species of fish.

6. Probably 1 per cent of the whole.

7. Probably 1 or 2 per cent.

8. Because they are not available and don't care to work. All applying are employed who are competent and will work.

9. Partially.

10. Various methods. Whenever they desire we furnish them with the most approved modern fishing gear.

11. Yes; and takes special pains to encourage them in their work.

12. The fish are purchased at the same rates paid to other fishermen. Where the natives work on shore they are paid stated wages fully equal to the wages paid to the whites for similar labor. In many instances they receive as much as \$3 per day and board.

13. Nothing of any consequence.

14. No. The Indians do not care to do much fishing, and they now have abundant opportunities to catch all the fish they desire, either to sell or for their own food supply.

15. A repeal of the license law would be a benefit to the industry. The establishment of salmon hatcheries by the Government would also be of advantage.

Do not think of any changes in connection with fishing business that would tend to improve the condition of the natives. The industry is of great benefit to them, as it gives them employment, food, and medical attention.

16. Opening market prices for salmon f. o. b. San Francisco, from which selling commissions and expenses are paid, so the net price should be figured, say, 10 per cent less. The variation in price in varieties is the natural difference in the market values.

Canned salmon per dozen 1-pound tall cans.

| Kind. | 1898. | 1899. | 1900. | 1901. | 1902. |
|-----------------|---------|---------|--------|--------|--------|
| King..... | \$0.97½ | \$0.97½ | \$1.10 | \$1.00 | \$1.00 |
| Alaska Red..... | 1.00 | 1.00 | 1.10 | .95 | .95 |
| Silver..... | .90 | .90 | 1.05 | .85 | .85 |
| Pink..... | .70 | .70 | .90 | .70 | .65 |

Salt salmon per barrel.

| | |
|-----------|--------|
| 1898..... | \$8.50 |
| 1899..... | 7.00 |
| 1900..... | 7.00 |
| 1901..... | 7.00 |
| 1902..... | 7.00 |

CURTIS P. COE, Wood Island, near Kodiak, Alaska:

1. I am in charge of the Woman's American Baptist Home Mission Society (Kodiak Baptist Orphanage).

2. The mission society has for ten years conducted an orphanage for destitute children, and with it have developed an industrial school, one branch of which has been employed for two years in salting salmon. There has been but one salting station, and 200 barrels annually has been the average output. Salting station on Wood Island.

3. The present tax is much in excess of tax on merchandising. For instance, the lowest tax imposed for merchandising, \$10, permits a business less than \$4,000. Ten dollars tax for salting fish would pay for but 100 barrels, the gross returns for which, in Seattle, would be less than \$800. Furthermore, I do not see why there should be any tax on the fish when none is levied on gold mining (except stamp mills), farm produce, etc. Fishing is developing native resources the same as lumbering, mining, farming, etc.

5. I doubt if there is any necessity for limiting the catch, providing the hatchery system is perfected. Karluk is an illustration of this matter. If reports are to be credited, even the weekly close season did not prevent them from catching practically all the fish, but now, with the hatchery output returning, they have fish as plentiful as ever.

4. I think not. There is no such law, so far as I know, with regard to other businesses. I know there is that stipulation concerning the homesteading of land, but that is different. That would shut out the Chinese, who are supposed to be the only reliable inside help at canneries, but of that I have no personal knowledge or experience.

6. Yes. That is the only equitable plan if the hatchery law is to be enforced. Otherwise the requirement of a hatchery would shut out all small concerns that use native help almost entirely.

7. Practically 100 per cent.

8. One hundred per cent.

9. All natives.

10. Moderately so only. If provisions only were issued during the fishing season little trouble would result from drunkenness.

11. They use seines almost exclusively.

12. We do.

13. We have paid for the fish by the thousand.

14. No difficulties.

15. I see no reason for such a course in this vicinity at present, for there are fish for all for the taking.

16. My opinion is that it is a question of enforcement of the laws and regulations already existing that will improve the fisheries and the natives. A police officer with special powers in the matter of fish laws should be stationed at each cannery, to be a conservator of the peace and to see that the regulations for fishing are properly observed. It is not to be supposed that a revenue cutter touching at a cannery once or twice a year can learn of all the infringements of the law. The number of fry called for could be planted in the presence of this officer, and the fry should be furnished by the Government, which could charge the actual cost of production and supply them much cheaper than any, except the large concerns, could raise them. If a private individual or company desires to establish a hatchery, I believe he or it should be protected, and given full rights for a reasonable distance on both sides the stream on which the hatchery is situated, except that natives might be allowed to catch fish for food.

The matter of land titles, of which I wrote recently, might come here properly.

Almost every native and many white men have dwellings in which they live or which they maintain, and none have titles, nor is there any way in which the majority can ever secure titles, unless they use for a small lot or at most a few acres their homestead right. A law allowing all, whether native or white, who have at the present time dwelling houses or other improvements on small lots the privilege of purchasing the land at a reasonable price would give them titles and would result in lessening the probability of many land suits in years to come.

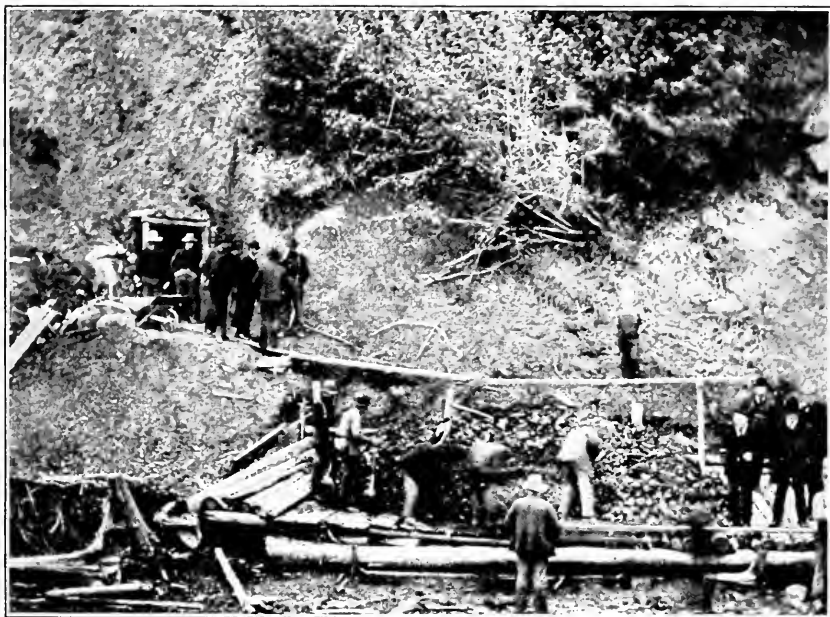
A law defining the status of the natives should be passed.

