

THE WEST SHORE.

Vol. 10.

Portland, Oregon, September, 1884.

No. 9.

ESTABLISHED 1875.

THE WEST SHORE,

An Illustrated Journal of General Information, devoted to the development of the Great West.

Subscription price, per annum.....\$2 00
 To foreign countries, including postage..... 2 25
 Single copies..... 25

Subscription can be forwarded by registered letter or postal order at our risk.
 Postmasters and News Agents will receive subscriptions at above rates.

General Traveling Agent—Craigie Sharp, Jr.

L. SAMUEL, Publisher, 122 Front St., cor. Washington, Portland, Or.

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A CORDIAL invitation is extended to every one receiving this number of THE WEST SHORE to become a regular subscriber. Its handsome engravings of scenery of the Pacific Northwest and its reliable information render it of great value to one interested in this growing region. See publisher's rates above.

THE site of another future city of the Coast has been finally settled upon, and in this instance the conditions which will render it such are plainly apparent. This is the terminus of the great Canadian Pacific Railway, which will be completed before the end of 1885. It has recently been definitely settled that the terminal wharves, shops, warehouses, etc., shall be erected at Coal Harbor, on Burrard Inlet. The springing up of a large city at this point is a foregone conclusion, and the Government has decided to sell lots in that locality at reasonable rates [see advertisement on another page], so that the growth of the new city may not be obstructed. Real estate there is a sure and profitable investment.

It would be much more to the credit of Oregon editors if, when they desire to enlighten their readers upon the interesting topics of the early annals of this region, they would sip their information from the clear fountain of some reliable historical work, instead of "gleaning" it from the scribblings of some irresponsible correspondent who may have the good fortune to procure the publication of his literary offspring in *Harper's Weekly*. If such were the case we would not behold the spectacle of half the newspapers of the State gravely announcing the startling intelligence that the Columbia was discovered by "Captain Bruno," and entered in "1789" by Captain Gray. We will hear one of these days that the Whitman Mission was founded by Dr. Marcus.

THE new town of La Camas has already become quite a flourishing place. It contains two general merchandise stores, a grocery store, millinery store, drug store, blacksmith shop and two hotels, besides the saw mill and paper mill of the Columbia River Paper Company. The saw mill is busy in furnishing lumber for the town site company's improvements and for the business buildings and residences. The mill has a frontage of 288 feet. The main portion is 80x132 feet and three stories high, and the extension is 56x156 feet, two stories in height. A tunnel 2,400 feet long and 7x8 feet in dimensions brings water through the hill to operate the machinery and for use in the mill. Two dams have been constructed, containing 2,500 perches of stone. Cowan's Addition to the town site has just been platted, containing forty blocks.

ADJOINING us on the north is the beautiful, fertile and richly endowed Province of British Columbia, so connected with us by geographical position, the bonds of trade and a unity of interest and aspiration as to seem almost a part of the great Northwest of the United States. THE WEST SHORE has, from time to time, given glimpses of its magnificent scenery, and had frequently much to say about its resources and industries; but it presents this month an extended description of the Province, accompanied by illustrations of its chief cities, towns and industries. Long as the descriptive article is and numerous as are the engravings, they fail to do full justice to that magnificent region, of which it will have much to say in future. Persons desiring reliable information of the Province, as a whole or any part or portion of its industries, are advised to apply to Hon. John Robson, Provincial Secretary, at Victoria, who is ever attentive and obliging. Information from him, which will be cheerfully given, comes with an authority which renders it trustworthy and valuable.

THE movement East of Oregon fruit, which all far-seeing people predicted would follow the completion of the railroad, has begun in earnest. Telegraphic and mail orders are being received daily by dealers in this city from points along the line of the Northern Pacific as far East as St. Paul, and even from Winnipeg, Manitoba. Several car loads, also, have been forwarded on orders of the large dealers in California fruit in St. Paul and Chicago. It has been reported that Oregon fruit has been voted in the Eastern markets below that from California. If this is true, it will be but temporary, as the superior quality of the Northern fruit will soon make it appreciated, even if somewhat smaller in size than the Southern product. California fruit has won a great and exaggerated reputation, having occupied the field alone for fifteen years; but merit will make itself felt, and it cannot be long before its precedence will give way to the delicious fruits of Oregon.

QUEEN CHARLOTTE ISLANDS.

II.

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

They are inhabited exclusively by the Hydah Indians, now numbering about 800 souls, who live in the villages of Massett and Skidegate, on Graham Island; Gold Harbor, on Maud Island, in Skidegate Inlet; Cumshewa, on Moresby Island; Skedance, on Lyell Island; Tanoo, or Laskeek, on Tanoo Island, and at Ninstants, on a little island opposite the west coast entrance to Houston Stewart Channel. Their origin, in the absence of any written record or historical inscriptions, is an interesting subject for speculation. Their features, tattooing, carvings and legends indicate that they are castaways from Eastern Asia, who, first reaching the islands of Southern Alaska, soon took and held exclusive possession of the Queen Charlotte group. Their physical and intellectual superiority over the other North Coast Indians, and also marked contrasts in the structure of their language, denote a different origin. They are of good size, with exceptionally well developed chests and arms, high foreheads and lighter complexion than any other North American Indians.

Masset, the principal and probably oldest village of the Hydah Nation, is pleasantly situated on the north shore of Graham Island at the entrance to Massett Inlet. Fifty houses, great and small, built of cedar logs and planks, with a forest of carved poles in front, extend along the fine beach. The house of Chief Weeah is fifty-five feet square, containing timbers of immense size, and planks three feet and one-half in width and eighteen inches thick. The village now has a population of about 250, the remnants of a once numerous people, the houses in ruins here having accommodated several times that number. Massett is the shipyard of the Hydahs, the best canoe makers on the continent, who supply them to the other coast tribes. Here may be seen in all stages of construction these canoes which, when completed, are such perfect models for service and of beauty. This is the abode of the aristocracy of Hydah land—of Head Chief Edensaw, and of Weeah, Stilta, Kinaskilas, Kilt-slouia, Spena and Cootay, minor chieftains, who have but little now remaining except their titles, of which they are

very proud. Most of the other villages named were offshoots from the parent colony, caused by family and tribal feuds and quarrels. Chief Edensaw and most of his people were away at North Island and other points hunting fur seal, their most profitable pursuit. Those remaining appeared quite friendly, and disposed to look with favor upon my undertaking.

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

Returning to Massett I then prepared for a more extended trip, the circumnavigation of the entire group of islands, for the purpose of a preliminary survey of the coast country, to enable me to determine which portion

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

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

Island, and from thence southward for nearly forty miles, a magnificent, broad, sandy, gradually sloping beach extends the greater portion of the way, being only broken for short distances by rivers, creeks and rocky headlands.

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

Near the close of the thirteenth day we reached the Indian village of Skidegate, comprising thirty houses and 100 people. It is situated near the entrance to the inlet of that name, one of the most important bodies of water embraced within the Queen Charlotte group. At high tide it is navigable through connecting waters for small vessels entirely across the island, here about thirty miles, varying from one to five miles in width. Its shores are generally gradually sloping, with long stretches of sandy beach, bordered by a thick forest which, covering the mountains, rising from 800 to 3,500 feet, within from five to ten miles, bounds the horizon on every hand. Here are convenient halibut banks, salmon and trout streams,

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

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

I refitted at Skidegate, hiring a strong canoe and two Hydah Indians, known as Sam and Tom, who, together, were well acquainted with the principal waters to be traversed. Proceeding southward, steep and often precipitous mountains, ranging in elevation from 800 to 4,000 feet above the sea, rugged and rocky on their western slopes, densely covered with forests of spruce, hemlock and cedar, extend from Skidegate to Cape St. James, and from Queen Charlotte Sound to the Pacific Ocean, over all the islands, so far as my observations extend, except a few thousand acres of grazing lands. Small tracts of arable meadows and garden patches are cultivated by the natives. The narrowness of the island south of Skidegate leaves but little room for an interior, beyond the range of the eye, when standing upon the summits of the highest mountains, after having traversed their shores. The latter are uniformly rock bound, frequently bluff or precipitous, from 20 to 1,500 feet in height, with generally very limited borders of level country, the base of the steep mountains reaching down to the sea, with but narrow foothill slopes. The streams flowing from the short watersheds are small but numerous and, without exception, filled with fallen trees from their source to their mouth. Their waters are generally rapid, clear and good. Trout are plentiful in most of them, and a small, very excellent salmon is caught in considerable numbers

in several of the largest. We found Chief Skidegate and several of his people securing their spring supply by means of traps, from a creek flowing into Copper Bay, and Chief Skedance *en route* for the same purpose to a small stream emptying into Cumshewa Inlet from Louise Island.

The rivers, which I followed to their sources, rise in lakes and small swampy mountain basins. There are several harbors, where large vessels may find perfect shelter during the severest storms. Although the timber area is so great, there are but few localities where saw mills could be profitably operated. The forest embraces no Douglass fir, but little available yellow cedar or cypress, and only comparatively small bodies of merchantable spruce, which are accessible without the construction of expensive roads. Between Skidegate and Cape St. James there are more than thirty islands and islets, and bays, inlets, harbors, sounds and channels in great numbers. Day after day and week after week we paddled, moved and sailed along these wonderful shores, visiting the Indian villages of Cumshewa, Skedance, Laskeek, or Tanoo, and Ninstants, all occupied, and several others now abandoned. We also crossed Moresby Island from the east to the west coast at two different points, where the Indians assured me that there were trails over which canoes had sometimes been carried. We found no signs of a trail, except for a short distance, but, on the contrary, a country so difficult to traverse, on account of swamps and fallen timbers, that the transportation of canoes through it would be a most laborious undertaking.

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

Many of the natives, especially the women, were

painted; a few of the oldest wore rings on their ankles, and all had their noses pierced for them. My guides painted at Ninstants both black and red, and urged me to do so, saying that it would not only improve my appearance, but prevent the skin from blistering. The preservation of their complexion I find to be the principal reason for painting by the women. They are the fairest on the Coast, and evidently conscious of it. One young woman, exceptionally good looking, ran to a brook upon our approach, and quickly washed off the unsightly pitch, deer tallow and charcoal, that she might appear in all her native charms.

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

For considerable distances on the west coast rocky precipitous mountains face the sea, in places not less than 1,500 feet in height, almost perpendicular, rising over 4,000 feet within a few miles back. When running the gauntlet of the storms along these forbidding shores we looked into the mouths of several dark caverns of unknown depth. Twice Indian Tom raised his paddle, placed four small wads of tobacco thereon, and, with a supplicating motion of his right hand toward these caverns, made an offering to the spirits which are supposed to inhabit them, praying that we might have a safe voyage. Here we found what I believe to be the grandest scenery of the Queen Charlotte Islands. We had been pulling for six hours against head winds, squalls and rough seas along this rocky, high walled shore, which seemed to offer no place where a landing would be possible, when suddenly the canoe turned toward land, ran through a narrow rock-bound passage into a little

basin about fifty rods square, surrounded by mountains rising up precipitously from 1,500 to 2,500 feet, down which ten cataracts were plunging. Grand View Inlet, or whatever it may be called, is situated about eight miles south of Tanoo Harbor. As we were leaving it two land otters were seen swimming near the shore. Giving chase, one of them ran out upon the land, where, after an exciting hunt with dogs, it was killed. One evening, as we were camping in a rocky cove, Indian Sam suddenly seized his gun, ran down to the shore, and mounted a great rock where seal had been seen. Presently he fired, and then stripping off his shirt, dove headlong into the sea. He soon rose to the surface grasping a great seal, with which he swam to the shore. Although they had eaten a hearty supper they sat up until midnight gorging themselves with its excessively fat meat. They had one continual feast from the beginning to the end of the expedition, devouring, besides the supplies taken with us, seal, wild geese, duck, octopus clams, halibut, mussels, sea eggs, birds' eggs, fish spawn, salmon, etc., in great quantities. On the thirty-third day after leaving Massett, I returned to Skidegate through Skidegate Channel, where I again refitted for the west coast of Graham Island and the Virago Sound country, next to be traversed.

NEWTON H. CHITTENDEN.

DISCOVERY OF THE ROCKY MOUNTAINS.

THE Treaty of Ryswick was concluded in 1695, in which was a provision defining the boundaries of the colonial possessions of the various rival nations in America. This was definite and positive, but owing to the crude ideas of American geography which prevailed at that time, was imperfect in many respects. Florida, as the Spanish possessions north of Mexico were called, was bordered on the north by the Carolinas, but farther west the boundaries were quite indefinite, conflicting with the Louisiana of the French. France claimed as Louisiana all north of the mouth of the Mississippi and west of the Alleghanies, the western boundary being indefinite because no one knew how far towards the Occident the continent extended. She also claimed the region of the St. Lawrence and the chain of great lakes under the general title of Canada, these two provinces joining and interlacing without any line of division either expressed or understood. The Hudson's Bay country was also claimed by France, though not with much persistence, and it was at that time actually in the possession of England, in the person of the Hudson's Bay Company. The English colonies were east of the Alleghanies, from Maine to Georgia. In 1713 France relinquished to England her claim upon the Hudson's Bay region, and turned her attention to strengthening her position in Canada and Louisiana.

During the latter part of the seventeenth century and the first half of the eighteenth, French explorers and Jesuit missionaries traversed the Mississippi Valley, established a chain of stations between Canada and Louisiana, among them the city of St. Louis, and even penetrated the unknown wilderness lying between the

headwaters of the Mississippi and the "Shining Mountains," as they first called the Rocky Mountains, whose snowy sides and lofty spires of rock reflected the bright rays of the sun hundreds of miles to the westward. The most noted of these French pioneers were La Salle, Père Marquette, Baron La Hontan, Chevalier La Verendrye and his sons, Father Hennepin, Dupratz and Charlevoix. Nearly all of these wrote accounts of their travels, gave descriptions of the country and the native tribes, and from their own observations and the information gleaned from the Indians made maps of that region, embracing a little which they knew and a great deal which they guessed at. These maps, to say the least, are very queer. One of them, drawn in 1710 to show the results of a western journey accomplished by La Hontan, is especially odd. It shows a great river (called the "Long River"), up which he passed, as entering the Mississippi in the region of Dubuque, Iowa. This was, beyond doubt, the Missouri, though that stream is also represented in its proper place where it unites with the "Father of Waters," and is made to extend almost due west to the mountains. Passing across from the headwaters of the Mississippi and coming upon the Missouri so far to the north, he naturally supposed it to be another stream. Up this he followed, apparently branching off to ascend the Platte. He describes the upper part of the stream as a series of lakes and swamps. Some of his descriptions and the features of his map are very peculiar, so much so that historians have been inclined to doubt the extent of his journey. There is one feature, however, which tells in his favor. The map shows, at some distance to the southwest of the point indicated as the western limit of his wanderings, a large lake, which the Indians told him contained bitter water. This was undoubtedly Great Salt Lake, the one which years before the Indians of Mexico had endeavored to describe to the Spanish explorers. The lakes indicated as existing along the river beyond the point where the journey ended were probably so marked because he misunderstood the Indians when they spoke of the many large lakes existing in the region to the westward.

One feature is very prominent in the reports of nearly all these early French explorers—the fact that beyond the "Shining Mountains" was a large river flowing westward to the "Great Water," in the latitude of the headwaters of the Mississippi. This they learned from the Indians with whom they came in contact. Though, with the exception of the Verendryes and their successors in command along the Saskatchewan, probably none of them went further west than the Red River of the North, still the Indians of that region, in the years of peaceful intercourse or bloody hostilities with the tribes beyond the mountains, must have become sufficiently familiar with the geography of the country lying between the Rocky Mountains and the Pacific to know of the existence of such a large stream as the Columbia. When the trappers appeared among the Cheyennes, Crows, Blackfeet, Pawnees, Sioux and other tribes early in the present century, they found them to

be possessed of quite an intimate knowledge of the topography of the country west of the mountains occupied by the Shoshones, Bannocks, Flatheads and Nez Percés, and there is no reason to suppose that a hundred years earlier their knowledge was not nearly as great. The assertion that a great river existed beyond the mountains was not like those tales of the "City of Quivira" and the "Land of Cibola," which led the Spaniards to take such long journeys into the deserts of Mexico and Arizona two centuries before. Coming from different tribes, through sources that were recognized as being totally distinct, it was accepted as a geographical fact that such a river existed, and a stream of that nature was indicated on the maps of the period bearing the various titles of "River of the West," "River Thegayo," "Rio de los Reyes" (the mythical stream of Admiral Fontè), and "Rio de Aguilar" (the one whose mouth Aguilar claimed to have discovered in 1603). De L'Isle, geographer of the Academy of Science, Paris, wrote March 15, 1716: "They tell me that among the Scioux of the Mississippi there are always Frenchmen trading; that the course of the Mississippi is from north to west, and from west to south [evidently the Mississippi is here confounded with the Missouri]; from that it is known that towards the source there is in the highlands a river that leads to the western ocean." De L'Isle warmly urged the government to explore the far West in search of this river and the "western ocean" into which it flowed, and was seconded in his efforts by a learned priest named Bode. Temporary posts had been established many years before in various parts of Minnesota. Du Luth built one near the head of Lake Superior in 1678; Perrot founded another below Lake Pepin in 1683; a stockade was erected above Lake Pepin, on Prairie Island, in 1695, and Le Seur had a post in 1700 on the Blue Earth, near the site of Mankato. The importunities of De L'Isle and Père Bode caused the government to begin an energetic policy of Western exploration and occupation in 1717, commencing with the re-establishment of the fort of Du Luth and another further west among the Sioux. Other posts followed in rapid succession. In 1728 Sieur de la Verendrye, who was in command of these advanced posts, received such definite information of the "Shining Mountains" from the Indians, and of the great river beyond them which flowed towards the western sea, that he decided to make a systematic exploration of those unknown regions. His application for authority was favorably considered by Charles de Beauharnois, Governor-General of Canada, and orders were given for the fitting out of an expedition.

In 1731 two sons of the Chevalier Verendrye left Montreal with a detachment of fifty men, their father not joining them until two years later. They reached Rainey Lake in the fall, and at the foot of the lake built Fort St. Pierre, named in honor of their father, whose baptismal name was Pierre. Next year they established Fort St. Charles, named in honor of the Governor-General, on the southwestern shore of the Lake of the Woods. Further on they built a post on the Assiniboine, five leagues from

Lake Winnipeg, and Fort Maurepas, on Winnipeg River. In June, 1736, a party of twenty-six, among whom was a younger son of the Chevalier, were massacred by Sioux Indians while encamped on a small island in the Lake of the Woods. In October, 1738, the Verendryes built Fort La Reine, further west on the Assiniboine, which became their base of operations. In 1742 the two sons of the Chevalier left Fort La Reine with a small party for the purpose of fully exploring the "Shining Mountains." They followed up Mouse River in a southerly direction to the country of the Mandans (called by them "Montanes"), crossed the Missouri a little below the site of Fort Berthold, and ascended the stream to the canyon below Helena, making a portage around the Great Falls, which they described in their report, differing in no essential particular from the description given by Lewis and Clarke sixty-two years later. At this point, now known as the "Gateway of the Mountains," they ascended the summit of the range on the 12th day of January, 1743, not far from Bear Tooth Peak, of which they speak as a tusk-shaped mountain. They then passed up Deep Creek (Smith River), crossed the mountains to the headwaters of the Musselshell, and thence across to the Yellowstone at the mouth of Pryor River. They followed up this stream to the Stinking Water and on over the mountains to Wind River. Here their progress was arrested by a fierce war raging between the Snakes and Sans Arc branch of the Sioux; but they were told by the friendly Snakes of the location of Tongue and Green rivers. They then returned to the upper Missouri and raised a monument of stone near the mouth of the Jefferson—in what they called the "Petite Cerise" (Choke Cherry country)—as a witness that they took possession of the country in the name of the King of France. This they christened "Beauharnois," and beneath it deposited a leaden plate bearing the French coat-of-arms. This ceremony of dedication was performed May 19, 1744. They then resumed the homeward journey. North of the Assiniboine they explored the Saskatchewan—called by them "Poskoic"—as far as the forks, and built two forts, one near Lake Dauphin (Swan Lake) and the other on the "River des Biches." They reached the Lake of the Woods on the 2d of July, and reported the northern route by the Saskatchewan as preferable to the Missouri, because of the absence of danger of meeting Spaniards, whom they feared might be encountered further south. They would not have felt so much solicitude on the subject if they had been aware that the Jesuit missions in the extreme southern portion of the peninsula of Lower California were the farthest north of the Spanish colonies on the Pacific Coast.

Before starting upon their two years' journey they had been informed by the Indians that the "Shining Mountains" were full of gold. When they reached the mountains they were disappointed to find that it was not gold, but barren rock and snow, which reflected the rays of the sun so brightly, and they changed their name to "Stony, or Rocky, Mountains." The furthest west the information gained by the Verendrye brothers extends is

to the Flathead Indians, of whom they speak, living just west of the main chain of the Rockies and within the limits of Oregon, as that territory existed when it was in dispute between the United States and Great Britain, but now in the western extremity of Montana. They encountered a band of Flatheads, who told them of their country west of the mountains, and of the great lake from which a river ran. This lake, they understood the Indians to say, was the source of a tributary of the Missouri, but the cause of their error is evident, as Sun River flows from the mountains in that direction. They were also told of the great river running westward to the ocean, but were not able to cross the divide to explore it. The river to which the Indians referred was probably the stream first reached by Lewis and Clarke when they crossed the main divide, and which they named "Clarke's River." The stream is now known at various points along its course as "Deer Lodge," "Hellgate," "Bitter Root," "Missoula," "Clarke's Fork" and "Pend d'Oreille," though a commendable fidelity to history, and a proper regard for the honor of one of our greatest explorers, demands that the use of every name but that of "Clarke's River" to be at once abandoned.

The Chevalier Verendrye was relieved of his command of the frontier soon after this expedition, but was restored a few years later by Galissonere, the successor of Beauharnois. He died December 6, 1749, while planning a tour up the Saskatchewan. His son was deposed by Jonquierre, the next Governor-General, who dispatched two expeditions in search of the Pacific. One of these was commanded by St. Pierre, and was to ascend the Saskatchewan, while the other, headed by Marin, was to go up the Missouri. St. Pierre excited the hostility of the Kinsteneaux Indians, who attempted to kill him; and though they failed in this they succeeded in burning Fort La Reine. He sent Lieutenant Bouchet de Neville to establish a post at the head of the Saskatchewan. This effort proved a failure because of sickness, but in 1753 some of the men established Fort Jonquierre in the Rocky Mountains. In 1754 St. Pierre was relieved by De la Crone, and the following year fell in the battle before Fort St. George. The proposed expedition of Marin up the Missouri was a complete failure. When France surrendered Canada to the English in 1763 these frontier posts were all abandoned, and the Rocky Mountains became again the undisputed home of the aborigine.

HARRY L. WELLS.

CHRONOLOGY OF EVENTS.

August.

- 1—Arrival of the Greely party at Portsmouth, N. H.
- 4—Fire in East Portland; loss, \$65,000. . . . Pennsylvania ferry burned at Jersey City; loss, \$100,000. . . . \$20,000 fire in Seattle.
- 5—\$300,000 fire in San Francisco. . . . La Porte, Cal., destroyed by fire. . . . Steamer *Amsterdam* wrecked on Sable Island, near Halifax; three drowned.
- 6—Sexton & Codd's saw mill at Palouse City, W. T., burned; loss, \$30,000.
- 10—Slight earthquake in Pennsylvania, New Jersey and New England. . . . French capture Ketung, on Island of Formosa.
- 16—Onoka, Minn., destroyed by fire.
- 18—Forty buildings burned at Greenville, Texas; loss, \$360,000.
- 19—Destructive fire in Roseburg; loss, \$100,000; two lives lost. . . . Louis A. Knott lynched at Colfax, W. T., for the murder of Wm. T. Higgins.
- 21—United States Steamer *Tallapoosa* sank off Woods Hole, Mass., after a collision with schooner *Lowell*.
- 23—Foo Chow bombarded by the French; Chinese fleet destroyed.
- 26—Mingan Forts near Foo Chow destroyed by the French fleet.
- 27—Lima, Peru, attacked by rebels; 150 people killed. . . . N. P. R. store house burned at Ainsworth, W. T.; loss, \$50,000.
- 28—Sleeping car burned near Greeley, Col.; ten men burned to death.
- 29—Fire corner Yamhill and Second streets, Portland; loss, \$85,000. . . . Destructive cyclone at Evansville, Ind. . . . Steamer *Standish* sunk in Boston harbor by collision with a tug; passengers all saved.
- 30—Severe storms in Indiana, Illinois, Massachusetts and Vermont. . . . The Pope issues an evangelical letter against the new French divorce law.
- 31—Striking coal miners in the Hocking Valley, Ohio, provoke a riot; Governor Hoody orders militia out.

SHIPMENT OF DRESSED BEEF.

THE business of shipping dressed beef from Dakota and Montana, which was inaugurated last year by the Marquis de Mores, has prospered even more than its originator anticipated. Several establishments were built along the line of the Northern Pacific, which have proved inadequate to handle the business. The *Medora Cow Boy* says of this industry: "The Northern Pacific Refrigerator Car Company is about to indulge in a series of improvements that are destined to almost revolutionize the meat trade of the West. Beside the magnificent buildings at Duluth, St. Paul and elsewhere, many additional ones will be built. What interests us most, however, is the improvement that will be made here at Medora. The present abattoir and cooling rooms are entirely insufficient for the needs of the company, and will be torn down to make room for buildings capable of containing the operation of killing and cooling 500 head of cattle a day. It will be one of the largest, if not the largest slaughter house for cattle in the world, and will be built entirely of brick. The old house will be left standing for the fall trade and the new one will be in full running order for next summer's trade. In addition to this the company will drive up 20,000 head of cattle into the Bad Lands and fatten them for their own use. There is no question that range beef does and will sell equal to corn-fed beef, and from our slaughter house it can be laid down in Chicago at from three-quarters to a cent a pound cheaper than any other beef. This is an immense profit, and guarantees the company in its expenditures. The trade in Minneapolis and St. Paul alone amounts at present to more than seventy-five head a day, and this is only a drop in the bucket to the market to be opened."

SOME FACTS ABOUT PEPPERMINT.

IT may not be generally known, but it is nevertheless the fact, that the United States is the leading producer of peppermint and peppermint oil in the world. It is principally grown in the State of Michigan and in Wayne County, New York. Our production of oil in 1878 reached as high as 150,000 pounds, but in 1883 the yield was computed at not more than 35,000 pounds. This year a larger acreage has been planted, but prices have advanced on account of the decreased stocks. The usual annual consumption of the world is about 100,000 pounds, but it is expected there will be a considerable increase this year, as also in other essential oils, on account of apprehension of cholera. Peppermint is grown to best advantage in good garden soils, but requires an abundance of moisture. An acre will grow plants enough to yield from eight to fifteen pounds of oil, according to the age of the plant and the locality, and the price is from \$3.25 to \$3.75 a pound. There are no large farms entirely devoted to this product, but it is cultivated in small quantities by many farmers. It is used in medicine, confectionery, and for perfumery, and is diluted with alcohol and water to make essence of peppermint. It is also largely used by sanitary engineers for testing joints in a pipe leading therefrom, its pungent odor not being

apparently at all affected by the sewer gases. Peppermint is to a considerable extent adulterated with castor oil, oil of turpentine, and oil of penneroyal, but these adulterations can be detected without much difficulty.

POISONOUS COFFEE.

