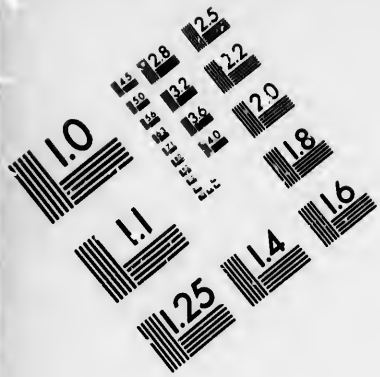

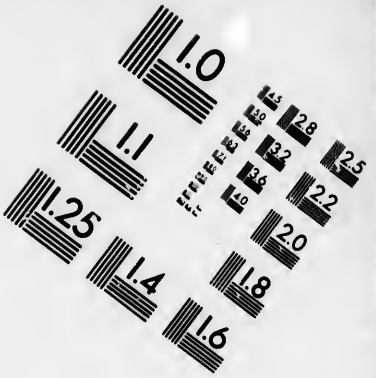

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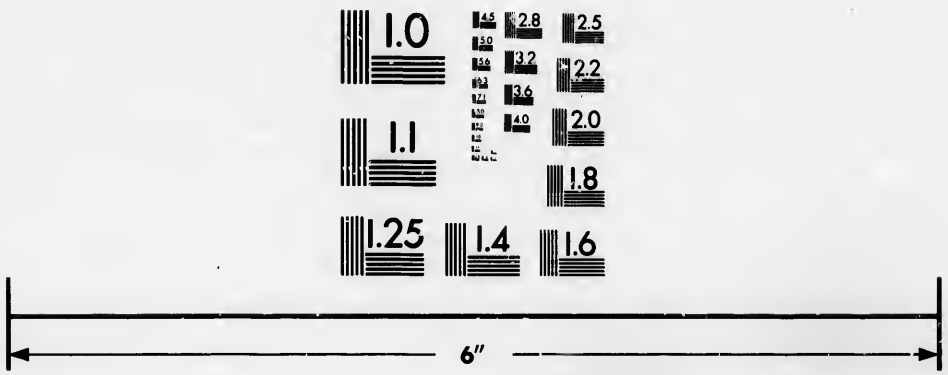

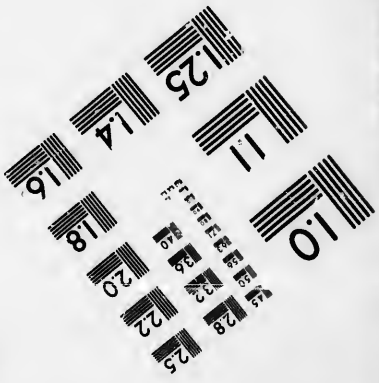

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BRITISH COLUMBIA.

A DIGEST

—OF—

RELIABLE INFORMATION

—REGARDING—

Its Natural Resources and Industrial Possibilities.

By R. E. GOSNELL,

Commissioner of the Provincial Exhibit Association.

"I think British Columbia a glorious Province—a province which Canada should be proud to possess, and whose association with the Dominion she ought to regard as the crowning triumph of Federation."—Lord Dufferin.

VANCOUVER, B.C.:

News-Advertiser Printing and Publishing Company.

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1890.

This little volume is dedicated by the author to the interests of British Columbia, the possibilities of which are not to be surpassed by those of any country in the world; and of its population it may be said, that a more loyal, contented and prosperous people cannot be found—"a people without a grievance."

CONTENTS.

BRITISH COLUMBIA.

Reliable information

In order to inform himself thoroughly of the horticultural and agricultural capabilities of the Province, and the various conditions which affect the husbandman's occupation, the writer prepared a series of questions, forty-seven in all, in the form of a circular, which was sent through the valuable medium of the Fruit Growers' Association, to representative men in every part of British Columbia. These questions were so framed, as may be judged by the nature of the replies, as to elicit information that would convey to the mind of the practical man, as nearly as possible, a true idea of the actual state of affairs, forming an almost absolutely safe guide to those whose actions in regard to British Columbia as a farming country might be affected thereby. Unfortunately, only a small proportion of those to whom these circulars were sent, took the trouble to respond. However, as will be seen, a sufficient number realised the importance of what was desired, and one reply at least was received from each of nearly all the principal districts. Those who were kind enough to respond did so, except in a few cases, very fully and satisfactorily, and in almost every instance they are representative farmers and fruit-growers in the districts in which they reside, many of them occupying responsible positions, as members of Parliament, reeves, justices of the peace, etc., etc. Although the object at first was to write from the answers, using them as data, it has been deemed advisable to compile them, using, as nearly as possible, the exact language of the informants, without exaggeration or detraction, a course which will be found much more satisfactory to the person desiring uncolored, reliable information, and productive of knowledge not altogether uninteresting, even in the lexiconic form presented. The aim has been to give a fair, unvarnished impression of British Columbia, based on actual results, and without any resort or approach to "booming," so much and very often disastrously practised.

The facts, it is believed, will be found sufficiently eloquent in themselves, and cannot be deceptive, inasmuch as they represent conditions as they exist. The preface to the circular in question was as follows: "Below you will find a number of questions, to which you are requested to reply in so far as they relate to your district. The object of this circular is to obtain from practical, experienced men, a knowledge of the resources of the various parts of the Province, and suggestions as to the best means of development, with a view to making these more widely known and aiding in the achievement of these objects."

The information in regard to the Province, as a whole, which is lacking in the reports received and printed herein, it has been the endeavor to supply with the same adhesion to fidelity and reliability that characterises them, and with the same end in view.

SOME NECESSARY REMARKS.

A Remarkable Province.

To outsiders and to many new comers in the Province, there is much that requires explanation, and many things that seem strange from numerous points of view. The conditions that exist here are somewhat different from those to be found in what is known as the North West of Canada, the Eastern States and Western States. In this respect the Pacific slope forms a distinct longitude, British Columbia peculiarly so. Had Great Britain and Ireland remained in an undeveloped state up or nearly to the present time, could we imagine it thus, something like a parallel would have been obtained. An atmosphere humid with the vaporings of the ocean; a climate beautifully tempered by the sea currents; a vast extent of mountainous surface, intersected with numerous rivers and rich sheltered valleys; a vegetation necessarily rank under such conditions, producing enormous forests and

prolific crops; a remoteness from the rest of America, and until recently a commercial isolation; an undeveloped and almost inaccessible interior; a rugged exterior, rendering communication difficult; a country of long distances and divides; a mining Province primarily inhabited by gold-seekers; a new West; possibilities opened up for the over-populated East—all account for many things, which people of old settled, level and developed communities are unaccustomed to. It is the old and the new; the past and the present; the vast and prodigal in nature and the ordinary and "uninteresting" meeting rather unexpectedly on the shores of the Pacific.

AGRICULTURAL RESOURCES.

The reason for taking the interrogatory course was that, owing to the extensive area of the Province and the difficulty of intercommunication, comparatively little was known, except in a general way, of the resources of the Province, by the people of the Province, much less by those beyond its limits. With large agricultural resources, owing to the lack of development, there has been a lack of uniformity of methods, and comparatively little data upon which to base general or particular conclusions.

British Columbia as it was,

It must be remembered that prior to the Canadian Pacific Railway, which was only completed to Vancouver in 1886, practically speaking, the whole of the Interior was a sealed book, and so far as farming was concerned, it was impracticable. Because of the lack of communication, there was no outlet for the products of labor; hence no incentive. The population was limited and principally confined to the cities of New Westminster and Victoria, the supply for which came from the immediately adjoining country or by steamer from the South. Therefore, although British Columbia was prominently before the public of America thirty years ago, and because her agricultural and horticultural capabilities are just beginning to be known, it must not be concluded that her people are not progressive. Thirty years ago this Province had a large population, the result of the gold fever. Men flocked in over the Rocky Mountains, by boat from San Francisco, and along the slope by way of Blaine, but in their mad race for gold, they did not take note of the great wealth that industry alone would develop, the favorable conditions for which had to be supplied by railway communication with the East, now consummated. As a matter of fact, British Columbia is only five years old, and, considering all the difficulties that surrounded pioneer development, her development has been most remarkable.

Effect of C.P.R.

It is true that before the Canadian Pacific Railway was opened, which-by the way, by its effects upon this Province, amply justified its undertaking as a great national enterprise, there was a considerable export in gold and furs by the Hudson's Bay Company, seal skins from Victoria, canned salmoh from the Fraser and lumber from Burrard Inlet; but in that sense, Britisn Columbia was utilised in much the same way by capital as Alaska is; the rich islands of the sea and portions of Africa; a depletion rather than a develop, ment. And now that a railway has reached from ocean to ocean, from an inter-provincial point of view, it has only rendered further development possible by the construction of other branch lines to tap the fertile portions of the Interior. The main line of the Canadian Pacific Railway, like railways in many other parts of the world, was built chiefly to reach objective points, and runs through the most unproductive regions. Hence a traveller riding over it is unfavorably impressed in his initial journey westward to the Coast. Many fertile sections are yet practically isolated and accessible still only by the cayuse over pack trails, canoes, boats or small steamers and along wagon roads. However, the branch line policy of the C. P. R. has been vigorously inaugurated, and soon, by this means and other railways which are seeking ingress and proposed independent short lines, every part of the Province will be reached and opened up.

Branch Line Railways.

This year the rich wheat and pasture lands of the Okanagan and Spallumcheen valleys will be connected with the main line of the C. P. R. by a railway from Okanagan Lake to Sicamous; and a railway in the mining region of Kootenay, the trade of which the Americans are most anxious to capture,

is under construction; a short line from Nelson to Sproat's Landing, will, by utilising the Columbia River to Revelstoke, direct the mineral wealth and the consequent trade of that country to the cities of the Coast. Another railway is being projected from the far-famed Cariboo, the quartz mines of which will far exceed in returns the palmy placer days of that district, to Kamloops or Ashcroft, giving an outlet to an immense area of pasture, farming and fruit lands, as well as extensive mineral deposits.

More Railways.

The C. P. R. has also under contract a branch line from the Mission to the boundary line to connect with an important line of American railways. This will pass through one of the best agricultural districts of the Province, being the easterly part of the celebrated Fraser delta lands, probably not to be surpassed in the world for productiveness. Then, running from the boundary this way to New Westminster, the New Westminster Southern, which may have its ultimate terminus in Vancouver, opens up a large tract south of the Fraser. There are various other lines for which charters have been obtained for railways and electric tramways that will supply all the facilities of communication only necessary to make this Province the garden of Canada.

Market for Produce.

As a number of references is made in the replies to the want of railways and other communication in order to secure a market, and as that accounts for many present conditions, the above explanation in regard to railways seems necessary. At present the market for produce from Kamloops to Vancouver along the C. P. R. is produced by the latter. South of the Fraser is what is known as the Lower Fraser Valley, the great fertility of which has already been referred to. The farmers living within an easy distance of the river, find a market at the various steamboat landings for their produce, which is conveyed from there to Vancouver, New Westminster and Victoria. The rich islands of the Fraser, Lulu and Sea, which are connected with the Mainland by bridges, and the important North Arm settlement, find a market in Vancouver by way of the North Arm road.

British Columbia as a Farming Country.

Apart from the Okanagan and Spallumcheen valleys, and the pasture lands of the Interior, British Columbia is not a farming country in the same sense as other provinces are said to be; that is, while the soil and climate are capable of producing anything that can be grown in Canada, and in the temperate zones, and to a degree of perfection unsurpassed elsewhere, all other conditions are not equal. British Columbia is a country for gardens and small farms, upon which will luxuriate all kinds of fruit and vegetables, large and small, and such specialties as hops, sugar beet, sorghum, tobacco, mushrooms, cauliflower, mulberries, flowers and ornamental trees and shrubs, flax, etc., etc.

Cereals will everywhere, in good soil, surpass the product per acre in the best parts of Canada, but the area of land is more limited for this than other purposes, as the clearing of land must be taken into consideration. Land once in a state of cultivation, however, is equal to anything to be found on the continent for productiveness. In a few years the arable lands will be all well cultivated. Trees of smaller growth for purposes of shade and ornamentation will take the place of the present giants. Farms will be smaller and much better tilled, as a consequence, than in Ontario, though probably two or three times higher in price. Improved farming land is already much higher than in the Eastern Provinces, but relatively is no dearer. This fact should not be lost sight of. A good farm of 100 acres in British Columbia is worth two or three times a good farm of the same size in any other part of Canada. The farmer has a double protection for his products: (1) the more limited area, and (2) the greater distance from competitors. With the tariff considered, the British Columbia farmer has practically control of the home market, which at present is not inconsiderable and rapidly expanding in its demands. What that demand is and its probable future dimensions may be judged from the fact that by a statement prepared by the Secretary of the Vancouver Board of Trade, one million and a quarter dollars worth of goods, products of the farm, garden and orchard, was imported into this Province in 1889 for home consumption.

Local demand.

Advantages of Farmers.

The list includes animals, breadstuffs, provisions, trees, eggs, vegetables, etc., etc. From 25 to 50, and in many cases even 100 per cent. to Eastern prices may be added for British Columbia. Therefore, any disadvantage in the way of putting land into a similar state of cultivation to that found elsewhere, is more than compensated by the advantages obtained in placing products on the market and the fruitfulness of the soil. A man is, comparatively speaking, in good circumstances with ten acres improved and well situated, well off with fifty acres, and rich with 100 acres. A man with 500 acres would be a lord of the country side. The remarks concerning the cost of clearing land apply to timbered land and partly timbered land, but it is qualified by the fact that a large portion of the agricultural lands of the Province is either prairie or partly prairie. A good deal of it is bottom land, lightly timbered with alder, maple and cottonwood, etc. Some of it here and there requires dyking and some draining, but much of it is still available at prices varying from $15 to $50 an acre, unimproved, according to location. Nearly all the Government lands situated at present within easy reach have been taken up.

Up to the present there has been a prevailing impression that British Columbia has no agricultural lands worth speaking about, and it is very difficult to convince otherwise even those who come to the Province themselves. As stated previously, this is largely the result of the impression received by coming through to the Coast for the first time. But it may be stated with confidence, though, perhaps, surprising to many, that British Columbia has a larger fruit-growing area than any province in the Dominion. In British Columbia, wherever cultivation is possible, the soil and climate are capable of excellent results. So true is this that it might be termed the home of all the small fruits, pears, plums and cherries; peaches, grapes, nectarines, quinces, apricots, melons and tomatoes (the latter two sometimes classed as fruits) vary in success according to local conditions. It is thought possible that tea, rice, Mandarin oranges and persimmons and different kinds of semi-tropical nuts can be cultivated with success, and already experiments are under way.