Are the people here citizens? They were not "uncivilized" at the time of the transfer from Russia. Are they entitled to the right of homesteading? They should be. Is it a crime to sell them liquor? It should be, but if they are citizens it probably is not.

Respectfully submitted.

CURTIS P. COE.

Agricultural Prospects of Alaska.



YUKON COAL MINE.

ALASKAN COAL PROSPECTS AND DEVELOPMENT.

FUEL NEEDS AND RESOURCES.

The long, cold winters of interior and northern Alaska call for a large amount of fuel for domestic uses, and the thawing of the frozen placer grounds adds to this demand.

During the year ending June 30, 1903, coal imports amounted to 110,176 tons, of which 56,104 tons, valued at \$256,117, came from the United States, and 54,072 tons, valued at \$216,089, from British Columbian mines. To this amount may possibly be added some of the coal brought in by the transportation and cannery companies for their own use and 3,000 to 5,000 tons from local Alaskan mines. This coal sold from \$8 to \$30 a ton, but since June 30 last a very large shipment of Australian coal has reached Nome, which will give that locality cheaper fuel than it has yet had.

Wood.—The forests furnish all of Alaska except the western and northern portions with an abundance of fuel, yet many of the white people in the southeastern portion use coal instead of wood. Take the 400 whites of the town of Ketchikan, for instance, who used last year 2,981 tons of soft coal, at \$10.50 per ton, and those of Juneau, who used 9,300 tons, notwithstanding there is an abundance of wood on all sides. This is due to the lack of wagon roads, which makes local transportation expensive, wood costing from \$7 to \$15 per cord, and an excessive rainfall in that section keeps it so soggy as to make coal more desirable.

Wood is very generally used along the Yukon River and other interior points, where it is more easily seasoned and where coal costs from \$12 to \$20 a ton. Heretofore nearly all the boats engaged in river transportation used wood for fuel, one company alone having consumed 48,438 cords in five years, but during the last season one of the largest companies, the North American Trading and Transportation Company, equipped its boats with oil burners and erected supply tanks along the river. It is altogether probable that oil will hereafter displace both wood and coal on all Yukon River boats.

The wood used by these boats is cut from public lands along the river banks by natives and stranded miners and sold to the boats at from \$8 to \$12 a cord, and some of the steamers consume from one and a quarter to four or five cords an hour. The loss of time in loading and the shipping space occupied by the loaded wood are serious matters, to say nothing of the fact that \$15,000 or more were sometimes paid for wood on a single round trip between St. Michael and Dawson.

The army post at Eagle uses about 1,000 cords of wood annually at a cost of about \$12,000, while the other posts use coal at a cost ranging above \$20,000 annually.

The law authorizes each settler, resident, miner, and prospector to take annually, free of charge, \$100 worth of timber from public lands for firewood, fencing, buildings, mining, prospecting, and domestic purposes, but requires all timber cut for other purposes to be paid for at not less than its appraised value.

Driftwood has heretofore been used in the treeless regions, but the coming of the white man and the cuttings along the river banks have made that so scarce that the natives on the coasts are many times driven to the use of whale and other oils to warm their homes and cook their food.

Peat.—The heavy growth of ground moss—the tundra—in places forms a kind of peat which may possibly furnish fuel in the future, but I am not aware that any practical tests have been made. This moss is said to burn readily in the dry season.

Coal oil.—Surface indications of petroleum deposits are found in many places in Alaska, and active development has been carried on during the present season. Wells were being sunk at Cold Bay, opposite Kadiak Island, on the west side of Cook Inlet, and near Kayak Island, where one strong “gusher” was said to have been opened.

Details on this subject will not be given here, however, as the oil prospects of Alaska will be made the subject of a report by Dr. George C. Martin, of the United States Geological Survey, who has lately made careful and intelligent investigation of those fields.

Oil lands may be entered under the placer-mining laws of the United States, and claims are initiated by location.

There has been great activity by locators, and thousands of acres in the localities mentioned have been recently appropriated in that manner.

DISCOVERIES OF COAL.

The first discoveries of coal were made in the Cook Inlet country, where its outcroppings are plainly seen from passing boats, and tons of it lie exposed along the beach. The Russian-American Company opened a vein in Coal Bay, about 20 miles southwest from Chugachik Bay, at an early day and for a number of years mined all the coal needed. About 1851 a company was formed in San Francisco under the name of the American-Russian Company, but it soon found the shipment of ice more profitable, and its coal-mining stopped.

In 1888 the Alaska Coal Company began operations in Kachemak Bay, an arm of Cook Inlet, but afterwards abandoned the enterprise. In 1894 the North Pacific Mining and Transportation Company opened a mine in Eastland Canyon, about 10 miles northeast of Homer, in Kachemak Bay, and some 300 tons were shipped to San Francisco, but this mine has also been abandoned. The Cook Inlet Coal Fields Com-

pany has opened at Homer the most extensive mine yet developed in Alaska. The development of the coal fields in that locality has been embarrassed by the shoal waters fronting them, and to overcome this that company has built a wharf of 350 feet and a railroad 8 miles long from the mines out over a low, narrow sand spit to deep water. They began operations in 1899 and have opened a 6-foot vein, with an investment, in development work, buildings, railroad, and equipment, of about \$200,000. About 2,000 tons have been taken from this mine, 800 of which have been sold to passing steamers at \$6 per ton.