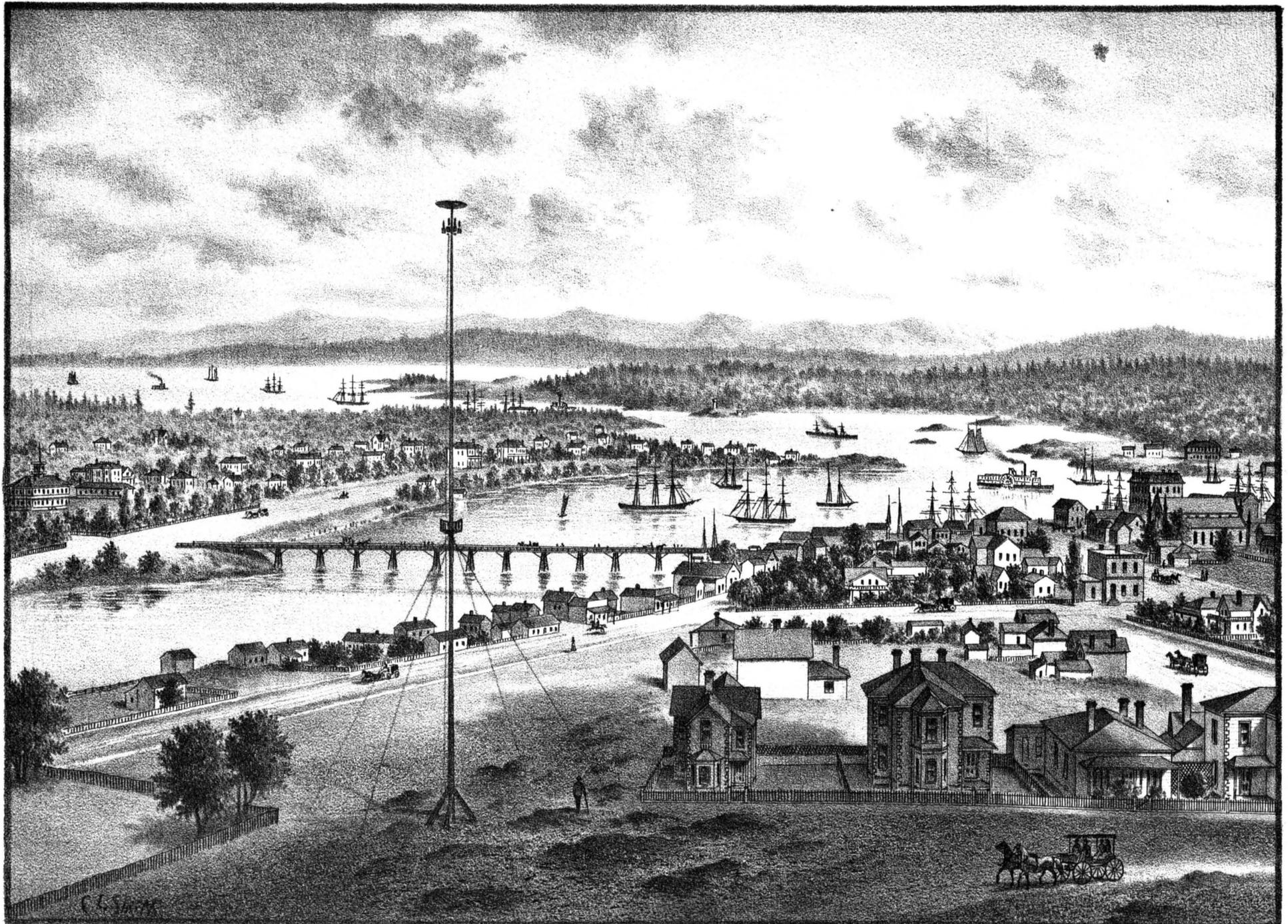
MOST people think if they buy coffee in the berry, roast and grind it at home, they are sure of having obtained a healthy article—the Simon pure Java. But it may be they have been both deceived and poisoned. In Brooklyn the Health Inspector recently found several well-known coffee dealers who were in the habit of doctoring cheap Central American coffee so as to make it resemble and sell for true Java. This was accomplished by polishing the coffee berries in rotating cylinders, with the addition of such stuffs as chromate of lead, Silesian blue, yellow ocher, Venetian red, drop black, burnt umber, charcoal, soapstone, chalk and Prussial blue. Some of these substances contain lead, copper and arsenic, and when the doctored coffee was subjected to chemical test these metals were found in poisonous quantities. The Health Board promptly ordered the discontinuance of this mode of coffee adulteration, and the enterprising dealers will now have to move across the river into New Jersey or some other State, where their nefarious traffic may be conducted without the interference of the authorities.

THE MOSQUITO'S INSTRUMENT OF TORTURE.

A WRITER in the London *Sportsman* thus describes a mosquito as seen under a microscope: "It appears that in the 'bill' of the little beast alone there are no fewer than five distinct surgical instruments. These are described as a lance, two neat saws, a suction pump, and a small Corliss engine. It appears that when a 'skeeter' settles down to his work upon a nice tender portion of the human frame the lance is first pushed into the flesh, then the two saws, placed back to back, begin to work up and down to enlarge the hole, then the pump is inserted and the victim's blood is siphoned up to the reservoirs carried behind, and finally, to complete the cruelty of the performance, the wretch drops a quantity of poison into the wound to keep it irritated. Then the diminutive fiend takes a fly around just to digest your gore, and makes tracks for a fresh victim, or if the first has been of unusual good quality he returns to the same happy hunting ground. The mosquito's marvelous energy, combined with his portable operating chest, make him at once a terror and a pest."

PARTIES desiring even more minute details of British Columbia and her resources than can be found in this number of THE WEST SHORE, are advised to procure a copy of the "Directory of British Columbia," soon to be published at Victoria by R. T. Williams. As a Directory it is the most thorough and complete issued on the Pacific Coast, containing not only an accurate list of the residents of each locality, but descriptions of the surrounding country, its resources, products and industries. It is a valuable compilation.

COAL FIND.—A telegram from Nanaimo, dated August 27, says: "A seam of good coal thirteen feet thick has been reached in No. 5 shaft of the Wellington Colliery. This is considered the most important strike made in this district for years."

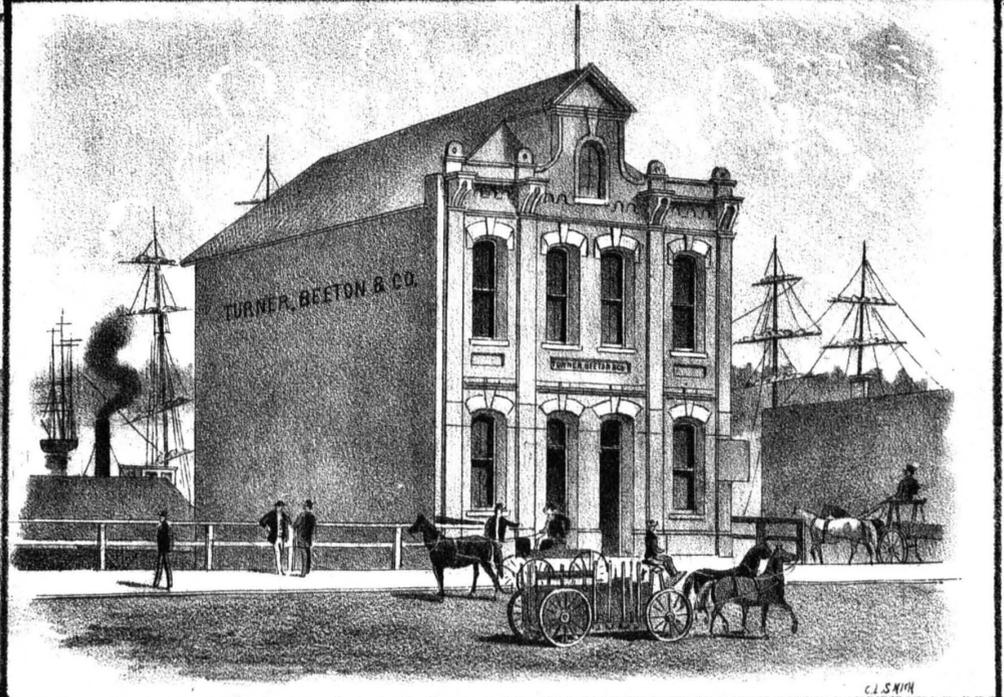
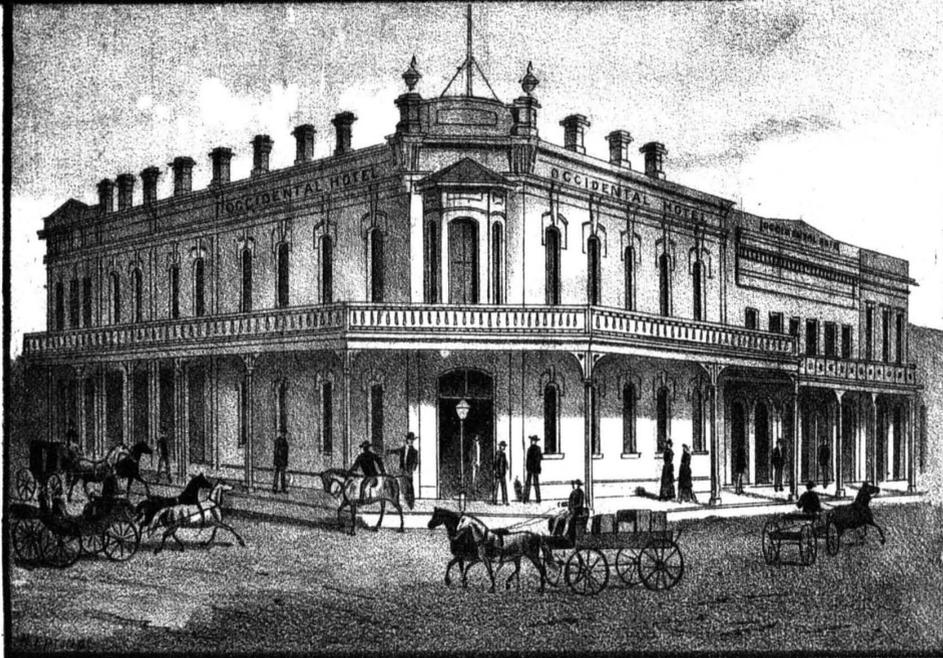
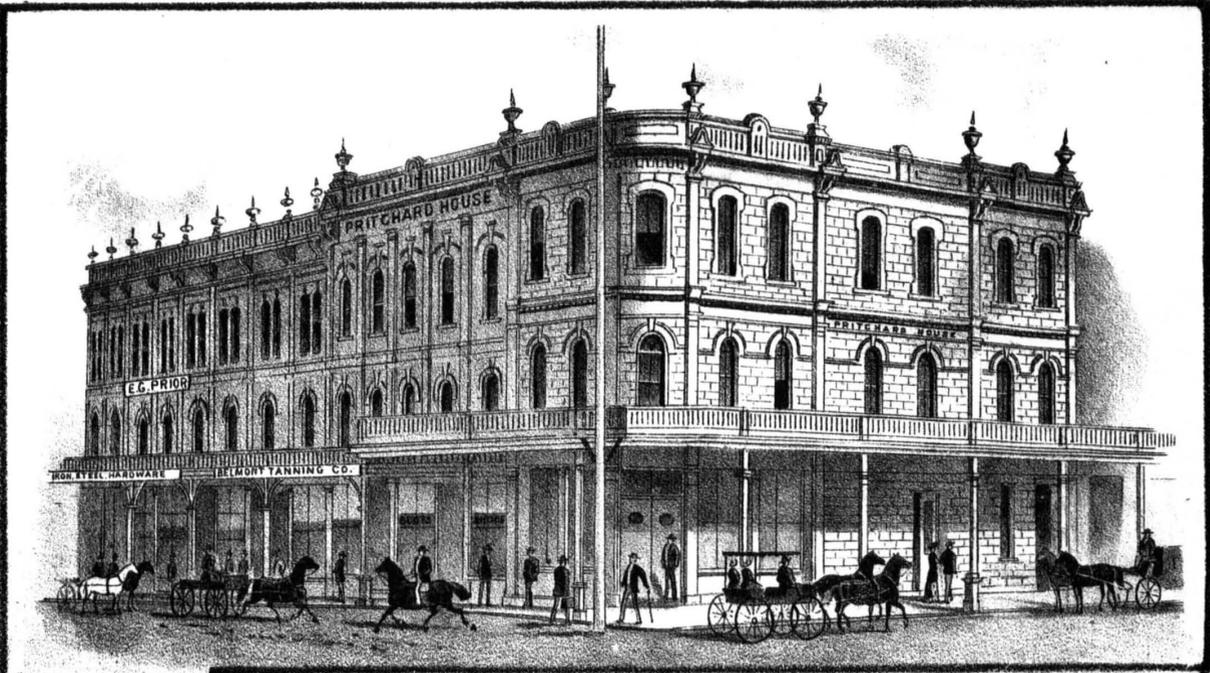


THE WEST SHORE.

ENTRANCE TO THE HARBOR OF VICTORIA, B.C.

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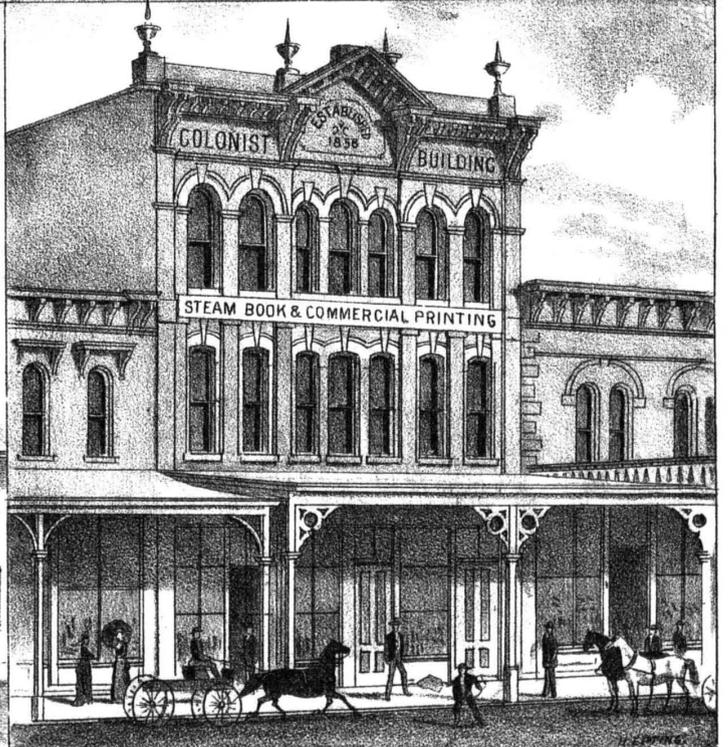
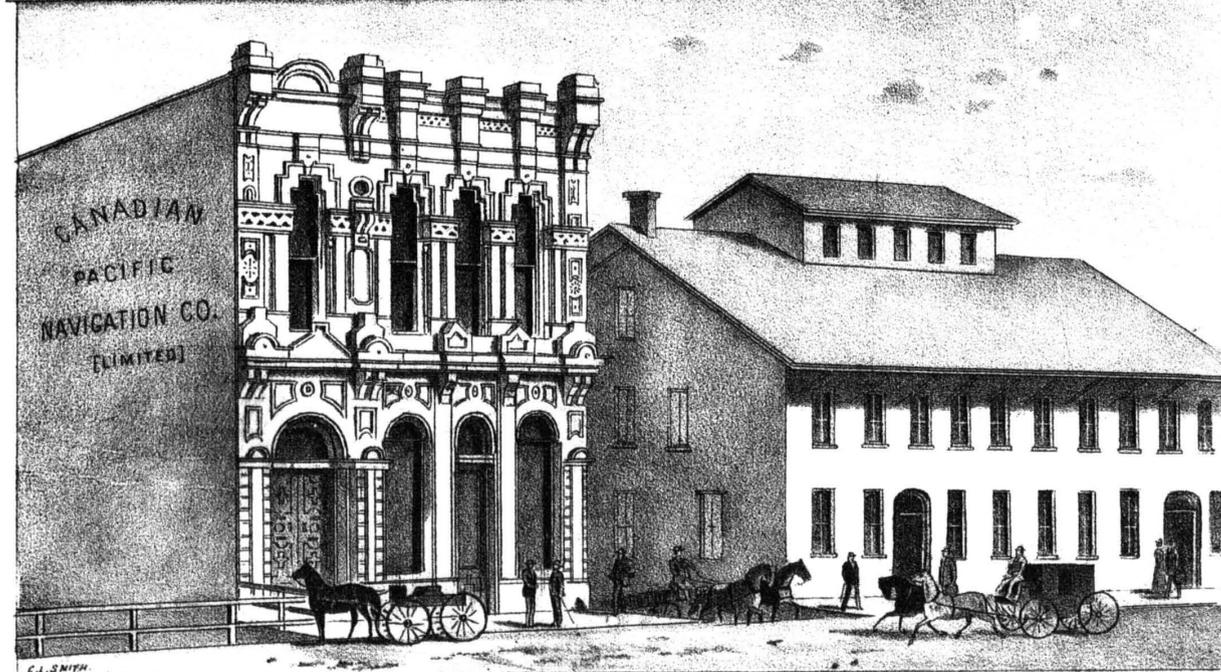
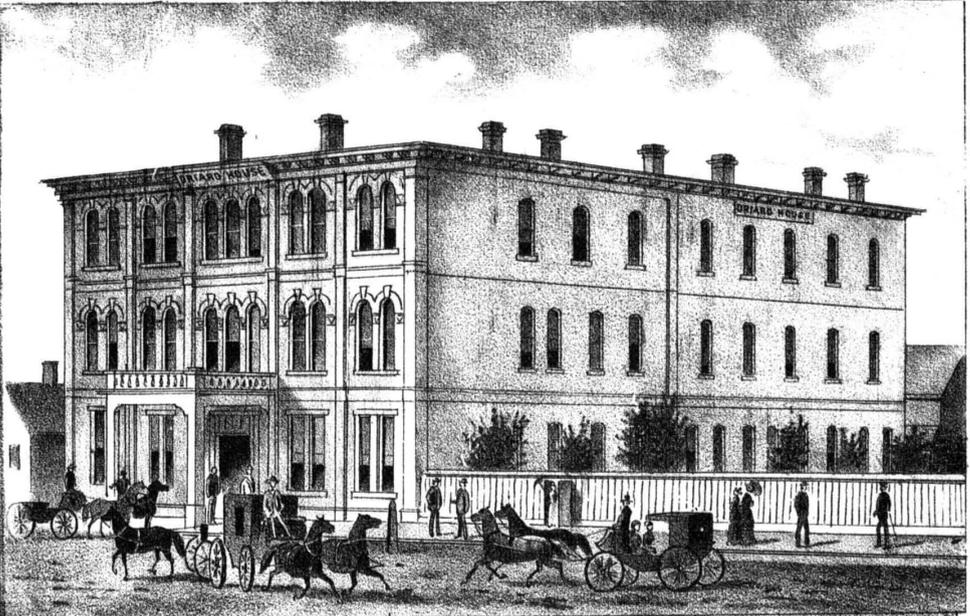
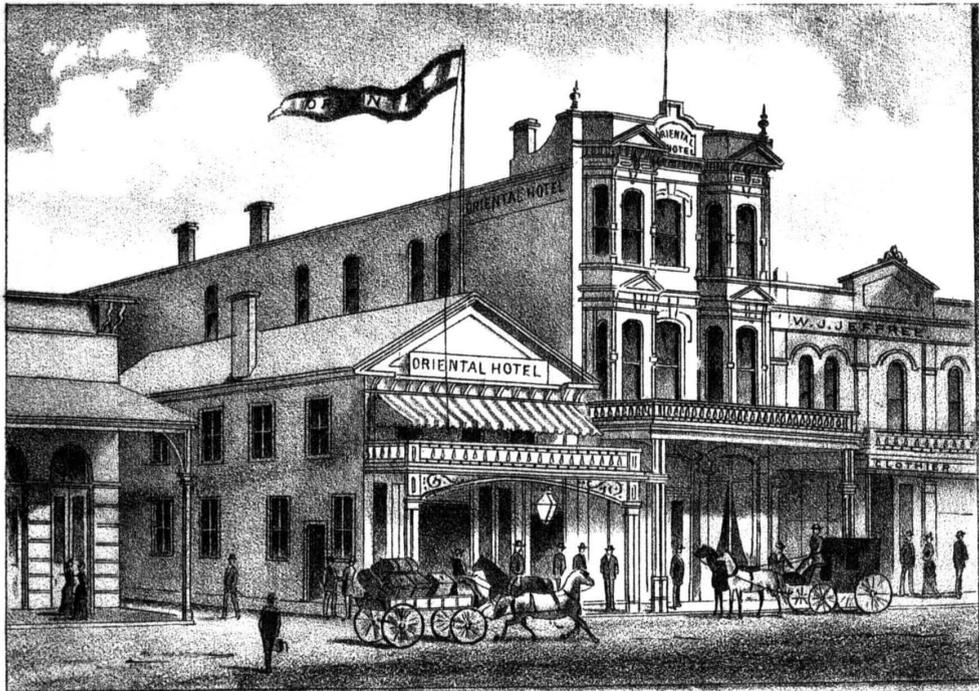
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WEST SHORE LITH

C.L. SMITH

VICTORIA, B.C.



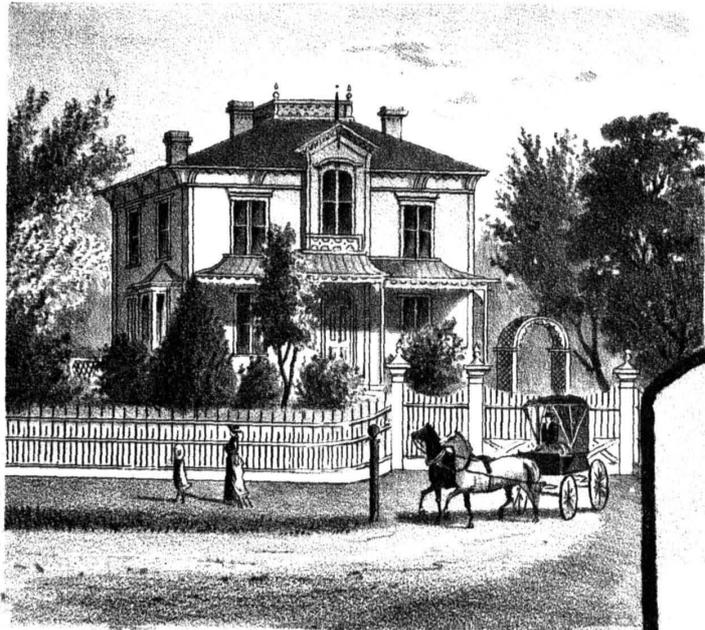
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HEADQUARTERS HUDSON'S BAY CO.
VICTORIA, B.C.

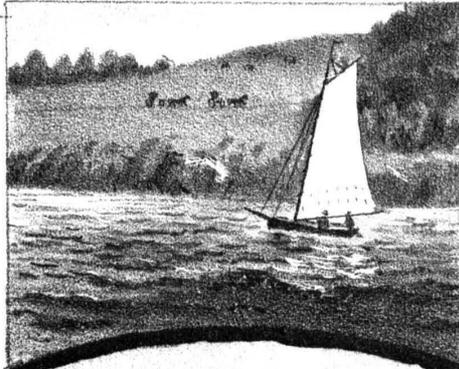
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THE WEST SHORE.



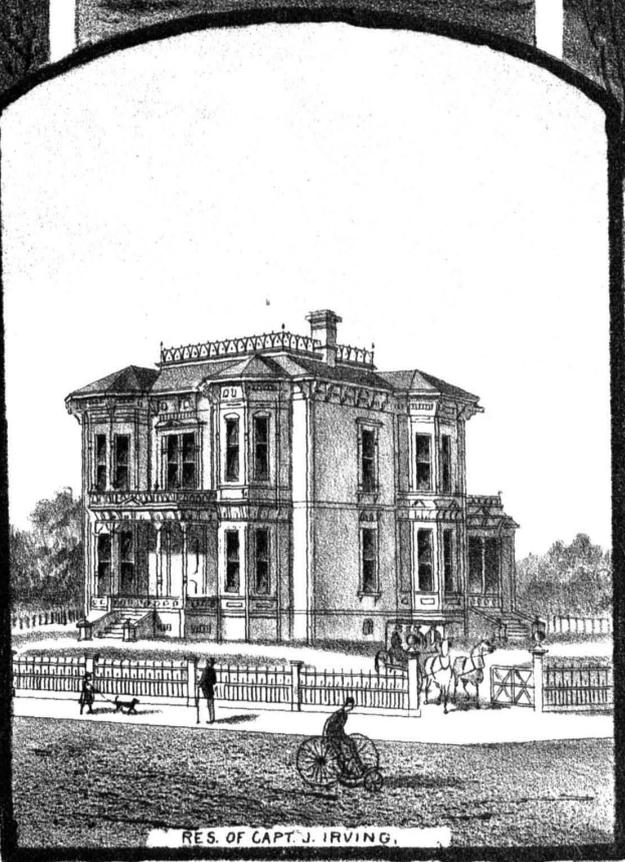
RES. OF R.P. RITHET ESQ.



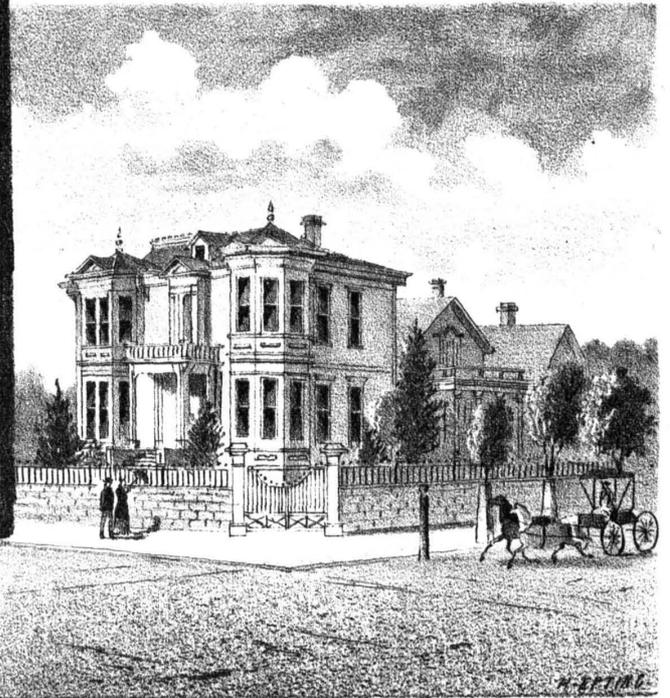
RES. OF E.G. PRIOR ESQ.



RES. OF A.B. GRAY ESQ.



RES. OF CAPT. J. IRVING.



RES. OF R. DUNSMUIR, M.P.



VICTORIA, B.C.

THE PROVINCE OF BRITISH COLUMBIA.

BRITISH COLUMBIA is a Province of the Dominion of Canada, and is the only dependency of the British Crown bordering the Pacific Ocean on the west coast of America. No other member of that great confederation has resources so rich, varied and inexhaustible; a climate so healthful, invigorating and agreeable; a coast line so magnificent, abounding in excellent harbors, safe entrances to navigable streams and long stretches of inland sea, or sheltered gulfs, sounds, bays and inlets; such a wealth of economic and precious metals, timber, coal and fish; none for which Nature has done so much—and man so little. Now comparatively easy of access from the great centers of population—and soon, by the completion of the great Canadian Pacific Railway, to be rendered even more so—British Columbia stands with doors wide open, inviting the enterprising capitalist, the enlightened farmer, the skilled artisan, the frugal and industrious laborer, and all who understand the use of hands and brains, to enter and participate in the work of developing her dormant resources, increase her budding industries, and make for themselves homes where they may enjoy the comforts, and, in time, even the luxuries, of life. Nor is this invitation extended simply to the subjects of Great Britain alone, for the intelligent, industrious and law-abiding of every nation will meet with a cordial reception, and will find his rights of person and property as well, and often better, protected as they were in his native land. Citizenship, with all its rights, privileges and honors, is conferred upon the deserving of every race, those who declare their allegiance to her Majesty, the Queen of England, and conform to the liberal laws of naturalization. Desirable as this is for the mutual welfare of the individual and the Province, it is by no means necessary, full and complete security of property and person and protection in the transaction of business being accorded to all.