Fruit Growing Prospects.

The object of making the enquiries will be quite evident to practical fruit growers. For instance, the success of peaches and grapes was problematical, owing to the limited extent to which they had been cultivated. Hence probability of their success in many districts was inferred from the fact that melons and tomatoes grow and ripen, it being axiomatic in horticulture that when the latter do well the former are almost sure to do well also. Cool nights are usually unfavorable to their cultivation, but the absence of winds and extreme colds act as a compensating advantage, and on southern slopes, and especially in the interior, all doubts as to results have been practically abandoned. Another question, "Does wheat ripen hard?" has been considered necessary as a consequence of an impression that has become prevalent in some quarters that the wheat in British Columbia is too soft for milling purposes.

Wheat Growing for Milling purposes.

The answers are very explicit on this point, but as additional proof, we have the testimony of the secretary of the Board of Trade, who in the beginning of the present year, obtained samples from all parts of the Province and forwarded them to W. W. Ogilvie, Montreal. Mr. Ogilvie's reply, which was received, is here given.

"1. Minnesota Fife—If this was for Minnesota Red Fife, your climate must have totally changed its nature, or was what is known as white Fife and is not a desirable wheat to sow.

"2. From Australian seed, shows well, and must have improved in your soil and climate, as it is much superior to the average sample of Australian wheat.

"3. "Ladoga"—Originally a Russian wheat. If it has been sown in your climate for some years it shows that it holds its own for strength, and is most desirable for strong bakers' flour.

"4. White Fife—Shows well, but is not so desirable as Red Fife, being of a softer nature.

"5 and 6. Look as if they had been sown too long in the same soil and climate and got bleached, and of soft nature.

"7. Is a good wheat of medium strength and will show good results.

"8. Is an extra good sample of Fall wheat and will make good pastry flour.

"9. Red Fife— is not very satisfactory, it has deteriorated into soft wheat.

"10 and 11. Samples are very fine, this wheat will make splendid pastry flour.

"12. Is a superior sample of White Winter wheat, equal to any I have ever seen.

"13. Is much better than the average sample of Australian.

"14. Spring Wheat—Is of a soft nature and very much tagged by smut.

"15. Is Red Fall wheat, and will make a good medium bakers' flour.

"16. Red China Wheat—Is a good sample and looks as if it had improved by being sown in your soil and climate. It will make a good strong flour.

"17. Australian—Looks well, but is of a flinty nature, resembling what is known as "Goose Wheat," and will not make satisfactory flour.

"19. Is a good sample and will make good strong flour.

"Altogether, I notice that the samples you sent me grown from Australian, Chilian and China wheat, have improved by your soil and climate, as they are certainly better than the average of the wheat grown in the above countries. Nos. 16, Red China, and 18, Spring wheat, I am of opinion are the best samples for bread making. Your samples from Chilian wheat I am satisfied will make splendid flour, and the yield of flour will be very large.

"Altogether, I am well satisfied with the samples and find they are much better than I expected. I have also had the samples examined by our Government Inspector, who agrees with me in the above reports.

"I am glad to be able to say that the samples speak in the highest manner of your soil and climate for growing wheat. The only question remaining now is the quantity, and I sincerely hope that within a very short time that you will be able to show good results in this respect."

The Samples

The samples referred to were received from the following wheat districts of British Columbia:

1. "Minnesota Fife," by M. Lumby, Enderby, 40 acres yield 92,300 lbs.
2. "Australian," same, 31 bushels per acre.
3. "Ladoga," same, 30 pounds sown, yield 3,700 pounds.
4. "White Fife," J. Lyon, Vernon, 36 bushels per acre.
5. Not named, W. Duteay, White Valley.
6. " A. L. Fortune, Enderby.
7. " D. Mathison, Salmon River.
8. " A. B. Knox, Okanagan.
9. "Red Fife," H. Ferguson, Port Haney, 35 bushels per acre.
10. "White Chili Club."
11. "English Rough Chaff," J. T. McIlmoyl, 22 bushes from one acre.
12. "White Winter."
13. "Australian," James Aird, Nicola, 2,000 pounds per acre.
14. "Spring Wheat," Walter Lee, Lulu Island, 40 bushels per acre.
15. "Fall Wheat," T. Thirkill, Lulu Island, 50 bushels per acre.
16. "China Wheat," J. J. Wilson, Maple Ridge, 35 bushels per acre.
17. "Royal Australian," Donald Graham, Spallumcheen.
18. "Russian Lodi," H. T. Thrift. Surrey, 25 to 60 bushels per acre.
19. Not named, J. C. Calhoun, Ladner's Landing, 1 to 1½ tons per acre

The names are those given by the grower.

The samples which the report deals with are not picked ones but are exactly as they came from the threshers.

CLIMATE.

As soil and climate are the two essentials upon which the success of agriculture must be depend, some general remarks may be advisable. It is

Influences on Climate.

generally conceded that British Columbia has a climate superior to that of any other part of the Dominion, and might also be said that of any part of the United States, possessing however in a modified way, the general characteristics of the Pacific Coast. It is essentially mild and free from extremes and comparing it with the Pacific slope generally, though a humid atmosphere, it has not the rainfall of western Oregon or the dryness and heat of California plains. The wet season in winter, though disagreeable to strangers, is preferable to the cold winds, snow or ice, while the summers are delightful. It must be understood that no remarks of a general nature will apply to the whole of the Province possessing such an immense area as it does and such a variety of physical conditions. Mountain ranges have, it is unnecessary to state, a marked effect on climate and produce local effects, and as a consequence from its extreme southern boundary to its extreme north, and from the ocean eastward, there are several distinct zones of climate. At the Coast, general mildness and humidity prevails; as you approach the high lands of the interior, the atmosphere is more and more stripped of its humidity, and becomes drier, until a point is reached where little rain falls and the winters are cold and the summers hot. The one great factor in British Columbia climate, is the ocean currents Behring Straits are so narrow and shallow that not much of the icy Arctic Current flows along the British Columbia coast; on the other hand the effect of the Japan Currents is felt even in the remotest interior. The Rocky Mountains running north westerly keep of the cold north winds. Along this coast there is very little snow, which rarely exceeds a few inches. At Victoria, Vancouver Island, in 1889, the minimum temperature by months was:—24, 25, 30, 32, 37, 37, 40, 41, 34, 36, 30, 27. The total rain fall was 18.56 inches, rain fell ninety-nine days, snow fell on three days; the record of maximum temperature was 52, 57, 64, 66, 79, 80, 85, 77, 73, 67, 58, 51.

Meteorological returns.

At Westminster, on the mainland, the maximum and minimum temperature for the year, seven months, showed as follows, respectively:—84,46; 90,51; 84,48; 79,44; 71,39; 60,31; 46,20; mean temperature for year 51.; rain fall 46.16 inches; days rain fell, one hundred and fifty-nine; snow fall 16.5 inches; days snow fell, fourteen.

In this connection it may be stated that the winter of 1889, was the most remarkable experienced for some years, in regard to the amount of snow that fell: it was in other words, an unusual winter. In other respects it was an average year. Everywhere the climate is salubrious and the Province is justly enjoying a reputation as a health resort. The interior is especially healthful, and invalids in search of a mild and at the same time invigorating climate, can find no better place to go.

Health resort.

There are also numerous Hot Springs from Banff west, which will ultimately enjoy a popularity greater than many now celebrated in other parts of America.

SOIL AND GENERAL CHARACTERISTICS.

As to the soil and general characteristics, a good general, accurate and carefully written description is contained in the handbook of information recently published by the Dominion Government and it is transferred to these pages as being as comprehensive, consistent with brevity, as the writer could possibly hope to make it. It is compiled from the best sources of official information.

Vancouver Island.

"On the west coast of Vancouver island little arable land is found. The principal settlements are upon the south and east coasts, where the soil is exceedingly fertile and the climate enjoyable and favorable to agriculture and fruit growing. A margin of comparatively low land, varying from two to ten miles in breadth, stretches between the foot of the mountain slopes and the southern and eastern coast lines. The northern end of the island also is low. The streams are bordered, in some instance, for considerable distances farther inland, by narrow flats. The above low land, which is chiefly along the eastern coast, south from Seymour Narrows, has a rolling surface, with no elevations rising to a greater height than 800 or 1,000 feet. In many parts it is

comparatively level. The hills are craggy, but often present small areas of thin soil, covered with fine, short but thick grass, excellent for pasturage. The country is wooden, but with many grassy swamps of from a few perches in extent to many acres; and fern patches studded with clumps of trees, or with single trees, and frequently adorned with bosses of rock.

Soil, etc.

"The soil varies considerably. The land capable of cultivation is chiefly that which is covered with drift deposits of clay and sand, and lies at no great elevation above the sea. The sandy gravels prevail on the higher levels, and produce large timber and coarse grass. The clay occurs generally as a retentive subsoil on the open undulating grounds, and in hollows and swampy bottoms. Over these sands, gravels and clays, sometimes graduating downwards to them, elsewhere separated by a rather sharp line from them, there is found, for the most part a brownish black surface soil two feet to four feet in thickness, apparently containing a large proportion of vegetable matter. Rich loams occur in many places, particularly in the Cowichan, Comox, Alberni and Salmon river districts, in the neighborhood of the limestone rocks. Alluvial deposits are not extensive in Vancouver island, the streams being short water-courses.

The Fraser Valley.

"The rich valley of the lower Fraser, or New Westminster district, is the largest compact agricultural district in the Province. It is on the mainland shore, opposite the south-eastern portion of Vancouver Island. The surface of the lower part of the valley is little above the sea level.

"Westminster district is the only large mass of choice agricultural land, anywhere on the mainland of the North Pacific slope, that lies actually upon the ocean, with a shipping port in its midst. A navigable river cuts it through, which is sheltered at its mouth. Some parts of the district are heavily wooded with Douglas fir, Menzies fir, giant cedar, western hemlock, red alder, balsam, poplar, birch, and large-leafed maple; but there are large areas of open land in different places, caused, perhaps, partly by the action of fires and the occurrence of floods in the past.

Its formation.

"The New Westminster district probably rests over nearly its whole extent on soft tertiary formations. The soil in general, in the sea-shore municipalities, is composed of very modern delta deposit—deep black earth, with for the most part a clay subsoil. There are large tracts of alluvial soil farther up the Fraser, and along some of its most important tributaries, such as Pitt river, Sumas river, etc. Clay loams occur in parts, and also light sandy loams—the latter chiefly up river. These soils are almost uniformly fertile, though some of them, no doubt, would be more easily exhausted than others. The finest crops may be seen in all parts of the district.

Delta Land.

"The delta lands and the clay loams can hardly be equalled for strength and richness. Very great yields are realised with comparatively careless cultivation. Fruit grows well.

Bunch grass region.

"The surface of the bunch-grass region of the interior is a combination of long narrow river-valleys, with terraces, knolls, hills and slopes rising to mountains of considerable altitude. The undulating surface and the rolling, lightly wooded hills, crossing and recrossing, making it a picturesque region.

"The valleys are in general narrow, with here and there low flats. Back from the rivers are the benches or terraces, and numerous hills of all sizes rising above the extensive slopes. Scattered over these here and there, loving apparently the gravelly opens, and so far apart as in no way to interfere with the free travel in all directions, is the peculiar tree of the district, commonly called yellow pine—*(Pinus contorta)*—a tree well known to botanists, and which it is needless here to describe.

The Interior

"Over very considerable areas, far exceeding in the aggregate the arable areas of the coast region, the interior is, in parts, a farming country up to 2,500 to 3,000 feet, so far as the soil is concerned, and the soil has proved to be as fertile as the best on the coast. The climate, however, is so dry in the summer that irrigation is necessary, except in a few favored localities. Cultivation is restricted, as a rule, to the valleys and terraces. The soils consist commonly of mixtures of clay and sand, varying with the character of the local formation, and of white silty deposits. They everywhere yield most

extraordinary crops of all the cereals, vegetables and roots, when favorably situated. The climate is much hotter in summer than the climate of the coast region. Tomatoes, melons, cucumbers, peaches, grapes and all hardy and semi-hardy fruits thrive in the open air in many parts. Fruit growing, no doubt, as soon as there is an external market, will be one of the principal industries both in this and other parts of the Province. The higher plateaux of the interior are cultivated in some districts, but there is danger of summer frosts, owing to their height.

Pasture area

"As regards pasture, the interior, as a whole, is, in the opinion of experienced stock raisers, not only the most remarkable grass region on the Pacific slope, but probably is unequalled on the continent. Even the alpine pasturage is very nutritive in the summer months. The grass-fed beef and mutton are of the finest quality. Horses and all animals not only thrive, but have a peculiar vigor.

"The portion of the southern interior in the Columbia and Kootenay region resembles in climate, and in many other respects, the portion of the more westerly southern interior between the Columbia and Fraser rivers.

"In the northern part of the interior plateau of British Columbia there is an extensive low country, which, from the resemblance of much of it to parts of Scotland, was called, formerly, New Caledonia by the Scotch officers of the Hudson's Bay company. It lies chiefly north of the 51st parallel and west of the Fraser river, in the basin of the Nechahoo and other tributaries. The soil is almost uniformly good, but it is generally densely wooded with western scrub pine and other trees. Until much of the timber is cleared off, the climate may not be found entirely suitable for arable purposes. Owing to its distance at present from communications, this region is not likely to be occupied for these purposes soon. The prevailing grasses are not of the bunch grass species, but chiefly red top and blue joint, with pea-vine on the slopes of hills having a southern aspect.

New Caledonia.

An important district.

"East of the Rocky mountains, but within the Province, in its north-east angle, there is a valuable agricultural region, its general surface about 2,000 feet above the sea; the climate good; soil of rich, silty character. The characteristics are those of the Peace river country in general, with a more undulating surface than the portion of that region lying east of the British Columbia boundary. The valleys are wide depressions, with gentle slopes, and the plateau usually is a widely extended terrace level. The district is well-watered. As a rule, the surface is wooded for the most part with second growth wood, which consists of poplar, birch and spruce, but much of the district can be easily cleared, and there are open spaces.