This coal, like that of other mines in this region, is a light lignite, too bulky to find favor with steamers and requiring too much storage room for profitable shipment, although tests show it has 71 per cent of the heating quality of the Nanaimo, British Columbia, coal, one of the best and most generally used coals on the Pacific coast. The Homer mine was not operated during the past season, as there is no local demand for the product, and a lack of cheap transportation prevents it from competing elsewhere with Washington and British Columbian mines.

Coal is known to exist on Kadiak Island and in the vicinity of Chignik and Anchorage Bay.

In 1893 the Alaska Mining and Development Company opened a mine at Chignik River, from which the Alaska Packers' Association have taken about 500 tons annually for a number of years, the most of which was used by their own steamers and canneries. The coal is said to be a bituminous of good quality.

C. J. Brown and others have recently opened a 6-foot vein in the same locality, and also two veins, 5 and 6 feet thick, in Hook Bay, 12 miles from Anchorage Bay, but have done but little development work on either of these mines.

A project is on foot to open a mine at Herendeen Bay, at the southern extremity of Bering Sea, and to build a railroad 20 miles long to connect the mine with the town of Unga. A mine is now being opened at Coal Harbor, on Unga Island. The coal at both of these mines is said to be of good quality.

The most promising fields yet discovered in Alaska are in the vicinity of Controller Bay, not far from the mouth of Copper River, where outcroppings show parallel seams ranging from 4 to 40 feet in thickness, aggregating about 80 feet. These deposits are found in a rough, broken country and cover an area of $2\frac{1}{2}$ miles by about 20 or 25 miles. Extensive prospecting and development work was going on there last summer. The Alaska Development Company, backed by English capital, were operating with 40 or 50 men, the Alaska Petroleum and Coal Company with 5 or 6 men, and Mr. Clarence Cunningham, representing an unincorporated syndicate, with about 20 or 25 men.

The analysis of this coal indicates that it is the best yet discovered west of the Rocky Mountains, being a semianthracite, coking, very rich in fixed carbon, but some fears are felt that it may "slake" badly when long exposed to the open air and that it will not bear transportation.

The successful development and operation of these mines will be hindered by the fact that they are located more than 20 miles from the coast, and by the further fact that there is no deep water in their vicinity to afford harbor privileges.

At Yakutat Bay Jack Dalton opened a mine a number of years ago, but it was located too far from deep water to encourage extensive development. Numerous discoveries of coal have been made at the Southeastern Archipelago, principally on Admiralty Island, and much desultory development work has been done. But little, if any, coal is now being mined for commercial purposes in that locality. This coal is a lignite of low grade, and its mining has met with slight encouragement.

About \$5,000 have been spent in developing the Firestone mine, originally claimed by James McClosky and others, but said to now be claimed by George Harkrader, of Juneau.

On May 23, 1898, F. Datewell and others filed location notices under a local custom, claiming 640 acres $1\frac{1}{2}$ miles from Murder Cove, near Point Gardner, on Admiralty Island, and the Admiralty Coal and Fuel Company have spent \$1,800 in its development. They have put in a lateral tunnel and are still at work, but have sold no coal. Coal is said to exist in Kassin Bay, Prince of Wales Island, but no development work has been done. A company now putting in a large smelter on that island is said to have done extensive but fruitless prospecting there during the last season.

A number of mines have been opened on the Yukon River, and two of them in the Yukon territory near the Alaska line; the Cliff Creek mine, owned by the North American Trading and Transportation Company, and the Alaska Exportation Company's mine on Coal Creek have been operated during the last season. The last-named company opened a mine on the river about 65 miles above Circle City in 1900. There are two mines near Rampart, Drews mine and the Pioneer mine, and there are located farther down the river in the vicinity of Nulato the Blatchford and Pickart mines and the Thein mine and the Williams mines. A considerable amount of money has been spent in development, and more or less coal has been taken for local and steamer consumption from all these mines, but neither of them was being extensively operated last summer, and all were closed when this section was visited in July.

The Northern Commercial Company consumed 2,399 tons of Yukon coal during the season of 1902, at a cost of \$28,284.

The coals are lignites, found in comparatively thin seams, and the introduction of oil will, perhaps, lessen the demand for them. It is not believed that present local conditions will greatly stimulate their further development.

Coal has been discovered on Norton Sound, about 9 miles south of Unalakleet, and a number of location notices were filed in 1900 and 1901, but the claims are said to have been abandoned prior to any extensive development.

Claims have also been asserted further to the north, about 80 miles from the mouth of the Kobuk River, which empties into Kotzebue Sound.

Coal has long been known to exist on the Arctic coasts east of Cape Lisburne, where a mine known as the Corwin mine was opened a number of years ago, and has furnished coal to passing steamers and whalers. Two years ago coal from that section was offered for sale in Nome, but it was not satisfactory, and failed to create a demand there.

The development of Alaskan coal mines will be hindered by a lack of cheap transportation, an embarrassment from which all Alaskan development suffers at present. The present centers of population find freight rates cheaper from the British Columbian and Washington mines than from Alaskan mines, and so long as this condition exists the lack of markets either at home or abroad will keep the lighter and inferior Alaskan coals unmined.

COAL-LAND LAWS.

Congress, by its act of June 6, 1900, extended the coal-land laws of the United States to Alaska, but under these laws (secs. 2347-2352, Rev. Stats.) coal-land entries can only be made upon lands which have been regularly surveyed or upon lands within the range of existing standard base and meridian lines; and since no lands have been sectionized in Alaska, and as no base and meridian lines have been established, no entries can be made.

The only law which at present gives security to the holder of Alaskan coal lands is found in section 2348, Revised Statutes, which provides that qualified persons who open and improve mines "and shall be in actual possession" shall have a preferred right of entry when the lands become subject to entry. In view of the fact that neither standard lines nor rectangular surveys are likely soon to be made in the locality of some of the coal fields, it is believed that Congress should authorize entries and surveys in a manner similar to those now authorized under the homestead and mining laws. The proper opening of these mines will require large investments of capital, not only in development work, but also in transportation facilities, and without some means of securing title in fee capital will hesitate to seek such an investment.

A more detailed statement of the coal resources of Alaska was published by Prof. Alfred Hulse Brooks in the United States Geological Survey's Twenty-second Annual Report for 1900-1901, to which I am indebted for some of the facts recited herein and from which the following table is taken.