The Province has the general shape of a parallelogram, 760 miles long and 500 broad, containing a superficial area of 350,000 square miles. The Rocky Mountains, the great "backbone of the continent," form the eastern boundary, separating it from the remainder of Canada, and the Pacific Ocean bounds it on the west, save for a distance of about 300 miles on the extreme north, where the Alaska possessions of the United States interpose between it and the sea. Its southern limit is the forty-ninth parallel, which forms the international boundary line between the Province and the United States, and the northern is the sixtieth parallel. The general surface of the country is mountainous and broken, consisting of short mountain ranges, detached groups of mountains, elevated plateaus and many valleys of various extent. Running parallel with the Rocky Mountains, and in many places scarcely distinguishable from them, are masses of mountains, and along the coast lies a high range usually indicated as a continuation of the Cascades, but, in fact, a northern extension of the great Coast Range. Lying between these two, and extending as far north as latitude 55 30 degrees, is an irregular belt of

elevated plateau. Beyond this the mountains, except those bordering the coast, decrease in height, and before the limit of the Province is reached the land has a gentle slope towards the Arctic Ocean, Peace River and other streams of the Arctic watershed finding their sources there. Such are the general features of the interior—high mountain ridges on the east and west, enclosing a high plateau, down the center of which flows the Fraser River, its general course being south until almost to the international line, where it turns sharply to the west and enters the ocean. The other great streams of the interior are Thompson River, entering the Fraser from the east, and the Okanagan, Columbia and Kootenay, the last two having very eccentric courses. The Columbia rises almost in the extreme southeastern corner, sweeps north-erly around the upper end of the Selkirk Range, and then flows directly south between the Selkirk and Gold mountains into the United States. The Kootenay has its source in the same region as the Columbia, makes a long sweep to the south, crossing the boundary line, and, returning again, discharges its waters into the Columbia. One peculiarity of this region is that nearly every stream of consequence has its origin in, or passes through, one or more long, narrow lakes, consisting in many places of simply a broadening of the river, and at others a well-defined lake of considerable area. Such are Shuswap Lake, whence flows the Thompson, and Lake Kamloops, through which the same stream passes; also Upper and Lower Columbia and Upper and Lower Arrow lakes along the course of the Columbia, and Lakes Kootenay and Okanagan, features of the streams thus christened. Lakes and water courses abound from one end of the Province to the other, many of them navigable by steamers of a light draught for great distances.

The coast line is the most wonderful in the world. The mountains border closely upon the sea, the shore being indented by a multitude of bays and inlets and fringed by countless small islands, between which run tortuous, but safe and navigable, channels. Outside of these, and protecting these inland channels for nearly the entire length of the coast, are a series of large islands, the greatest and most southerly of which is that of Vancouver, on which Victoria is situated. In referring to this peculiarity the Earl of Dufferin, at that time Governor-General of Canada, said, in a speech delivered at Victoria on the 10th of September, 1876: "Such a spectacle as its coast line presents is not to be paralleled by any country in the world. Day after day, for a whole week, in a vessel of nearly 2,000 tons, we threaded an interminable labyrinth of watery lanes and reaches that wound endlessly in and out of a network of islands, promontories and peninsulas for thousands of miles, unruffled by the slightest swell from the adjoining ocean, and presenting at every turn an ever-shifting combination of rock, verdure, forest, glacier and snow-capped mountain of unrivaled grandeur and beauty. When it is remembered that this wonderful system of navigation, equally well adapted to the largest line of battle-ship and the frailest canoe, fringes the entire seaboard of your

Province and communicates at points, sometimes more than a hundred miles from the coast, with a multitude of valleys stretching eastward into the interior, while at the same time it is furnished with innumerable harbors on either hand, one is lost in admiration at the facilities for inter-communication which are thus provided for the future inhabitants of this wonderful region."

Several Spanish and English exploring expeditions coasted along the Province and landed at various places to take formal possession of the country in the name of their sovereigns before any actual effort was made at colonization. Finally, in 1788, an English fur trader, who, for commercial reasons, was sailing under the Portuguese flag, built a small house at Nootka Sound, on the west coast of Vancouver Island, then considered a portion of the mainland, and constructed a small coasting schooner. The next year a Spanish officer took possession of the port, erected a fort, seized the three English vessels, and sent officers and crews as prisoners to Mexico. This imperious act led to a heated controversy between Spain and England, nearly precipitating a war between those powerful nations, which culminated in a treaty in 1790, by which Spain resigned to her rival all claim upon Nootka Sound, without prejudice to her general rights in that region. Bodega y Quadra was appointed commissioner on the part of Spain to surrender the port to England, and Captain George Vancouver was dispatched by the English government to receive the transfer and make careful explorations in that portion of the Pacific. Vancouver arrived in 1792, explored Puget Sound and the Gulf of Georgia, bestowing the names now borne by the most prominent objects in that region, and calling the country "New Georgia." In 1793 he met Quadra at Nootka and received the formal surrender of the port. At that time the two commissioners agreed to name the large island, for such they had learned it to be, in their own honor, and both entered it upon their charts as the "Island of Vancouver and Quadra," though in after years the Spaniard's name was dropped from the title.

During the year 1793, while Vancouver was exploring the inlets and bays of the Gulf of Georgia, Alexander Mackenzie, one of the partners of the Northwest Company, made the first overland journey to the Pacific. He started the previous October from Fort Chipewyan, the advance post of the great fur company he represented, and followed up Peace River to the base of the Rocky Mountains. In the spring he crossed the mountains and came upon the Fraser River, which he named the "Tacoutchee-Tassee." This name was dropped and "Columbia" substituted when, upon his return, he learned that the mouth of that stream had been discovered the year before. He descended the river southward in canoes a distance of 250 miles, and then turned to the west and crossed the mountains to the coast at an inlet in latitude 52 degrees and 20 minutes, arriving only a few days after Vancouver's fleet had explored and named it "Cascade Canal." The next step towards occupation was taken in 1805 by Simon Fraser, a representative of the same com-

pany. He left Fort Chipewyan and followed Mackenzie's route as far as Fraser Lake, where he established a trading post. The country was then called "New Caledonia." In 1812 he followed the river to the ocean, and thus learning that it was not the Columbia, bestowed his own name upon it. During the next thirty years the consolidated Hudson's Bay Company founded a number of trading posts, or forts, and in 1843 established a general supply station for this region on Vancouver Island, which they named "Victoria," in honor of the young Queen who had recently ascended the throne of England. The license of exclusive possession and trade held by the company expired in 1856, at which time mining operations were being carried on along the Fraser by old employés of the company, which fact was reported to the home government. News reached San Francisco in 1857 that there were boundless gold fields along this northern stream, and a wave of excitement swept over the Pacific Coast the following year. Thousands hastened to the new mines, and though the majority of them returned home disappointed and financially ruined, the mines proved to be very rich, and for years yielded vast quantities of gold, and are yet being extensively worked. Parliament passed an act in 1858 to "Provide for the Government of British Columbia," and James Douglas, Chief Factor of the Hudson's Bay Company at Victoria, was appointed Governor.

It is needless to follow the Province through the successive stages which have brought it to its present condition. Sufficient to say that, under wise legislation and able government, it prospered greatly, in spite of the neglect suffered at the hands of the home government, which could neither appreciate the value nor understand the needs of this far-distant dependency. Victoria, New Westminster and other prosperous communities sprang up and flourished; free schools and churches were founded; other industries than mining were inaugurated, and the varied and rich resources of the country began slowly to be developed. In 1871 British Columbia became a Province in the great confederation of the Dominion of Canada, and now not only enjoys the most complete local self-government, but is fully represented in the Dominion Parliament at Ottawa, where she is making her influence felt.

Law reigns supreme in the Province. Justice is administered with that inflexible integrity which is characteristic of the British courts. Crime is at a minimum and lynch law is unknown. In this respect the Province offers a favorable contrast with the region south of the international line. Education receives much attention, and most excellent free schools are maintained. There are also higher institutions, for the benefit of those desiring a more extended and liberal education than can be obtained in the public schools. Churches are numerous and well attended, and everything indicates that the people are the moral and intellectual peers of the citizens of those much older communities on the Atlantic slope.

The population of the Province approximates 70,000, of which about 10,000 reside in the city of Victoria. In

this are included some 30,000 Indians and from 8,000 to 10,000 Chinamen. The white population is increasing at a rapid ratio, and it is impossible to determine its number within a few thousands. Of this class the majority are of English extraction, coming from the mother country or some of the numerous dependencies of the crown. There are also French, Germans, Italians and representatives of every European nation, as well as many from different portions of the United States. Apparently incongruous as these elements are, the preponderance of English influence molds them into a harmonious whole, and the general and local governments are conducted in the true British manner, the laws impartially enforced and justice and protection accorded alike to all. The magnitude of the Indian population may seem a source of danger to one accustomed to perusing romantic Indian literature or to reading of the frequent outbreaks among the native tribes living south of the line. Such is not the fact. No Indian war has ever called the citizen to arms, nor, in the nature of things, is it ever likely to do so. The great Hudson's Bay Company pursued a policy of justice tempered with firmness. They were treated kindly, and no white man was permitted to do them an injustice without being punished for his conduct. Instances are not wanting of the hanging of a white man for the murder of an Indian. At the same time they were given to understand that swift and certain punishment would follow any wrong-doing on their part. They were also given employment in pursuits suited to their nature, which brought to them food, trinkets and clothing they had not before enjoyed, which soon taught them the value of preserving friendly relations with the whites. This wise policy has been pursued by the Government with the effect above noted. Indians derive a considerable income from their labors in various occupations, and it may be said that but for their aid several flourishing industries would cease to exist, or, at least, labor under serious disadvantages. They engage quite extensively in farming and stock raising on their own account. The policy of the United States of purchasing the Indian title to the soil and making annual appropriations for their support, thus maintaining them as a race of paupers, with its demoralizing effects, official peculations and frequent wars, has not been pursued in the Dominion. On the contrary, the Indian title has never been recognized; but certain tracts most prized by them have been set aside for their exclusive use, while, at the same time, they were made to understand that they must earn their own living the same as the white men they saw around them. The result fully sustains the wisdom of the policy. In a recent speech his Excellency the Governor-General used the following language on this subject: "Besides the climate, which is so greatly in your favor, you have another great advantage in the tractability and good conduct of your Indian population. I believe I have seen the Indians of almost every tribe throughout the Dominion, and nowhere can you find any who are so trustworthy in regard to conduct, so willing to assist the white settlers by their labor, so independent and anxious to learn

the secret of the white man's power. Where elsewhere you meet constant demands for assistance, your Indians never ask for anything, for in the interview given to the chiefs their whole desire seemed to be for schools and schoolmasters; and in reply to questions as to whether they would assist themselves in securing such institutions, they invariably replied that they would be glad to pay for them. It is certainly much to be desired that some of the funds apportioned for Indian purposes be given to provide them fully with schools in which industrial education may well form an important item. But we must not do injustice to the wilder tribes. Their case is totally different from that of your Indians. The buffalo was everything to the nomad. It gave him house, fuel, food, clothes and thread. The disappearance of this animal left him starving. Here, on the contrary, the advent of the white man has never diminished the food supply of the native. He has game as before in abundance, for the deer are as numerous now as they ever have been. He has more fish than he knows what to do with, and the lessons in farming that you have taught him have given him a source of food supply of which he was previously ignorant." The intending settler may depend upon finding the Indians peaceable, intelligent, eager to learn and industrious to a degree unknown elsewhere among the aborigines of America.

For the better convenience of those seeking information about the Province, the various districts, resources and industries are here treated of in separate articles, the advantage of such arrangement being too obvious to require comment.

VANCOUVER ISLAND.

The Island of Vancouver is separated from the extreme northwestern portion of Washington Territory by the historical Straits of Juan de Fuca, through the center of which runs the international line. It is oblong in shape, extending northwesterly parallel with the mainland, from which it is separated by the narrow and island-dotted channel of the Gulf of Georgia, a distance of nearly 300 miles, and has a width varying from thirty to fifty miles. Its area of 12,000 square miles is heavily timbered and generally mountainous, the highest peaks attaining an altitude of from 6,000 to 9,000 feet. The area of low and level land is comparatively limited, though in the aggregate amounting to many thousand acres. The chief arable tracts are found in the extreme southeastern portion, where a margin of low and tillable land, varying from two to ten miles in width, lies between the mountains and the water. This extends for some distance along the eastern coast line; the extreme northern end also possesses an extensive area of comparatively level land. Along the western, or ocean, coast there is but little arable land in comparison with the total area, though here and there are considerable tracts. The coast line, especially on the ocean side, is much broken by bays and inlets which indent it, often penetrating many miles into the interior, and offering numerous safe harbors.

The soil of the cultivable lower lands is generally

drift deposits of clay and sand, over which, for the most part, there lies a brownish-black surface soil, varying from two to four feet in thickness, and containing a large proportion of vegetable matter. In the Cowichan and Comox districts, as well as many other localities, rich loams appear. Owing to the necessary shortness and rapid descent of the streams, there are but few acres of alluvial bottom lands, though here and there small tracts exist. The soil generally is very fertile. When properly cultivated the average yield per acre of cereals is 25 bushels of wheat, 50 of oats, 40 of Chevalier barley and 50 of rough barley. Rye, buckwheat, corn, hops (in certain places), beans, peas, potatoes, melons and garden vegetables produce abundantly. All fruits of the temperate zone thrive and bear prolifically. Cattle in small bands do well and support themselves the year round by grazing upon the edible plants and grass of the more thinly wooded districts, and browsing on the tender brush and the nutritious lichens which hang from the tree branches. Little care is required, except to provide a shelter where a dry bed may be found by the animals during the rainy weather. Vancouver Island cannot, however, be termed a stock country, since the land is more valuable for agricultural purposes. The quality of beef, mutton and pork is equal to that produced in England.

Attention might be called to the various sections of the island upon which settlements can be advantageously made. The Alberni District lies 130 miles above Victoria. The arable portion is eight by four and one-half miles in dimensions. There are a score of settlers there now, and a hundred more could find good locations. Salmon River, sixty miles further north, has much desirable land open for occupation and purchase. There are also the Cowichan, Saanich, Chemainus and Sominoes districts, all on the east side. On the west side practically no settlements have been made, though along the multitude of bays and inlets there are many acres of valuable land, besides which lumber, fish and coal are there in abundance. The chief drawback is a lack of sufficient communication with Victoria, which will probably be obviated in the near future by the establishment of a regular steamer route. During the next decade Vancouver Island will settle up rapidly, and the close of that period will see a continuous line of flourishing settlements encircling the island, with extended railway and steamer transportation routes linking them together.

Victoria, the chief city and seat of government of the Province, is situated at the southeastern extremity of the island, and occupies a commanding commercial position. The harbor of the city proper offers accommodation only for vessels drawing eighteen feet of water and under, but improvements are continually being made, and the adjacent and supplementary harbor of Esquimalt supplies all that may be lacking here. A fine macadamized road connects the two ports, along which also is stretched a telephone line. These ports are by no means strangers to deep water craft from the four corners of the world; and when the completion of the great Canadian Pacific

Railway shall furnish a new trans-American route for the commerce of Asia and Australia, vessels from every Pacific port will find their way hither, and the flags of every maritime nation will be seen floating from the masthead of ships lying at anchor in the Royal Roads, just without the entrance to Esquimalt.

The universal verdict of travelers is that Victoria is the most pleasing and delightful city on the Pacific Coast. There are several which are larger, possess more imposing structures, and are more noisy and bustling, exhibiting in its widest scope that general spirit of "rush" which is so dominant in the American character; but none so charming in all its adjuncts and surroundings, so delightful as a place of residence or so attractive to visitors. Not that there is no business transacted there, for an examination of her commercial enterprises will show them to be numerous and extensive; but there is a pleasant absence of that hurly-burly which attends the transaction of business on the American side, and that general restlessness which seems to pervade even the loungers on the streets. The avenues of the city furnish most excellent drives, while splendid roads have been constructed in every direction, leading through the most charming of scenery and to many elevated points, whence views of the Straits of Fuca and the white-capped Olympic Range, on the one hand, vie in picturesqueness with the island-dotted Gulf of Georgia and its background of Cascade Mountains. The Gorge, reached by a charming drive from the city, is but one of the many attractive spots frequented by natives and visitors.

From the time the Hudson's Bay Company first established a post here, Victoria has been the general supply point for the whole Province of British Columbia. She sprang suddenly into great commercial activity in 1858, when the endless throng of miners poured into the Fraser River gold fields, 30,000 of whom wintered in and around the city. When, as the excitement abated, the greater portion of them departed, and the tented city vanished like the camp of a moving army, it was demonstrated that a city had been founded which was destined to live, to grow with the Province, and to become metropolitan as the resources of the surrounding region were developed. From that time its history has been one of steady progress. Population has increased, business has expanded and property values have steadily ascended. The steamer lines of the Province all center in Victoria, whence they reach all the coast ports where sufficient settlements have been made, and penetrate far into the interior by ascending the Fraser River. The trade of all this extended region centers in the metropolis, and increases annually as the tributary settlements and industries expand.

The business portion of the city is, in the main, well built of stone and brick, numerous substantial edifices testifying to the solid character of its commercial enterprises. The numerous public buildings are also of a superior character, some of them displaying much taste and architectural skill. The Government buildings, on James' Bay, are five in number, and are constructed of

red brick in the Swiss style of architecture. They are reached by a substantial bridge across the bay. An obelisk of gray granite stands at the foot of the well-kept lawn, erected in memory of Sir James Douglas, first Governor of the colony. The buildings belonging to the Dominion, comprising the Custom House, Post Office and Marine Hospital, are solid, serviceable structures. The school buildings and churches are also attractive edifices. The public school, which is under the general supervision of a board of trustees and has an efficient corps of instructors, occupies a two story brick building commanding a fine view of the harbor. The class rooms, play grounds, etc., are well appointed. The school is maintained free of expense to the parents of children attending. A high school, where all the advanced grades are taught, occupies a large and handsome brick edifice recently completed. From this school are graduated many of the teachers of the Province. There are several private seminaries, and a movement is now well progressed for the erection of commodious buildings in which to establish a college, under the auspices of the Anglican Church. The Sisterhood of St. Ann have an excellent institution for the education of girls, occupying a large and attractive structure in the southern purlieus of the city. Eleven religious congregations, representing various denominations, are regularly organized, nearly all of them having good houses of worship. They are divided as follows: Two Anglican, one Reformed Episcopalian, two Roman Catholic, two Presbyterian, two Methodist, one Baptist and one Jewish synagogue. The general air of the city is one of neatness, cleanliness and quiet taste. The residences, notably that of the Lieutenant-Governor, are attractive and often elegant, both as regards the buildings and their surroundings. Lawns are well kept, flowers abound on every side, and shade and fruit trees exist in profusion. Great building activity is now being displayed on all sides, both in the matter of business structures and residences. A stock company has just subscribed \$50,000 for the erection of an imposing opera house, which will be commenced immediately. The Driard House will also begin the erection of a building adjoining the one now occupied, which will give them double the present capacity. Tourists will find superior hotel accommodations in Victoria.

Victoria is well served with newspapers, the various journals being large, well conducted and enterprising, furnishing complete local and telegraphic news. The *Colonist*, daily and weekly, is the most complete establishment in the Northwest. It occupies all of a new and handsome building recently erected by the proprietor, and does a general job printing business, a specialty being the printing of the hundreds of thousands of colored salmon labels used by the canneries of British Columbia. The *Standard* is a well-established daily and weekly journal, and the *Post* is an evening daily, well conducted. The *Times*, daily and weekly, has recently been founded, and exhibits enterprise, neatness and good business ability in the management. The *Resources of British Columbia* is a monthly illustrated journal, devoted to the

development of the Province, and is doing good work in making known its advantages both at home and abroad.

The city enjoys the fullest mail, telegraph and telephone facilities, is connected with San Francisco by a regular line of steamers, and with Portland by the way of Puget Sound and the Northern Pacific Railroad, and within two years will have direct communication with the Eastern Provinces of the Dominion over the Canadian Pacific Railway. A splendid system of water supply has been obtained at an expense of \$200,000, water being brought from Elk Lake, seven miles distant. An efficient fire brigade is thus enabled to furnish the fullest protection from extensive conflagrations. Coal and wood for fuel are both plentiful and cheap. Gas works supply light for both public and private uses, and several powerful electric lights are suspended upon high masts in different portions of the city. The Mechanics' Institute has a valuable library and spacious reading room, and there are a number of fraternal and benevolent associations. Iron works, brass works, planing mills, soap works, boot and shoe factory, match factory, cigar factory, glove factory and a number of other manufacturing industries are in full operation. Four banks and two express companies are of great assistance in the transaction of business. The universal impression of all visitors to Victoria is that here will grow up a city, so combining commercial importance with beauty of location and elegance of appointments, as to make it the most attractive on the Pacific Coast.

The town of Esquimalt is distant three and one-half miles from Victoria, and lies on a peninsula separating Esquimalt Harbor from the Royal Roads. The superiority of its harbor facilities caused the British Admiralty to select it for a naval station many years ago. Here are an arsenal building, where large quantities of naval and ordnance supplies are stored, a naval hospital, a dockyard and a powder magazine, the latter on an island in the northern portion of the harbor. The Dominion Government is building an immense dry dock, the second largest of the public works undertaken in the Province. Its dimensions are: Length, 400 feet; depth, 26 feet; width of entrance, 90 feet. It is being substantially built of concrete, faced with sandstone. Three hundred and fifty thousand dollars have already been expended, and its completion is confidently expected within three years. Esquimalt has two churches, a public school and a number of business buildings and residences. Its advantages as a terminal point for a railway are well known and appreciated, and will soon be utilized by the construction of the Island Railway. The possibility of its becoming the practical terminus of the Canadian Pacific is also being considered.

In the Esquimalt District are the agricultural districts of Colwood, where are a public school and the large tannery of the Belmont Tanning and Boot and Shoe Manufacturing Company; Metchosin, including the farming settlements of Rocky Point and Happy Valley; Sooke, containing a sawmill, barrel factory, numerous

good farms, also placer gold deposits; Highland District and Gold Stream, agricultural and grazing sections.

The second most important settlement on Vancouver Island is that of Nanaimo, situated on the east coast, seventy miles above Victoria. The city has for its background a dense and continuous forest, beneath which lie vast deposits of bituminous coal, the mining and shipping of which is the chief business of the settlement. The extent of the coal fields and mining operations will be spoken of in a separate article, to which the reader is referred. The town of Nanaimo lies along the bay, its streets being quite irregular and conforming to the sinuosities of the indented shore line. The town was founded by the Hudson's Bay Company in 1852, as a mining village and trading post; but with the growth of the mining industry, which has increased tenfold in the past few years, a town has sprung up possessing considerable commercial importance. The adjacent harbor of Departure Bay has accommodations for a vast amount of shipping, and a number of vessels may always be seen there, loading with coal or waiting for cargoes. This is connected with the Nanaimo harbor by a long, deep channel, which offers no obstacle to the passage of the largest vessels. There are a number of wharves at Nanaimo belonging to the Vancouver Coal Company, to Nanaimo Sawmill and to several private individuals. The business portion of the town lies on a rocky peninsula, separated from the residence part by a deep ravine, spanned by two substantial wooden bridges. Much attention has been paid by the city officers, during the eight years since it was incorporated, to the improvement of the streets.

As is usually the case in mining towns, but few buildings of an ornamental character have been erected, though the indications are that the future will see a change in that respect. The Court House and Jail are wooden structures, which will no doubt soon be supplanted by more substantial ones. A handsome stone Post Office and Custom House has recently been erected by the Dominion Government. There are four church edifices—Episcopalian, Methodist, Presbyterian and Roman Catholic, the last named forming, with the parsonage and convent school of the Sisterhood of St. Ann, the most striking group of structures in Nanaimo. The church is a handsome edifice of Gothic architecture. Two excellent schools—one for boys and one for girls—are supported at the public expense. The Literary Institute is a large two story building, containing a public hall and reading room, and was erected in 1866. The people are connected by telegraph both with Victoria and the mainland, the usual means of communication being by steamer, though a government road traverses nearly the entire distance from Victoria to Nanaimo. Aside from the extensive coal interests, there is a sawmill, cutting 45,000 feet per day; a shipyard, which enjoys fine natural advantages; a brewery, soda water factory, a tannery, and the usual number of commercial and industrial enterprises. A regular water supply has recently been introduced by means of wooden pipes, and a vigilant

volunteer fire company is ever ready for duty. An institution of the city is the *Free Press*, a weekly journal devoted to the interests of Nanaimo and its great coal industry. The population somewhat exceeds 2,000, and is steadily increasing.

The towns of North and South Wellington lie near Departure Bay, opposite to the Nanaimo harbor, and are less than a mile distant from each other. These are supported entirely by the coal mines known as the "Wellington Collieries" and the "South Wellington Mine." North Wellington has a population of 1,200. Besides the residences of the miners, there are a public school and Methodist church. A narrow gauge railroad runs from the mine to the wharves on Departure Bay, having a length of nearly five miles. South Wellington lies also three miles from the southeast corner of the bay, at which are the extensive shipping wharves and coal bunkers of the company, connected with the mine by a narrow gauge road four and one-half miles in length. The town consists of the company's works and the cottages of the miners and other employés.

Comox is the name of a settlement sixty miles above Nanaimo, situated in quite an extensive agricultural region, embracing both the large district on the east side of Vancouver Island and the adjacent smaller islands. The population of the district is about 400. Coal abounds, iron is mined on Texada Island, and copper is found at Howe Sound. These combine to render Comox a good point for smelting works. The town is situated at Port Augusta, and is connected with Victoria by steamer. There are hotels, stores, shops and all the adjuncts of a thriving village. A sawmill is in operation three miles from the town.

Cowichan is the name of an extensive agricultural district lying midway between Victoria and Nanaimo, and including the neighboring islands. Besides its arable lands, it contains much undeveloped mineral wealth and many seams of both anthracite and bituminous coal. Excellent oysters are found at Oyster Bay. The lumber interests are quite extensive, and several sawmills are at work in different portions of the district. Public schools and stores are located at Maple Bay, Quamichan, Cowichan and Salt Spring Island. Other localities in the district as Chemainus, Burgoyne Bay and Vesuvius Bay. There is a flourishing agricultural society, and the Sisters of St. Ann maintain a day school in the valley.

The Saanich Peninsula, comprising the districts of North and South Saanich and Lake, lies due north of Victoria, and covers an area of sixty square miles. Excellent roads connect it with the city, as well as do the steamers running up the east side of the island. The population is about 600. There are good hotels, several churches, excellent schools and a grist mill. Though this is strictly an agricultural settlement, there is plenty of good timber, and croppings of a superior quality of coal have been found.

Fort Rupert is an old post of the Hudson's Bay Company, near the northern extremity of the island. It occupies a central position in that large district of com-

paratively low land, and with the settlement of the upper end will probably become an important point. At Quatsino Sound, connected with it by trail, coal has been found. At Alert Bay, on Cormorant Island, twenty miles south of Fort Rupert, is a salmon cannery. Opposite this is the mouth of the Nimkish River, a prolific salmon stream on Vancouver Island. Gold has been found in this vicinity. At Beaver Cove, five miles farther south, an extensive formation of excellent marble, both white and colored, exists. Several tons were quarried and brought to Victoria, monuments manufactured from which ornament the public cemeteries. It is believed that, with an open market in the neighboring States, the property will prove to be a valuable one when it comes to be developed.

The Island Railway is an enterprise set on foot a number of years ago for the development of the island by furnishing it much needed transportation facilities. The line is projected to run up the east side of the island from Esquimalt as far as Discovery Pass, though at present it is located only as far as Nanaimo, the road beyond that point being left for future consideration. A substantial grant of land has been made to further the enterprise by the Provincial Government, and for several years all land along the route, both granted and crown, have been withdrawn from sale. This has served to retard the settlement, as nothing but squatter rights could be acquired. The project has, for various causes, remained dormant for several years, but recently a company was organized by Mr. Robert Dunsmuir, a well-known capitalist of Victoria, and Mr. Charles Crocker, of San Francisco, which will at once begin the construction of the road and complete it to Nanaimo as speedily as possible. This will result in throwing the lands, greatly enhanced in value by the railway, open to occupation, and the rapid settlement of the agricultural districts along the route will follow, as well as the springing up of many new industries. The advantages of such a road to Victoria, Nanaimo, and, in fact, the whole island, cannot be overestimated.