The Peace River Country.

"This considerable portion of what may be termed the agricultural land of British Columbia, lying east of the Rocky mountains, is described with force and clearness in the evidence of Dr. Dawson, of the Geological Survey, whose words are quoted: "The eastern boundary of British Columbia follows on the 120th meridian from the 60th parallel southward till that meridian strikes the Rocky mountains, and a large triangular portion of British Columbia thus lies east of the Rocky mountains. The part of the Peace river basin that is of considerable agricultural value, and is included in British Columbia, I estimated at between 5,000 and 6,000 square miles."

The areas of strictly agricultural land in any one district are not extensive, yet sufficient to support a very large population, but each possesses conditions most favorable to success, soil, climate, absence of insect pests and blights, etc. Such a thing as a failure of crops from any of the causes producing loss elsewhere, is very rare, and one of the chief recommendations of the country is the almost absolute dependence that may be placed on obtaining good returns from any crop for which a particular district is adapted. All the Coast country is subject to moss, the result of the excessive humidity of the atmosphere, but in regard to fruit growing, is easily guarded against by the careful orchardist. As will be seen by the replies published elsewhere, there are few complaints of mildew, blights or insects, or other pests. Yellows in peaches, or black knot and curculio in plums, which grow here in immense perfection, are yet unknown. Apple borers have been reported but not with

absolute certainty. Caterpillars, cut worms and vegetable vermin are noted occasionally, but speaking generally, the Province so far is in an approximate degree free from those insect pests and diseases, against which the farmer, fruiter, and gardener has so determinedly to fight in older settled countries. Whether they will come with horticultural development or not, remains to be seen.

Native flora.

One thing which points to the natural direction in which a large proportion of energy may be profitably lent, is the great luxuriance and vigor with which wild flowers and fruits and grasses grow, wherever the ground is clear of forest. Professor Macoun and other naturalists who have collected in British Columbia, testify in glowing terms to the rich fields for exploration it affords.

Vegetation of all kinds and varieties found in the temperate zone, thrives here. Ferns grow to an enormous size in great profusion and beauty, and wherever the locality favors, arbutus, spirea, roses, clematis, lupins, syringa, honeysuckle, lilies, buttercups, violets, daisies, etc., etc., are found flourishing and beautiful. Salmon berries, blackberries, blueberries, raspberries, cranberries, wild plums, wild cherries, and many other native fruits grow everywhere and to a remarkable degree of perfection, and on bushes and trees astonishing for growth. The richness of the native flora suggests better than the most learned thesis, the possibilities of the Province in the cultivation of their respective allies in domestic kinds and varieties. As a nursery, a flower and vegetable garden, or an orchard, it has the elements of as great a success as probably any known part of the world. All experiments and results so far go to verify this conclusion.

NEEDS OF DEVELOPMENT.

What to expect.

By irrigation in the interior; by the dyking and draining of the overflowed lands of the Fraser and ocean tide flats; by the extension of good roads, the building of branch railways, improvement and increase in navigation and the systematisation of methods in handling produce, and the other benefits incident to internal expansion of industry, all of which are naturally gradual and the result of the expenditure of capital and intelligent effort, the Province has prospects, agriculturally speaking, equal to any part of the Dominion or even the famed California. The pioneer farmer, as it is in every other country, has no royal road to success. No man, whether he be a farmer, mechanic, laborer or capitalist, should come to this Province deluded by the false hope of finding bonanzas and enjoying an Eldorado. It is true there are chances of making riches quickly and easily not found in older places, but industry, intelligence and application here, as elsewhere, are about the only patents for obtaining wealth. This much, however, can be promised with confidence to all good common-sense persons, that in no new country is the return for the judicious investment of capital and honest industry more assured. Such would be the verdict of nine-tenths of the population, than whom a more contented and prosperous people, man for man, cannot be found.

Protection to the farmer

The double protection already referred to, which they enjoy in their home market, is also enhanced by the geographical situation of their sea-ports lying as they are in the line of the new short route of the world's trade and commerce and in touch with markets east, west and south.

Elements of success.

The Province, too, possesses in contiguity the elements which enter into great manufacturing enterprises, which have made England rich and renowned—iron, timber, coal and other minerals—and has, too, unlimited food resources in her fish, farm, fruit and grazing lands. She has structural material to no end. Most of these are still undeveloped, but point to a future which requires but two things to be achieved—capital and industry. And above all she has the advantages, which add zest to the acquirement of wealth and pleasure to its enjoyment, healthful and agreeable climate, the finest and grandest scenery under the canopy of ethereal blue, unlimited opportunities for diversified enjoyment, advanced educational, social and political institutions and the ægis of the British flag and supremacy.

INDUSTRIAL POSSIBILITIES.

Apart from agriculture, diversified industry is the greatest factor of greatness in a nation. The resources of the Province suggest many things of an industrial nature towards which capital is turning. The two great industries, in which the field is already pretty well occupied, are timber and salmon canning. Statistics of these are given elsewhere, and they show a remarkable expansion.

Sealing. The sealing industry is a large and lucrative one and could be made still more so if the dressing were done at home instead of sending the skins to London to be shipped back in a manufactured state.

Pacific Coast Fish. Other than salmon, the fishing is practically undeveloped, and here a great field of possibilities lies. The coast of British Columbia is an extended one, which a glance at the map will verify, and its waters are rich with halibut, skil (black cod), our substitute for the eastern mackerel, cod, salmon, herring, bass, skate, soles, sardines, smelts, oolachan, immense sturgeon, dog fish, clams, cray fish, crabs and numerous other shell fish, while in the interior waters are white fish, trout, pike, perch, etc. Whales, hair seals, porpoise also abound, all of which are of great commercial value when utilised, but at present have a local consumption principally.

Deep Sea Fishing. Attention is being directed to the deep sea fishing, and several fishing companies have been organised. The drying, curing and exporting of fish on a large scale, will yet be an important industry. The great abundance of

Sardines. sardines, large-sized and richly flavored, should create an industry equal to

Oysters. that of France.

The oysters in the coast waters are small and poor compared with their cultivated eastern cousins at Baltimore, but by cultivation and the importation of eastern stock, the beds, properly protected from star fish, and located so as to be affected as little as possible by the mineral deposits, there appears to be no reason why success should not crown an experiment in oyster farming.

Lobsters. Lobsters are not indigenous to the Pacific coast; if their transportation across the continent could be accomplished, the Inspector of Fisheries says that favorable locations for their propagation could be found. By means of artificial hatcheries, such as are at present located at New Westminster and other parts of Canada no doubt many new varieties of valuable fish of commerce could be added to the present rich stock.

Fish Oils. Valuable oils extracted from whales, seals, dog fish, salmon offal, etc., offer a rich return for an industry with this special object in view.

Dairying. An industry which, when railways have penetrated to the extensive grazing areas of the interior, will grow to immense proportions, and for which the country is admirably adapted, is that of dairying. The rich bunch grass and the numerous pure mountain streams, lakes and rivers which contain a never-failing supply of food and drink, meet the exact requirements.

Condensed Milk. Allied with this are condensed milks and dressed meats, the possibilities

Sheep and Wool. of which are equally promising.

Sheep raising and wool growing lie along the same line. All of these form material for a future export trade, as well as supplying an ever-increasing home consumption.

Canning, Pickling, etc. Already steps have been taken in Vancouver and New Westminster to utilise the vegetable and fruit resources of the adjacent districts. There is an abundant scope for using up the surplus and intermediate and poorer grades for canning, evaporating, jellies, pickles, sauces, vinegar, cider, etc. As already stated, this Province is admirably adapted for the growth of suitable fruits, and in the required vegetables, such as onions, peppers, cauliflower, cucumbers, radishes, and so on, it is equal to any country in which the industry has reached the highest degree of success. For this, not the extent of the land, but the character of the soil, climate and cultivation is the *sine qua non*. Therefore, the comparatively limited area of land in the Lower Fraser Valley and the southern and southeastern portions of Vancouver Island, is capable of being divided into innumerable small farms and gardens, and of sustaining a very large population employed in this way; while the more extensive area of land in the interior can produce all the cereals and

grosser foodstuffs, not only to sustain our own population, but to form a lucrative export trade. It is not beyond the limits of the possible or probable that there will, with these favorable conditions, be firms on the Pacific Coast that will rival in fame and the magnitude of their business, the celebrated Crosse & Blackwell.

Our Markets

British Columbia has a peculiar advantage in her situation towards finding a market for her natural and manufactured products. She has the largest, most fertile and compact area of unbroken land in the world, the immense future population of which, mainly engaged in the cultivation of cereals, to supply, viz., Manitoba and the North West Territories. On the other hand, the latter will find a compensating advantage in British Columbia, which, in the near future, when she competes with Oregon in the foreign export of flour and other products, will find here an outlet in the mills built for that purpose in the cities of the coast. Turning westward and southward, there are the opening fields of Japan and China, India, South America, Australia and the Pacific islands. Thitherward lumber, manufactures, flour, canned goods, fruit, salmon, etc., will flow, finding an illimitable market.

In fruits, for instance, the developments in methods of cold storage will make it possible to ship safely to any part of the world.

Hops.

The probable success of hops and sugar beet in almost every part of the Province reported from, seems to be undoubted. Here are the elements among the varied elements of industrial wealth, that promise much. Apart from the successful experiments with hops within the Province, what has been accomplished in Washington, a state almost similar to British Columbia in its physical characteristics and resources, is sufficient indication of what is possible here. There hop raising is an industry of considerable magnitude, and has had wonderful development. The following quotation is apropos:

"Hops is the staple crop of Washington Territory; already their annual production is 8,000,000 pounds.

"The crop of 1881 was 6,198 bales; of 1888, 40,000 bales, and last year it was estimated that 4,000 acres produced value equal to $1,125,000, all springing from beginnings of so late a date as 1875. The average yield is 1,600 pounds per acre."

Sugar Beet.

Now, as to sugar beet, the success of which, if nothing else, proves the richness of the soil, a number of experiments were made a year or two ago from seed distributed for that purpose, and the results were most gratifying. The beets grown were tested for saccharine qualities by analytic experts in Vancouver, Scotland and California, and the report of the Board of Trade of 1889 says: "According to these reliable authorities, our experimental beets have, in many instances, even without proper attendance, or treated by experienced hands, yielded a percentage of saccharine matter which is totally unknown in the 'Old World.' When a sufficient area is under cultivation, the success of a sugar beet refinery would seem beyond doubt." The same report places the gross yield at $100 to $120 per acre, and estimates the area of land from Harrison River to the Pacific Coast (only a small corner of the Province) that would be capable of producing beets at 400,000 acres. Flax can also be grown in abundance.

Manufacturing.

The vast extent of timber land has created a lumber industry of large proportions, which is developing rapidly. There is considerable export in rough lumber to all parts of the world, and that in manufactured stuffs is on the increase yearly. Furniture and woodenware manufactories are being inaugurated, having the home and foreign markets in view. There are several flourishing tanneries, supplying local demand, and native barks are being tested as to their tanning properties. Woollen mills, manufacturing home-grown wools, have been established for several years in New Westminster with success, and are importing Australian wools. Paper and pulp mills are talked of, with good prospects of being realised.

Flouring Mills.

A flour mill at Enderby, in the Okanagan district, is doing a good business in all parts of the Province, and, as already intimated, it is only a matter of a year or two at the outside when rolling mills equalling in capacity any in Canada, will be erected on this coast. The attention of Messrs. Ogilvie &

Co. and other large mill owners has been favorably directed to such an enterprise.

Sugar Refineries and Jute Works.

A sugar refinery is being erected in Vancouver, the shareholders of the concern being large capitalists in New York, Montrea and British Columbia. Victoria has also voted a bonus in the same direction. The natural advantages for a sugar refinery situated at a Pacific port and the terminus of a transcontinental railway are obvious, being in commercial contiguity with the Sandwich Islands, Australia and other raw sugar sources. For similar reasons direct trade connection with the Phillippine Islands has rendered the successful operation of a rope and bag factory, etc., most feasible. The idea has taken practical shape, and the industry will be conducted on a large scale by a combination of local capitalists and firms engaged in the same manufacture in Eastern Canada.

Malting and Brewing.

British Columbia as is very evident from the crop returns is a fruitful barley growing country. Malting is therefore a possible industry, the breweries now doing business being supplied with imported malt.

Smelting.

A natural outcome of the immense mineral deposits of all kinds to be found in every part of the Province is smelters for their production. Smelting, perhaps above all other industries, has a remarkable effect in attracting population and stimulating other enterprises. Two smelters are already in existence. One at Vancouver the other at Revelstoke, both waiting for railways to tap the mineral lodes, and enable the miners to ship out at reasonable cost, their ores to start up with. Both are expected to be in operation this summer. Two more are proposed, one at Golden and the other at Nelson. These are for the purpose of smelting lead ores which preponderate. The Government chlorinating works, the process of which had in view the treatment of the refractory ores of Cariboo, promised great success, but were burned down shortly after having been completed and tested. They will be rebuilt.

Iron.

Iron exists in large quantities on Texada Island, in New Westminster district, at Spence's Bridge and other places, and blast furnaces will follow their development as soon as the conditions of the labor market are favorable.

Earthenw're

Pottery works is another thing that is attracting attention and for which there are clays in the District of New Westminster, wholly suitable. The burning of lime on a large scale and brickyards are well established industries with largely increasing output. There is excellent gray and red granite to be had and quite accessible. Quarries are being worked on the North Arm of Burrard Inlet with good results. Besides a good local demand, the quarried granite is being shipped to Seattle and Portland. A quarry is also being opened up on Nelson Island. Both of these will probably result in extensive industries.

Quarries, etc.

Shipb'lding.

From its position on the sea board with an extended and important coast, the Province of British Columbia naturally numbers ship-building among its great enterprises of the future. The contiguity of iron and wood and the great demand for crafts of all kinds and dimensions, will inevitably build up an industry equal to that or approaching that of the Clyde, and the time must soon come when steamships will no longer be brought around the Horn to supply the wants of navigation in these waters.

National concerns.