Analysis of Alaskan coals.

| Locality. | Moisture. | Volatile matter. | Fixed carbon. | Ash. | Sulphur. | Character of coal. | Recalculated. | | |
|--|-----------|------------------|---------------|-------|----------|-----------------------------|------------------|---------------|-------------|
| | | | | | | | Fuel elements. | | Fuel ratio. |
| | | | | | | | Volatile matter. | Fixed carbon. | |
| McCluskey seam, Kootznahoo, Admiralty Island. | 2.44 | 44.75 | 47.93 | 4.88 | 0.67 | Lignite (coking) | 48.28 | 51.72 | 1.07 |
| Sepphagen seam, Kootznahoo, Admiralty Island. | 1.66 | 35.40 | 31.80 | 31.14 | .32 | do | 52.68 | 47.32 | .90 |
| Sullivan seam, Kootznahoo, Admiralty Island. | .82 | 21.80 | 35.52 | 41.80 | .51 | do | 38.10 | 61.90 | 1.62 |
| Mitchell seam, Kootznahoo, Admiralty Island. | 2.37 | 31.73 | 30.89 | 35.01 | .17 | Lignite | 50.67 | 49.33 | .97 |
| De Groff seam, Kootznahoo, Admiralty Island. | 2.57 | 55.41 | 29.75 | 12.21 | .89 | Lignite (coking) | 65.08 | 34.92 | .53 |
| Chilkat River, near Controller Bay. | .77 | 13.79 | 82.36 | 3.08 | ..... | Semianthracite (coking). | 14.34 | 85.66 | 5.97 |
| Controller Bay | .75 | 13.25 | 82.40 | 3.60 | ..... | do | 13.85 | 86.14 | 6.22 |
| Icy Bay | .78 | 13.22 | 80.30 | 5.70 | ..... | Semianthracite | 14.13 | 85.86 | 6.07 |
| Tyonek, Cook Inlet | 9.07 | 49.41 | 30.84 | 10.68 | ..... | Brown lignite (coking). | 61.57 | 38.48 | .62 |
| Bradley seam, Cook Inlet .. | 12.64 | 43.36 | 37.14 | 6.86 | .49 | Lignite (coking) | 53.94 | 46.06 | .85 |
| Eastland seam, Cook Inlet .. | 11.72 | 46.50 | 34.64 | 7.14 | .40 | do | 57.31 | 42.69 | .74 |
| Eastland | 10.35 | 52.22 | 34.58 | 2.85 | .17 | do | 60.16 | 39.84 | .66 |
| Do | 11.59 | 50.70 | 30.84 | 6.87 | .22 | do | 62.18 | 37.82 | .61 |
| Curtis seam, Cook Inlet | 11.67 | 52.37 | 21.01 | 14.95 | .46 | do | 71.37 | 28.63 | .40 |
| Fort Graham, Cook Inlet | 1.25 | 39.87 | 49.89 | 7.82 | 1.20 | Lignite | 44.42 | 55.58 | 1.25 |
| Red River, Kadiak | 12.31 | 51.48 | 33.80 | 2.41 | .17 | Lignite (coking) | 60.37 | 39.63 | .65 |
| Amalik Harbor, Alaska Peninsula. | 1.62 | 36.56 | 52.92 | 8.90 | .75 | Semibituminous (coking). | 40.86 | 59.14 | 1.44 |
| Chignik River, Alaska Peninsula. | 1.89 | 41.47 | 48.46 | 8.18 | 1.71 | do | 46.11 | 53.89 | 1.17 |
| Unga, upper seam, Shumagin Islands. | 11.26 | 40.51 | 41.21 | 6.99 | 2.17 | Bright lignite (coking). | 49.55 | 50.45 | 1.02 |
| Unga, lower seam, Shumagin Islands. | 10.58 | 66.21 | 15.26 | 7.95 | .56 | Dull lignite | 81.27 | 18.73 | .23 |
| Herendeen Bay, Alaska Peninsula. | 3.43 | 39.00 | 47.40 | 10.17 | .41 | Bituminous (noncoking). | 45.14 | 54.86 | 1.21 |
| Lewes River, 5½ miles above Rink Rapid. | 6.03 | 36.92 | 49.03 | 8.02 | ..... | Lignite | 42.95 | 57.05 | 1.33 |
| Cliff Creek, upper working, Yukon River. | 8.57 | 42.04 | 45.77 | 3.62 | ..... | Lignite (coking) | 47.87 | 52.13 | 1.08 |
| Cliff Creek, lower working, Yukon River. | 10.58 | 40.10 | 46.74 | 2.58 | ..... | do | 46.17 | 53.83 | 1.16 |
| West of Dugdale on White Pass Railway. | 2.31 | 5.59 | 67.20 | 24.90 | ..... | Anthracite (coking) .. | 7.67 | 92.33 | 12.03 |
| Coal Creek, upper seam, Yukon River. | 18.31 | 34.96 | 40.88 | 5.85 | ..... | Lignite (coking) | 46.09 | 53.91 | 1.17 |
| Coal Creek, lower seam, Yukon River. | 19.37 | 33.85 | 37.45 | 9.33 | ..... | do | 47.47 | 52.53 | 1.11 |
| Cliff Creek, Yukon River .. | 18.00 | 44.30 | 33.60 | 3.10 | .82 | Lignite | 56.87 | 43.13 | .75 |
| Do | 16.00 | 35.50 | 38.50 | 10.00 | Trace | do | 47.97 | 52.03 | 1.08 |
| Do | 16.60 | 42.90 | 25.50 | 15.00 | ..... | do | 62.71 | 37.29 | .59 |
| Do | 12.50 | 37.50 | 31.60 | 15.40 | ..... | do | 52.01 | 47.99 | .92 |
| Do | 9.98 | 44.08 | 40.99 | 4.95 | 2.37 | do | 51.82 | 48.18 | .93 |
| American Creek, Yukon River. | 6.75 | 39.13 | 37.59 | 16.53 | 3.40 | Lignite (noncoking) .. | 51.01 | 48.99 | .96 |
| Left bank of Yukon, 60 miles above Circle City. | 7.70 | 29.80 | 51.80 | 9.40 | 1.00 | do | 36.52 | 63.48 | 1.73 |
| Small creek emptying into Yukon below Coal Creek. | 6.24 | 43.94 | 47.74 | 2.08 | ..... | Hard lignite | 47.93 | 52.07 | 1.08 |
| Miller's mine, nearly opposite mouth of Hess Creek, Yukon River. | 7.29 | 37.38 | 36.91 | 18.42 | ..... | do | 50.32 | 49.68 | .98 |
| Upper Koyukuk | 4.47 | 34.32 | 48.26 | 12.95 | ..... | Brown lignite (noncoking). | 41.55 | 58.45 | 1.40 |
| Twelve miles above Nulato on the Yukon. | .86 | 25.75 | 66.51 | 6.88 | ..... | Semibituminous (coking). | 27.92 | 72.08 | 2.22 |
| Cape Lisburne | 3.75 | 43.75 | 47.39 | 5.11 | .36 | Semibituminous (noncoking). | 48.00 | 52.00 | 1.08 |