NEW WESTMINSTER DISTRICT.

The District of New Westminster consists of the country lying on both sides of the Fraser River for a distance of 100 miles above its mouth, extending on the south to the international line. In it is embraced some of the most extensive and valuable tracts of arable land in the Province, which are spoken of elsewhere. The lumber and fishing interests are also very great. Through it runs the terminal division of the Canadian Pacific Railway, already constructed.

The largest settlement in the district, and the second most important in the Province, is the city of New Westminster, lying on the north bank of Fraser River, fifteen miles above its mouth. Its advantageous situation as the natural commercial center of the district has given it a steady and permanent growth, its business increasing with the development of the surrounding country. Nor is this the only element of prosperity, for the whole

region of Fraser River is, in a measure, tributary to it. The town was an outgrowth of the gold excitement in 1857-8, which filled the country with miners, and rendered a government necessary. Vancouver Island being at that time a separate colony, the seat of government for the mainland was located at Lower Langley, or Derby, but in 1859 was removed to New Westminster. In 1868, the two colonies having been united, the capital was located at Victoria. Loss of the capital had no effect upon New Westminster as a business point. Several roads connect it with Burrard Inlet, the chosen terminus of the Canadian Pacific, and a charter has been granted to a company for a branch line from New Westminster to the town of Port Moody. If, however, as now seems certain, a new terminus be established at Coal Harbor, the line will pass within two miles of New Westminster, and a branch road to the terminus will be quite unnecessary.

The site of New Westminster is happily chosen on ground rising gradually from the river, affording splendid drainage and pleasant building sites for residences. The business portion of the city occupies its natural position near the river, the great highway of traffic and travel to the interior. There are a number of quite imposing structures belonging to the Dominion and Provincial governments, which add much to the general appearance of the city. The building recently erected for the Post Office and other Federal offices is constructed of brick, with stone facings, and is three stories high, surmounted by a mansard roof. The Provincial Penitentiary stands on an eminence in the northeastern portion of the city, and is a substantial stone structure of pleasing architecture. The Insane Asylum is a brick and stone building, commanding a fine view of the river. About these two are quite extensive grounds, well laid out and neatly kept. The District Court House is a wooden structure, which, being now too small for the growing needs of the district, will probably soon be supplanted by a larger building of stone or brick. There are many handsome residences, surrounded by tasteful flower gardens and neatly kept lawns, and many shade and fruit trees.

The Church of the Holy Trinity (Episcopal) is a handsome and costly stone edifice, possessing a large chime of bells, presented to the parish by Baroness Burdett-Coutts. Good wooden edifices are occupied by the Roman Catholic, Presbyterian and Methodist denominations. The Roman Catholic Indians have a church built exclusively by their own contributions. The Episcopal and Catholic bishops of the diocese reside here. An excellent public school is maintained, occupying a large two story building, centrally located, and having ample play grounds. There is also a high school for instruction in the more advanced studies. The St. Louis College, an institution for boys, sustained by the Roman Catholics, and the St. Ann Convent, in which a girls' school is kept, are both handsome brick edifices, with cement facing. A school for girls is conducted under the auspices of the Episcopal Church, and the Methodist and Presbyterian denominations jointly support a colleg-

iate institution. These most excellent schools draw to the city pupils from throughout the entire Province.

Several systems of water works supply the city with an abundance of pure water. The reservoirs being on elevated ground, the lower, or business, portions of the city enjoy ample protection from fire by possessing a liberal supply of hose. The industries of New Westminster are considerable. Four salmon canneries in or near the city give employment to 1,200 men in the fishing season. Two saw and planing mills employ 250 men. Besides these there are two breweries, a shipyard, a tannery, a soda and syrup factory, a foundry and several bakeries. The city's permanent population exceeds 3,000, exclusive of Indians. Two excellent semi-weekly papers, the *British Columbian* and the *Mainland Guardian*, are published here. They are ably edited and give much attention to news from the entire Province. The hotel accommodations are excellent and ample, and for this reason, as well as because of the great beauty of the surrounding scenery and the splendid fishing and hunting in the immediate vicinity, it is a favorite place of resort for those seeking a few weeks of pleasure.

The second most important portion of New Westminster District is Burrard Inlet, the principal harbor of the mainland, thirteen miles north of the entrance to Fraser River. This is the chief center of the lumbering interests of the Province, while, also, important fishing industries have established themselves there. Along the inlet, which extends twenty miles inland, lie the lumbering villages of Granville, Hastings and Moodyville, and Port Moody. The Inlet varies from 150 yards to two and one-half miles in width, affording safe anchorage for the largest vessels over the greater portion of its area. It is destined to become a harbor of vast importance, in view of the natural results following the construction to its shores of the great transcontinental railway. Near the entrance to the inlet, just beyond the first narrow passage, lies Coal Harbor. Mr. W. C. Van Horne, Vice-President and General Manager of the Canadian Pacific Railway, visited the coast in August, for the purpose of selecting a terminus for that gigantic railway. After visiting Port Moody, Mr. Van Horne decided that as that place did not possess sufficient accommodation for terminal purposes, a change to Coal Harbor and English Bay was necessary. This sets at rest forever the terminus question. It is understood that the railway company is negotiating with the Provincial Government for a large tract of land contiguous to Coal Harbor, False Creek and English Bay, where ground can be procured with a deep water frontage for wharfage, docks and other shipping facilities. The locality is pronounced as unrivaled anywhere as the site for a large commercial seaport city. The harbor accommodations are unexcelled. It is commodious, easy of access at all stages of the tide, possesses excellent anchorage, is perfectly land-locked and free from gales or rough water. The ground is gently undulating, receding gradually from the water on an easy grade, and covers many thousands of acres of land, not very heavily timbered, which can be cleared at

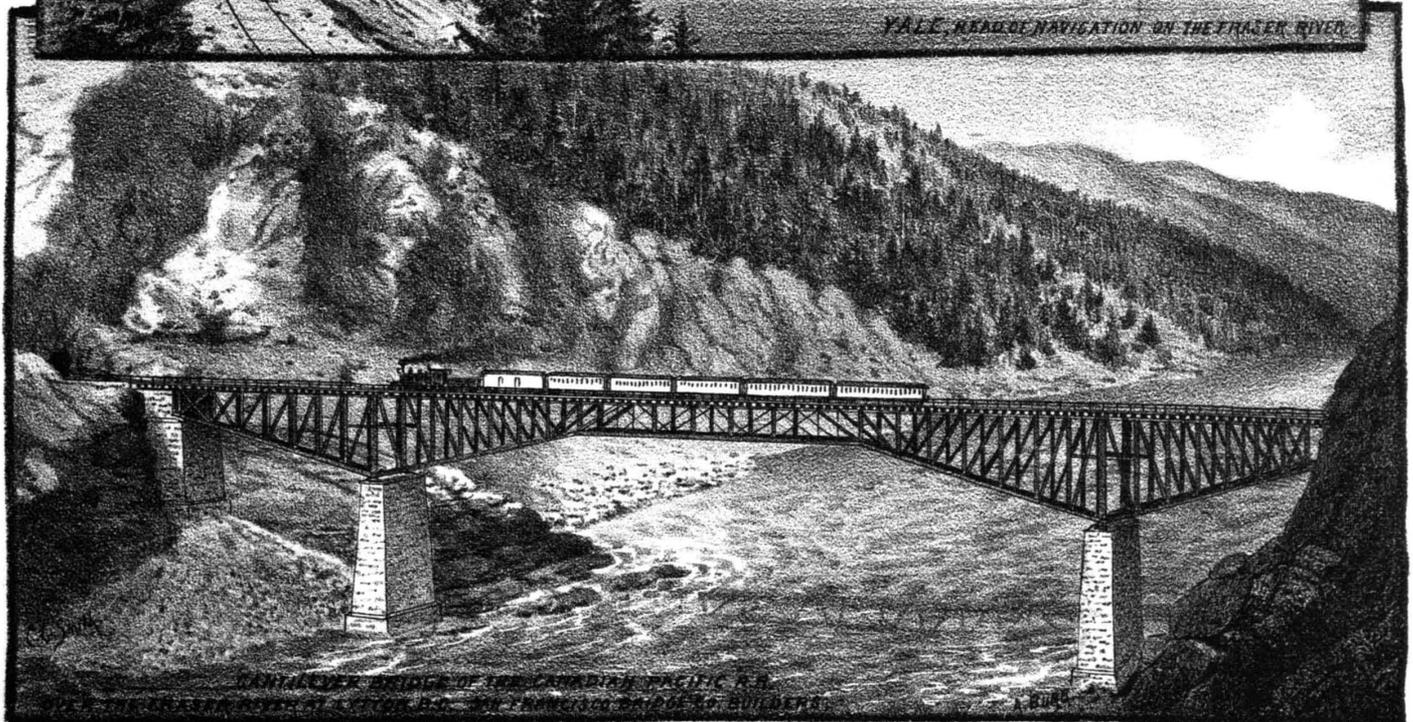
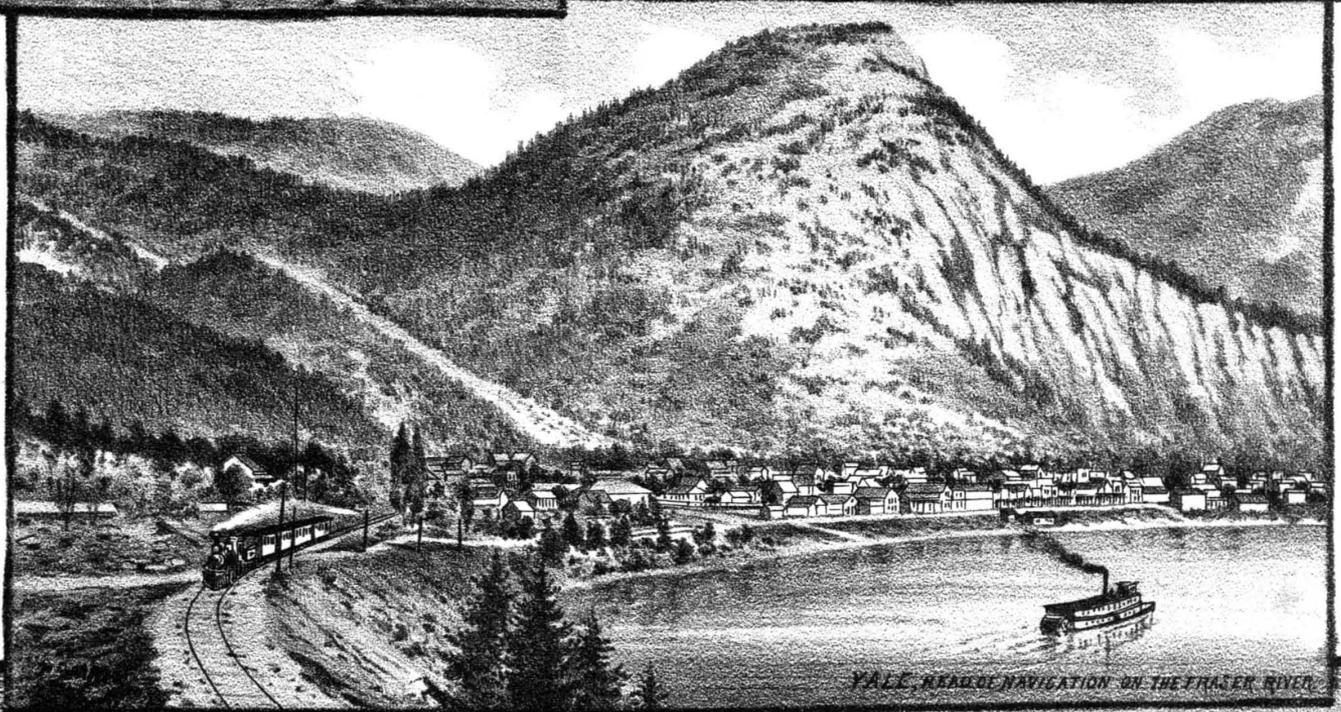
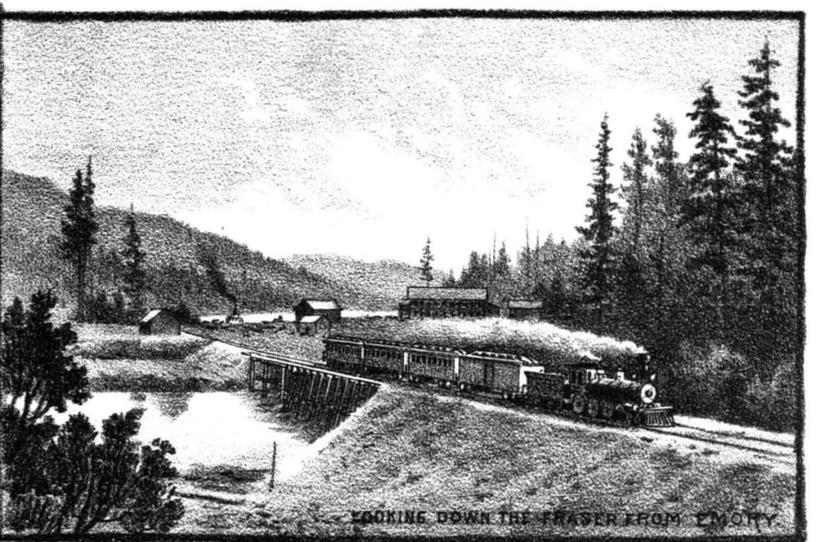
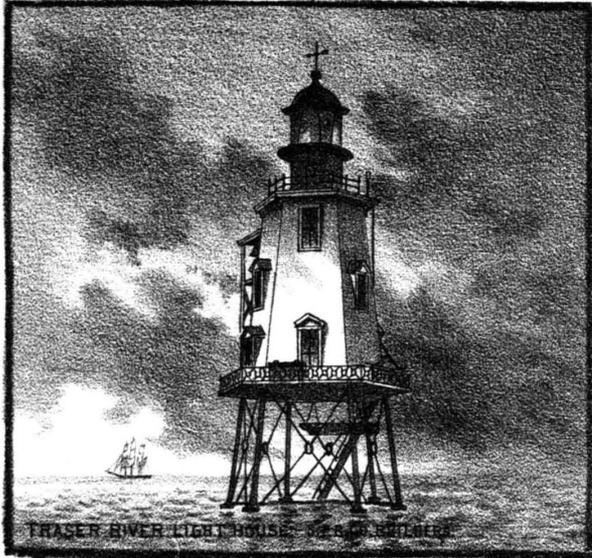
a trifling cost as compared with other localities. Mr. Van Horne is confident that the terminal city will be one of the two largest cities on the Pacific Coast—San Francisco being the other. It is the intention of the company to dredge out False Creek, so as to give them inner docks in the center of the city. On the completion of the line in 1885 a line of powerful steamers are to ply to the Orient in connection with the railway. No effort will be spared by either the British or Canadian governments to induce an extensive traffic for this route, which will be many hundreds of miles nearer the Atlantic seaboard cities of New York, Boston and Philadelphia than any other line that crosses the continent. The public works to be carried on at Coal Harbor will entail an expenditure of many millions, as the wharves, docks, the immense workshops, etc., to be constructed and erected by the railway company and the Dominion Government will be first class in every particular. The site is being surveyed into lots, which will be put on the market in a few weeks. The terminal town has been named "Vancouver."

The Municipality of Richmond embraces nearly all that region about the delta of Fraser River commonly known as the "North Arm," which is the name of the post office. The general occupation of the 300 people residing permanently in the settlement is agriculture and dairying. There are two salmon canneries, employing 500 men in the packing season, and a cheese factory. The municipality possesses a Town Hall, used also by the public school, and a church stands just without the limits, where services are held by various denominations. The Delta Municipality consists of that portion of the low lands along Fraser River and the coast lying south of the South Arm of the river, embracing 40,000 acres of rich delta lands. Agriculture is the one great industry, though four canneries in the fishing season give employment to about 800 men. The chief outlet of the settlement is Ladner's Landing, a small village on Fraser River, whence are shipped large quantities of salmon and farm products. There are a church, post office, store, hotel and cannery at this point. Another church and a public school are maintained in the settlement.

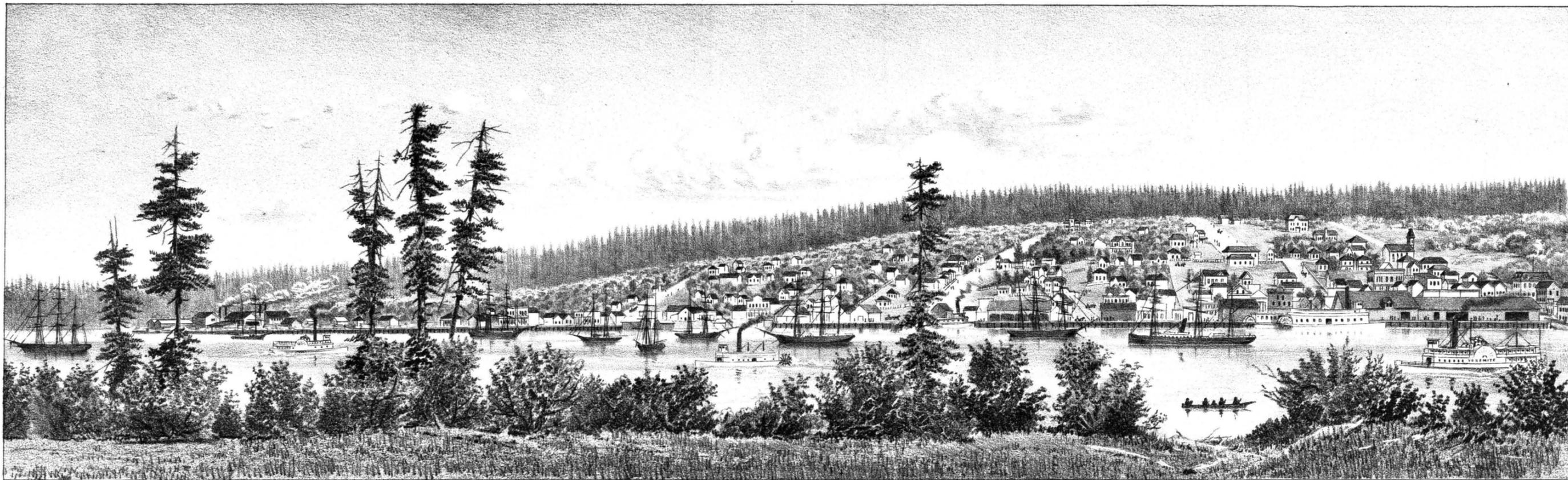
Just east of the South Arm settlement, and extending from Fraser River to Boundary Bay and the international line, is the Municipality of Surrey. There are three distinct settlements—Hall's Prairie, Clover Valley and Mud Bay, the first being situated three miles inland, on Campbell River, a stream discharging into Semiahmoo Bay near the boundary line. Clover Valley lies north of the Nicomekl River, which flows into Mud Bay and is navigable by large vessels a distance of ten miles above its mouth. Mud Bay is the name of an eastern extension of Boundary Bay, also of a settlement lying between Nicomekl and Serpentine rivers. In this settlement there is a post office. Mud Bay possesses fine oyster beds, and supplies a large quantity of salmon for the canneries on the river.

Maple Ridge Municipality lies above New Westminster, on the north bank of Fraser River, between Pitt and Stave rivers. The Canadian Pacific runs through its

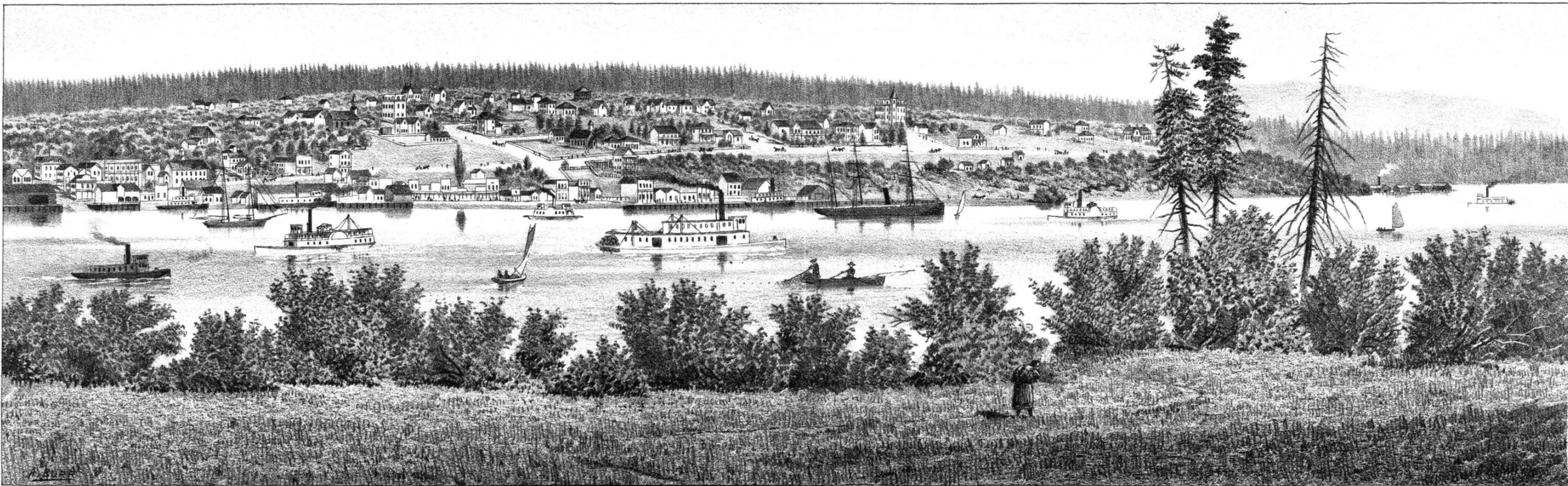
THE WEST SHORE.



THE WEST SHORE.



WEST OF MARY STREET.



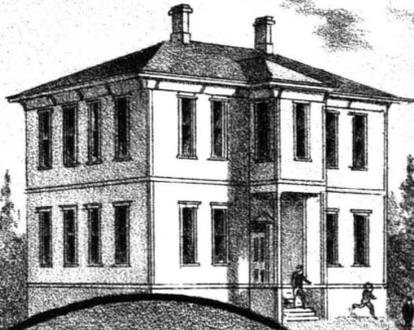
EAST OF MARY STREET.

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THE WEST SHORE.

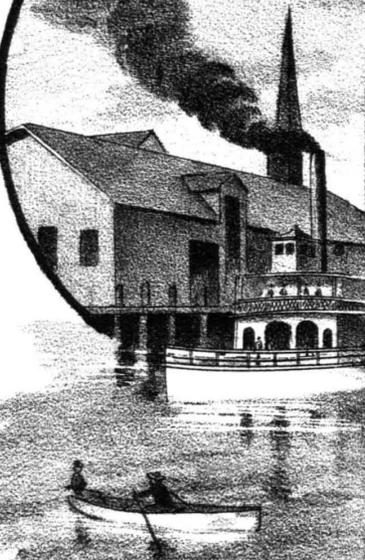
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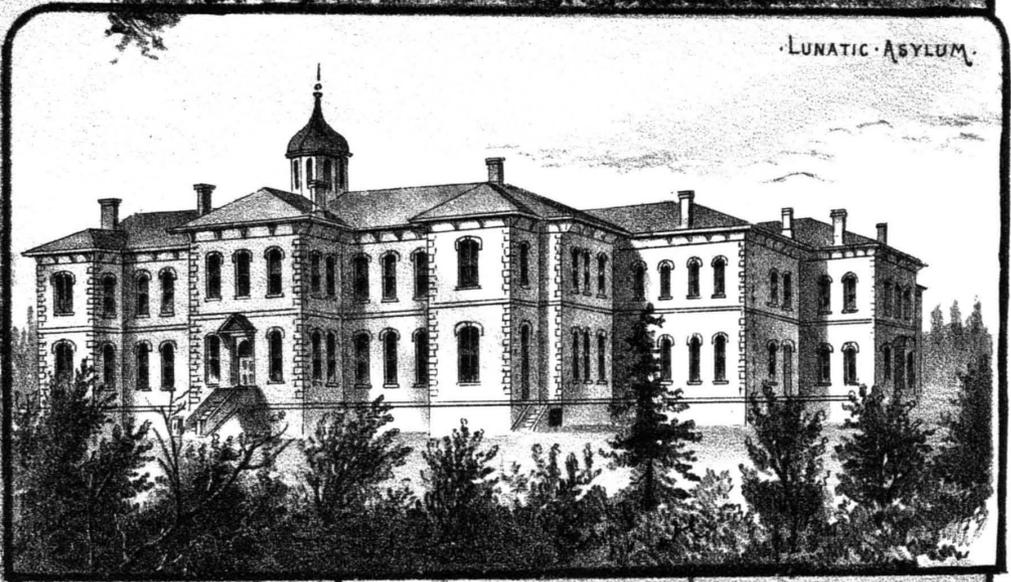
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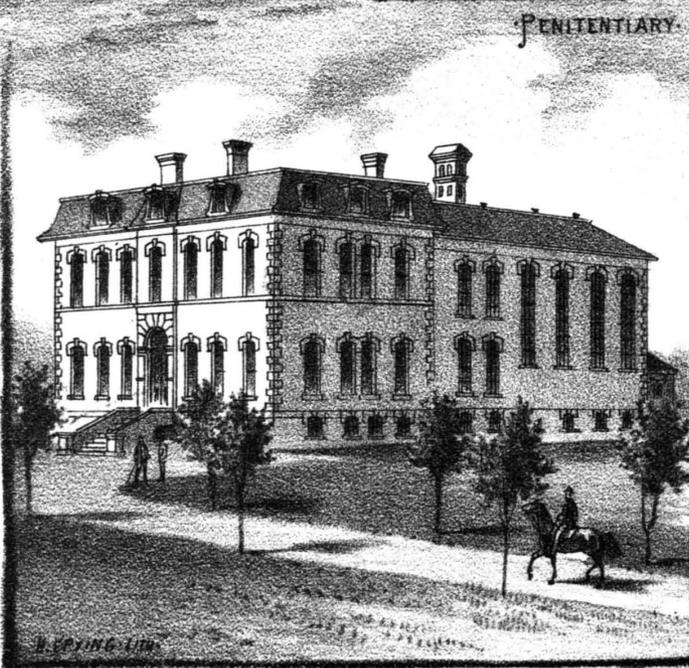
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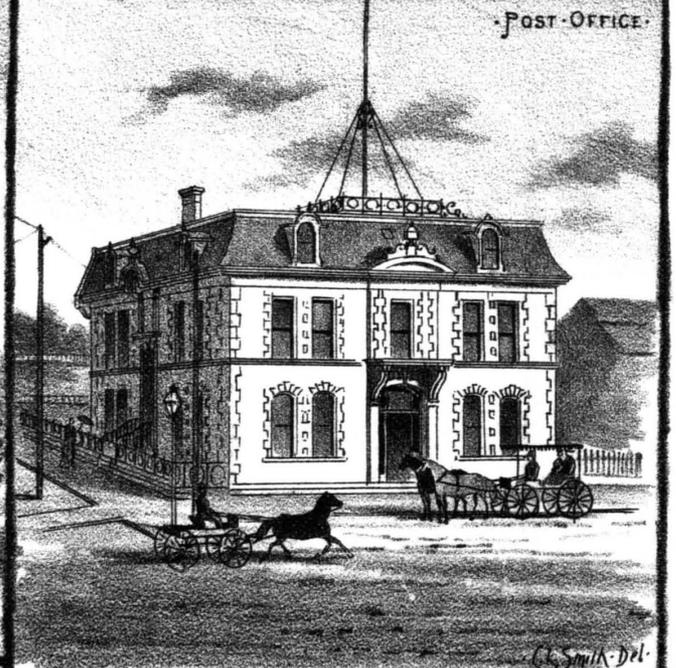
LUNATIC ASYLUM.



PENITENTIARY.