There are other concerns of a national and semi-political nature such as the Pacific cable, dry docks, Australian steamship service, Imperial fortifications, etc., of the greatest importance which are sure of realisation, but which do not come within the scope of a treatise of this kind. The foregoing however suggests in a general way, the natural adaptabilities of the Canadian Pacific Coast from an industrial point of view, and towards which most of the economic conditions are favorable for success.

CONDITIONS.

There are two things now which may be said to interfere with development in these lines. One is the dearness of labor and the other is the comparatively speaking, limited population.

Both of these will right themselves, the influx of eastern workingmen equalising the economic conditions of production, and the population increasing rapidly. Two things above all others will tend to rapidly bring about the necessary change,—the development of the mines, which since the railway era has begun, promise a boom, ere long, and that of the farming resources which as already stated are capable of sustaining a very large farming population. One of the principal needs of the Province at present, from an agricultural and horticultural point of view, is the systematic handling of the produce of the fruit farms. A large amount is grown that never finds the market, products which the market demands and is supplied by firms outside, from the fact that business interests of grower and dealer have not so combined as to establish a definite ratio between supply and demand. In other words, fruit growing and farming have not yet become a business industry as well as an occupation. This has been much discussed by the Fruit Growers' Association who have devoted much attention to it with prospects of a satisfactory solution. Like all commercial problems, however, it will find a natural solution in the adjustment of supply and demand. The essentials.

Sufficient has been shown in the above hurried enumeration of industries present, prospective and possible, to answer the question conclusively, so frequently asked by persons visiting coast cities, "what is at their back, what is there to keep them up?" a superficial enquiry resulting from a lack of knowledge of the various resources possessed by the Province.

Bureau of Enquiry.

The information contained in the following was obtained by enquiries in various parts of the Province as explained elsewhere and from most reliable sources. The places from which reports were received are fairly representative, and taken all together will give the reader a general idea of the conditions which exist.

AGASSIZ (Yale and N. W.)

Station on C. P. R., 70 miles from Vancouver, in Harrison Valley, site of Dominion Government Experimental Farm.

Apples, pears, peaches, plums, cherries, quinces and grapes and all varieties of small fruits do well, except a few tenderer varieties of apples, the great trouble being to keep the trees from breaking down with fruit. Fruits.

All kinds of vegetables do well; e. g. 1,000 bushels of turnips have been gathered on one acre. Vegetables.

Tomatoes ripen, musk melons do pretty well; peaches and grapes succeed, peaches do remarkably well; all kinds of cereals are grown.

Wheat, 30 to 50 bushels to the acre; oats, 40 to 60 bushels; potatoes, 200 400 bushels; hay, 1 to 3 tons. Wheat ripens fairly well. Crop Yields.

Soil, sandy loam; cultivation, only settled within four or five years; land still covered with stumps. Soil, etc.

From Farr's Bluff, C. P. R., east about eleven miles to Sea Bird Bluff, on C. P. R., about one or two miles wide (six miles of this is known as Maria Island, as well as about 400 acres between Agassiz station and the river, is reserved for Indians, who make no use of it and will always greatly retard settlement as long as it remains in their hands.

Greatest depth of snow, 2 feet; greatest cold, 1 or 2 below; greatest heat 90 above; cools nights; season pretty well mixed, wet and dry; early in winter occasionally winds from the north. Climate.

Tent caterpillars and other kinds in fruit trees; no mold or moss.

Timothy, mixed with clover, is the principal grass; wild flowers include tiger lilies, lupins, wild rose, etc.

Roads and abatement of Indian reserves.

About one-tenth is improved on each claim.

Hops Both hops and sugar beets do well; the trouble would be to get the hops picked.

Price of Land $20 an acre; add $30 to $50 for clearing.

ALBERNI (River Bend).

Country at the head of Barclay Sound, 54 miles from Nanaimo, Vancouver Island.

Fruits. All kinds of fruits are grown. Cherries, pears and small fruits are the best.

Vegetables. Vegetables of all kinds are raised to perfection, potatoes go 400 to 500 bushels to the acre, and carrots 900 bushels.

Tomatoes ripen; muskmelons were a splendid success last year. Both peaches and grapes have been tried and have done exceedingly well.

Yields. Wheat, in good land, good; peas good; turnips extra; hay two to three tons.

Wheat ripens better than in any part of Vancouver Island.

Soil, Cultivation, etc. Soil chiefly clay; good alder bottom and sandy loam along the rivers; adapted to everything except apples; cultivation rather rough. Alberni has a radius of about twenty-five miles; about 22,500 acres taken up, capable of cultivation, with room for many more.

Climate. Climate: changeable in winter, greatest depth of snow three feet once in five years; greatest cold, seldom zero; greatest heat, 90 to 100; nights warmer than in Victoria; wet season, two to three months; dry season, nine to ten months; winds do not prevail.

There are few if any insect pests that do harm; no blight except in peas; no mold or moss.

Grasses: timothy and clover, one to three tons; there are a great many wild flowers—lilies, larkspur, lupins, fernweed, etc., etc.

Needs. More industrious families, railroad and a good saw mill.

Market. Victoria and Nanaimo; pork, 10 to 12 cents per lb; beef, 7 to 9 cents per lb; potatoes, $20 to $30 per ton; eggs, 25 to 50 cents per doz. Market could be improved by good and regular communication.

Hops. Some seventy to eighty are improving their land, others are not.

Hops do excellently in suitable land; sugar beet good; flax could be cultivated to advantage.

Price of Land Price of land, $10 to $50 per acre.

CACHE CREEK.

A Post Office District on Cariboo road, six miles from Ashcroft.

Fruits. Apples, pears, cherries, grapes and all small fruits.

Vegetables. All kinds grown in the temperate zone and equal to those of any country known.

Tomatoes ripen in the valleys, melons equal the full average of Ontario.

Grapes have been grown, peaches not tried.

Crop Yields, Wheat, barley, oats, peas and a little corn. Wheat, 30 to 50 bushels to the acre; oats, 1500 lbs; barley, 1800 lbs; peas, 2000 lbs: Potatoes, 300 bushels; turnips, 15 tons; hay:—Alfafa, 5 tons; timothy, 2 tons. Wheat ripens hard.

Soil, etc. The soil is sandy loam, and is sections is adapted to all the fruits, vegetables and cereals grown in the temperate zone. The area of land cultivated depends largely upon the supply of water that can be obtained. Cultivation is fair.

Fair, dry, sometimes windy. Greatest depth of snow, twelve inches; greatest cold, 25 below; greatest heat, 100 in shade, nights are cool; no wet seasons; wind prevails spring and fall.

Pests. Potato bugs, grasshoppers and wasps; no blights, vegetable mold or moss.

The grasses grown are timothy, red clover, Alfafa and Sang foin. Cactus is the most common wild flower.

Home consumption forms the principal market and produce is mostly all fed. Artesian wells are the need of the district, towards development (irrigation); prices vary but generally low. The market, which is limited, could be improved by the development of mines and consequent increase of population. The land is generally cultivated. Market.

Hops would succeed very well, have been tried for years; sugar beet also very good. No land is cleared; would be too expensive. Hops.

COWICHAN DISTRICT (Pender Island.)

In Vancouver Island, 35 miles or so from Victoria.

Apples, pears, plums, cherries, quinces, peaches, grapes and all small fruits to perfection. Average crop every year. Cereals

Turnips, potatoes, mangolds, carrots, cabbage onions, with good results.

Tomatoes ripen, melons can be grown, peaches and grapes can be grown good.

Wheat, oats, barley and peas.

Wheat, 20 to 40 bush.; oats, 30 to 90 bush.; barley, 25 to 60 bush; peas, 30 to 50 bush; potatoes, 8 to 12 tons; turnips, 25 to 40 tons; hay 1½ to 3 tons. Yields.

Wheat ripens well, especially "ninety-day" wheat.

Brown to black loam in valleys and on side hills between rocks; well adapted for mixed farming. The general state of cultivation is about average. About 10,000 acres will produce if cleared. Soil, etc

Population, 16 settlers; hundreds if developed.

Climate, best in B. C.; greatest depth of snow, six inches to one foot; greatest cold, 20 degrees of frost; greatest heat, 90 degrees in shade; nights mild; wet season, three to four months; dry season, 8 months, varied by occasional rains and heavy dews in dry weather. Valleys are well sheltered. Climate.

No insect pests, blights or vegetable mold; moss slightly.

Kentucky blue grass, red top, orchard, timothy and clover yield to perfection.

Land boomers, energy, capital and women; there are lots of eligible bachelors. Needs.

Victoria, Nanaimo, New Westminster and Vancouver reached by C. P. N. Co.'s steamers and the steamer Rainbow. The produce is mostly delivered and sold by the producer. Could be improved by more population and steamboat competition. Market.

Probable success of hops and sugar beets, good.

Price of land, $15 per acre; to seed down to grass, $30; to thoroughly cultivate, $100. Price of Land.

Easiest parts are chopped, seeded and cultivated by degrees.

The Island is of a sandstone nature (one quarry blue sandstone has recently been opened up.) It is more adapted to sheep and game. At present labor is too high for fruit raising.

CHILLIWHACK MUNICIPALITY N. W. D.

Apples, pears, plums, peaches, grapes, cherries, gooseberries, raspberries, blackberries and currants; apples, Russetts, Northern Spy, King of Tompkins, Baldwins, Twenty ounce, Gloria Mundi, and all leading varieties of apples do well, both early and late; pears, all kinds of plums, early peaches, cherries and grapes all do well; small fruits do extra well. In twenty years' experience, with common care, results have always been good. The Russet apple, "my pride," the writer says, has borne every year and every other year very heavy. "My trees," it is added, "were taken up at three years old with extra good results." Fruits.

Vegetables of every kind are grown and to a very large size, viz., potatoes, turnips, cabbage, carrots, parsnips, beets and onions, always with good results. Vegetables.

Tomatoes ripen fairly well; musk melons do fairly well with common care; early and medium peaches do well; grapes, to judge from two years' experience, will be a success. Some persons have from two hundred to three hundred vines out, and are well pleased with last year's success.

Cereals Yields. Cereals: Wheat, oats, barley, peas.

Wheat, 25 to 40 bushels per acre; oats, 50 to 100 bush.; barley, 50 to 80 bush.; corn does well, but not grown in large quantities; peas, 25 to 60 bush., and as high as 75 bush.; potatoes, 150 to 300 bush.; turnips average 10 to 30 tons; hay, 2 to 4 tons; five tons have been cut in two crops.

Wheat ripens fairly hard; Fife wheat ripens hard.

Soil. Clay loam, some parts muck, and some sandy loam, but nearly all rich.

Area. Chilliwhack Municipality contains about 102 square miles and is nearly all capable of cultivation; commences at the mouth of the Sumas river and follows the Fraser river up stream about seventeen miles to Cheam Indian Reservation, and runs back to the Mountains, averaging about six miles in depth.

The general state of cultivation is good; population, 3,000.

Climate. Depth of snow, thirty inches; greatest cold, four below zero; greatest heat, 90; nights, nearly always cool; wet season, four months; no length of dry season; occasionally showers through summer; winds do not prevail; once in a while a squall from south-west in summer and a few days north-east wind in winter.

Caterpillars affected the vegetables a little last season; no blights, mold or moss.

Timothy, rye grass, and clover do well; not many wild flowers; rose the principal.

Needs. Dyking and draining.

Market. Good; produce handled by stores and wholesale and commission merchants; prices at landing: hay, $10 per ton; oats, $22; wheat, $28; peas, $22; barley, $22; market could be improved by the establishment of a good market place, as at present the farmer with good produce can get little more than the farmer with inferior produce, whereas if he were brought into contact with the consumer he would get a price according to quality.

The land taken up is generally improved; not much held for speculation.

Land. Hops and sugar beets would do well.

Price of land, improved, $30 to $100 an acre; unimproved, $10 to $25; cost of clearing, $5 to $40.

HOPE.

In the Yale district, 91 miles from Vancouver on the C. P. R.

Fruits and Vegetables. All common fruits are grown and all successfully.

Also all common vegetables with fair success.

Tomatoes do well, melons have indifferent success. Peaches do well, cereals, all common kinds; hay yields from two to four tons; wheat ripens hard.

Soil. Sandy loam; cultivation poor.

Area. About five thousand acres by going five miles west, and one mile east of the town, with the mountains forming natural boundaries on all sides.

Climate. Good for fruit; greatest depth of snow, five feet; greatest cold, five below; greatest heat, one hundred in shade; nights cool; wet season two months, dry season six weeks; "skookum" (Indian for good) winds prevail.

Tree and cabbage worms, very little blight or vegetable mold; moss exists.

Timothy and clover go three tons to the acre; abundance of wild flowers, lilies and roses.

Market. Home consumption; prices are: Grain, 2 cents per lb; apples, 2½ cents per lb; potatoes, 1 cent per lb; could be improved by better cultivation and more produce grown. Land is being improved slowly.

Hops, etc. Probable success of hops and sugar beets very good.

Five to ten dollars per acre for uncleared land, cost of clearing $50 to $100 per acre.

There is very little farming or fruit growing in the district in question, no one making it his sole business; more attention is paid to stock-raising, prospecting, etc. "We are settlers clearing our land and growing a little of almost everything for our own consumption."

JOHNSON'S LANDING (N. W. D.)

A post settlement in the New Westminster District on the Fraser River.

Fruits. All kinds of fruit, large and small, are grown, do well, are very prolific and ripen successfully. Orchards are all young, but bear so heavily that they require to be propped up.

Vegetables. Vegetables of all kinds, including onions, garlic, parsnips, radish, cauliflower, vegetable oyster, egg plant, pepper plant, celery, etc., etc., do admirably; onions, one to six tons per acre; turnips, 10 tons; potatoes, 5 tons; carrots, 8 tons, and so on.

Tomatoes ripen if planted early. Melons some seasons ripen well, and always succeed if properly cultivated. Some varieties of grapes ripen every year.

Cereals. Wheat, oats, barley, peas.

Yields. Wheat, 65 bushels to the acre; oats, 110; barley, 40 to 50 bush.; peas, 40 to 50 bush.; potatoes, 200 to 300 bush.; turnips, 1,200 bush.; hay, two and a half to four tons.

Wheat will harden if sown in good season.