A BIRD'S-EYE VIEW.

White spikes indicate overripe and dead timber.

ALASKAN TIMBER AND LUMBER INTERESTS.

CHARACTER OF FORESTS.

A large portion of Alaska, except the western and northern parts, is covered with timber ranging from hemlock and spruce, 3 to 4 feet in diameter and 100 feet tall, to alders and willows, which border the treeless region.

The best timber is to be found in southeastern Alaska, and it reaches westward, with diminishing size, as far as the center of Kadiak Island. The interior generally is wooded, but all of western Alaska as far north as Norton's Sound, for a distance of 100 to 150 miles from the coast line, is treeless. On Norton's Sound the timber comes down to the coast in the neighborhood of Cape Denbigh, but north of that point there is no timber on the coast whatever. West of the one hundred and forty-first meridian but little timber grows at an altitude above 1,000 feet.

The Alaskan forests consist of white or Sitka spruce, hemlock, fir, red and yellow cedar, scrub pine, red and white or paper birch, cottonwood, willows, and occasionally a kind of larch and dwarf juniper. The spruce and hemlock are found throughout all the wooded districts and constitute by far the larger part of the Alaskan forests. The cedars are found in southeastern Alaska. Many of them are large and valuable trees, but they are not nearly so extensive a growth, even in that locality, as the spruce and hemlock. The red cedar grows principally below the latitude of Wrangell, while the yellow cedar grows principally on Baranof and Chichagof islands. In the interior are found birches, cottonwood, larches, junipers, and willows.

It is a peculiar characteristic of Alaskan forests that trees of large size do not generally grow in compact bodies as elsewhere, but are mingled here and there with others of various sizes, and another peculiar characteristic is that from lack of soil, and perhaps from the effects of the climate, many of the larger trees have ripened and are dying or are already dead. In an annual report Governor Brady called attention to this fact, with the suggestion that the timber interests of Alaska would be advanced by the harvesting of these ripe trees.

Another peculiar characteristic of Alaskan forests is the fact that the fallen trees decay very slowly, which is shown by the further fact that comparatively large trees are sometimes found growing upon the trunks of others that have fallen years before. As soon as the tree falls it becomes covered with a thick moss, particularly in southeastern Alaska, where there is an excessive rainfall. This moss gathers leaves and seeds falling from other trees. Young shoots start up and eventually throw their roots from the supporting log to the ground below through the moss which covers it. It is no unusual sight to see half a dozen of these, ranging in size from mere shoots to others 8 to 12 inches in diameter, growing on the same log.

The timber along the Yukon River is smaller and shorter, very much of it not being over 8 or 10 inches in diameter at the butt. About three years ago the Government was in need of about 600,000 feet of lumber for the purpose of erecting buildings at Fort Gibbon, near Nulato, and after examination of the timbers along the Yukon in that vicinity it was found necessary to bring the logs from a distance of about 80 miles above the mouth of the Tanana River in order to secure such as would measure not less than 12 inches at the butt and 12 feet long.

FOREST FIRES.

In the interior forest fires are of very frequent occurrence during the summer months. The weather conditions are such as to give them better opportunity, and they originate largely through camp fires, as has been suggested, possibly from a desire on the part of prospectors and others to drive away mosquitoes, which are such a pest throughout all of the river regions of Alaska. In other portions of Alaska forest fires are of seldom occurrence and must of necessity be very limited in their range. The heavy rainfall and the thick mantle of ground moss, which is constantly wet, as well as a very heavy growth of green vegetation and underbrush, would both prevent and retard fires, and it is safe to say that southern Alaska forests can never suffer very much from them.

LUMBER AND FUEL.

There are a number of sawmills in Alaska, usually of small capacity. The principal mill on the Yukon is owned by Carl M. Johanson, of Eagle. Most of the logs, however, used by him are floated down the river from the Yukon territory and cost at his yards about \$30 a thousand, including labor, and the \$6 a thousand charged by the Canadian government. He pays wages from \$6 to \$10 a day for employees who operate the mill, and sells his lumber at from \$65 to \$100 per thousand. The output, however, is not large. There is also a sawmill at Rampart and one at the Episcopal mission at Anvik and another at the Catholic mission at Holy Cross, but the last two cut but little lumber, which is used principally by the natives, who are now learning to build their houses of lumber. Mills have also been operated by the military posts at Eagle (Fort Egbert) and at Tanana (Fort Gibbon) in sawing lumber for the use of the posts.

There is not much demand for lumber on the Yukon River. The transportation rates between Yukon points and St. Michael and Nome exceed those from Seattle and other Puget Sound points, and the cost of manufacturing lumber in the State of Washington is much less than that on the Yukon, consequently lumber can not be shipped from

the river points to St. Michael, Nome, and other Bering Sea localities in competition with Puget Sound mills. There is not much lumber used along the Yukon River, since the size of the trees and the cost of labor make logs much less expensive than frame houses, and consequently we find nearly all of the buildings along the river are cabins.