POST OFFICE.



entire length, some sixteen miles, a station having been established at Port Hammond, which is a landing point for all river steamers plying above New Westminster; above this point there is a public wharf where the mails are landed, and where stores are situated. There are in Maple Ridge three churches, a good public school and a cheese factory. Agriculture and dairying are the leading pursuits.

Langley Municipality has a frontage of ten miles on the south side of Fraser River, and is a most prosperous agricultural settlement. Salmon and Nicomekl rivers flow through it in opposite directions. Fort Langley, the outlet, is situated on Fraser River, seventeen miles above New Westminster, and is a regular stopping place for river steamers. A church, two public schools, two stores, a sawmill and a grist mill are adjuncts of the settlement.

Chilliwhack is the name of a municipality lying along both sides of the Fraser River, just east of Langley and Maple Ridge. It contains a number of good agricultural settlements, most of them south of the river and back from it some distance, hidden from the view of travelers on the steamers and cars. At Popeum, in the upper end, are a sawmill, tannery and a handsome residence. As most of the land in that vicinity is Indian Reserve but little is cultivated. This is a regular steamer landing. Two miles below is the Indian village of Cheam, consisting of good wooden cottages and huts and a neat church. Eight miles from this point is Cheam School District, in the center of the most thickly settled portion of this region. Near by is the Episcopalian Church of St. Michael. Four miles below is the village of Centerville, at a regular landing on the river. It contains two churches, hotel, flouring mill, town hall, stores and a good public school. The steamboat landing for Chilliwhack is just a mile distant, where there are three stores, a hotel and post office. A short distance below Centerville is a settlement in which are a grist mill and shingle mill. Seven miles below is the scattered settlement of Lower Sumas. At the steamboat landing there are a store and post office. There is a good school in the settlement. Dairying and stock raising are the chief occupations, the land being subject to occasional overflow from the river. Below this point the valley is partly occupied by a large shallow lake. Upper Sumas, or York's, is about ten miles south, where there are a government school, hotel and store and a number of good farms. There is from this point a trail across the mountains to Wade's Landing, on the Fraser, where there are a hotel and store. Seven miles from York's, on the road to Langley, is the settlement and post office of Matsqui, or Riverside, in quite an extensive stretch of good arable land, but partially occupied. The railway runs down the north side of the river, passing through the settlements of Ferny Coombe, Harrison Mouth, Nicoamen and St. Mary's Mission. There is much good unoccupied land on that side of the river, settlements in the past having been chiefly confined to the south side of the stream. The railway, however, is now attracting many settlers to that portion of the district. At the Mission is a good flour mill.

YALE DISTRICT.

Yale District comprises more than one-half the southern interior, extending from the Fraser to the Columbia, and from the international line to the fifty-first parallel, embracing an area of 24,000 square miles. Through it run the Thompson, Nicola and Okanagan rivers, with their many tributary streams and lakes, and along either side flow the Fraser and Columbia. The Cascade Mountains occupy the southwest section and the Gold Range lies along the eastern end. Between these lies a high plateau 150 miles in width. The surface of the plateau is broken by short ranges and detached groups of mountains crossing and recrossing each other, rendering it very broken and irregular, and creating many narrow valleys, through which run the streams, generally in deeply eroded beds, or in which lie many long, narrow lakes, some of them alkaline. On the benches, which rise in terraces from the streams and lakes, is good soil, well situated for agriculture, being an admixture of boulder clay and alluvium. Above this the general character of the soil is boulder clay, fertile in its nature, but situated too high for successful cultivation. Here and there the soil is impregnated with alkali. Bunch grass covers nearly the entire surface below an altitude of 2,000 feet, and sage brush abounds. Timber is not abundant, being confined to limited groves of red pine on the uplands, and cottonwood and aspen along the streams. There is considerable mineral land in the district, which will be spoken of on another page. Stock raising is at present the leading occupation. Moderately good roads, constructed by the government, lead through the district, connecting the various settlements. The Canadian Pacific runs through the western and northern ends, following the course of the Fraser and Thompson rivers. For about twenty-one miles above Yale the Fraser is not navigable, but from that point it is passable by steamers for some distance. The Thompson, also, beginning twenty miles above Spence's Bridge, is navigable through Kamloops Lake as far as the Clearwater on North Thompson, and up the South Thompson through Shuswap Lake to a considerable distance up Spallumcheen River, whence a canal of sixteen miles would give the steamers access to Lake Okanagan. The other streams in the district cannot be classed as navigable.

The most considerable town in the district, and, next to New Westminster, the largest and most important in the interior, is Yale, situated on the west bank of Fraser River 110 miles above its mouth. The city has a white population of about 1,000, and an Indian village is close by, whose occupants engage in salmon fishing and supply the town with firewood. This was an old post of the Hudson's Bay Company, and was named in honor of one of its well-known officers. Besides the offices of the government, there are several wholesale and retail stores, a number of good hotels, Episcopalian and Catholic churches, an excellent public school, post office, telegraph office, etc. The town is constructed entirely of wood, and is protected from fire by a good engine. Its location is among some of the grandest of the remarkable scenery of

the river, as is indicated by our engraving. Its position at the very entrance to the vast interior gives to it special interest and advantages as a commercial point, especially as it is at the head of navigation on the Lower Fraser. Stages leave this point for Cariboo on the north and Okanagan on the south. Already the railway has been constructed beyond Yale, from the west, and has been placed in operation. A few miles below Yale is Emory, where a sawmill is in operation.

The town of Hope lies on the south side of Fraser River, nearly 100 miles above its mouth, and is a most thriving business community. A sawmill, several stores, hotels and churches, a telegraph office, post office and excellent school are features of the town. The site consists of a beautiful flat on a bend in the river, opposite which passes the railway. There is quite an extensive mineral region tributary to Hope, as well as a considerable area of agricultural and timber lands.

The great highway leading north from Yale is that of the Yale-Cariboo Wagon Road, constructed by the Colonial Government in 1862-3 at an expense of over \$500,000, and maintained in repair at an annual cost of many thousands. It extends north to the Cariboo mines, making a graded highway over 400 miles in length, the great main artery of the interior. Twelve miles above Yale it crosses the Fraser by the Trutch suspension bridge, built at a cost of \$50,000, and standing eighty-eight feet above low water mark. From this point nearly to Lytton, fifty-seven miles from Yale, and just below the mouth of Thompson River, the wagon road and railway run on opposite sides of the stream, through a grand and picturesque canyon. Lytton was named in honor of Lord Lytton, formerly Colonial Secretary, and owing to its location is a prosperous business point. Great quantities of flour and dry goods are sold there annually, the purchasers being the great number of Indians in that region and the inhabitants of outlying districts, especially of the rich Lillooet country further up the Fraser. The trade of freight teams is also a large item in the general business of the place. The town consists of several large stores, hotels, shops, livery stables and warehouses, a sawmill, grist mill, post office, telegraph office, railway station, public school, court house and many neat residences.

Beyond Lytton the road turns up Thompson River, and crossing the Nicomin reaches Cook's Ferry, or Spence's Bridge, twenty-three miles beyond, where it crosses the Thompson. Here are a post office, telegraph office, hotel, stores, shops, railway station, etc. A road runs up the Nicola River to the valley and lake of the same name, forty-seven miles southeast, from which region the town derives much support. Cook's Ferry has always been an important station on the Cariboo route, and the miners who crowded the trail in the early days made the fortune of the first proprietor. The river, which is here 300 feet wide, is spanned by a substantial bridge resting on several piers. Here the wagon road crosses and follows up the north bank to Cache Creek, passing several fine estates, the most notable that of Cornwall Brothers

at Ashcroft, the home of the Lieutenant-Governor of the Province. At the mouth of the Bonaparte, of which Cache Creek is a tributary, is a flour mill and steamer landing, where produce is brought by steamers from far up the Thompson and Spallumcheen. There is quite a settlement around Cache Creek, as well as shops and a school. From this point the Cariboo road continues northward and soon passes out of the district.

Twenty-two miles east of Cache Creek is Savona's Ferry, at the lower end of Kamloops Lake, where there are a good store, hotels, steamer landing, etc. A road passes around the north side of the lake by which the Tranquille Valley is reached, where is quite a settlement, containing a flour mill and sawmill. Another road crosses the Thompson just below the lake and follows up the south side. A third route of travel is up the lake by steamer. By all these Fort Kamloops, a Hudson's Bay post at the upper end of the lake, is reached, and just south of it the town of Kamloops. Opposite this point is the junction of the North and South Thompson, and, consequently, this is an important place on the steamer routes of both of those streams. Several stores, one of them belonging to the Hudson's Bay Company, hotels and shops, telegraph and post offices, a sawmill, grist mill and tannery, are the business features of the town, which is a place of considerable commercial activity. The *Inland Sentinel*, an excellent weekly paper, the advance guard of journalism in the interior of British Columbia, is now published here. Opposite Kamloops is an Indian Reserve of 10,000 acres, including a village and neat church. Settlements extend up the North Thompson a distance of fifteen miles, and up the South Thompson as far as Shuswap Lake, which are tributary to Kamloops. Logs for the mill are rafted from the lake. The town is also connected by road with the settlements in Nicola Valley. This is the last town in the district along the route of the railway.

The Nicola Valley, to which allusion has been made in speaking of Spence's Bridge and Kamloops, is distant fifty miles from the former, sixty from the latter and eighty from Fort Hope, with all of which it is connected by good wagon roads. A branch line of railway is projected from the Canadian Pacific at Spence's Bridge, to pass up Nicola River and continue south to the Similkameen Valley. In Nicola Valley are four stores, three hotels, four saw mills, three flouring mills, several shops, one church, two public schools, one private school, and some seventy-five families. General agriculture and stock raising are the occupations of a majority of the settlers. Coal and magnetic iron ore are found, the former in abundance, croppings of it being used by the blacksmiths.

The Spallumcheen Valley, which is connected by steamer with Kamloops, by way of the South Thompson, Shuswap Lake and Spallumcheen River, lies along the river of the same name, extending from the head of Lake Okanagan to Shuswap Lake, a distance of thirty miles. This is one of the largest and best agricultural districts in the Province, requiring no irrigation for the crops, which yield enormously. Rivaling this are the valleys of

Pleasant and Salmon rivers, a little further to the west, where the most extensive farming in British Columbia is carried on. From Kamloops to Spallumcheen by wagon road it is sixty-five miles, and 125 by the steamer route. Grand Prairie lies still further to the west, thirty-five miles southeast of Kamloops and seventeen from a landing on South Thompson, with both of which it is connected by a good road. It contains several thousand acres of arable prairie land, not all settled upon.

Okanagan Valley is one of the most important agricultural districts in British Columbia, and extends, generally speaking, from the head of Okanagan Lake south along the lake and river to the junction of the stream with the Columbia in Washington Territory, sixty miles south of the line. Lake Okanagan is seventy-five miles long, the river flowing from the lower end and passing in its course through several smaller lakes. With the exception of a fall of eight feet in the river at one point, there is nothing to prevent steamer navigation from the head of the lake to the Columbia. It is expected that a canal will be cut from the head of Lake Okanagan to Spallumcheen River, opening the lake to the steamers plying on Thompson River, and giving a water outlet to this whole region. The principal portion of the farming land in the Okanagan region, lying within the Provincial limits, is a stretch of forty miles, extending north from the mission to the head of the lake, on the east side, and is known as "Mission Valley." It is distant 160 miles by trail from Fort Hope and 100 by road from Kamloops via Spallumcheen. In the valley are a store, shops, four flouring mills, a saw and planing mill, school, post office and church, the last being a fine edifice belonging to the Roman Catholics, who established a mission here many years ago. Sixty miles east are the Cherry Creek silver mines, and to the south the rich mineral region lying along both sides of the international line. Coldstream is the name of a valley branching off to the east from the upper end of Mission Valley. It is sixteen miles from the head of navigation on the Spallumcheen, and contains two stores and a post office.

South of Lake Okanagan, on the border line of the Province, is a rich mineral region as yet undeveloped, which will in time become of much importance. There are also several arable valleys, in which the land will be exceedingly valuable when a mining population springs up to give a better market. At Osoyoos Lake, which stretches across the boundary line, is a Dominion custom house. Kettle River, a stream to the eastward, flowing into the Columbia, and lying chiefly in Washington Territory, has much good farming and grazing land. It is 170 miles from Fort Hope, on the Fraser, and eighty from Fort Colville, on the Columbia, in Washington Territory. Similkameen Valley lies along a stream of that name flowing northeasterly from the international line a distance of seventy miles, and then turning to the southeast to discharge into Okanagan River. There is much good agricultural and grazing land in the valley. A flour mill, two stores and blacksmith shop represent the business industries. Gold is found along the stream and

many rich but undeveloped quartz ledges have been located. Goods are packed from Fort Hope to Kere-meeos, the chief settlement, a distance of 100 miles.

KOOTENAY DISTRICT.

The southeast portion of British Columbia, known as the Kootenay country, has of late attracted considerable attention by reason of the efforts of a transportation company to secure charter and land grants for a railroad and steamboat line to open it up and develop its resources. For years it has been known to the men connected with the great Hudson's Bay Company, and more than twenty years ago attracted general notice throughout the West by the discovery of valuable placer diggings. Placer mining has been carried on along the Kootenay River quite extensively ever since, and the discovery of exceedingly rich quartz ledges is the primal reason for the formation of a railroad and steamboat company. The Kootenay River rises in British Columbia, flows southerly into Montana and Idaho, and then sweeps north again, across the international line, and discharges its waters into Kootenay Lake, and thence again into the Columbia. The project of the company is to navigate the lake and the Columbia River with steamers, and to connect the two by a railroad forty-five miles in length. The farming country consists of a belt along the Kootenay River from the forty-ninth parallel north fifty miles, with a varying width of two to ten miles, being rolling hills and bottom lands, covered with bunch grass, and having a light, sandy soil. Along a series of lakes near the river is a valley thirty by fifteen miles, one of the most beautiful portions of British Columbia, having a rich soil, good grass, water and timber. Wheat, oats, potatoes, corn, onions, beans and all kindred products of the finest quality can be produced in abundance. Salmon reach this point in countless numbers from the Columbia, despite the rapids and falls that are encountered on their journey from the ocean. The severe winter of 1882 was the only one in the two decades of its settlement that cattle and horses did not survive in good condition without other feed than the ranges supply. The few Indians who live there are friendly, peaceful and self-sustaining, do a little farming, and raise cattle and horses. They hunt in winter, the surrounding region abounding in bear, deer, elk, mountain sheep, white goat, fox, fisher, mink, marten, beaver, lynx and otter, and the streams in salmon, salmon trout and the delicious mountain trout. Timber of the finest quality stands on the hills in abundance.

A company of English capitalists are engaged in a reclamation scheme in the valley of the lower Kootenay. The valley at that point is about five miles wide, and is, for the most part, subject to overflow in the spring, water rising over twenty feet. It is proposed to reduce the volume of water in two ways: first, by cutting a canal from the river to Columbia Lake, where the two approach within less than a mile of each other; second, by widening the outlet of Lake Kootenay. These improvements will cost between \$100,000 and \$150,000, and will reclaim

40,000 acres of splendid alluvial land. The company's representative thus states the object aimed at: "Concerning our intentions regarding the river lands, which we have leased, with the option of purchase from the Government, I may say that we propose forming on them the Kootenay colony for immigrants of the best class—that is, men of means, chiefly English army officers who have capital of their own, and who desire to live in a beautiful country under the English crown, where sport is of such exceptional excellence as it is around Kootenay."

The other agricultural portion of the district is the valley along Columbia Lake, in which there are many thousand acres of arable and grazing lands open to settlement. Within less than two years the Canadian Pacific will have been constructed across the district, some distance north of these agricultural portions, and will render them much more accessible than at present. The projected lines of the Columbia & Kootenay Transportation Company will be even more effective in that respect. The mineral wealth of Kootenay is pronounced marvelous by those who have examined it, and it only needs these transportation facilities to render its development possible.

LILLOOET AND CLINTON.

On the west bank of the Fraser, about thirty miles north of the mouth of Thompson River, in a valley about six miles long and four wide, lies the town of Lillooet, once a place of much importance on the route to the Cariboo mines. A change in the route of travel has affected it disastrously, though the surrounding agricultural country renders it considerable support. At present it consists of a broad business street, a number of residences, an Episcopal church and public school. Much prospecting is being done in the vicinity, and the future may witness a great change for the better in its fortunes. Two miles south is a good flouring mill. At the south end of this valley is Seton Lake, fifteen miles in length, connected with Lake Anderson by a mile portage. The greater portion of the arable land in this region is occupied, except in Pemberton Meadows, on Lillooet Lake, lying southwest of Lake Anderson, and connected with it by Mosquito River. Lillooet District embraces also Bridge River, a stream entering the Fraser north of the valley, as well as 100 miles of the Fraser itself, along which there are auriferous deposits which are being worked, though not on an extensive scale. The government maintains a wagon road to Clinton, a point on the Cariboo road fifty miles to the northeast, by which mail is received. There is a trail down the river to Lytton, the supply point for goods.

The town of Clinton lies in Cut-off, or Clinton, Valley, on the wagon road to Cariboo, 126 miles north of Yale. It was laid out on a magnificent scale in 1862, during the mining excitement, but its great hopes were never realized. It is now an important point on the stage line, and a distributing point for mails to the surrounding settlements. The population somewhat exceeds 100. The altitude of the valley is 3,000 feet, yet agriculture is car-

ried on very successfully, vegetables, and especially potatoes, being quite prolific. The valley of the Bonaparte, a neighboring and tributary region, contains much valuable agricultural and grazing land. Pavilion Mountain, on the road to Lillooet, is another agricultural district. At Big Slide, Dog Creek and Big Bar, on the Fraser, are many settlers engaged in both farming and mining. The numerous lakes, streams, gorges and mountain peaks in the vicinity render this a region of most picturesque beauty.

CARIBOO AND CASSIAR.

Cariboo District embraces the whole region of the upper Fraser above the Lake La Hache country, and since 1861 has been noted as the great mining region of British Columbia, since which time fully \$40,000,000 have been taken from the ground. Mining is still being carried on, the annual product exceeding \$500,000. Near the southern end of the district is Lake Quesnel, a long, narrow body of water, with two arms branching out to the east and north. Many other lakes, though much smaller in size, are scattered through the district. The chief town is Barkerville, on Williams Creek, at the northern terminus of the wagon road from Yale. The population, including Chinese and Indians, is about 300. Three hotels, seven stores, six saloons, several shops, a school, two churches, post and telegraph offices, a hospital, theater and a good fire brigade are features of the town. In the flush times of mining Barkerville was a bustling place, and even now the business transacted is very large in proportion to the population and building improvements. At Richfield, one mile south on the same creek, are the court house and Government office for the district, a saw mill, a church and the usual adjuncts of a small town. Thirteen miles distant is Stanley, on Lightning Creek, once a very thriving business place, and still an important mining camp. At the confluence of the Quesnel with the Fraser is Quesnel, a town of about 100 inhabitants. There are two hotels, four stores, three Chinese stores, two saloons, shops, telegraph and post offices, and a school. This is a central depot for the Hudson's Bay Company, and furs are collected here from the surrounding country for many miles in all directions. A steamer plies from this point down the Fraser to Soda Creek, fifty-three miles below, passing Alexandria, an old Hudson's Bay post, about midway. Soda Creek has two hotels, stores, shops, telegraph and post offices, and a flour mill. West of the Fraser for many miles is an elevated, rolling plateau known as the "Chilcotin Country," through which runs a river of the same name. It is a vast tract of rolling prairie and lightly timbered country almost wholly unoccupied. The chief agricultural section of the district is near its southern end, including the land along the beautiful Lake La Hache, San Jose River and Lake Williams, and at Soda Creek and Alexandria. At the One Hundred and Fifty Mile House, near Lake Williams, is a flouring mill. About sixty miles northeast is a small town at the forks of the Quesnel, chiefly populated by Chinese.

The district of Cassiar occupies the upper end of the Province, that lying north of the fifty-fourth parallel and west and north of Fraser River. It is bordered on the coast side for nearly its entire length by the United States Alaskan possessions. Through it run the Stickeen, Skeena, Nass and other streams falling into the Pacific, numerous small tributaries of the Fraser, and Peace and Laird rivers, confluent of the great Mackenzie. This region has come into prominence during the past decade as a rich and extensive mining region. The population, chiefly engaged in placer mining, is about 500. About \$20,000 worth of furs are collected here annually by the Hudson's Bay Company. The climate in winter is extremely rigorous, and the summer season is only five months long; yet, in places, agriculture is carried on successfully. Along the Stickeen hardy cereals and vegetables are cultivated. Potatoes and vegetables thrive at Dease Lake and on Dease River, McDame Creek and Deloire River. The timber is spruce and pine of a diminutive growth and possessing no commercial value.

UPPER COAST AND ISLANDS.

From the head of Vancouver Island to the southern extremity of Alaska the coast presents the same indented and tortuous line, flanked by innumerable islands, though without the great outlying land, except in the extreme north, where the Queen Charlotte group shelters for many miles the inner islands which fringe the coast. The mountains border closely upon the sea, their sides, as well as the mountainous surfaces of the adjacent islands, being densely covered with timber. The population of this region is chiefly Indian, and they are both intelligent and industrious, performing nearly all the labor of the two industries—salmon canning and lumbering—which have gained a foothold there. The climate is mild, the thermometer in the southern portion never falling below zero, and but seldom doing so in the extreme northern end. The rainfall is very great, the mountains of the coast causing the first precipitation of rain from the warm, moisture-laden air moving inland from the Japan current.

In going north, passing by many inlets, channels and bays, Rivers Inlet is the first reached where industries have been established. At its head is situated the village of Weekeen. On the inlet are two salmon canneries and a saw mill. Bella Coola is situated at the head of Burke Channel, on the North Bentinck Arm. It is the site of a Hudson's Bay Company post, and years ago was the landing place for the Cariboo mines. Bella Coola River is a considerable stream entering the arm from across the mountains. Here is a tract of some 2,000 acres of rich delta land, which is partially cultivated by the Indians. Bella Bella is a Hudson's Bay post on Campbell Island, near the head of Milbank Sound, 400 miles north of Victoria. There are three Indian villages, with a combined population of 500. The next important point is the mouth of Skeena River, a large stream flowing from the interior. It is a prolific salmon stream, and there are three canneries on its banks—one at Aberdeen, another

at Inverness Slough, and a third at Port Essington, near its mouth, where there is a small village of traders, fishermen and Indians. The river is navigable for light draught steamers as far as Mumford Landing, sixty miles inland, and 200 miles further for canoes. There are two missionary stations on the river, and along its course are many spots favorable for settlements.

Sixteen miles beyond the mouth of the Skeena is the town of Metlakahtla, on the Tsimpshcean Peninsula. There are a store, salmon cannery, a large church and school house. This is an Indian missionary station, about which are gathered fully 1,000 Tsimpshcean Indians, who have been taught many of the mechanical arts. They have a saw mill, barrel factory, blacksmith shop, live in good wooden houses, do the work at the cannery, and are industrious in many other ways, the women having learned the art of weaving woolen fabrics. Fifteen miles beyond Metlakahtla, on the northwest end of the same peninsula, is the important station of Fort Simpson, separated from Alaska Territory by the channel of Portland Inlet. This is one of the finest harbors in British Columbia, and was for years the most important post of the Hudson's Bay Company in the upper country, furs being brought there from the vast interior. Besides the company's post, the Methodist mission has buildings valued at \$9,000. There are about 800 Indians in the village, most of them living in good shingled houses and wearing civilized costumes. They are governed by a council, and have various organizations, including a temperance society, rifle company, fire company and a brass band. They earn much money in the fisheries. Forty miles up the Portland Channel is the mouth of Nass River, a very important stream in the fishing industry, being the greatest known resort of the oolachan. Two salmon canneries, a saw mill, store, two missionary stations and several Indian villages are situated along the stream. The climate is favorable to the growth of fruit, cereals and root crops near the coast, and there are a number of quite extensive tracts of bottom lands requiring only to be cleared to render them fit for agriculture or grazing. Further up the stream there are a number of good locations, and several settlements have been made. Gold is found in small quantities along the river, and it is probable that thorough prospecting would reveal the presence of the metal in paying quantities.

A special feature of the Province is the outlying group of large islands known as the Queen Charlotte Islands, the upper end lying nearly opposite the southern extremity of Alaska. They are three in number—Graham, Moresby and Provost—and are about 170 miles long and 100 wide. They are mountainous and heavily timbered, and the climate is more genial and the rainfall less than on the mainland coast. Along the northern end of Graham, the most northerly of the group, is a tract of low lands thirty-five miles in extent, and much level, arable land is to be found elsewhere, which only requires clearing. There are also many extensive marshy flats requiring drainage to render them fit for cultivation. The mineral resources of the islands are undoubtedly

great. The Government has dispatched several exploring parties into this region; one of which has been engaged in the work since early in the summer. There will undoubtedly soon be considerable development of its resources. The only industry now established is the works of the Skidegate Oil Company, on Skidegate Island, in a good harbor at the southern end of Graham Island. In connection with this is a store. The Hudson's Bay Company has a store and trading post at Massett, near the upper end of Graham Island, where there are a Protestant mission and a large Indian village. There are several villages on each of the islands of the group, occupied by the Hydah Indians, the most intelligent of the aboriginal inhabitants of the coast.

CLIMATE OF BRITISH COLUMBIA.

One of the first considerations of a person contemplating a complete change of residence—a location for life in a new and distant country—is that of climate. Is it radically different from that to which he is accustomed; is that difference in the direction of an improvement or the reverse; and what effect will the change probably have upon the health of the individual? These are the leading questions to be considered. The writer will not undertake to decide these points, but simply to supply the data by which a decision may be reached by competent authority. He will give a plain statement of meteorological facts, permitting each inquirer to compare them with those of his own locality and decide for himself, or to submit them to a physician for a professional opinion.

In the first place, it must be understood that the climate varies considerably, owing to atmospheric conditions and local causes. The Province is naturally divided into two districts, insular and continental—and these, owing to the vast area and mountainous surface, are again subdivided into districts with more or less distinctly defined boundaries. Taken as a whole, the climate is much more moderate and equable than that of any other portion of Canada, each district enjoying cooler summers and milder winters than any region of a corresponding altitude lying east of the Rocky Mountains. Primarily the one great cause of this prevailing characteristic is the great ocean stream of warm water known to hydrographers as the "Japan current." This great volume of comparatively warm water flows northerly from the Japan coast until it strikes the islands of the Aleutian Archipelago, when it is deflected eastward, crossing south of the Alaskan Sea and striking the upper end of the Queen Charlotte Islands, where its course is again changed, and it passes south along the coast of British Columbia. Perpetual summer reigns wherever the full influence of this great ocean river is felt. Even in the midst of winter, when Hyperborean blasts sweep the plains east of the Rocky Mountains, the warm breezes from the sea steal over the islands and mainland, and penetrate far into the interior among the many valleys of the mountains, their modifying influence gradually lessening as they advance. In the regions fully subject to them

flowers bloom, vegetation remains green and bright, and there is little save the almanac to inform the stranger that winter is at hand, though the native knows it from the increased rainfall. The warm, moisture-laden currents of air coming from the southwest meet the colder atmosphere from the north, and the result is frequent and copious rains during the winter season, the rainfall being much more abundant on the mainland coast than on the islands or in the interior. Observations taken at the meteorological station at Esquimalt, near Victoria, for the three successive years of 1874-5-6, show the following results:

TABLE OF TEMPERATURE AND RAINFALL AT ESQUIMALT, B. C., FOR THE YEARS 1874-5-6.