Soil, area, etc. The soil is black sandy loam with clay bottom. The land is not much under cultivation, farms are newly settled and farmers are just beginning to make a living. The district referred to extends from Hatzic slough to head of Nicomen slough, about ten miles long by about four to eight miles wide.

Number of settlers 150; population 600.

Climate. Climate generally mild and seldom too dry to raise crops. Greatest depth of snow, 0 to 1 foot; greatest cold, three below zero; greatest heat, 95 in shade, nights cool; length of wet season, two months; drouths do not prevail; when there is any wind it is from the north east in winter and south west in summer.

A small blue insect, which jumps and flies, injures the plums and apples, and the cabbage louse attack the cabbage and turnips some seasons; no blights, vegetable mold or moss.

Timothy, clover, rye and blue grass, yield two to four tons. There is a great variety of wild flowers.

Roads and bridges and a little dyking are the needs of the district.

The market is local and limited, being reached by rail or steamboat.

Market. Prices of produce are generally speaking as follows:—Wheat, 1⅝c. per lb; oats, 1¼c.; peas, 1½c; barley, 1½c; potatoes, 1c; carrots, 1¼c; turnips, ¾c. per lb. Market could be improved by establishing permanent market places in the cities.

The land is taken up by men who intend to make it their homes and will cultivate it as fast as cleared.

Hops, etc. Hops grow well any place on the Coast, and sugar beets grown look well; flax could also be grown.

Lands. The price of land is from $10 to $25 per acre, and $50 additional to clear some of it.

LILLOOET.

Seventy-seven miles from Ashcroft Station, on the south side of the Fraser.

Fruits. Apples, pears, plums and all small fruits, abundantly. Winter apples, red and white plums and currants have the best results.

Vegetables. Tomatoes ripen with two crops yearly; melons grow to very large sizes, last year weighing as high as thirty-two pounds; peaches have not been tried; grapes do well; cereals, all kinds.

Yields. Wheat, 25 to 40 bushels; oats, 60 bushels; barley, 40 bushels; peas, 50 bushels; potatoes and turnips, as good as anywhere; hay, two tons. Wheat ripens hard.

Soil, Area, etc. Sandy loam; no failures ever occur in vegetables and cereals; state of cultivation, medium. The cultivatable lands in Lillooet proper, not the Lillooet district, consist of about 2,500 acres; population, about 300.

Climate. Dry and clear; greatest snow, 3 inches; greatest cold, 10 below; greatest heat, 102 in the shade; nights, warm; winds prevail slightly in January and February; no wet season.

Tomatoes were slightly affected last year by the tomato worm; no blights, mold or moss exist.

Timothy, red top, hay, yield good; wild flowers exist in great variety.

Needs of district, artesian wells.

Market. Miners' consumption; produce generally disposed of for cash to miners; prices, wheat, barley and oats, 2 cents per lb; hay, 1½ cents; potatoes, 1 cent; market could be improved by introduction of artesian wells, which would increase cultivatable land and thereby increase population.

Hops. Hops and sugar beets would both be successful; tobacco could also be raised to advantage.

Land. Price of land: Government price, $2.50 cost of clearing, from $5 to $10 per acre.

There are thousands of acres on the benches of the Fraser which cannot be cultivated for want of water, which could be very easily and profitably cultivated by the aid of artesian wells.

LOWER NICOLA (Yale District.)

On the Nicola and Kamloops road, 35 miles from Spence's Bridge, reached by weekly stage.

Fruits. Currants, gooseberries, Siberian crabs, hardy apples and all kinds of small fruits; small fruits are very prolific; crabs, Russian apples and some varieties of plums do well, wild plums fine.

All kinds of vegetables do well.

Early varieties of tomatoes ripen in favored localities; melons grow with varying success; peaches not grown, grapes not tried.

Cereals Wheat, barley, oats. peas, rye and corn.

Yields. Wheat, 20 to 50 bush.; oats, 70 bush.; barley, 25 to 30 bush.; peas, 20 to 40 bush.; potatoes, 100 to 125 bush.; hay, 1¾ to 3 tons.

Wheat ripens moderately, depends on variety.

Soil, etc. Generally gray loam, specially adapted to small fruits, vegetables and grain. Small fields well cultivated; about 2,000 acres cultivatable, independent of Lower Nicola; population small.

Climate. Very healthful, usually dry; greatest depth of snow, 18 inches; greatest cold, 45 degrees: greatest heat, 95; cool nights; wet season, occasional showers only; dry season, March to October, with occasional showers; light southwest winds in summer; none in winter.

No insect pests except grasshoppers occasionally; no blights, mold or moss.

The grasses are principally timothy and clover; wild flowers are most numerous.

Needs. Better market and road improvements.

Market. Local and limited. Produce disposed of through merchants. Wheat, 1½ to 2 cents per lb; peas, 1 to 2 cents per lb; oats, 1¾ cents per lb; rye, 5 cents per lb; could be improved by railroad from Spence's Bridge to Similkameen.

Land is only partly cultivated on account of a limited market.

Hops, etc. Hops, so far as tried, have done well; sugar beet does well and is of fine quality.

Price of Land $2.50 to $50 an acre; clearing, $2 to 20, according to location.

NICOLA.

Post settlement, principally grazing, in the Nicola valley, 50 miles from Spence's Bridge.

Fruits. All small fruits do well, It is hoped that other fruits will yet succeed; an occasional plum and cherry tree yields splendidly; several apples good.

Vegetables. Vegetables of all kinds excellent quality and large yields. Tomatoes in most places ripen well if season early; melons do well. A few grapes succeed.

Wheat, barley, oats, peas and rye and nearly all the artificial grasses and clovers succeed.

Yields. Wheat, 40 to 60 bushels; oats average 60 bush; barley, heavy crops; peas extra enormous crops; potatoes, enormous yields; turnips, good; hay fair.

Wheat ripens hard, second to none.

Soil, etc. Clay, sandy vegetable loams, etc., adapted to roots, cereals and small fruits. The cultivation is very good; every one aims at keeping up the fertility of the soil by manuring, cultivation, etc.

Only about 20,000 acres is likely to be tilled unless a system of irrigation be devised; population, about 300.

Dry in summer, as a rule; depth of snow, 12 to 18 inches; greatest cold, 35 below; greatest heat, 100 above; nights cool; no periodical rains; dry most of the year; winds, southwest in summer. Climate.

Cabbage sometimes troubled with caterpillar; turnips by a fly; in 1887, '88 and '89 the district was visited by locusts, which did much injury; no blights, vegetable mold or moss.

Timothy, all clovers, orchard, blue grass, Alfafa, etc., yield well; several varieties of wild flower are found.

Development of coal fields, artesian wells and a line to C. P. R. Needs.

Market, amongst ourselves; market wanted; wheat, two cents; oats and barley, two cents; potatoes, $1 per bush.; hay, $20 per ton: market could be improved by erection of a good flouring mill and a brewery. Market.

Land is well improved, but cultivation limited to demand.

First class prospects for hops, and sugar beets are certain to succeed and return largely. Hops and Sugar Beet.

Land is chiefly prairie; $10 to $15 an acre.

Fall weather is soft and charming; trees keep green and don't mature their wood or cast their leaves until hard frost comes before the snow and there is a danger of freezing the sap in the wood.

NORTH ARM.

A settlement on North Arm of Fraser, six miles from Vancouver.

Apples, pears, plums, peaches, grapes, prunes, cherries, gooseberries, currants, raspberries, blackberries, strawberries. Fruits.

Asparagus, beets, beans, cabbage, carrots, cauliflower, celery, corn, cucumbers, onions, garlic, lettuce, parsnips, peas, potatoes, radish, rhubarb, squash, turnips and all do exceptionally well. Vegetables.

Tomatoes ripen thoroughly. Ripened July 15th, '88; July 12th, '89; variety, "Advance."

Peaches and grapes have been grown successfully for several years.

Wheat, barley, oats, peas, and rye. Cereals.

Wheat, 2000 to 4000 lbs. per acre; wheat does not ripen hard.

Low lands, heavy clay; high lands, light sandy loam, and is well adapted for all the vegetables named, and barley and oats. All the land is capable of producing fruit. The cultivation generally speaking is indifferent in character. Soil.

The climate is healthful and agreeable; greatest depth of snow, 18 inches; greatest cold, zero coldest noted in 8 years; greatest heat, 106; nights generally cool; wet season five months including winter; dry season seven months; winds in summer are from the west; in the winter from the east. Climate.

The cabbage worm is the worst, no blights, vegetables mold slightly, moss to a considerable extent. Pests.

Good roads are the principal need of the District. Vancouver is the market, farm products being disposed of principally through commission houses. Prices, however, are uncertain, and could be improved by the establishment of a regular market place (now being provided for.) Market.

Land is largely held unimproved.

Hops would do well. No knowledge of success of sugar beet. Fodder corn millet and more fruit of all kinds could be cultivated with advantage. Hops, etc.

Price of land:—$50.00 per acre; $200 to clear. Price of Land.

PORT HAMMOND AND PORT HANEY.

Twenty-six miles from Vancouver, New Westminster District.

Apples, pears, plums, cherries, peaches, grapes and all varieties of small fruit succeed so well as to induce people to go more extensively into fruit culture. Fruits.

Anything from radishes to pumpkins will produce a profitable crop. Tomatoes ripen, but melons not successfully. Peaches and grapes are grown with good success. Vegetables.

Crop Yields. Wheat average 35 bushels; barley, little grown; peas, 40 bushels; corn, not much grown; potatoes average 300 bushels; turnips, 20 tons average; hay average, two and a half tons. Wheat ripens hard. Soil, all kinds. Cultivation rather rough. An area of 50,000 acres, with about 20,000 acres meadow, to be reclaimed. Population, 2,000.

Climate. Greatest depth of snow, three feet; greatest cold, two below; greatest heat 90; nights cool; length of wet season, three months; seldom winds.

Blights exist slightly; no vegetable mold, plenty of moss.

All varieties of grasses yield three to five tons; plenty of wild flowers, especially wild rose.

Needs toward development: creamery and reclamation of meadow.

Market. Vancouver and New Westminster; produce sold direct to dealers at variable prices; market could be improved by cheaper rates of freight and a trunk road to principal markets with a bridge across Pitt river.

Land is generally cultivated.

Hops. Hops will do well; sugar beets have only been tried to a limited extent.

Price of Land Price of land, $15 to $100 per acre, according to state of cultivation.

PORT MOODY.

Nine miles from Vancouver, former terminus of C. P. Railway.

Fruits. Apples, pears, peaches and plums, cherries, currants, raspberries, prunes, gooseberries, blackberries and strawberries, all successful; raised 1,500 lbs strawberries from an acre, which sold for $756, only half a crop on account of youth and shrubbery growing between the rows.

All vegetables do well.

Tomatoes ripen slowly; melons are not successful; peaches do well; grapes not tried. More adapted for fruits than cereals.

Twenty-six tons of carrots are grown to the acre.

Soil, etc. Soil, sandy loam, clay bottom, principally uncultivated, mostly unsettled on account of being reserved by the Government.

Climate. Very temperate, salubrious and refreshing; greatest snow, one foot; never below zero; greatest heat, 88; nights, cool; six months of dry season with occasional showers; very calm; no winds.

There are no insect pests, no blights, no molds, moss slightly.

Clover and timothy and all grasses do well; there are plenty of roses but not many wild flowers.

Market. Vancouver preferred; produce disposed of chiefly by commission merchants, small fruits average ten cents per pound, and delivered express charges one-half a cent per pound; can be improved by putting on heavy duty on foreign fruits, and assisting a cannery whereby to utilise the surplus.

Hops. Hops would do extra well; sugar beet, medium. Not generally a farming district, costs about fifty dollars per acre to clear. It would be a very important thing for the Fruit Growers' Association to press on the Dominion Government to open up a reserve of fifty acre lots for the object of fruit raising.

SOMENOS.

A station on the E. & N. Ry., 40 miles from Victoria.

Fruits. Apples, pears, plums, cherries and all small fruits, plums and cherries giving the best results.

Vegetables. Vegetables do fairly well,

The earlier varieties of tomatoes ripen; melons not very well; peaches and grapes do not do very well.

Cereals Most cereals grown in temperate zone.

Yields. Wheat, 15 to 20 bush. to the acre; oats, 25 to 65 bush; peas, 15 to 40 bush; potatoes 150 to 200 bush; turnips, 15 to 30 tons; hay, one to three tons.

Some varieties of wheat ripen hard.

Soil and Area. Soil, alluvial deposit and clay. Area:—taking ten miles square, with the Cowichan river as the southern boundary, about one third can be cultivated.

Climate. Climate is fairly good; greatest depth of snow, two feet; greatest cold, about zero; greatest heat, about ninety, nights, cool; wet season, four to five

months; dry season, seven to eight months; winds do not prevail to any extent.

Grasses:—Timothy, cockfoot, red top, white dutch and Alsike clover, principally; a good many wild flowers, Buttercups the most numerous.

Needs of district, a remunerative market; unsatisfactory at present; produce is disposed of mostly to the storekeeper and could be improved by consumers taking home instead of imported produce. Market.

Land is mostly all cultivated after a fashion.

Hops do very well, and sugar beet in some places.

Good land is worth $100 an acre, costs that to clear. The most valuable thing to the general cultivator, as well as the fruit grower, would be a ready sale for our produce at a price a little above the cost of production. Lands.

SOUTH THOMPSON, (Kamloops.)

District of which Kamloops, a town on the C. P. R., 250 miles from Vancouver, at the confluence of the North and South Thompson Rivers, is the Post Office.

Apples, plums, gooseberries, raspberries, cranberries, melons; pears are grown with fair results; after a few years bearing the trees begin to wither and die. Red Astrachans and other varieties of apples are grown. Fruits.

Every kind of vegetable except celery is grown with good results. Vegetables.

Tomatoes ripen well and yield largely; melons have great success; cannot say as to peaches and grapes; think would do well in proper situation; great success at Ashcroft.

Wheat, 50 bush; oats, 2250 lbs to acre; barley, 2000 lbs; peas, 2500 lbs to 3000 lbs; hay, one to one and a quarter tons. Wheat ripens hard. Yields.

Rich dark loam, with gravelly subsoil; anything will grow provided there is water to irrigate with. The general state of cultivation is good. On the South Thompson there is a great deal of excellent land, but scarcity of water prevents it being cultivated. Soil, etc.