Very much of the timber along the banks of the Yukon has been used for fuel within the last few years. Coal from local mines has not proven a satisfactory fuel, and the boats on the river as well as the military posts and other local consumption have created considerable demand for wood as a fuel. More than fifty vessels, including tugs, were operated on the river in 1900, and all or nearly all of the fuel used by them consisted of cord wood taken from the banks. Some idea of the amount of wood thus consumed can be had when it is remembered that the steamers each consumed from 30 to 75 cords of wood a day, and in some instances more. One company, the Northern Commercial Company, states that it and its constituent companies used 48,438 cords from 1897 to 1902.

Some of the larger companies maintain their own wood yards and hire the wood cut, but many other yards are maintained along the river by private individuals, who sell to the steamers. The wood is cut principally by natives and by stranded prospectors, who in this way accumulate a "grubstake" in winter, which enables them to continue their hunt for gold in the summer. Wood costs on the banks of the river where cut from \$8 to \$10 per cord, and it is said that the consumption by some steamers is so great that the wood consumed in one trip from St. Michael to Dawson and return costs them \$15,000, and in some instances much more.

In southwestern Alaska there has been a small sawmill operated at Wood Island, near Kodiak, and two very small sawmills have been operated by water power in Prince William Sound—one on Pond Island, about 70 miles southwest of Valdez, which is owned by A. W. Lind, of Ellamar, Alaska, and the other on Gage Island, 100 miles southwest of Valdez, which is owned by George Fleming, also of Ellamar. There is a mill of considerable size operated by the Valdez Lumber Company in Valdez, at the head of Prince William Sound, which is now supplying the local demand. It has a capacity of about 20,000 feet a day and makes its lumber from logs cut principally by the natives in Prince William Sound at considerable distance from Valdez. There is also a very small sawmill situated in the interior at some distance from Valdez, which cuts a very small amount of lumber.

A new mill has just been established at Yakutat Bay under the management of Stimson Brothers, of Seattle, Wash. It is the purpose of this company to establish a cannery some miles distant

from this mill, which will be reached by a railroad. The mill is at present engaged in sawing lumber for construction purposes, and will be enlarged to do a commercial business at the beginning of next season. There is a very fine body of timber lying immediately south of this mill. There are perhaps other small mills in the localities mentioned, some of which are immediately connected with mines and canning establishments, but the foregoing constitute all of the mills in Alaska doing a commercial business except those in southeastern Alaska. In order to give an idea as to the output of these mills, I herewith submit a tabulated statement made up from the returns made by the mills themselves for the purposes of taxation during the years 1900, 1901, and 1902, and from other sources.

In addition to the mills enumerated in that statement, there have been three mills operating in other localities with greater or less output, and it is safe to say that the figures showing the amount of lumber actually sawed in the district would be largely in excess of those shown by the statements.

LOGGING.

The difficulty of removing the logs from the forests can hardly be appreciated by one not acquainted with the conditions and topography of the country. The ground moss and the rough character of the forest-covered surfaces of Alaska can not be fully appreciated by one who has not seen them. Very much the larger part of the timber grows on the sides of steep and rugged mountains and gorges, and as logs suitable for lumber must be selected here and there from among the smaller trees, their removal is much obstructed not only by huge stones, passing streams, and standing timber, but by fallen logs and a thick growth of dense copse of underbrush. The difficulty of supplying these logs will be realized from the fact that the labor necessary in furnishing them costs from \$4 to \$24 per thousand, and often at that figure it is not sufficiently remunerative to induce other than native laborers to engage in it.

At present the mills in southeastern Alaska are supplied with logs selected here and there along the water front of the numerous islands and are cut principally by the natives, who work them into the ocean, where they are afterwards collected into booms and towed, sometimes as far as 200 miles or more, before they reach the mill yard.

LUMBER DEMAND AND SUPPLY.

It will be seen from the tabulated statements herewith, showing the output reported by the mills of southeastern Alaska for the purposes of taxation, and the suggestions above made, that more than 10,835,000 feet of lumber was, in 1901, produced in Alaska, all of which was consumed in that district.



A BOOM OF LOGS AT A SITKA MILL.

It should be noted that all the returns for 1902 taxes were not in when these data were gathered, and for that reason this statement does not show the whole amount of lumber cut in 1902.

In addition to the mills already mentioned, there is a mill at Hunter's Bay operated by the Pacific Packing and Navigation Company, which saws lumber for its own use, and a small amount for purely local demands. There are small water mills, one on Dall Island and another at Copper Mountain, which also furnish a small amount of lumber for local use.

LAWS AUTHORIZING THE CUTTING OF TIMBER.

The only law which authorizes the cutting of timber for commercial purposes is found in section 11 of the act of May 14, 1898. It directs that the Secretary of the Interior may sell timber in Alaska whenever, in his judgment, he may deem it proper to do so to meet the actual necessities for consumption in that district. Persons desiring to purchase timber under this act are required to present petitions therefor describing the land upon which the timber stands as definitely as possible by natural landmarks, etc. Before sale is authorized the timber will be examined and appraised, and notice of the time and place of filing bids will be published. The timber is to be sold to the highest bidder.

The law also provides that actual settlers, residents, individual miners, and prospectors for minerals may take, free of charge, from unoccupied, unreserved lands in Alaska for firewood, fencing, building, mining, prospecting, and for domestic purposes so much timber as may be actually needed by such person for individual use, not to exceed in any one year a stumpage value of \$100. Timber may be taken in this manner without first obtaining permission from the Government.

Nearly, if not quite all, of the timber consumed by these mills in Alaska is cut from public lands, and of course the persons who cut it are trespassers, unless it is taken for individual use. This has time out of mind been the custom, the people of Alaska having felt that their isolated condition and the demands made upon them in the development of the country justified them in doing so, since any of the methods heretofore provided for the sale of Alaskan timber have been considered by the Alaskans to be extensive and tedious.

I am informed by the register and receiver that not a single application to purchase has ever been presented under the act of May 14, 1898.