MONTHS.	MAX. THERMOMETER.			MIN. THERMOMETER.			MEAN TEMPERATURE BY DAY.			MEAN TEMPERATURE BY NIGHT.			RAINFALL, INCHES.		
	1874.	1875.	1876.	1874.	1875.	1876.	1874.	1875.	1876.	1874.	1875.	1876.	1874.	1875.	1876.
January.....	53.0	47.0	51.5	22.0	8.0	18.5	49.4	32.7	38.5	33.7	24.3	30.7	3.80	1.60	.32
February.....	71.0	49.0	53.0	21.9	24.9	29.1	56.0	42.7	44.3	34.0	32.1	37.5	.49	.70	5.06
March.....	72.0	48.0	54.9	28.5	29.9	22.1	63.6	43.3	43.3	33.2	34.6	36.6	.84	4.91	3.00
April.....	85.7	63.9	59.9	34.5	25.9	31.1	71.3	53.2	52.2	41.7	39.7	40.9	.52	1.11	.88
May.....	74.0	58.9	69.9	41.0	38.1	38.1	69.9	55.7	57.3	48.5	43.9	48.2	.29	2.42	.76
June.....	78.0	69.9	83.9	43.0	42.6	42.1	72.0	61.0	62.2	51.0	48.1	50.4	.30	.73	.83
July.....	77.6	76.9	73.9	48.1	45.4	48.9	73.2	74.6	67.2	52.9	54.5	50.3	.00	.00	.34
August.....	75.1	76.9	71.9	49.1	46.9	41.6	67.0	61.1	69.8	52.3	47.4	40.5	.73	.49	.41
September.....	71.9	69.9	76.9	44.1	42.9	43.9	61.8	61.8	62.1	48.1	45.9	47.9	.78	.80	1.15
October.....	65.6	69.9	61.9	34.0	41.1	38.1	59.1	52.7	54.8	46.8	46.8	45.9	.33	4.48	2.54
November.....	69.0	54.9	56.0	28.0	22.1	30.1	45.7	49.7	40.9	37.1	36.1	39.6	5.25	6.50	4.27
December.....	64.1	54.9	53.0	27.0	20.1	29.1	45.1	45.7	46.5	39.9	38.8	37.7	2.32	9.68	1.74
Total.....													17 65	33.42	23.30

Of the climate the Marquis of Lorne said in 1882: "No words can be too strong to express the charm of this delightful land, where the climate, softer and more constant than that of the south of England, insures, at all times of the year, a full enjoyment of the wonderful loveliness of Nature around you. Agreeable as I think the steady and dry cold of an Eastern winter is, yet there are very many who would undoubtedly prefer the temperature enjoyed by those who live west of the mountains. Even where it is coldest, spring comes in February, and

the country is so divided into districts of greater dryness or greater moisture, that a man may always choose whether to have a rainfall small or great."

The climate of the southeastern portion of Vancouver Island, the region in which Victoria is situated, is universally conceded to be the most delightful on the Pacific Coast. Here much less rain falls than on the adjacent mainland or upon the island further north, or the numerous small ones and the large ones of the Queen Charlotte group still further to the northward. Much of the moisture is taken from the atmosphere by the mountains lying between Victoria and the ocean, and the second precipitation does not occur until the winds strike the high lands of the opposite coast. Snow seldom falls, and then lies but a short time. The climate of that point is truly delightful, and is at all times invigorating, the rainy season never having the depressing and enervating effect so often observed in regions possessing somewhat similar climatic conditions.

The climate of the mainland coast opposite Vancouver Island differs somewhat from that just described. In the summer the temperature averages slightly higher and in winter somewhat lower, while the rainfall is greater immediately along the coast, decreasing towards the interior. The lower Fraser Valley (New Westminster District) does not receive in summer the cold breezes from the Olympian Mountains which blow across Victoria, nor does it receive in winter so much of the genial warmth of the warm ocean air. As a general thing ice forms on the river for a short time, and snow begins to fall in January and continues to do so intermittently till March, the ground not being continuously covered with it. There are occasional severe winters, so called by the residents, though by no means severe as that term is understood on the eastern slope of the continent. The rainfall at New Westminster is somewhat greater than on the flats at the mouth of Fraser River. It is also less as the river is ascended until Hope is reached, where it is about the same as at New Westminster. These variations are due solely to local causes. Above Yale it decreases rapidly as the interior is penetrated. Observations for seven consecutive years—1874 to 1880—at New Westminster give the following means and extremes:

	Highest Maximum Temp.	Lowest Minimum Temp.	Mean Temp.	Mean Rainfall,* Inches.
January.....	57.0	7.0	34.3	8.16
February.....	57.0	16.0	37.3	7.19
March.....	65.0	18.0	39.7	6.27
April.....	81.0	20.0	47.9	2.92
May.....	82.0	34.5	54.2	3.49
June.....	90.0	38.0	58.0	2.32
July.....	92.0	45.5	63.3	1.78
August.....	84.0	44.0	60.2	1.96
September.....	81.5	39.5	56.5	3.44
October.....	75.0	26.0	48.1	5.70
November.....	59.0	14.0	39.9	6.95
December.....	56.0	8.5	35.8	9.48
Total mean.....	59.66

*Including snow reduced to water. Greatest yearly rainfall, 69.15; least, 49.43. Greatest yearly snowfall, 101.3 in.; least, 1.7 in. Mean for seven years, 51.2. Greatest in one day, 11.5.

The climate of the interior, that portion of the Province lying above and to the east of Yale, is radically different from that of the coast, being drier and subject to greater extremes of temperature, though not entirely beyond the soft influences of the Japan current. In the

Province the Coast Range Mountains are, so far as location is concerned, a practical continuation of the Cascades, the whole having a general trend towards the northwest. To the east of this the general surface of the country is more elevated than on the west, and the atmosphere much drier, as the mountains relieve the air of its load of moisture. The flora is different, the trees of smaller size, and everything indicates a change in climatic conditions. The mean annual temperature does not differ much from that of the coast region, but the summer and winter extremes are much greater, and there is also much variation in different districts, owing to situation and local causes. The total precipitation of rain and snow is very small. Wherever there occurs a mountain barrier, there the fall of rain and snow is heavier at its western base and correspondingly light on the lee side. In the Gold and Selkirk ranges, in the southeastern portion of the Province, the winters are more severe and snowfall heavier than in the lower and more open portions. In that part which may be classed as the "Southern Interior," the climate, as a whole, is milder than the more northern districts. In summer the heat is sometimes very great, though sunstrokes are unknown, and the evenings and nights are rendered comfortable by cooling breezes. Winter weather continues about four months, the remainder of the year being quite agreeable and enjoyable. Snow seldom exceeds two and one-half feet in the open, and occasionally, in some localities, stock remain out the entire season, though the prudent farmer keeps a good supply of food for their use when necessary. As compared with Eastern Canada the snowfall is much lighter, the "cold snaps" are less severe and of shorter duration, and the winter season is by no means so long. Observations made in 1875 at Spence's Bridge, on Thompson River, are contrasted in the subjoined table with those at Esquimalt during the same period:

MONTHS.	MAXIMUM TEMPERATURE.		MINIMUM TEMPERATURE.		MEAN TEMPERATURE.		DIFF. BET. EXTREMES.	
	S. B.	Esq.	S. B.	Esq.	S. B.	Esq.	S. B.	Esq.
January.....	32.0	47.0	-29.0	8.0	0.7	29.9	61.0	39.0
February.....	52.0	49.0	4.0	24.9	24.1	39.0	48.0	24.1
March.....	54.0	48.0	6.0	28.6	34.5	39.5	48.0	19.4
April.....	82.0	64.1	15.0	26.1	50.0	47.5	67.0	38.0
May.....	76.0	66.9	35.0	37.1	54.7	50.2	41.0	29.8
June.....	88.0	69.9	40.0	41.6	61.9	54.7	48.0	28.3
July.....	98.0	79.4	47.0	45.4	71.6	60.9	51.0	34.0
August.....	94.0	76.9	43.0	45.4	69.6	59.1	51.0	31.5
September.....	84.0	69.9	45.0	42.9	61.2	53.8	39.0	27.0
October.....	73.0	66.9	31.0	39.1	51.9	51.3	42.0	27.8
November.....	62.0	54.9	12.0	22.1	24.0	40.8	50.0	32.8
December.....	62.0	54.9	-12.0	29.1	32.7	42.6	74.0	25.8

Extreme range of thermometer: Spence's Bridge, 127.0; Esquimalt, 71.4.

The climate changes materially as we proceed north from the region just considered. The general surface of the country has a higher elevation, and the Cariboo and other mountain masses render it quite broken and rugged. The summers are quite warm, but of shorter duration; winter continues longer, and the fall of snow and rain is heavier. The forests are denser and the trees of a larger growth. In the valley of the Fraser, within this district, the climate is milder than that of the surrounding higher altitudes, and the atmosphere is drier, the valley and the benches and rolling hills and valleys of the western tributaries being covered with bunch grass.

Taken as a whole, the climate, widely differing as it does in places, is salubrious and invigorating. No ague-breeding marshes nor miasmatic infection taint the atmosphere. The individual may choose for himself the character of climate he may prefer, feeling certain that everywhere, be it on the islands, along the coast or in the interior, he will find one that is conducive to health, invigorating and calculated to inspire physical activity.

AGRICULTURE IN BRITISH COLUMBIA.

Although in proportion to the entire area of the Province the land suitable for agriculture is small, there are, in the aggregate, about 10,000 square miles of arable soil, so diverse in character, location and climatic conditions as to be suited to the production of every fruit, cereal, vegetable, plant and flower known to the temperate zone. The mind must be primarily relieved of the idea, so common and so natural, that this region lies too far north for the success of general agriculture. The conditions are entirely distinct from those which exist on the Atlantic Slope of America, as will be understood by reading the remarks on climate in these pages. The difficulty encountered in the agricultural development of British Columbia has never been a climatic one, but has been the result of the extremely rugged and mountainous character of the country, rendering the agricultural areas comparatively small, far removed from each other, and difficult of access. There are in the Province thousands upon thousands of acres of good fertile soil, to cultivate which has been impossible because of the absence of either a local market or facilities for shipping produce to any point where it is in demand. These conditions are now rapidly changing. New transportation routes are constantly being opened. Especially will a revolution be created by the Canadian Pacific Railway, whose route passes from end to end through the very heart of the Province. Agriculture will share with other industries the beneficent effects of that great enterprise.

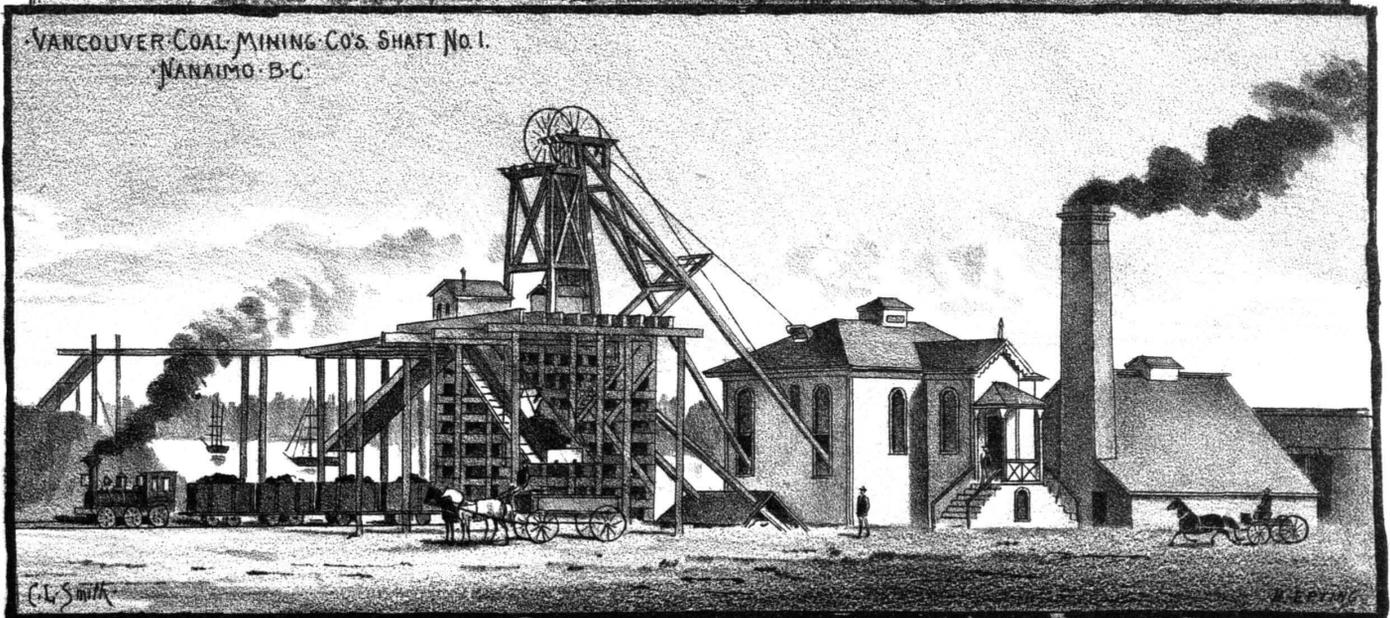
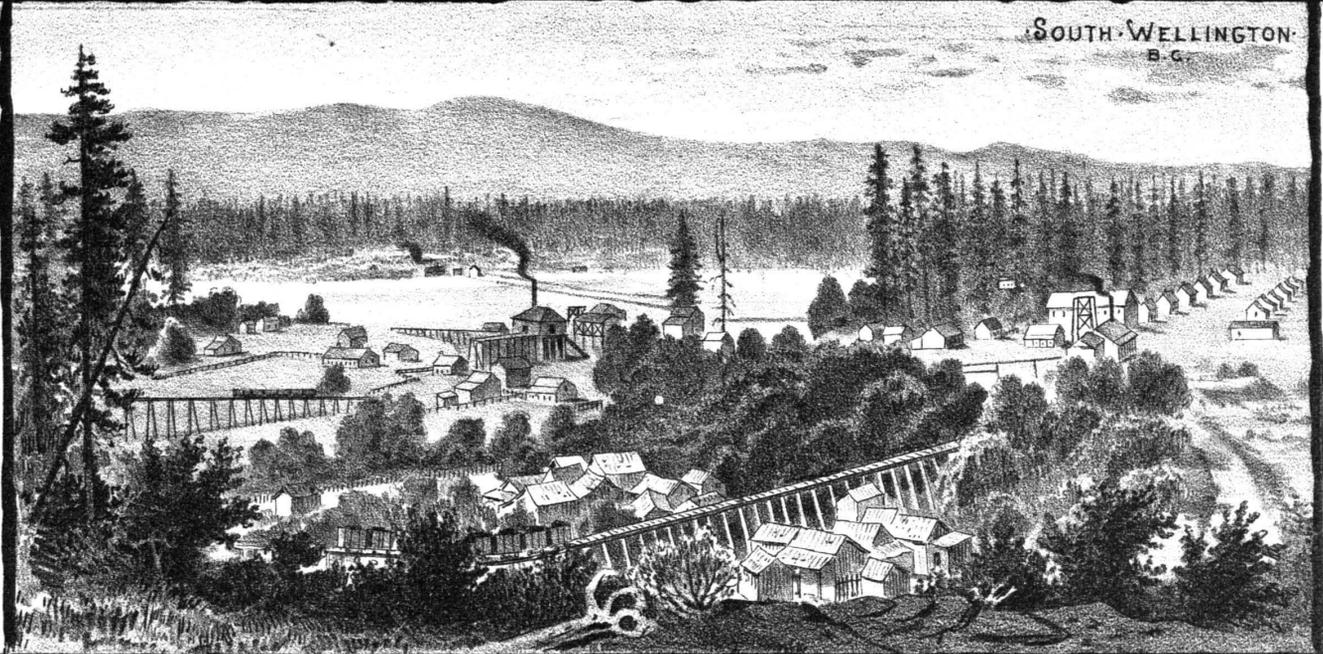
The Government holds out most tempting inducements for settlement upon the public lands, requiring only good faith and compliance with the very liberal land laws on the part of the settler. There are two classes of land,—exclusive of mineral land, which will not here be considered,—that belonging to the Province and that donated to the Dominion Government in consideration of railway improvements. The latter consists of a belt forty miles wide, twenty each side of the Canadian Pacific Railway; outside of this the Province owns all land not now the property of private individuals or corporations, and all is open to settlement except certain tracts reserved to aid enterprises for the public benefit. The naturalization laws are very liberal, even more so than in the United States. All that is necessary to become a citizen, possessed of all political and other rights, is a declaration of intention to become such, supplemented by three years' residence and the oath of allegiance. An alien can transact business and hold real estate.

A pre-emption or homestead claim east of the Cascades, or Coast Range, is limited to 320 acres; west of

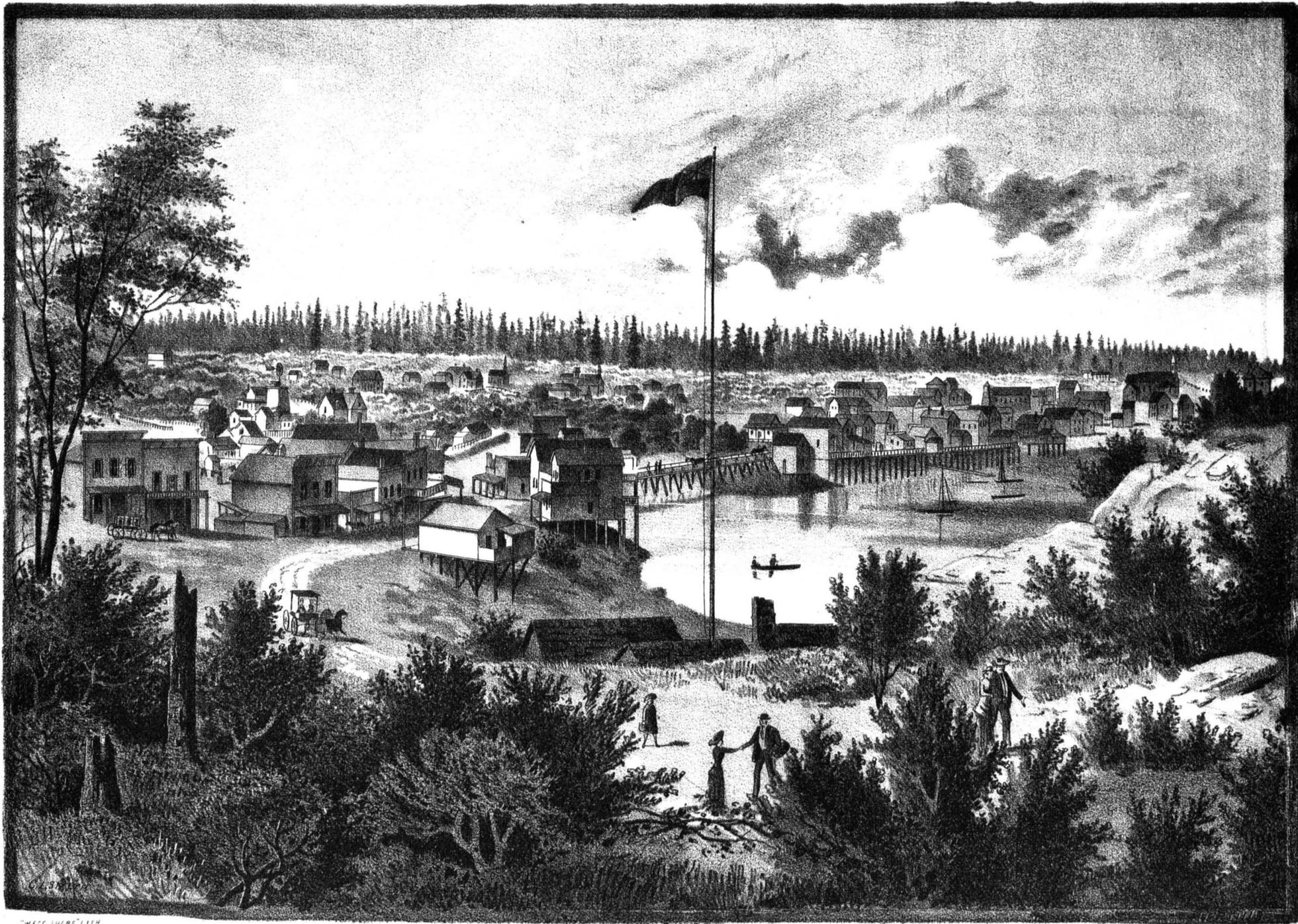
the mountains to 160 acres. Partners to the number of four can pre-empt in one body not to exceed the above limit for each person. Any surveyed or unsurveyed Crown lands, not already occupied or recorded, may be entered as either a pre-emption or homestead by any head of a family, widow or single man over eighteen years of age, who is a British subject or an alien who has declared his intention to become such. The homestead law protects duly registered real and personal property to the amount of \$2,500 (£513 13s. 11d. sterling) from seizure and sale. The price of lands is \$1 (4s. 1½d. sterling) per acre, payable in four annual installments, beginning at the end of the first year. Patent will be granted when full payment has been made, upon proof of continuous residence upon the land, in person or by agent, for two years from date of record, and of the existence of permanent improvements to the value of \$2.50 per acre. Aliens must complete their naturalization before they are entitled to receive a patent. Unsurveyed lands may be purchased in tracts of not less than 160 acres, at \$1 per acre, payable at time of purchase, land to be surveyed at the expense of the purchaser. A person is deemed to have resided continuously upon his land when his absence therefrom does not extend to two consecutive months, or amount in the total to four months during the year. These are the principal features of the law, upon which the intending settler can readily more fully inform himself. The Government has agents in the various districts, who look after the interests of immigrants who desire to settle upon the public lands. There is at Victoria a general Immigration Office, at which strangers should apply for information and advice. Here will be found Mr. W. M. Halpenny, the Government guide for Vancouver Island, who will not only supply all needed information, but will accompany parties into the country and aid them in selecting suitable locations.

To one who has perused the preceding pages there is no need to again describe the location of the various agricultural districts. On Vancouver Island are to be found splendid locations for hundreds of families, and the opening of the railway reserve will supply hundreds more. It is estimated that there are 389,000 acres of arable land on the island, of which 300,000 are well suited for agriculture, the greater portion, however, being densely timbered. The nature of the soil and products has already been spoken of. This mammoth island and the numerous smaller ones along the coast will in a few years be settled upon by thousands. The New Westminster District, of which much has been said, is not exceeded in fertility by any tract of land on the Coast. The productiveness of the delta lands is marvelous. Statistics carefully prepared give the return, per acre, at 75 bushels of oats; hay, 3½ tons; barley, 40 bushels; turnips, 40 to 50 tons; potatoes, 30 tons. Roots and vegetables attain an enormous size, and the yield to the acre is prolific. The growing and ripening seasons being slow, the farmer is given ample time to prepare the soil to receive the seed, and, after it has ripened, to harvest and house the result of his labor and toil. A ready market is

THE WEST SHORE.



THE WEST SHORE.

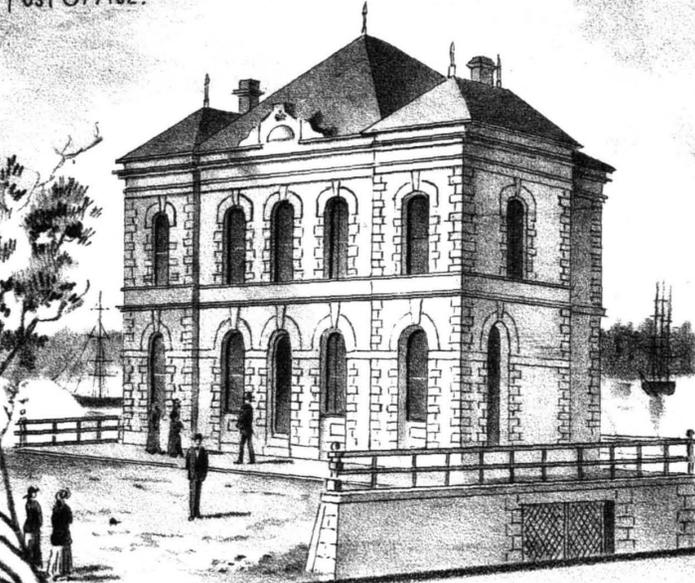


"WEST SHORE" 1174

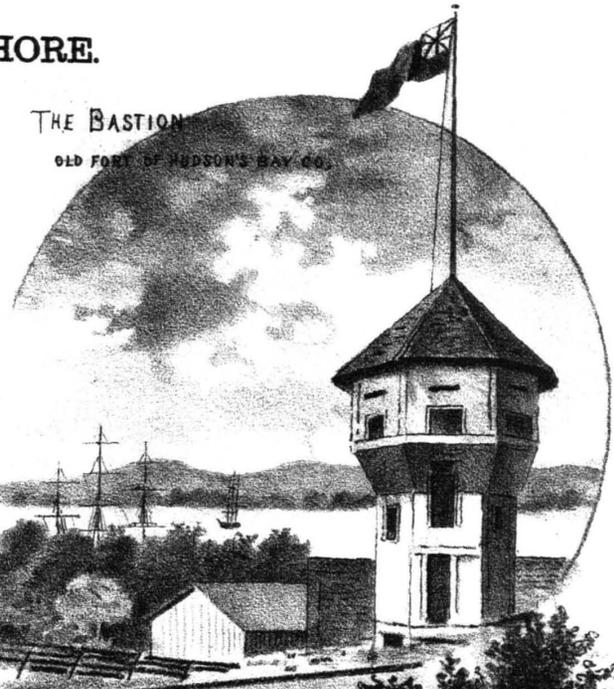
NANAIMO, B.C.

THE WEST SHORE.

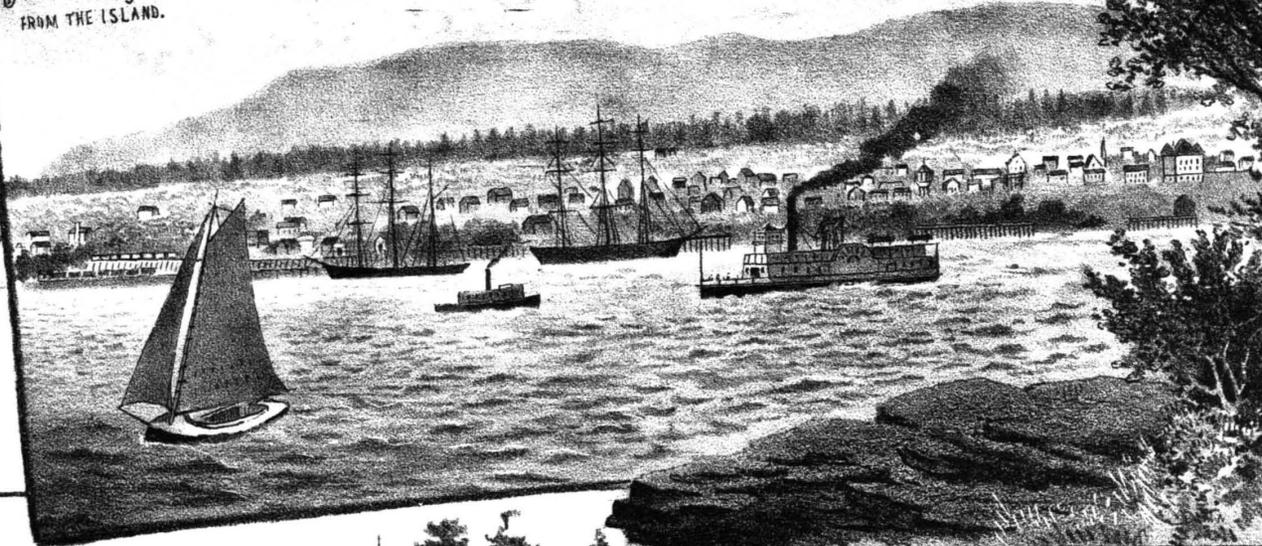
CUSTOM HOUSE
AND
POST OFFICE.