Winters, cold and fine; summers, hot; greatest depth of snow, eight inches; greatest cold, 22 below; greatest heat, 90; nights, warm; wet season varies as to length: no winds. Climate.

Currant worm and cut worms; the green varieties of gooseberries are subject to blights; red varieties are free; no vegetable mold or moss. Pests.

Timothy, sometimes mixed with clover, is the principal grass yielding 2000 to 2500 tons per acre; a great many wild flowers grow, such as lupins, syringa, wild honeysuckles, violets, clematis, buttercups, etc.

Water for irrigation is needed to develop the country.

Kamloops and stations along the C. P. R. by rail and sometimes by steamers; hay, baled brings $15.00 per ton and grain about one cent per lb; market could be improved by taxing imported produce, by assisting in procuring water and by cheaper transportation rates. Market.

Land fit for cultivation is generally cultivated.

Prospects for hops excellent, they grow luxuriantly; practical man could do well, inducements offered. Hops.

The writer says that he feels satisfied that if the proper varieties of apples were introduced, that this portion of the Province would compare most favorably with any Eastern Province.

ST. MARY'S MISSION.

45 miles east of Vancouver, main line C. P. R., on the Fraser River.

Apples, pears, plums, cherries, raspberries, gooseberries, currants, strawberries, all grow to perfection. Peaches, apricots and grapes do well. Fruits

Almost every kind the seed book names grow with results sufficient "to make the melancholy face light up with a smile." Vegetables.

Tomatoes, especially small varieties, ripen well; the large varieties require to be trimmed out toward fall. Melons grow, but west of the Cascades require sunny situations. Peaches and grapes require situation and care.

Wheat, barley, oats, buckwheat and peas, yield: Wheat, 35 to 40 bushels to the acre; oats, extremely well; peas, 60 bushels to the acre; potatoes, 9 to Yields.

10 tons per acre; turnips, 25 to 30 tons per acre; hay, 1½ to 2 tons. Corn is not a safe crop.

Wheat, especially east of the Cascades, ripens hard, but west varies according to season.

As great a variety of soil is found as in any place in the world, and is adapted for all the products mentioned.

From Stave River to the Hatzic, a stretch of twelve miles on the north side of the Fraser, extending back north three or four miles, there is comparatively little land that cannot be eventually cleared and cultivated. At present the cultivation is not very thorough. Taking township after township, there are very few vacant lots.

Climate. Greatest depth of snow, fourteen inches, greatest in fourteen years; greatest degree of cold, one below zero; greatest heat, 80 or 90 above; night deliciously cool. Wet season, from 1st November to 15th February; dry season, no marked dry season: sometimes six or seven weeks during July and August. Winds sometimes in winter from the east, from five to ten days cold, bracing wind; sea breeze from S. W. generally in summer.

Insect pests exist to no extent; green fruit and vegetables are comparatively free, blight to no extent, vegetable mold very little, and moss to a moderate degree on fruit trees.

Bees do well.

Market Markets: Vancouver and New Westminster; fruits, vegetables, roots, butter, eggs, poultry and game are the principal products. The market could be improved by establishment of local mills to use up breadstuffs and stopping importations of flour and cornmeal.

Settlers are improving as fast as means will permit.

Hops, etc. Hops do well and sugar beet also, though not experimented with yet, but "between the cedars of Lebanon and the hyssop on the wall," the writer says, "there are, no doubt, many things that could be introduced yet to advantage."

Price of Land Price of land and cost of clearing: $5 to $50; from $30 to $100 per acre to clear.

SUMAS.

In the Chilliwhack municipality, 55 miles from Vancouver, on Fraser.

Fruits. Apples, pears, plums, cherries, prunes, peaches and all kinds of berries and small fruits, grow to perfection. No one has gone into the business extensively, but farmers are gradually awakening to the fact that fruit growing will be one of the best paying pursuits, with proper management.

Vegetables. All kinds of vegetables that grow in the temperate zones succeed well.

Tomatoes do well in sandy soil; melons are not grown extensively; nights are too cool.

Peaches and grapes are grown, but the climate is not warm enough to give them the luscious flavor of the California fruit.

Cereals Wheat, barley, oats, rye, peas and corn.

Yields Wheat, 65 bushels per acre; oats, 50 bushels; barley, 40 to 90 bushels; peas, 30 to 75 bushels; potatoes, 300 to 450 bushels; turnips, 60 to 70 tons; hay, 2 to 5 tons.

Wheat ripens hard when sown early.

Soil. The soil is a loam with clay sub-soil.

Area, etc. This section is well adapted for all fruits, vegetables, roots and cereals. The Sumas Valley is more or less subject to inundations annually from the Fraser River, consequently there are very small sections that can be safely cultivated, dairying and stock-raising being the principal business. It is mostly open prairie, about 30,000 acres in extent, which, if dyked, would be capable of producing unlimited crops of everything. Steps are already being taken to inaugurate a scheme.

The population is about 1,500.

Climate. Greatest depth of snow, 2 feet; greatest cold, 2 above zero; greatest heat, 90; nights are cool; wet season, six months, including winter; winds, in fall and winter.

Fruits of all kinds are affected, some by insects, vegetables a little, cereals a little, no blights, vegetable mold or moss.

Timothy is the principal grass, yielding as high as five tons per acre. The rose is the principal wild flower.

The needs of the district for development are dyking and drainings — Needs.

Vancouver, Victoria, Westminster and Nanaimo; produce is disposed of principally through commission merchants, being sold principally at home and delivered at the nearest landing place. Prices of late have been advancing all round. The present system of marketing has not been satisfactory (and much attention is being paid by the Fruit Growers' Association to the subject.) — Market.

Land generally is being taken up, but large quantities are being held unimproved.

Sugar beet would be a grand success if cheap labor could be secured. — Sugar Beet.

The informant says that producers, as a rule, do not take that care in grading and packing their products that they should in their own interests, especially when competition is so sharp with the American neighbors, who take greater care in packing their fruits in nice boxes, and so on with grain and vegetables.

SURREY MUNICIPALITY, N. W. D.

Apples, pears, plums, peaches, grapes and all kinds of small fruits have all been very successful. On trees two and a half years from planting, over one bushel of apples were gathered. Vegetables grown elsewhere can be grown with good success. — Fruits.

Tomatoes ripen, also melons; peaches and grapes have both been tried with satisfactory results. — Vegetables.

Wheat, barley, oats, rye, peas, millet, etc.

Wheat, average 40 bushels; oats, 100 to 140 bushels; barley, 75 bushels; corn only grown for home use; peas, one and a half tons to the acre; potatoes, 250 to 800 bushels; turnips, 1,000 bushels; hay, two to three tons. — Cereals, Yields.

Wheat ripens hard.

High land, loam inclined to be sandy, and in some places gravelly. — Soil, area, etc.

The corporation of the district of Surrey contains one hundred and twenty square miles and about one-half is adapted to cultivation, the balance being timber lands, but of good quality of soil. In some settlements the land is in a good state of cultivation; population about 1,400.

Very healtful; greatest depth of snow, one foot; greatest cold, zero; greatest heat, ninety; nights cool and comfortable; length of wet season, two months; with two months more showery, very seldom winds. — Climate.

Except a few grasshoppers, no insect pests, no blights, mold or moss.

Grasses: all cultivated kinds, timothy, clover, red top, blue point, etc.; a large number of varieties of wild flowers exist.

Construction of railroads projected; opening and clearing out of Serpentine and Nicomen rivers; construction of Boundary Bay canal, and opening up of wagon roads. — Needs of development.

Vancouver, New Westminster and Victoria; it costs $2.50 to $3 per ton to carry produce to market. — Market.

About one-half of the land is occupied and the balance is held unimproved and as timber lands. — Land.

Hops would succeed well, also sugar beet; tobacco does remarkably well.

Price of land, $5 to $100 per acre; the same for clearing.

The district is well adapted for fruit, especially small fruits, if it had the facilities for shipping.

VERNON.

A settlement in Okanagan Valley (Kootenay District), on east side of Okanagan Lake, 49 miles from Sicamous, on the C. P. R.

All varieties of fruits, large and small, all do well when properly cultivated. — Fruits.

Vegetables. Vegetables of all kinds meet with good success and produce very large crops.

Tomatoes ripen and melons grow very successfully. Grapes can be grown and peaches if attended to, all cereals successfully.

Yields. Wheat, 2100 lbs to the acre; oats, 2100 lbs; barley, 2100 lbs; peas and corn for household use; potatoes, three tons and over; turnips, unlimited; hay, two tons. Wheat ripens hard.

Soil, etc. Deep sandy loam, cultivation good; about 25,000 acres of land capable of cultivation.

Climate Climate, best in the world; greatest depth of snow, ten to eighteen inches; greatest cold, ten to twenty below; greatest heat, 100; nights, cool; two weeks of rain in spring and two in fall; eleven months of dry season, varying at times. Winds do not prevail.

There are no insects pests, blights, vegetable mold or moss.

Grasses of different varieties yield heavily; there is a large variety of wild flowers; all cultivated flowers do well.

Needs of the district, railway communication (now being established) with Coast cities.

Market. Wheat, Enderby flour mill; cattle, could be improved by competition.

Lands. Hops would do very good; sugar beets, good.

Land is principally cultivated. Price of land, $5 to $15 per acre; cost of clearing depends on the amount of timber on the land.

The writer says: "I am convinced that this is the garden of the Province of British Columbia. It is capable of anything that any other part of the Province is.

VICTORIA.

On Island of Vancouver, 60 miles from Vancouver City.

Fruits and Vegetables. Currants, gooseberries, strawberries, apples, pears, peaches, plums, etc. All vegetables are grown.

Tomatoes ripen; melons not within ten miles, do well at Saanich; peaches remarkably fine; grapes not tried. Population, city and district, 30,000.

Climate. Very temperate; greatest depth of snow, three inches; greatest cold, three below; greatest heat, 88; wet season, December to March; winds do not greatly prevail.

Vegetables near Victoria suffer from a small slug, no blights, vegetable mold or moss.

There are a great many wild flowers: Camassia, lupins, roses, butter-cups, daisies.

Only requires population for development.

YALE.

On main line of C. P. R., 102 miles from Vancouver.

Fruits. Apples, pears, plums, cherries and all small fruits; principal varieties of apples are Red Astrachan, Northern Spy and Blue Pearman; small fruits yield enormously; the trees are a long time coming into bearing but afterwards produce magnificently.

Vegetables. Vegetables of every description found in temperate zones are grown with great success, and the products of a high class.

Tomatoes ripen in the middle of August; musk and water melons are grown with success; peaches have not been tried but grapes prove very satisfactory.

Cereals All ordinary cereals are grown.

Yields Wheat, 25 to 50 bush; oats, 40 to 80 bush; barley, 25 to 40 bush; corn, not much grown; peas, a good average; potatoes, far above average; turnips good average; hay, one to two and a half tons. Wheat ripens hard.

Soil, etc. The soil is a light sandy loom with disintegrated hock well adapted to common fruits, vegetables and grains. Cultivation is very insufficient. The district is chiefly a stockraising one, and farmers confine their efforts to providing winter forage.

There are many thousands of acres capable of cultivation if it could be irrigated. The district includes the South Thompson River from Savonas to Spence's Bridge. There are few settlers and the population is scanty.

Bright and dry; greatest depth of snow, eight inches in low levels; great- Climate.
est cold, thirty below zero occasionally; greatest heat, 100 in shade, nights cool; wet season, uncertain; dry season interminable; winds do not prevail.

Grasshoppers, cut worms, beetles, and other pests interfere with vege- Pests.
tables. There are no blights, vegetable mold or moss.

Timothy, orchard grass, red top, clovers, Alfafa, etc., yield heavily under irrigation. There are many wild flowers.

The need of the district towards cultivation is irrigation by canals and ditches for the utilisation of numerous running streams.

The market is local and limited, quantities of fruit and cereals can be dis- Market.
posed of at from one to one and a half cents per lb.

The greater part of the land is used for stock-raising purposes. Hops do Land.
well. Lands are generally open and improved, places with facilities for irrigation are held high in price, wild lands $5 an acre. The chief draw-back to fruit growing on the North Thompson are the sudden changes of temperature in the winter time. These affect the trees considerably.

New Westminster District.

The oldest and one of the most important settled portions of the West- Sea Island.
minster district is the municipality of Richmond, and is made up of Lulu and Sea Islands at the mouth of the Fraser river. Sea Island is all settled with prosperous farmers. The soil is first-class alluvial deposit and almost inexhaustible in its richness. The island contains about 4,000 acres all agricultural lands, upon which are raised excellent fruit, apples, pears, plums, the latter being exceedingly prolific, and yielding enormously. The root crops cannot be beaten; for grain, the soil is even yet too rich; even hay meadows, after fifteen years' continuous cropping, yield three to four and half tons to the acre. Lulu island is not so thickly settled as Sea Island. The Lulu Island
water front on both sides is nearly all settled and brought under cultivation, there being some large farms of two hundred to three hundred acres each. About one-quarter of the island is under cultivation and used for stock purposes, the beef and dairying interests being comparatively important. A great deal of dyking has been done on the water's edge, but as the overflow rarely exceeds a few inches it has not been expensive or difficult. An electric tramway is projected through this island from Vancouver.

The land lying between Vancouver and New Westminster and all that is An unorgan-
included in this tract of land may be termed an unorganized district contain- ised District
ing as it does outside of the two cities of which it can boast, few settlers and no municipal government. It includes an area of probably 60,000 acres, most of it heavily timbered, some lightly interspersed here and there with swamps and beaver meadows, rich in soil and only requiring drainage to make it fit for cultivation and nearly all adapted for fruit culture, principally apples and pears and cherries. A great portion of it is burned land and easily cleared.

This well-known health resort has given its name to a small but fertil Harrison
valley so valuable indeed that it was selected by the director of the experi- Hot Springs
mental farm, Prof. Saunders, for the location of the model or experimental farm for British Columbia, after a great many parts of the Province had been examined. The valley extends from Agassiz station to the foot of Harrison lake, a distance of five miles. It is four miles wide at the base and gradually tapers to a point on the lake. The soil is a rich alluvial deposit, part prairie and part lightly timbered, but the whole of it has been taken up and is being

settled upon, at present containing about a dozen farms. Excellent fruit of all kinds is grown in the valley. A small portion of it adjoining the Fraser is subject to overflow.