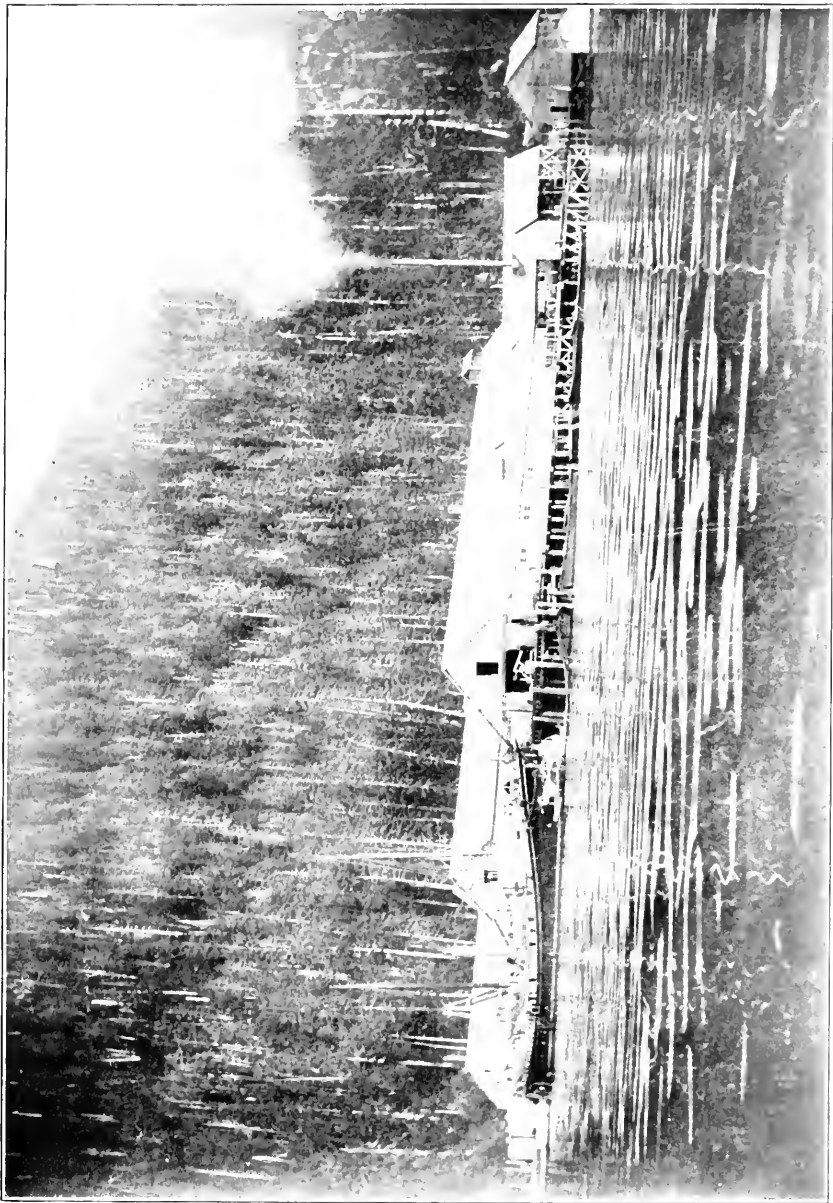
Southeastern Alaskan sawmills, 1900, 1901, and 1902.

| Name of owner. | Location. | Amount. |
|--|----------------------|------------------------|
| 1900. | | |
| J. F. Malony | Porecupine | <i>M. feet.</i> 100 |
| Quadra Packing Co | Petersburg | 200 |
| Finn & Young | Shakan | 1,099 |
| C. Green | Juneau | 100 |
| Hamilton & Simpson | Gravina | 1,206 |
| W. P. Mills | Sitka | 200 |
| Porecupine Trading Co | Porecupine | 100 |
| Wilson & Sylvester | Wrangell | 3,225 |
| Icy Straits Packing Co | Petersburg | 300 |
| George E. James | Sheep Creek | 693 |
| Do | Douglas | 115 |
| Metlakahltla Industrial Co | Metlakahltla | 72 |
| Verney Bros | North Saxman | 400 |
| Itlii, W. T. | Skagway | 305 |
| Total | | 8,115 |
| 1901. | | |
| John G. Brady | Sitka | 120 |
| Stanley Bishoprick | Skagway | 600 |
| George E. James | Douglas | 2,016 |
| J. F. Malony | Porecupine | 150 |
| Wilson & Sylvester | Wrangell | 4,221 |
| Dolomi Lumber Co | Dolomi | 287 |
| Green & Slater | Douglas | 180 |
| Hamilton & Simpson | Gravina | 1,050 |
| Kasaan Bay Mining Co | Kasaan | 1,225 |
| Metlakahltla Industrial Co | Metlakahltla | 286 |
| Verney Bros | North Saxman | 700 |
| Total | | 10,835 |
| 1902. | | |
| Alaska Coast Fish and Packing Co | Holbrock Inlet | 72 |
| Green & Slater | Douglas | 334 |
| George E. James & Co | do | 1,868 |
| Wilson & Sylvester | Wrangell | 3,866 |
| Alaskan Fish and Lumber Co | Shakan | 800 |
| Dolomi Lumber Co | Dolomi | 338 |
| Metlakahltla Industrial Co | Metlakahltla | 190 |
| J. P. Jorgenson Co | Juneau | 800 |
| Total | | 8,268 |

It is claimed that the conditions in Alaska call for laws different from those enforced in other localities, and the facts recited in the foregoing report convinced me that it would be wise to devise some scheme under which persons interested in the manufacture of lumber could secure the right to take logs at random from the public lands wherever they might be found in the most favorable localities, and that they should not for the present be required to confine themselves to any given tract of a limited size. The overripe timber should be harvested at once.

FOREST RESERVES.

There are two forest reserves in Alaska—the Afognak, which is composed of Afognak Island, and the Alexandria Archipelago Forest Reserve, embracing a number of the islands situated in southeastern Alaska. There is no settlement upon the Afognak Reserve except that of the native village, to which reference is more particularly made in my report on the natives of Alaska.



KASSAN SAWMILL AND CANNERY

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There are several small towns or villages, principally inhabited by natives, situated in the Alexandria Archipelago Reserve, and there are also several sawmills situated there, which had been established prior to the creation of the reserve. It is impossible for me to state the extent to which these mills have trespassed, if at all, upon the timber of these reserves, other than to suggest that 290,000 feet of logs had been taken from one of the islands and sold to the firm of W. P. Mills & Co., sawmill operators at Sitka, and a bond has been taken from this firm conditioned upon their payment to the Government for such logs at the price hereafter to be ascertained.