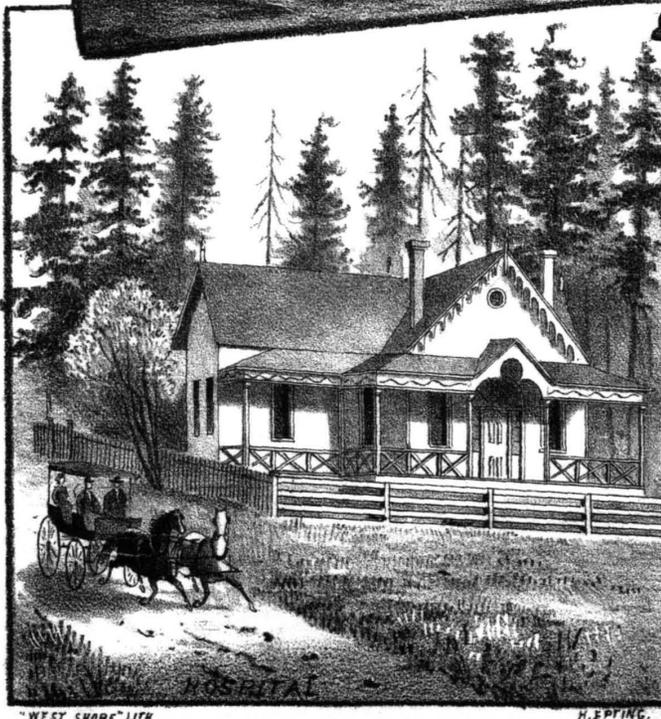
THE BASTION
OLD FORT OF HUDSON'S BAY CO.



NANAIMO HARBOR,
FROM THE ISLAND.



SCHOOL HOUSE

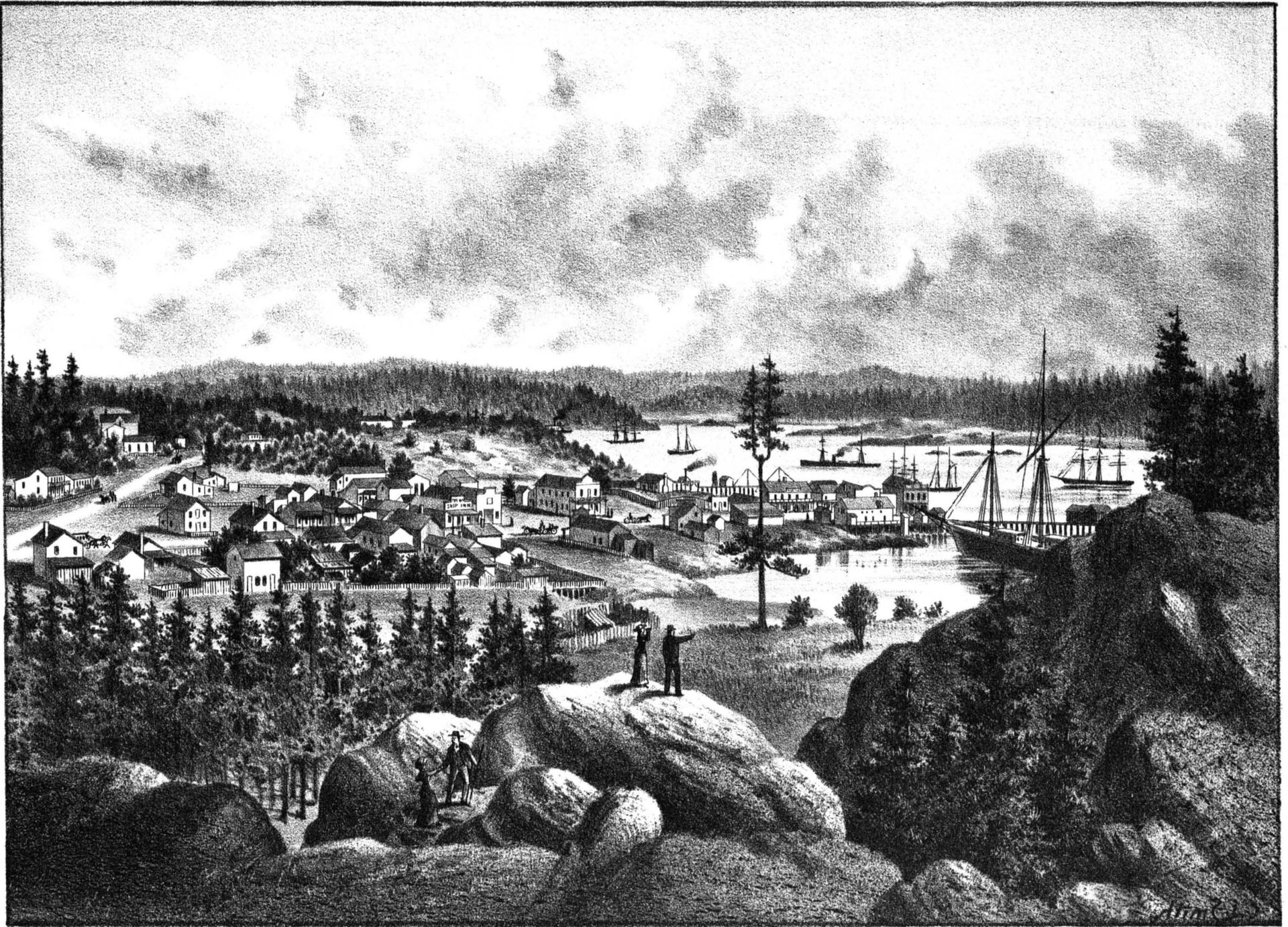


"WEST SHORE" LITH.

H. EPFING.

C. J. SARTON.

THE WEST SHORE.



ESQUIMALT, B.C.

WEST SHORE - LITH.

found almost at his door for the products of his farm, at very good prices, as the following list of ruling rates will demonstrate: Hay, per ton, \$15 to \$18; wheat and oats, \$40 to \$50; barley, \$35 to \$40; potatoes, \$30 to \$35; carrots, \$10 to \$15; mangolds, \$8. The dairy and poultry business can be rendered exceedingly remunerative. Fresh eggs are always in demand at figures ranging from 40 to 75 cents per dozen. A large quantity are imported annually. Chickens, by the dozen, realize \$8 to \$10; turkeys, 30 to 35 cents per pound; geese, from \$2.50 to \$3.50 each; ducks, \$1 per pair; dairy butter, 50 to 60 cents per pound; cheese, 25 to 30 cents per pound.

The progress of settlement is very much retarded by the fact that a considerable quantity of the delta, as well as the alder, cedar and pine bottom lands, are held by speculators, who, beyond paying their taxes, do nothing by way of improvements. Many of these are anxious to sell, and purchasers, at times, can secure capital farms at fair figures. A considerable amount has been expended in dyking and reclaiming delta lands. Much in this way can still be done with profit to the investor and advantage to the country.

In this district there are 250,000 acres of prairie, or lightly wooded lands, including some 15,000 acres lying between Chilliwack and Hope. The lands not already occupied are the property of the Dominion Government, being the railway lands. Many have already located on these lands. Their claims, according to priority, will be duly considered.

The great abundance of land open to settlement is in the interior, which has remained unoccupied, chiefly because of its isolation from market. This will soon be changed by the completion of the great railway, whose route, happily, is an intermediate one, affording an outlet to the greatest number of districts. Dr. G. M. Dawson, a man whose investigations make him the best authority on the subject, estimates the whole area of agricultural lands east of Fraser River, in the southern portion of the Province, at 1,000 square miles, which may be easily utilized. In the Spallumcheen, Salmon, Okanagan, Kootenay and Columbia regions there are thousands upon thousands of acres of arable land yet to be claimed. Some of this is so situated as to require irrigation, but the greater portion yields abundant crops without artificial watering of the soil. There are quite extensive bench lands, where the soil is fertile, but the rainfall too light and the land too high for successful irrigation. What can be done upon such lands by means of artesian wells has yet to be ascertained. They are, however, covered with the nutritious bunch grass peculiar to that portion of the American Continent, and make unexcelled ranges for cattle. The bunch grass cures on the roots, as it stands, and remains as hay until it is renewed in the spring; cattle graze upon it all winter. They do not require other food except in exceptional seasons, when the snow may for a short time be too deep for them, or have a crust upon it. With a little food on hand for such emergencies, the stockman is prepared for the hardest winter. The grass is so nourishing that stock are fat and in condition for market early

in the spring. The ranges in the southern portion of the Province are pretty well occupied, but there are others further north. Stock can be raised for shipment to Europe as soon as all rail connection is made with the East. The country possesses, of course, the same advantages for sheep that it does for cattle and horses.

There is a large agricultural section, an extensive area of low land, lying west of Fraser River and chiefly north of the fifty-first parallel, which Dr. Dawson estimates at 1,230 square miles. Of it he says: "The soil is almost uniformly good; but, being to a great extent covered with trees, it cannot be utilized so readily for agricultural purposes, and it lies, besides, off the route of the railways, and is not likely to be opened up for some time. Still, it is a country which I have every reason to believe will be occupied eventually by an agricultural population." The same authority says that there are on Peace River, at an average elevation of 2,000 feet above the sea, 23,500 square miles of good arable land, of which about 6,000 lie within the limits of British Columbia. Wherever wheat, oats and barley have been tried in that region, they have produced excellent crops. Potatoes grow to great size and perfection. There is no doubt that the whole area will eventually be cultivated. Professor Macoun, botanist of the Canadian Pacific Railway Survey, says of the same region: "I consider nearly all of the Peace River section—including the portion in British Columbia—to be well suited for raising cereals of all kinds, and two-thirds of it fit for wheat. The soil is as good as any part of Manitoba, and the climate, if anything, milder."

There is another considerable agricultural area, as yet wholly unoccupied—the Queen Charlotte Islands. Little as the topographical features of the group are known, it is certain that at the upper end of the most northerly one there are about 70,000 acres of cultivable land, where the climate is such as to render a residence pleasant, and agricultural pursuits highly successful. A number of cattle have been sent to the Islands the present season, and it is probable that the land will be occupied by stockmen before they are devoted gradually to the purposes of more general agriculture.

Fruits of the temperate zone grow to perfection on Vancouver Island, along the Lower Fraser and in the mountain valleys of the interior. The Province is capable of supplying the Dominion with the choicest of apples, pears, plums, peaches, grapes, cherries, etc., and, though no effort has been made to raise these for export, the market soon to be opened by the completion of the railway will no doubt stimulate the fruit industry and cause the planting of many extensive orchards. The settler who possesses a bearing orchard will find that he has a source of income his neighbors are deprived of.

MINERAL RESOURCES.

There exist within the limits of British Columbia large deposits of the precious and useful metals, many of which have been systematically and profitably mined for years, while others are only awaiting the development of which

they are capable to become a source of great wealth to the Province. The list is a long one, embracing gold, silver, copper, iron, coal, lead, cinnabar, platinum, antimony, bismuth, plumbago, limestone, marble and salt. Of these the most extensively worked and valuable are gold and coal.

Gold mining first brought this region into prominence, gave it population and started it upon the highway of prosperity. It was for years the only important industry, that upon which all others depended, and is to-day the leading one of the many that have sprung up around it. Mining first began on the Fraser about 1856, and this was the cause of the great Fraser River excitement which swept the Coast two years later. The gold on the river bars and benches is very fine, and requires the use of quicksilver. From Hope to above Alexandria the river is bordered by a series of benches, one rising above another, throughout which this fine gold is found. The early miners, used to the coarse gold of the California gulches, were severely disappointed in their expectations, and this, combined with the fact that water in the river was high and prevented the working of the bars, caused the majority of them to hasten back to their abandoned claims, loudly proclaiming Fraser River a humbug. Those who remained, however, took out large quantities of dust, and the Fraser still yields its annual supply of gold. The mining along the stream at present is carried on chiefly by Chinamen and by the white settlers, who engage in it at favorable opportunities, at times when their labor is not required on their farms. It was soon noticed that the gold further up the stream was coarser, and this led to prospecting, which discovered the Quesnel mines in 1859 and the rich gold fields of Cariboo in 1860. The report of this new discovery caused another excitement nearly as great as the first one. Cariboo has remained to this day the great placer mining region of British Columbia. The Omineca mines, still further north than Cariboo, have also added their quota to the gold product, but the amount of land travel necessary to reach them, and the consequent high price of everything, has served to keep back their development. Rich diggings were discovered about ten years ago on Dease and Thibert creeks, in the Cassiar region, the extreme northwestern corner of the Province. These have since been worked with good results, being more accessible than Omineca. The route is by sea to Fort Wrangell, thence up the Stickeen river by steamer to within eighty-five miles of the mines.

In the southern end of the province are the Similkameen and Kootenay quartz regions. The former lies along the international line west of Osooyos lake, and has of late attracted great attention from quartz miners. Exceedingly rich prospects have been found and capital from both sides of the line is being invested for their development. The same is true of the ledges of Kootenay, to reach which is the chief object of the transportation scheme spoken of in connection with that region on another page. Silver ore yielding high assays has been found near Hope and Yale, on the Fraser, at Cherry Creek, a tributary of the Shuswap, at Omineca, Kootenay,

Upper Columbia and Similkameen. These prospects give every promise of development into rich silver mines in the future. Mining laws are liberal and strictly enforced. Peace and order prevails in the mines, and the rights of all are fully protected by law. The era of quartz mining is just beginning to dawn in British Columbia, following the appearance of cheaper and quicker methods of transportation.

The condition of mining in the Province is thus set forth by Dr. Dawson, the authority quoted on agriculture, whose practical knowledge and unrivalled opportunities make him the best authority on the subject: "The country is, to a large extent, covered with forests, which makes it much more difficult to prospect for mines. Then the present cost of living, and the difficulty of getting at all to some of those places which are most promising in their metalliferous deposits, and also, I may add, the fact that many of the efforts made in the first instance have been very injudicious, and have led to the discouragement of the people of the country to prosecute further enterprises of the same kind. Gold, however, is known to be almost universally distributed in the Province of British Columbia. There is scarcely a stream of any size in any part of the Province that one cannot wash a few 'colors,' as they say, out of, at the very least, and in 105 localities, which I catalogued in 1877, actual mining had been carried on for gold. The main auriferous belt of British Columbia runs from southeast to northwest, just inside the Rocky Mountains, and includes the mining localities which have been called Kootenay, Big Bend, Cariboo, Omineca and Cassiar. From south to north, from 1858 to 1882, the gold produced in British Columbia amounted to \$46,685,334, (about £9,337,000 sterling) which is a great return, considering that the average population of the Province, taking the period altogether, would not exceed about 10,000 whites. The average number of miners employed in these placer diggings has been 2,940, and the average yield per man employed, obtained by dividing the total by the number of miners, \$683 per man per annum. It should be also considered that these placer deposits, are, as a rule, only to be worked in summer, and that the sum stated was earned in less than half the year of actual work. The greatest yield of any one year was in 1864, when \$3,735,850 was sent out of the country. Last year the total yield was only \$1,013,827. Since 1864, with occasional fluctuations, the yield of gold has shown a general tendency to decline, and the state of the country at present is simply this: The richer placer mines, so far discovered, having been more or less worked out, the yield is falling off. Such placers have been more or less completely exhausted early in the history of gold mining countries, as in Australia and California. Then the period comes when the miner goes to work on the quartz lodes, whence the gold in the placer mines has been derived. That period has not arrived yet in British Columbia. There is not a single auriferous quartz vein worked there yet, and the present is the interim period between the full development of placer mines and the beginning of the quartz mining, which is a more permanent indus-

try. There is no doubt that before long auriferous quartz mines will be worked. An attempt was made some years ago to work them, but, as far as I know, there is no mine now in operation. The difficulties are very great in some parts of the country, owing chiefly to the cost of transport and supplies. Until very lately, it cost from $7\frac{1}{2}$ to $12\frac{1}{2}$ cents a pound to freight goods and supplies to Cariboo from Yale, according to the season, and such prices are so heavy a tax on the expensive mining operations that it renders it impossible to work any but very high grade ores. In Omineca, still further north, it costs fifteen cents a pound to carry supplies into the district, and thus it is almost impossible for private miners to continue prospecting on their own resources, and, unless they have a very rich claim which they can work, they must leave the country. One advantage of the construction of the railway and opening up of the interior will be that the poorer placer deposits will be extensively worked. It is my opinion that when the country is opened up and the cost of labor and supplies lessened, it will be found capable of rapid development, and may soon take a first place as the mining province of the Dominion, and ultimately as second to no other country in North America."

Coal mining is an industry which of late years has undergone a wonderful development. Coal has been found in places over a very wide area of both the mainland and islands. At Nanaimo, on Vancouver Island, is found the best quality, and there the industry has reached great proportions. The quality varies in different localities from the common lignite to anthracite, the latter being on Queen Charlotte Islands, and the only vein of anthracite yet discovered on the Pacific Coast. No effort has yet been made to work it, however. The coal at Nanaimo is the best quality of bituminous coal to be found on the Coast, and is shipped in quantities to all points, San Francisco being the best market, Vancouver Island coal forming about two-thirds of the total imports of that article, notwithstanding the high tariff. The quality of this coal especially adapts it for ocean steamships, as a ton will generate more steam than a like quantity of any other coal to be found on the Coast, thus economizing in the carrying space required. When the Island Railway shall have been completed, it is probable that Victoria will become a coaling station for steamers plying between San Francisco and China. The large steamers to be placed on the China route, to connect with the Canadian Pacific, will certainly draw their supplies from this source. The superiority of Vancouver coal has not only been settled by years of practical experience, but by an official test made by the War Department of the United States, in which it was ascertained that 1,800 pounds of it were equivalent in the production of steam to 2,400 pounds of Seattle coal, and 2,600 of Coos Bay or Monte Diablo coal. From 1860 to 1875, inclusive, there were imported into San Francisco 320,000 tons. They began then to increase rapidly, and during the past five years the average has been 153,000 tons per annum. Cargoes are also sent to the Sandwich Islands and China. The mines producing this coal are those of the Vancouver Coal Mining and Coke

Company and the Wellington Collieries. The former are five in number and are situated in Nanaimo and vicinity. The operations of this company are very extensive. Their wharf at Nanaimo, which is supplied with coal chutes, have a shipping capacity of 1,000 tons per day, and are connected with the mines by a narrow gauge railway. The company gives employment to about 800 men. It has a machine shop well supplied with machinery necessary for the repair of its engines and to do all other necessary work. The Wellington Collieries are situated at Wellington, a few miles from Nanaimo, and are connected with their shipping wharves on Departure Bay by a narrow gauge railway nearly five miles long. About a mile distant are the South Wellington mines, which are also connected with shipping wharves on Departure Bay in a similar manner. The Wellington Company employs about 900 men, of whom some 400 are miners at work in the various shafts. The company has loading facilities at its wharves for 1,500 tons daily. Dunsmuir & Sons are the proprietors.

The coal beds at that point cover a wide area. At Comox, still further north, it is estimated that they occupy 300 square miles. They are also found at other points on the island. Large fields of lignite exist near New Westminster, in the Nicola Valley and along the North Thompson and Skeena rivers.

On Texada Island, situated in the Gulf of Georgia, and only twenty miles from the Comox coal fields, and consequently not far from the mines at Nanaimo and Wellington, are great masses of rich magnetic iron ore, assaying 68.4 of iron and having a low percentage of phosphorus and other impurities. This ore is now being used by the smelting works at Irondale, just across the line in Washington Territory, where it is mixed with the brown hematite ore found in that vicinity. The existence of great bodies of superior coal and iron in such close proximity suggests the springing up ere long of large smelting and iron works. Such industries are certain to come; but how soon none can tell. Copper has been found in a number of places, the most promising ledge being one on Howe Sound. It also appears as a base in quartz containing the precious metals, as, also, does galena. Salt springs exist in various places, but have never been put to practical use.

FISH AND LUMBER INDUSTRIES.

Aside from mining and agriculture, the leading industrial pursuits are the preparing for market, in various forms, of the timber which clothes the hills with a green garment and the multitudes of valuable fishes which swarm in the adjacent waters. Of these the most important is the salmon industry. Salmon of several varieties crowd into the inlets and streams of the Province, ascending as far inland as possible to deposit their spawn in the shallow fresh waters of the interior. Those entering Fraser River ascend the main stream and branches to their very sources, some of them reaching a point nearly 800 miles from the sea. With powerful leaps they scale rapids, falls and whatever obstructions they encounter, bruising themselves against the rocks in their frantic efforts until the banks are lined with their dead carcasses. The survivors of their progeny, only a small per cent. of the billions of eggs which are deposited, descend the streams to the ocean, whence, at the proper time, they in their turn ascend again to the place of their birth, to exercise the pro-creative power. It is while thus making their annual pilgrimage from the sea that they are caught, generally near the entrance to the streams, though often many miles inland, and prepared for market. The salmon has always

been one of the most important of the various forms of food used by the Indians of the Pacific Coast, who annually gather along the streams and catch thousands of them, drying them in the sun for winter use. Years ago the Hudson's Bay Company began salting them for its own use, and of late years many canning factories have been established at favorable points, where thousands of cases are prepared for market annually. There are many good locations yet to be found, where salmon are abundant, and these will no doubt be occupied as soon as the rapidly increasing demand for the product assures it a reliable market. In 1876 there were but three canneries, with a total pack of 8,247 cases, which had increased in 1883 to thirty-one canneries and 196,292 cases, about 60,000 less than were packed the year before. In this branch of the fishing industry about 5,000 hands are employed.

The scene of the greatest activity is on Fraser River, where twelve canneries are located. Five distinct varieties enter the river during the season, each seeking different spawning grounds. The run of the silver salmon begins about the 1st of April and continues till the end of June. These fish are often caught weighing seventy pounds, though the average weight is from ten to twenty-five pounds. Beginning in June and continuing till August is a fish of five or six pounds' weight. In August a most excellent salmon, weighing generally about seven pounds, enters the river. The fourth species is the humpback, a fish weighing from six to fourteen pounds, which is caught from August till winter every second year. The last to appear is the hookbill, a salmon weighing from twelve to forty-five pounds, which arrives in September and remains till winter. For fifteen miles above its mouth the Fraser is dotted with boats of the salmon fleet during the season, and the river and canneries present a busy scene. North of this point establishments are located at Burrard Inlet, Alert Bay, Rivers Inlet, Skeena River, Metlakahtla and Nass River; large quantities of salmon are also salted and packed in barrels. The majority of fishermen, especially in the northern canneries, are Indians, who are expert and reliable, and are preferred to any other kind of labor. On the steamers they are employed almost exclusively for roustabouts, and are paid higher wages than white men, because they can do more work and are more reliable and steady. Mr. Alex. C. Anderson, Inspector of Fisheries for British Columbia, located a hatchery in 1883 on the south bank of Fraser River, four miles above New Westminster, on a tract of land donated by Messrs. B. Haigh & Sons. The undoubted success of this effort of the Government to foster one of the most important industries will enable the canning establishments to make improvements and invest additional capital with the assurance of a permanent and liberal supply of fish. One establishment is a floating cannery and oil factory combined, which can be moved about from place to place, and is known as "Spratt's Ark." On board are complete canning appliances, machinery for manufacturing oil from the offal of the fish caught, and accommodations for the hands. The vessel and its adjuncts cost \$60,000. The shipment of fresh salmon to the East in refrigerator cars will no doubt become an important feature of this industry as soon as the Canadian Pacific is completed, as the business has already been successfully inaugurated from the Columbia River, by way of the Northern Pacific.

The next most important fish, so far as present utility is concerned, is the oolachan, or candle fish. This is a small fish, about the size of a sardine, and is so oily that, when dried, it will burn like a candle, especially those caught in Nass River. They enter the Fraser in millions about the 1st of May. They are delicious when fresh,

smoked or salted, and their oil is considered superior to cod liver oil or any other fish oil known. It is of a whitish tint and about the consistency of thin lard, and is a staple food and an article of barter between the Indians of the Coast and the interior tribes. They begin running in the Nass about the end of March, and enter the stream by the million for several weeks. The various Indian tribes of that region assemble on its banks and catch them in immense numbers. The fish are taken in purse nets, frequently a canoe load at a single haul, and are piled in bins on the shore. They are then placed in bins made of planks and having sheet iron bottoms holding from three to five barrels, and are boiled in water about four hours. The concoction is then strained through baskets made from willow roots, and the oil is run into red cedar boxes of about fifteen gallons capacity each. When the run of fish is good each tribe will put up about twenty boxes of oil. Before the introduction of sheet iron bottoms for their tanks, the Indians boiled the fish by throwing heated stones into the tank. There is no doubt that this undeniably valuable article will soon become one of the regular products of the Province for exportation in quantity, as it is even now to a limited extent.

Herring swarm in the waters of the bays and inlets during the spawning season in the spring. They are not at that time of as good quality as when taken in nets from their permanent banks and feeding grounds. They are somewhat smaller than the herring of Europe, though fully equal in quality when taken in their prime. There is a factory on Burrard Inlet where herring oil is pressed out and fertilizers made from the dried scraps. Halibut are found in great numbers, especially off the west coast of Queen Charlotte Islands, where they are frequently taken upwards of 100 pounds in weight and often twice that size. Though a great many are caught and sent to market fresh or dried, halibut fishing has not yet become one of the regular industries. The Indians of that region catch and dry them for food. The same may be said of cod fish, which, no doubt, abound in the waters of the coast of British Columbia. There are a number of banks on the Alaska coast where cod fishing is carried on by fishermen from San Francisco, who salt 2,000 tons annually. Similar banks no doubt exist further south. Deep sea fishing has not yet been introduced, though the Inspector reports that practical men from Newfoundland and Norway are investigating the question with the purpose of inaugurating deep sea fishing if they find as favorable conditions as are believed to exist. The black cod, formerly called "coal fish," abounds in the waters off Graham Island, where the Indians catch them in great numbers by the use of an ingeniously contrived spring hook. The fish are also known to frequent the waters off the west coast of Vancouver Island and as far south as Cape Flattery. Mr. Spencer F. Baird, United States Fish Commissioner, has taken great interest in this fish, and has secured a quantity through an assistant, Mr. James G. Swan, of Port Townsend. The fish is highly spoken of and is considered far superior to the cod of Newfoundland, the flesh being richer and of finer fiber.

The Skidegate Oil Company is engaged in extracting oil from the livers of dog fish. The works are located at Skidegate, at the southern end of Graham Island, and give employment to ten white men and a large number of Indians. In 1883 there were 400,000 fish caught, which yielded a total of 40,000 gallons, or an average of one gallon of refined oil from the livers of ten fish. This oil is admitted to be superior to any other kind as a lubricant, and is chiefly shipped to the United States, where it pays a duty of 25 per cent., though small quantities are consumed in the Province or sent to Honolulu and

China. Whale oil is another product, though whale fishing is not carried on extensively. Whales of the largest description are found on the outer coast; in the waters of the archipelago the humpback whale is quite numerous, and yield from thirty to fifty barrels of oil each. Porpoise, also, yield a large amount of oil.

Sturgeon are caught in great number and marketed fresh; also such table fish as anchovy, haddock, rock cod, flounder and whiting, crab, prawn, cockles, mussels, etc. Lobster is not native to the waters there, but is being introduced and will soon be plentiful. Oyster beds are found in numerous places, but the bivalves are small and inferior to those on the Atlantic Coast. Several beds are being planted with large oysters from Boston, and will ere long supply the market with a superior quality. The inland streams and lakes abound in salmon trout and the delicious mountain trout, which are the delight of sportsmen, and the famous lake white fish. The holothura, a mollusc, generally known as the "sea cucumber," abounds in the waters about the islands. These, when cured and dried, make the article of commerce known as "beche de la mer," and highly prized in China for food, where it is called "trepang." A valuable industry might be built up by preparing this commodity for market.

Seals and sea otters are annually caught in great numbers off the Straits of Fuca and the west coast of Vancouver Island. In 1883 there were ten schooners engaged in sealing, employing forty sailors and 296 hunters, the latter chiefly Indians, who used 148 cedar canoes. Over 9,000 fur seals and about 3,000 hairy seals were captured, valued at \$93,000. The former are valued at \$10 and the latter at 50 cents. Sea otters are not so numerous and are very wary, requiring much patience and skill in their capture. They are generally shot with a rifle, and at such long range that only the best marksmen succeed in killing them. But ninety-six were taken, valued at \$50 each.