The Experimental Farm. Immediately adjoining Agassiz station are five hundred acres of reserve selected by Prof. Saunders as an experimental station. Operations, ploughing and clearing up have already been started, and the construction of large fine buildings will commence in the spring. The Harrison lake is a beautiful expanse of water fifty miles long by seven miles wide, surrounded by heavily timbered land. Large timber leases have been taken up here, and the lumber industry promises to be an important one in the future. The salmon spawning grounds are all along the Harrison river between the lake and the Fraser river.

Kanaka Prairie. Nicomen settlement of Kanaka is a long prairie and stretch of bottom lands running up to Sumas, twelve miles long by about two to four miles wide. It is all well settled and taken up. The principal occupation of the farmers here, who come as a rule from Ontario and Quebec, are dairying and general farming. All are starting out orchards. They grow oats, peas, potatoes, etc.

Sumas. On the south side of the Fraser running east from Matsqui are the Sumas mountains, at which a good many applications have been made for coal lands. At the eastern extremity of the mountains begin the much talked of Sumas Prairie, which extends fifteen miles southwest and about four miles east and west. The southern end is principally occupied for dairying and stock purposes. At its northern point is the limit for net fishing. And here is reached **Chilliwhack.** the far famed settlement of Chilliwhack, which for apples, vegetable productions and general farming purposes, can scarcely be excelled anywhere. The estimated population of the municipality, which covers an area of about one hundred and eighty square miles, is 3,000. It is connected by daily water communication with New Westminster some fifty miles distant. The soil is very rich and grows crops of all kinds in great abundance, and is particularly adapted for fruit and roots. It has held agricultural shows for the last fifteen years. Game and fish are plentiful, gold is found in small quantities on the bars of the Fraser river and several ledges have been located. Extensive timber limits lie to the south of the settlement and have been acquired by a large milling company whose logging camps will operate it in the future. This is the best farmed portion of the Province, and is thickly settled with prosperous farmers.

Mt. Lehman and Aldergrove. Coming down the river on the south side of Matsqui is the Mount Lehman settlement and Aldergrove on a high land. The land is well taken up but not much improved so far. The settlers, however, are going in for fruit and improving their land rapidly.

The Mission. The Mission, on the north side of the Fraser, is a flourishing settlement, with a school of twenty-five or thirty children in attendance. The high land on the opposite side of the river has a settlement of forty or fifty, all settlers within the past two or three years. This settlement extends two or three miles back, forming a semi-circle of about three miles radius. This is a point in addition to its agricultural importance, at which the new bridge of the C. P. R. is built across the Fraser to connect with the new railway to Seattle. A new townsite has been laid out at the junction with the C. P. R.

Burton's Prairie. Burton's Prairie settlement is farther up the river and farther back, and extends back as far as Stave lake. This is rapidly settling up.

Langley. Langley ranks among the oldest and most important of the municipalities. It has a population of over 2,000, covering an area of one hundred square miles, lying along the banks of the Fraser for about ten miles. It has a daily steamboat communication with New Westminster, and extends to the Ocean in a southwesterly direction, reaching within two miles of the American boundary. Stock raising and dairying are the chief industries at present. The soil is a very rich loam with a clay subsoil. Nearly all the land has been taken up, but partially improved lands can be purchased at from $25 to $30 per acre. There are several good roads leading through the municipality

and new ones are opening out all the time. Langley is drained by the Serpentine and Nicomekl rivers, which contain delicious trout, The scenery in parts is very fine, and Mount Baker in Washington Territory commands an easy view. All the products of the temperate and semi-tropical zones are possible here. To sportsmen the facilities for enjoyment are excellent.

Maple Ridge lies along the Fraser, directly opposite and north of Langley, having a frontage of eighteen miles on the river and is intersected by the Canadian Pacific Railway. It has an area of 50,000 acres, and a population of 1,500 or 2,000, healthful climate, advantageous situation, and general agricultural purposes it is a very desirable place of residence. Port Haney is the principal point in the municipality. There are several large brick-yards in its vicinity. Fruit does extremely well in this locality and as a sample of its root products, 600 bushels of potatoes to the acre have been grown in the vicinity of Port Hammond. On the Lilooet river a few miles from Port Haney are some fine timber lands which will contribute largely to the material interests of the locality for the carrying on of the lumber industry. **Maple Ridge**

Pitt Meadows, containing about 35,000 acres of prairie, as fine land as ever lay under the sun, but requiring dyking to bring it under cultivation. **Pitt Meadows.**

The Delta municipality has a name very suggestive of its capabilities and its productiveness is a standard by which the fertility of all other parts of the district is compared. All the land in this district has been taken up, but farms may be purchased at from $30 to $100 per acre, according to improvement. The unimproved lands are free from timber and ready for cultivation. A little dyking is necessary in some parts. Fruit grows luxuriantly, as also do all grain and root crops. Some of the products of this municipality are phenomenal; hay goes three to three and a half tons per acre; wheat, 30 to 75 bushels; oats, 75 to 90 bushels, and root crops from 400 to 800 bushels; turnips weighing forty pounds were exhibited at the local fair at Ladner's last year, and oats going 55 lbs to the bushel. The municipality fronts on the Fraser river and on the Gulf of Georgia. The settlement comprises about 40,000 acres of rich delta land of deep black earth with a clay bottom. There is a good road through from east to west, and the whole is one vast field of prairie land. Wild fruit, in the form of the cranberry and blueberry, are found in great abundance. Game, especially wild fowl, are to be found in vast numbers in the fall. It is the chief salmon canning point on the Fraser river, seven factories being situated thereon. **The Delta.**

Surrey lies between the corporations of Langley, Fraser river and the Delta, extending from the Fraser river to the boundary and has within its limits the important and prosperous settlements of Hall's Prairie, Clover Valley and Mud Bay, and comprises 120 square miles of area. The municipality has a number of good roads and is drained by two navigable rivers the Serpentine and the Nicomekl. About one half is prairie and the rest is timbered. The soil is very rich and vegetables grow to an enormous size and ground yields prodigiously. Fruit growing is a prominent industry. Much of the land is known as the "Muck Land" noted for its great richness. Game abounds and at one time oyster beds were talked of at Mud Bay. **Surrey.**

Vancouver Island

This is by far the largest island in British Columbia, and is about two hundred and fifty miles long with a breadth of about fifty or sixty miles. The southern part is the oldest settled district in the Province and possesses its capital, Victoria, both historic and picturesque in situation. The general appearance of the coast is broken and rugged, and to the eye of the stranger would appear rock-bound, though on nearer approach, numerous openings are discovered, disclosing bays and inlets, most of which afford the best of anchorage. The harbors on the west coast are used by the different schooners in the sealing fleet as the base of their operations, from which they sail out with the Indian hunters, who return to their homes at the end of the season.

Victoria District.

Victoria district contains about twenty-seven square miles and includes Victoria City, the Gorge, Cadboro Bay and several bays along the eastern shore, Gordon Head, Mount Tolmie and Cedar Hill. From Victoria there are many excellent drives, especially to Cadboro Bay, where the scenery, with a view of the straits, is very beautiful. The largest farms are more particularly in the neighborhood of Cedar Hill and Cadboro Bay. The surrounding country is picturesque in the extreme, abounding in hill and dale, valley and lake. The roads are noted for their excellence.

Esquimalt.

Esquimalt district embraces the settlements of Colwood, west of Esquimalt, Goldstream, northeast, Aldermere and Highland, north. There are many prosperous farmers in these districts.

Metchosin.

This section of Vancouver Island is situated southwest from Victoria, roached by stages and distant about fifteen miles. It is essentially a farming district, there being extensive cattle and sheep ranges on the adjacent hills. This section is particularly noted for its charming scenery and as a rural suburb.

Sooke.

Sooke, situated about 23 miles southwest from Victoria, is a thriving settlement. The soil is mostly black loam and clayey loam with clay sub-soil, and is very productive. Cereals, fruit and vegetables thrive well; oats have been sown as late as July 1st in some of the swamps, and hay taken off in September, having attained a height of five feet. Apples, pears and plums do exceedingly well. Turnips have weighed from twenty to thirty pounds each. Iron of good quality and copper are in the district.

Otter Point.

Otter Point is situated on the southwest of Sooke, which it joins. All the hemlock bark used in the Victoria tanneries is procured from this section. There is a considerable extent of good land open for settlement. The soil is principally a clay loam, producing splendid crops of clover, grasses, roots and grains. The district is of coal formation and copper ore has been found. Cattle and sheep thrive well.

Saanich.

The peninsula of Saanich comprises the districts of North and South Saanich and Lake, in the Dominion electoral district of Vancouver, and Provincial of Victoria district. It is situated north of Victoria and comprises about 40,000 acres, mostly all farming land. The soil, although varying considerably, is more particularly in the extensive valleys and prairies of a rich black loam, having a depth of from eight inches to two feet, while that bordering on the coast is chiefly comprised of shells and lime, the former being a valuable fertiliser for the garden and orchard. In the northern part of the peninsula coal has also been discovered. The Agricultural Society has been established some twenty years and annually holds an exhibition in its hall.

Salt Spring Island.

Salt Spring island is the principal of the many islands lying in the Gulf of Georgia, between Vancouver Island and the mainland. It is well settled,

very little land remaining in the hands of the Government. As a fruit-growing district and also for sheep raising it stands unrivalled, whilst in its numerous valleys is found large quantities of first-class agricultural land kept in a state of fertility by the washings from the hills. Coal is found in small seams and pockets, many instances shows that a vast field awaits development. The salt springs more, particularly in the north end of the island, will probably be used some day in the manufacture of a household commodity. The stone for constructing the Esquimalt dry dock was obtained from a quarry on the island.

Plumper's Pass. Plumper's Pass includes the islands of Mayne, Galiano, Pender, Provost, Reid, Saturna, Samuel, Narrow and Tumbo, are situated on the waterway for all vessels from Vancouver (35 miles), Victoria (35 miles), New Westminster (35 miles) and the coaling port of Nanaimo (34 miles). There are many excellent farms in this district, producing abundant crops of grain and first-class fruit. Cattle sheep and hogs are also raised in large numbers. Fish is very plentiful in the passages and straits that divide the several islands. The alder, maple, Douglas pine and cedar timber, the valley and hillsides.

Maple Bay. Maple Bay is a snug harbor on the eastern side of Cowichan District. The excellent yearly agricultural shows are one attractive feature of this place. Corfield is the largest tract of fertile land in Cowichan district and enormously productive.

Shawingan. Shawingan district is a station on the E & N railway, thirty-one miles from Victoria, and has good roads leading to all parts of the settlement, which is principally agricultural.

Koksilah. Koksilah is a settlement situated about midway between Victoria and Nanaimo, and is a station on the Esquimalt and Nanaimo railway. The splendid farms and industrial enterprises of this district compare favorably with other districts.

Quamichan. Quamichan, situated in the central portion of the valley, is one of the most attractive and best agricultural sections of Cowichan district.

Somenos. Somenos is situated on the Esquimalt and Nanaimo railway, about twenty-five miles from Nanaimo and forty from Victoria. It is the largest district in the municipality of North Cowichan. Its chief industry is agriculture. Butter is extensively made and is one of the chief products of the place; grain, roots, vegetables and fruits are also extensively grown and are unexcelled both for quantity and quality. Its scenery is both grand and pic-

Quadra. ...tuate about forty miles from Nanaimo by steamer, embraces the ... Denman and Hornby and districts of Nelson and Newcastle. Sheep ... s carried on extensively and successfully on the islands.

Wellington. Wel..., in the district of Nanaimo, comprises North, East and South Wellington, and is exclusively a mining district. Departure Bay is about three miles north of Nanaimo, and is the shipping point of the Wellington collieries, owned by Messrs. Dunsmuir & Sons. These collieries are situated in the Mountain and Wellington districts.

Cabriola. Cabriola Island, in the Gulf of Georgia, is about eight miles in length and contains valuable coal measures, farming and mineral lands.

Nanoose Bay Nanoose Bay is situated about eight miles north of Nanaimo and within five miles of the Wellington collieries; it is entirely a farming country.

Cedar. Cedar, ten miles from Nanaimo, is quite a farming section and capable of affording homes for a few more.

Comox. No part of Vancouver Island offers more inducements than that of Comox. The land may be described as prairie, alder bottom, open land, swamps and heavy timber, yielding, when cleared, equal to the delta lands of the Fraser. It is easily cleared, very productive and the stumps soon rot. The soil is a clay loam, yields well. The swamps are the most desirable of the unoccupied lands. They are mostly old beaver dams, varying in size from a few acres to five hundred acres. They are covered with wild grasses, and on the drier ones scrubby brush. Surrounding these swamps are acres of alder and cedar, the latter being easily worked for building purposes.

This is not a gold producing country, only small quantities having been found, but it is shown by the geological surveys to be a vast bed of coal. An attempt was made some years ago to open up the coal measures, but now the company owning the lands has opened them in many places, and is building a railway from the pits to the sea.

Alberni.

Alberni is situated in the centre of the west coast of Vancouver Island, distant from Victoria, about 135 miles, and having a monthly service of steamers between them. Alberni valley is about twenty miles long by six miles wide. It is somewhat heavily timbered but easily cleared. The natural resources are, besides agriculture, timber and fish; coal is known to exist, also copper and gold.

Queen Charlotte Group.

Graham Island.

These Islands are situated to the north of Vancouver's Island, and are distant about 60 miles from the mainland of British Columbia. The chief island of this group is Graham Island, and it is by far the wealthiest in natural resources. The eastern part is mostly level and contains a considerable area of good agricultural land, extending as far as sixty miles along the coast. The western part is covered with low mountains and hills, intersected by numerous lakes and valleys. The general character of the country is prairie mixed with small brush and a light growth of timber. The soil is well suited for agriculture and fruit raising, but adapted for a grazing country especially. The Indians have cultivated patches, and large crops grown by them prove the richness of the land. The hills, in many places, are covered with short grass, which would make it a capital sheep grazing country. In some of the mountain valleys spruce and fir are found in large quantities, which will eventually be turned into good account for lumbering purposes.

Coal.