There does not seem to be any necessity for either of these reserves so far as the conservation of the water supply and the protection of the timber from fire are concerned, since the excessive rainfall in that region and the thick growth of ground moss make a fire almost impossible, and these conditions will surely prevent, and have heretofore prevented, fires from destroying this timber to any large extent.

No lumber has yet been shipped from Alaska, since the law forbids its exportation, and as all vessels must clear from Alaskan ports the same as from foreign ports, one loaded with lumber would be detected by customs officials either in Alaska or elsewhere, but the simple fact that the demand for lumber in that District during last year alone caused 12,176,000 feet of boards, deals, etc., and 8,688,000 shingles to be imported, shows that the Alaskan mills were far from supplying the local demand. The total value of the imported lumber and wood products last year was \$692,814, and these figures do not, perhaps, include much of the lumber consumed by the canning companies in making the 2,631,320 cases used for their fish output.

In conclusion, I would suggest that a representative of the Interior Department be provided to look after the forestry interests and the natives of Alaska, and that he be empowered to appoint assistants to act in such localities as he might deem proper.

PROSPECTIVE WOOD-PULP INDUSTRIES IN ALASKA.

On this subject I take pleasure in making the following quotation from a carefully prepared report by Mr. F. J. Parke, an experienced and very efficient special agent of the General Land Office. Mr. Parke says:

In order to present the importance of this question fully, I desire to call your attention to the following carefully prepared statistics of the year 1900, and the number of mills and the amount of material used have vastly increased since that date.

There were in operation in the United States, during the year 1900, 763 paper-making plants, all in active operation and representing a total capital of \$167,507,713 and giving employment to 64,186 persons. The total cost of the material used during the year was \$70,530,236; the total value of the products was \$127,326,162, and the total power required for running these plants was 764,487 horsepower.

A large paper mill will make 250 tons of paper a day, and at the rate of 500 feet of finished paper a minute.

These 763 mills, even at an average of 200 tons per day, will turn out each working day of the year 153,600 tons of finished paper, and in order to give an idea of the immense forests that are required to meet this necessity, I will quote from a recent article published in the *Scientific American*, and which bears directly on the question of "supply and demand":

"It has been estimated that 9 recent novels had a total sale of 1,600,000 copies. This means 2,000,000 pounds of paper. We are assured by a manufacturer of paper that an average pulp-wood tree averages a little less than 1 cord of wood, which is equivalent to 500 pounds of paper. In other words, these 9 novels swept away 4,000 trees. Is it any wonder that those who are interested in forestry look with anxiety upon the paper mills?"

When I was directed, under your instructions, to proceed to Alaska and make investigations and report as to timber conditions in that territory, I did not confine my observations to the mere illegal use of timber taken from Government land, but I endeavored to acquaint myself with the different classes of timber, the regrowth of same, and the best uses to which it could be adapted, so as to intelligently lay before you conditions that would assist you to recommend such legislation relative thereto as the necessities and conditions might require.

I ascertained from observation and from frequent conversation with lumbermen and others who had knowledge of the timber conditions of Alaska that less than 2 per cent of the timber growing there becomes suitable for manufacture into lumber, and I was impressed with the fact that only a small proportion of the other 98 per cent will be required for mining and other purposes, and that this class of timber could be more profitably and beneficially used in the manufacture of pulp and paper than for any other purpose.

The larger timber, suitable for lumber, only grows in the lowlands and the valleys, while nearly all of the mountains in southeast Alaska are thickly covered with a smaller growth of spruce and hemlock, which is accessible to the water and can be handled more readily and with much less expense than timber in any other part of the United States; and there is, I believe, a larger quantity of timber in Alaska suitable for this purpose than there is in all of the United States west of the Mississippi River. The water power which is necessary for the manufacture of pulp and paper is unlimited, and there is one other very important fact which should be taken into consideration, as the same conditions do not exist in any other part of the United States, and that is that the forests of Alaska will never be depleted or exhausted, as they reproduce themselves; which is, I believe, due to the Japan Current, the salt air, and the continual moisture, so that when the timber is removed there will always be a new and natural growth coming up to take its place.

It appeared to me very strange that while the mineral resources, the fur trade, and the fisheries of Alaska have been exploited in every possible manner by writers of books, by newspaper correspondents, Government officials, and through Government publications, not one mention has ever appeared in the reports of the governor of Alaska relative to this important industry and the immense value that must come to Alaska as a future pulp and paper section.

If proper laws are enacted that will encourage this industry, I believe that within a very short time there will be more people employed in southeastern Alaska in this one industry alone than there are now bona fide citizens in the entire Territory. This will not appear as an exaggeration when the fact is considered that there is not at present, exclusive of Russians and Indians, a bona fide population in the Territory of more than 20,000, while during the year 1900 there were employed in the United States in this industry alone 64,180 persons, and during the year 1903 there were more than 75,000 persons employed.

I believe that the day is fast approaching when Alaska will not only supply the greater part of the pulp and paper for the United States, but it will furnish a large part of the lumber used.

I believe that special legislation should be enacted looking to the protection of the forests of Alaska and laws passed that will have in view the encouragement and upbuilding of paper and pulp mills.

At no distant day the hemlock of Alaska will attract the attention of the tannery interests, as they will furnish an abundance of bark long after the supply has been exhausted elsewhere.

Wood and lumber imported into Alaska for year ending June 30, 1903.

| | |
|---|----------------|
| Wood and manufactures of, timber and manufactured wood..... | \$62,013 |
| Lumber: | |
| Boards, deals, etc., 12,176 M feet..... | 146,922 |
| Shingles, 8,688 M..... | 16,372 |
| All other..... | 220,658 |
| Manufactures of— | |
| Doors, sash, and blinds..... | 19,304 |
| Furniture, not elsewhere specified..... | 74,345 |
| All other..... | 153,200 |
| Total..... | <u>692,814</u> |

x-g.