The lumber resources of British Columbia are very great, and, as yet, comparatively undeveloped. Only a few companies are engaged in lumbering on an extensive scale, while south of the line, on Puget Sound, are a dozen large export mills. The islands along the coast, as well as the adjacent mainland, are covered with a dense growth of several kinds of most valuable timber, which grows to immense size by reason of the moist and genial climate. Here is a source of wealth upon which the people may draw for generations to come. Of the various varieties of timber found in the Province, the following are the most abundant:

The Douglas pine or fir (*A. Douglasii*) known also as the "Oregon pine," is the tree most abundant and possessing the greatest commercial value. It covers the coast and islands in dense forests, extending as far north as Skeena River on the coast and Lakes Babine and Tatla in the interior, and inland as far as the Rocky Mountains. It grows to gigantic proportions on the coast, under the influence of the continuously warm and humid atmosphere. The trees are straight, and the wood, though coarse grained, is exceedingly tough and tenacious, withstanding great transverse strain. It is cut into lumber of all sizes and shapes, and has few equals for frames, ties, bridge timbers, etc. For ship building it is especially adapted, and its great length and toughness make it peculiarly desirable for masts and spars. Masts have been shipped which were 130 feet long and 42 inches in diameter, hewn octagonally. A section of one of these trees, which stood 305 feet high, was sent some time ago to Ottawa, where it stands on the grounds of the Dominion Parliament Buildings. The section was cut twenty feet from the ground and is eight feet four inches in diameter. It is also very useful for butter boxes and

similar purposes. Great quantities of this lumber are shipped to South America, Honolulu, China and Australia, while spars and masts are also sent to Europe in large numbers.

About the fifty-second parallel the fir begins to yield precedence to the spruce (*a menziesii*) which predominates for some distance further north, when it gradually gives way to the white, or Alaska cedar, a splendid finishing wood. It is of this the Indians make their carved heraldic columns. The red cedar (*tsuga gigantea*) grows in special abundance on the lower coast, though it extends inland to the Rocky Mountains. It is in demand for railroad ties because of its great durability. Of it the Indians make their canoes, weave the fiber into blankets and roof their houses with the bark. The cypress of yellow cedar (*cupressus thyoides*) is found on the coast from the southern end of the Province to Alaska. Owing to its strong odor the voracious toredo will not attack it, and for this reason, as well as its extreme toughness, it is in demand for piling and all submarine purposes. Juniper, or pencil cedar, is found on the east coast of Vancouver Island, and on the shores of lakes in the interior. The Weymouth, or white pine, (*pinus strobus*) is found on the Lower Fraser, where it attains great size and beauty. The balsam pine attains a vigorous growth, but is of little value as timber. Yellow pine (*pinus ponderosa*) flourishes in the interior. The wood is close grained and durable, though very heavy. Scotch fir (*pinus Banksiana*) is found in the interior; also on Vancouver Island, though of a smaller growth. Another kind of spruce (*picca Engelmannii*) is also found. Throughout the lower coast the hemlock (*abies Canadensis*) grows to large proportions, its bark being exceedingly valuable for tanning purposes. The western larch (*larix occidentalis*) grows to immense size in the bottoms along the international line. The yew (*taxus brevifolia*) is found on the coast and as far up the Fraser as Yale. It does not attain the size of English yew. The natives utilize it for bows. Oak (*Q Garryana*) grows abundantly on Vancouver Islands. It is tough and serviceable. Alder grows along the streams of the coast, and attains great size. It is useful for furniture. Maple is abundant on the islands and coast up to latitude 55 degrees. The wood is very useful for cabinet making. Vine maple, a very strong white wood, is confined to the coast. Crab apple grows along the coast. Dogwood is found on Vancouver Island and opposite coast. The aspen poplar is found throughout the interior. Another variety of poplar abounds along the water courses near the coast, and is the kind so much in demand on Puget Sound for barrel staves. Two other kinds of poplar—all known as "cottonwood"—as well as the mountain ash, are found in the interior valleys.

The seat of the greatest lumbering industries in the Province is Burrard Inlet, that great inland harbor, near the entrance to which the Canadian Pacific has its terminus. Here are two large mills manufacturing for foreign exportation. The Hastings Saw Mill Company cuts about 15,000,000 feet annually, frequently filling orders for special timbers of enormous size. Some have been cut twenty-eight inches square and 110 feet long. The Moodyville Saw Mill Company cuts nearly 20,000,000 feet annually and employs about 100 men, having numerous electric lights for night work. Timber has been brought to this mill measuring seven feet six inches in diameter at the butt and five feet 130 feet from the base. This is the Douglas pine, or fir, and both companies own large tracts of that valuable timber. The Hastings Mill Co. own a forest close at hand which, it is estimated, will yield upwards of 400,000,000 feet, and constitutes a property of enormous value. Cargoes of lumber

are sent to China, Australia, Sandwich Islands and all Pacific Coast ports, and spars to England. Another mill is located at Port Moody.

The Rock Bay Sawmill, at Victoria, has a daily capacity of 30,000 feet, and has good shipping facilities. At New Westminster are located the Dominion Sawmills, which have a daily capacity of 40,000 feet of lumber, 12,000 laths and 20,000 shingles. Adjoining this are the Royal City Planing Mills, which cut 35,000 feet of lumber, 8,000 laths and 25,000 shingles daily. These two companies make sash, doors, furniture, etc., in great quantities. At Nanaimo the Royal City Planing Mills have a sawmill, which cuts 20,000 feet per day. There are a number of other mills at various points, chiefly in the interior, supplying the local demand for lumber. This industry is only in its infancy, comparatively speaking, and it is evident that it has many years of prosperity before it.

CANADIAN PACIFIC RAILWAY.

The mammoth enterprise upon which the future development of British Columbia's varied resources so much depends is the Canadian Pacific Railway, a through transcontinental line from Montreal to the Pacific, built under the patronage of the Dominion Government, whose treasury and credit supplied the means. The advantages, and even necessity, of such a connecting link between the Provinces was early recognized, and became more apparent than ever when British Columbia united with the Dominion. Such an undertaking was too gigantic for private enterprise, since the country through which the line would run west of Lake Superior was then almost entirely unoccupied, and must be gradually developed under the influence of the railway before it could furnish local traffic for its support. Private capital could not afford an investment requiring so long a time to render it productive. It was a great public necessity which only the Government could accomplish, and with this idea the Dominion began its construction. In 1871 surveying parties were sent out to explore the comparatively unknown region through which, if possible, it should pass, and report upon the most favorable route. Over \$3,500,000 have been expended upon these preliminary surveys. The location of the road east of the Rocky Mountains being much the less difficult, the work of construction was commenced on the Eastern Section in 1874, and 264 miles completed and in operation in 1880; but from the Rocky Mountains to the Pacific Coast no less than eleven lines, aggregating upwards of 10,000 miles, were surveyed before determining the best terminal point and route thereto. Port Moody, at the head of Burrard Inlet, was finally selected as the mainland terminus, and Kicking Horse Pass as the route across the Rocky Mountains. Recently, however, Vancouver, a new town to be built on Coal Harbor, near the entrance to Burrard Inlet, has been chosen for the terminal point in place of Port Moody.

In 1880 a contract and agreement was made between the Dominion of Canada and an incorporated company, known as the "Syndicate," for the construction, operation and ownership of the Canadian Pacific Railway. By the terms of this agreement, that portion of the railway to be constructed was divided into three sections; the first, extending from Callander Station, near the east end of Lake Nipissing, to a junction with the Lake Superior section then being built by the Government, was called the Eastern Section; the second, extending from Selkirk, on the Red River, to Kamloops, at the Forks of the Thompson River, was called the Central Section, and the third, extending from Kamloops to Port Moody, at Burrard Inlet, the Western Section. The company agreed

to lay out, construct and equip, in running order, the Eastern and Central Sections by the 1st day of May, 1891. The company also agreed to pay the Government the cost, according to existing contract, for the 100 miles of road then in course of construction from the city of Winnipeg westward. The Government agreed to complete that portion of the Western Section between Kamloops and Yale by June 30, 1885, and also between Yale and Port Moody on or before the 1st day of May, 1891, and the Lake Superior Section according to contract. The railway, as constructed under the terms of the agreement, becomes the property of the company, and pending the completion of the Eastern and Central Sections, the possession and right to work and run the several portions of the railway already constructed, or as the same shall be completed, is given by the Government to the company. Upon the completion of the Eastern and Central Sections the Government agreed to convey to the company (exclusive of shipment) those portions of the railway constructed, or to be constructed by the Government, and upon completion of the remainder of the portion of railway to be constructed by the Government, to convey the same to the company, and the Canadian Pacific Railway thereafter become the absolute property of the company, which agreed to forever efficiently maintain, work and run the same. The Government further agreed to grant the company a subsidy in money of \$25,000,000, and in land of 25,000,000 acres. The Government also granted to the company the lands required for the roadbed of the railway, and for its stations, station grounds, workshops, dock ground, and water frontage, buildings, yards, etc., and other appurtenances required for its convenient and effectual construction and operation, and agreed to admit, free of duty, all material to be used in the original construction of the railway, including bridges, and of a telegraph line in connection therewith.

The company have the right, from time to time, to lay out, construct, equip, maintain and work branch lines of railway from any point or points within the territory of the Dominion. It was further agreed by the Dominion Parliament that for the period of twenty years no railway should be constructed south of the Canadian Pacific Railway, except such line as shall run southwest or to the westward of southwest, nor to within fifteen miles of latitude 49 degrees, and that all stations and station grounds, workshops, buildings, yards and other property, rolling stock and appurtenances required and used for the construction and working thereof, and the capital stock of the company shall be forever free from taxation by the Dominion, or by any Province hereafter to be established, or by any municipal corporation therein, and the lands of the company in the Northwest territory, until they are either sold or occupied, shall also be free from such taxation for twenty years after the grant thereof from the crown.

Soon after the consummation of the agreement Mr. A. Onderdonk, an experienced railroad builder, became the managing contractor for the construction of that portion of the Western Division extending from Port Moody to Savona Ferry, a distance of 212 miles. It presented greater difficulties than have ever been overcome in railway building. The Union and Central Pacific and other lines have gone over the mountains by gradual ascents, but no such way of climbing the Cascades was possible, and the wonderful undertaking of running through them, parallel with the great canyon of the Fraser, was determined upon. For nearly sixty miles, from Yale to Lytton, the river has cut through this lofty range thousands of feet below the summits. Mountain spurs of granite rock, with perpendicular faces hundreds of feet in height, project at short intervals along the entire passage. Be-

tween them are deep lateral gorges, canyons and plunging cataracts. On this sixty miles of tunnels, rock work and bridges the greater portion of Mr. Onderdonk's construction army of 7,000 men have been engaged since 1880. The loud roar of enormous discharges of giant powder has almost constantly reverberated among the mountains. Many tunnels have been bored, one 1,600 feet in length, and millions of tons of rock blasted and rolled with the noise of an avalanche into the rushing, boiling Fraser; workmen have been suspended by ropes hundreds of feet down the perpendicular sides of the mountains to blast a foothold; supplies have been packed in upon the backs of mules and horses over trails where the Indians were accustomed to use ladders, and building materials landed upon the opposite bank of the river at an enormous expense and crossed in Indian canoes. It is estimated that portions of this work have cost \$300,000 to the mile.

As the work progressed the cost of transportation by such means increased until Mr. Onderdonk determined to try and run a steamer through the Grand Canyon of the Fraser to the navigable waters above, to supply the advance camps. For this purpose he built the steamer *Skuzzy*. Then came the difficulty of finding a captain able and willing to take her through. One after another went up and looked at the little boat, then at the awful canyon, the rushing river and the swift, foaming rapids, and turned back, either pronouncing the ascent impossible or refusing to undertake it. Finally Captains S. R. and David Smith, brothers, were sent for, both well known for their remarkable feats of steamboating on the upper waters of the Columbia. It took them seven days to line through the Black Canyon, through which the waters rush at a speed of twenty miles an hour. The hardest tug was at China Rifle, where, in addition to the engines, the steam winch and fifteen men at the capstan, a force of 150 Chinamen upon a third line was required to pull her over. The captains received \$2,250 for their work. It would fill quite a volume to describe in detail even the more important portions of Mr. Onderdonk's great work. All of the immense quantity of giant powder used is manufactured on the line between Emory and Yale.

One of the greatest feats accomplished was the construction of the cantilever bridge across the Fraser below the town of Lytton. Besides the one recently completed across Niagara River, this is the only cantilever in America; and it is gratifying to know that the feat was accomplished by engineers of the Pacific Coast. The total length of the bridge is 530 feet, the central span being 315 feet long. The ends of the span rest upon piers of solid masonry, ninety-six feet high, and containing 6,480 cubic yards of stone. The superstructure contains 1,200,000 pounds, or 6,000 tons, of cast steel and iron. The total cost was \$280,000. Though the bridge is not so long as the one at Niagara, the difficulty attending its erection was much greater, owing to the fact that the site could be approached from one end only. One-half the material was sent across the river on a steel cable $1\frac{1}{4}$ inches in diameter, several pieces thus transferred weighing over $5\frac{1}{2}$ tons each. In this respect the bridge stands without a parallel in the world. The first iron was placed in position on the 17th of March, and on the 14th of June a train crossed over the completed structure; only seventy-three days, including those lost by reason of bad weather, were consumed in the transfer of iron across the stream and the erection of the entire bridge. As an example of speed and skill it is without a parallel when the difficulties to be overcome are considered. This remarkable engineering accomplishment was performed by the San Francisco Bridge Company, the only firm of

constructing engineers on the Pacific Coast capable of erecting works of such magnitude. All the bridges on the Western Division of the road, aggregating forty-seven spans, were constructed by this company, and the bridges which they have erected on the Coast, if placed end to end, would span a stream eleven miles wide. The company has under construction at Roseburg, Or., a combination bridge over the Umpqua River which will be the largest highway bridge in the State. There is another work of this company in the Province which is deserving of special mention, both because of its superior character and its importance to transportation—the Sand Light at the mouth of Fraser River, the finest lighthouse on the Pacific Coast. It stands five miles out from the nearest point of land, and, like the famous Eddystone Lighthouse, is nearly always surrounded by a rough sea. For many years the Government deemed it impracticable to erect a lighthouse at that point, and maintained a light-ship there; but the enormous expense of so doing led to an effort to erect a lighthouse. A contract was let to the San Francisco Bridge Company by the Dominion Government, and the work was executed under the immediate supervision of Mr. J. McMullen, President of the company. Over treacherous and shifting sands the iron screw pile foundation is an admirable device for bridge foundations, marine piers and lighthouses. They can be screwed into the bottom to any desired depth, and offering the smallest possible resistance to the waves, make a reliable foundation. This device was adopted and the work performed in the most scientific manner. The lighthouse cost \$43,000, and is an imperishable monument to the engineering skill of the contractors.

At the beginning of the present season the road had progressed 975 miles west of Winnipeg, leaving only 300 miles to be built to the point where it unites with the Western Division at Kamloops. This is all mountain work, and will not be completed until the end of 1885, before which time Mr. Onderdonk, whose line has already been placed in running order as far as Yale, will have reached the point of junction. It is the expectation that early in the spring of 1886 a through route will be opened from Coal Harbor to Montreal. This route will be much the shortest of any now running across the continent, the distances comparing as follows:

	Miles.
Coal Harbor to Montreal.....	2,862
Coal Harbor to New York, via Montreal.....	3,241
Coal Harbor to Boston, via Montreal.....	3,197
Coal Harbor to Liverpool, via Montreal.....	6,075
San Francisco to New York.....	3,390
San Francisco to Boston.....	3,448
San Francisco to Liverpool, via New York.....	6,830
Yokohama, Japan, to Liverpool, via Central Pacific.....	12,038
Yokohama, Japan, to Liverpool, via Canadian Pacific.....	10,963

It will thus be seen that from China and Japan this route to Liverpool is more than 1,000 miles shorter than the one by the Central Pacific; and with the line of ocean steamers that will be put on as soon as the road is completed, it requires no prophet to see that all the Canadian and English trade which crosses the continent will do so by the Canadian Pacific; and it remains to be seen, also, if the same will not be true of the New York and Boston importations from Asia. The grades are much lighter and less numerous, and at no place does it reach half the altitude attained at four different points by the Central and Union Pacific roads. Less difficulty is expected from snow than is experienced by the Central Pacific in the Sierra Nevada Mountains. With a shorter route, easily operated, free from the burden of taxation, and without enormous interest charges to meet, this road must surely become a dangerous rival to the older routes, and ought to be able to give the Province such low rates of transportation as will foster her struggling industries, cause the immediate settlement of her vacant lands, and aid in the development of her varied resources.

COAL HARBOR,

The Western terminus of the Canadian Pacific Railway, in British Columbia, is a magnificent sheet of water, about three and a half miles long by from one to two miles wide, is completely land-locked and accessible at all stages of the tide by the largest vessels afloat.

The following table of distances will give some idea of the advantages this place possesses over all others as the site for a commercial city. Taking a common point on the Asiatic Coast, Yokohama in Japan, the distance to points on the Western shores of North America are (nautical miles):

Yokohama to San Francisco.....	4,470	Yokohama to Coal Harbor.....	4,374
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The distance from Yokohama to San Francisco by the route followed by all vessels is really nearly 800 miles longer than the above, vessels taking an extreme northerly route in order to obtain the advantage of certain winds and currents. This distance does not affect the route to Coal Harbor, but should properly be added to the San Francisco route.

The estimated distance from above points to Atlantic tide water and various places is as follows (statute miles):

San Francisco to New York.....	3,390	Coal Harbor to New York, via Canadian Pacific Railway and Montreal....	3,241
San Francisco to Boston.....	3,448	Coal Harbor to Boston.....	3,197
		Coal Harbor to Montreal.....	2,862

The distance across the Atlantic is (nautical miles):

New York to Liverpool.....	3,040	Montreal to Liverpool.....	2,790
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From the above we see that the distance from Yokohama to Liverpool is (statute miles):

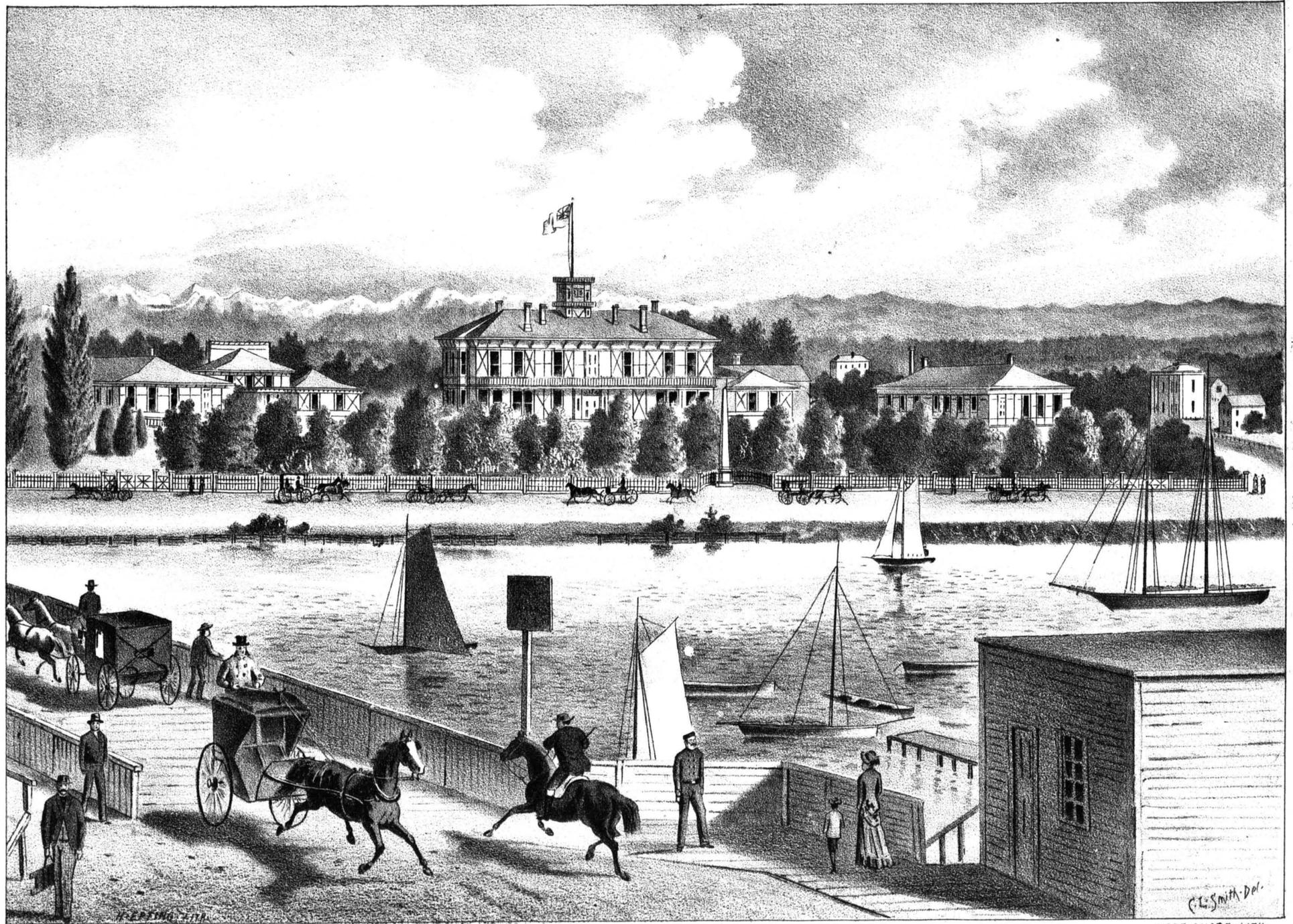
Via San Francisco and New York.....	12,038	Via Coal Harbor and Montreal.....	11,111
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Or 927 miles in favor of the Coal Harbor route; to this add the 800 miles above mentioned, making the total distance by regular route, from Yokohama to Liverpool, via Coal Harbor and Montreal, nearly 1,800 miles shorter than the San Francisco route. In a few years a railroad to Hudson Bay will undoubtedly be in operation, making the distance by this short route about 2,600 miles shorter than by San Francisco.

Therefore, taking into consideration the fact that the Canadian Pacific Railway is the shortest and only one crossing the continent under one management, a glance at the above table of distances will show that this terminal city, from a commercial standpoint, cannot possibly have any successful competitors.

The town site is all that could be desired, and it is doubtful if a more beautiful and picturesque location could be found on the continent. Looking north, across the harbor, a magnificent view of snow-capped mountains is obtained, and to the south Mount Baker is seen to better advantage than from any other point on the Coast; in fact, look where you will, an entrancing view of woods, mountains and water meets the gaze. At the entrance to, and fronting on, Coal Harbor, and also on English Bay (a roadstead to the west), is a Government Reserve, which influential parties are now trying to obtain for park purposes. The land being high, about 180 feet above the sea level, a grand view of Burrard Inlet, English Bay, Gulf of Georgia and surrounding country can be had. On the west, or English Bay side of this Reserve, is situated the famous Siwash Rock. This park alone will yet attract thousands of pleasure seekers. Nature has done much, and when drives and squares have been laid out this park will become as famous as some of the grand national parks in the distant interior of the continent. The town site is gently undulating, with just sufficient slope for perfect drainage, and is covered with a growth of fine maple and other trees. The climate is undoubtedly the best on the Coast; days warm and pleasant, nights pleasantly cool, rainfall moderate. The country in this vicinity presents great attraction to the sportsman, the lakes and streams being full of trout; in the woods deer, bears and smaller game, and on the mountains, numbers of goats. Burrard Inlet and the adjoining waters of Gulf of Georgia and Howe Sound are unrivalled for yachting and boating. In fact, this district is the sportsman's paradise. General Manager Van Horne has stated that the Canadian Pacific will spend many millions in this place in the erection of wharves, workshops, rolling mills and depot, and has given it as his opinion that the terminal city will become one of the two largest on the Pacific Coast. In the fall of 1885 the Canadian Pacific Railway will be in operation from Atlantic to Pacific, and, as these buildings will have to be erected by the time the road is completed, the expenditure of so much money will certainly have the effect of building up a large town in an unprecedentedly short time. The Canadian Pacific Railway will employ at least 2,000 men in their different shops, and these will have to be supplied with the necessaries of life, thus creating first class openings for business men of all classes. Within the next year and a half large wholesale and importing houses will spring into existence here, also foundries, woolen factories, furniture factories, etc., and, as a great portion of the grain grown in the Northwest will be shipped from this port, it will necessitate elevators. Business men of all classes looking for good openings would do well to consider these points. Plans of the town site are now being prepared and in a few days lots will be offered for sale, and, we must say, that better chances for investment were never offered. Lots that can now be bought for a few hundred dollars will, beyond a doubt, be worth as many thousands within a year or two. A large number of people are looking for this property to come on the market, and hundreds of thousands are awaiting investment here, and we have no hesitation in stating that lots must double in value within a few months after they are first placed on the market. We would therefore advise those looking for first class investments in real estate to come here and see for themselves, and we feel sure that those who do so, after a careful inspection, will be more than satisfied with the prospects. Investments now of a few hundred dollars will yet return fortunes to those who have the foresight to realize the future in store for this place. It is only once in a lifetime that the public have such a chance as the present, and we would recommend those that have money to invest to investigate the merits of Vancouver, on Coal Harbor, before making other investments. We will be pleased to furnish applicants with plans and price lists; also any particulars they would require, but would prefer to have intending investors pay Coal Harbor a visit, and then call and see us. In a few weeks we will open an office at the terminus, and will then be pleased to show visitors over the town site and give them every possible information, but all letters sent to present address will always find us.

Innes & Graveley, Real Estate Brokers and Financial Agents, British Columbia Express Building, Victoria, B. C.

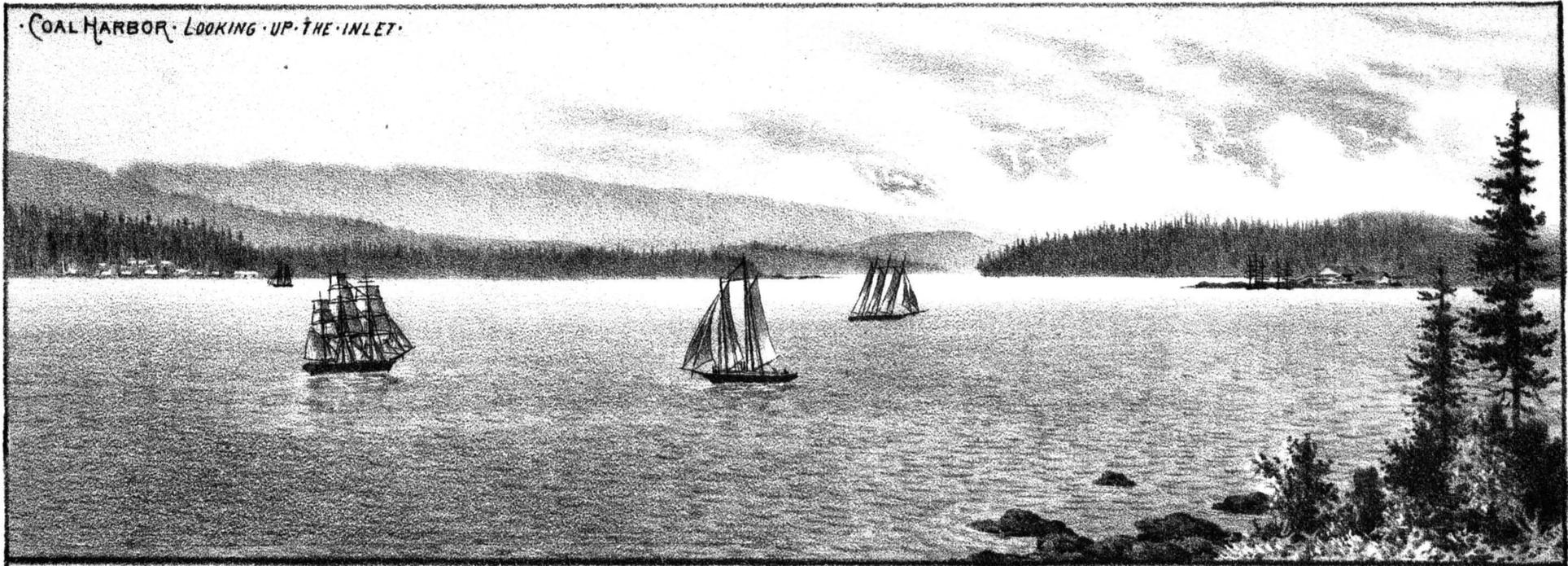


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