Coal, both bituminous and anthracite, has been discovered on this island in large quantities, the quality of which has been pronounced by experts to be greatly superior to any found on the Pacific coast. The islands to the south are more mountainous and rugged in appearance, though covered with a short grass, which would be adapted to sheep grazing. However, there are several valleys of good land, among which may be named those of Shingle Bay and Gold Harbor.

Climate.

The climate of these islands is the most equable in British Columbia; although they are so far north the soft humid atmosphere of the ocean, together with the warm Japanese gulf stream, prevent a marked difference at any season of the year, and renders them extremely mild. The rainfall is considerably less than on the coast of the mainland, which is owing no doubt to there being no lofty mountain ranges. Snow seldom falls and when it does it soon disappears, on account of the general mildness of the temperature Fishing stations are being erected along the coast, the waters of which are teeming with fish. Among the various kinds is the black cod, which is considered a very great delicacy, which is caught here in large quantities and shipped to the eastern market, where it finds a ready sale. Wild fowl abound everywhere.

THE GREAT INTERIOR.

The object of this pamphlet is not to deal minutely with British Columbia as a whole, but simply to give a good general impression of the now accessible and populated districts near the line of the C. P. R., and on the Coast near the centres of population. But a few remarks regarding the large areas as yet unsettled, may enlighten the reader and suggest to him a possible future for the country as influenced by these extensive areas.

Chilcotin.

This district extends from the Fraser river on the south-east to the Coast range of Mountains, about 10,000 square miles in area. It is principally speaking undulating, beautifully picturesque, covered almost entirely with grass with little forest, well watered. The general altitude is about three thousand feet, hence the climate is dry and clear; the snow fall is light, winter short but severer than on the Coast. The country abounds with large game and is a rare sporting resort for sportsmen of leisure. Al hough the valleys in the southern portions are suitable for agriculture, on the whole the district is a pastoral one and admirably adapted for ranching, being a rich grazing country and enjoying a fine climate. It will be tapped by a projected railway from Ashcroft.

Horse Fly Country.

This takes its name from the Horse Fly lake, from which in the south-east, it extends to the Cariboo road on the north-west, in area about sixty square miles. The general altitude is about 1500 to 2000 feet and possesses a more modified climate than Chilcotin, though in most respects similar. The summers are delightful, autumns and winters dry and and clear, and the springs tempered by the celebrated Chinook winds; rain fall light, but irrigation is not necessary. The Horse Fly is essentially a grazing country, splendidly watered lands, consisting of plateau and valleys. The valleys are prairie, very rich in soil, and the hills are lightly timbered and covered with bunch grass. The grasses are very rich and nutritious and grow luxuriantly. This when opened up will be one of the finest stockraising and agricultural district in British Columbia. It is also rich in minerals.

The Black River and Skeena Country.

Is about 600 miles away from the Canadian Pacific Railway and was first explored in 1865 for the construction of a telegraph line, to extend from San Francisco to Behring Strait, to connect there with the European system, which was not proceeded with after the successful laying of the Atlantic cable. The area of pastoral and farming land included is very extensive, though practically unsettled as yet. From Deeker lake to the Skeena river is considered the finest belt of agricultural land in British Columbia, and the valley, which is in places forty miles wide, contains an area of three hundred square miles. The climate is excellent and though the winters are cold, winds and blizzards do not prevail, and altogether is as well adapted for agriculture as any part of Manitoba. The soil is very rich, and grasses, wild fruits and vegetables of all kinds grow luxuriantly. All through this country there are numerous rich valleys, and game and minerals abound. No irrigation is necessary. When this country will be opened by railroads depends upon the rate of progress in development achieved by the more southerly portions of the Province.

The Peace River Country.

Is well known and its merits have been much discussed politically and by travellers. It is very extensive and largely suitable for stockraising when the conditions of the Province will justify it. Its adaptabilities as an agricultural country are still in doubt. Quoting from a recent publication: "This country might be called an immense rolling plateau, made up of hills, valleys, prairies and woodlands, intersected by numerous lakes and streams, embracing hundreds of thousands of acres of fertile lands, which if it were

not for the frequency of summer frosts, would become one of the largest agricultural districts in Canada." It is regarded in any event as a territory of great resources.

The Okanagan.

The district of greatest immediate promise in British Columbia is the Okanagan and Spallumcheen valleys. These have already been referred to in the answers given elsewhere. Speaking of it, Mr. Lumby, a prominent resident of that district, says: "A careful estimate of the quantity of arable land tributary to the Shuswap and Okanagan Railway has been made by Mr. Farwell, C. E., who was sent by the Provincial Government and spent a month exploring the country. His report places the arable land at 300,000 acres, and mentions that two large areas have been discovered which he was unable to visit and are not included in this report. Mr. Perry, engineer, roughly estimated the grazing land at 1,700,000 acres. A great part of this country is open prairie, interspersed with belts of timber, giving all the lumber required for building, fencing and firing. It is well watered by springs, streams and numerous lakes. The soil is mostly a rich loam, with subsoil of unknown depth of sedimentary clay deposit. The main crop suitable to most of the land is wheat, which, if properly ploughed and the wheat sown in proper season, I have never known to be a failure."

Concerning several other most important parts of the Province, the writer has taken the liberty of transferring to these pages some of the remarks contained in Messrs. Shannon & McLachlan's pamphlet, which, speaking of Kootenay, goes on to say:

Kootenay.

"This country extends from the Rocky Mountains to the Columbia River. The appearance of the country from here up the Kootenay River for a distance of about forty miles is very rough and mountainous. But from here to the Columbia and Kootenay lakes, a distance of about two hundred miles, it is principally prairie, and well adapted for stock-raising and agriculture, but the choicest land is that around the Upper Lake. There is steamboat communication to these waters, which extends as far as Golden City, a small town on the Canadian Pacific Railway. Gold and silver ledges of great value have been found in its vicinity, and companies have been formed to work the same. Should these be successful it will prove one of the richest districts in the Province.

"This country embraces a large area of land suitable for cattle ranches, some of which has already been utilised for this purpose, though there are still large tracts waiting for settlement. One of the great advantages is its position, lying as it does between the Canadian Pacific and Northern Pacific railways. It can be easily reached from either side. The climate is dry and particularly healthful. The winters are mild and the summers moderately warm, making it a favorite resort for invalids.

The Main Columbian Valley.

"This valley has a length of between three and four hundred miles, and follows the Columbia River to the base of the Rockies. This river flows through the First Arrow Lake, which is situated about thirty miles to the north of the International Boundary Line. The two Lakes, namely the Upper and Lower, form a beautiful sheet of water about 160 miles long. Between these and connecting them is a river, on the banks of which and at the head of the Upper Lake there is a large area of good farming land which is lightly timbered; from here, following the Columbia as far as Revelstoke, the country is heavily timbered, most of which will prove very valuable for lumbering; the soil is, however, not first-class, though well adapted for fruit-raising. From Revelstoke to St. Martin's Rapids the valleys spread out to a width, in some places, of 30 miles. The soil of these is similar to the previously described, but the timber is not so good in quality. From St. Martin's Rapids to the Rockies the land improves considerably, being lightly timbered in places, though generally an open country possessing a rich soil. Here the Canoe River enters the Columbia, which is navigable from the International Boundary to the Rockies, with the exception of two rapids, namely the Death and St. Martin's, and these could be improved with very little expense. The climate differs somewhat from those mentioned before, as the snow and

rainfalls are considerably more, with a moist and humid atmosphere and comparatively mild winters.

In addition to the foregoing districts, there is a number of agricultural valleys recently opened for settlement, and which are attracting settlers, such as the Pemberton Meadows, Seymour Creek, Squamish, Lillooet, etc., and doubtless many more will be opened up as the Province becomes explored. These will be suitable for fruit growing, hop-raising, vegetables and general agricultural purposes. Other sections

Statistical and General Appendix.

FISH, SALMON PACK.

	CANS.
Fraser river, 16 canneries	303,875
Skeena river, 6 canneries	58,165
Rivers inlet, 2 canneries	25,704
Naas river, 3 canneries	19,410
Alert bay, 1 cannery	7,140
Total pack	414,294

YIELD AND VALUE OF FISHERIES.

Kinds of Fish.	Quantity.	Price.	Value.
Salmon, in cans ..... lbs	20,122,128	$ 12	$2,414,655 36
" fresh ..... lbs	2,187,000	10	218,700 00
" salted ..... bbls	3,749	10 00	37,490 000
" smoked ..... lbs	12,900	20	2,580 00
Sturgeon, fresh	318,600	05	15,930 00
Halibut, "	605,050	05	30,152 50
Herring, "	190,000	05	9,500 00
" smoked	33,000	10	3,300 00
Oolachans, "	82,500	10	8,250 00
" fresh	6,700	20	1,340 00
" salted ..... bbls	380	10 00	3,800 00
Trout, fresh ..... lbs	14,025	10	1,402 50
Fish, assorted	322,725	06	16,136 25
Smelts, fresh	52,000	06	3,126 00
Rock Cod	39,250	05	1,962 50
Skil, salted ..... bbls	1,560	12 00	18,720 00
Tooshqua, fresh	268,350	05	13,417 50
Fur seal skins ..... No	33,570	10 00	335,700 00
Hair " " ..... "	7,000	75	5,250 00
Sea otter " ..... "	115	100 00	11,500 00
Fish oil ..... gals	141,420	50	70,710 00
Oysters ..... sacks	3,000	1 75	5,250 00
Clams ..... "	3,500	1 75	6,125 00
Mussels ..... "	250	2 00	500 00
Crab ..... No	175,000	03	5,250 00
Abelones ..... boxes	100	5 00	500 00
Isinglas ..... lbs	5,000	.....	1,750 00
Estimated fish consumed in the Province	.....	.....	100,000,000
Shrimps, Prawns, etc.	.....	.....	5,000 00
Estimated consumption by Indians:			
Salmon	.....	.....	2,732,500 00
Halibut	.....	.....	190,000 00
Sturgeon and other fish	.....	.....	260,000 00
Fish oils	.....	.....	75,000 00
Approximate yield	.....	.....	$6,605,467 61

The salmon hatchery at New Westminster has turned out the following numbers of fry for distribution since beginning operations:

The year 1885	1,800,000
The year 1886	2,625,000
The year 1887	4,414,000
The year 1888	5,807,000
The year 1889	4,419,500
The year 1890, about	8,000,000

COAL MINING.

By far the largest mining industry in the Province is the production of coal. Prospecting has been successful in locating beds in many widely separated parts of the Province. Those at present operated are in the Island of Vancouver in the vicinity of Nanaimo. Following are the returns for 1889:

WELLINGTON COLLIERIES.

	TONS.
Foreign shipments	196,510
Home Consumption	70,524
Total	267,034

Number of men employed, 900.

UNION COLLIERIES, (SIX MONTHS.)

	TONS.
Foreign Shipments	27,551
Home Consumption	100
Total	27,651

Number of men employed, 450.

NEW VANCOUVER COAL CO.

	TONS.
Foreign Shipments	179,953
Home Consumption	38,000
Total	217,593

Number of men employed, 845.

EAST WELLINGTON COLLIERIES.

	TONS.
Foreign shipments (estimated)	35,000
Grand Total	548,503

The Government returns give the coal output for 1889 as 579,830 tons, the estimated value of which is $2,5000,000.

SHIPPING.

The number of vessels employed in the coasting trade of British Columbia during 1889, and arriving at the various ports was as follows:

	1888	1889
Victoria	658	740
New Westminster	242	357
Nanaimo	314	442
Vancouver	466	751
Total	1680	2290
Tonnage	698,511	1,072,6 7

The returns of foreign vessels arriving are as follows:

	1888	1889
Victoria	567	585
New Westminster	4	10
Nanaimo	229	373
Vancouver	271	283

TRADE AND COMMERCE.

A comparison of three years shows the returns of imports and exports as follows:

	1887	1888	1889
Exports	$3,478,270	$3,928,077	$4,334,306
Imports	3,547,852	3,509,951	3,763,127

And 1888 the values of exports for the year 1889, by classification, is shown as follows:

	1889	1888
The Mines	$2,377,052	$1,889,721
Fisheries	993,623	1,163,014
Forest	449,026	441,765
Animals and their produce	390,369	315,191
Agricultural	14,670	37,324
Manufactures	36,761	19,294
Miscellaneous	22,358	1.309
	$4,289,859	3,858,618

BRITISH COLUMBIA IMPORTS FOR YEAR ENDING 30TH JUNE, 1889.

Of such articles as are in a great measure capable of being produced in the Province.

	Quanti'y	Value.	Duty.	Value and Duty.	TOTAL.
ANIMALS.		$	$ c.	$ c.	$ c.
Cattle	551	17906	3581 90	21487 90	
Horses	241	17874	3574 80	21448 80	
Sheep	33816	63067	12607 35	75644 35	
Swine	2819	21304	4207 08	25241 08	
		120121	23971 13	143822 13	144092 13
BREADSTUFFS, ETC.					
Beans....Bus.	4470	6999	670 49	7669 49	
Bread and Biscuit..lbs.	470527	16515	3303 10	19818 10	
Oats and Product		2072	2560 00	2632 00	
Wheat		7561	1524 23	9085 23	
Bran		25951	5190 30	31141 30	
Buckwheat Meal & Flour		678	46 13	724 13	
Oatmeal	152317	4815	754 49	5569 40	
Rye Flour....lbs.	830	3728	419 25	4147 25	
Wheat Flour....lbs.	27990	114078	13859 68	127937 58	
		182397	28327 58	208724 58	210724 70
FRUIT, GREEN.					
Apples, U.S....Bls.	5029	15627			
Cherries, U.S....Qts.	34149	4219			
Peaches, U.S....lbs.	134815	5461			
Plums, U.S....Bus.	2333	4498			
Berries, U.S....Qts.	35153	2185			
Grapes, U.S.	218367	8856	4367 35		
N. E. E., U.S.		3156	636 75		
" China		268	53 60		
		44270	5057 70	49327 70	49327 70
FRUIT, DRIED.					
Apples, U.S.	74760	5246	1495 21	6741 21	
Currants, G.B.	11760	649	117 60	766 30	
" U.S.	7390	278	73 90	351 90	
Prunes and Plums, G.B.	312	72	2 00	74 00	
" " U.S.	59479	10284	3874 83	14158 83	
" " China	4298	157	42 98	199 98	
Sundries, U.S....lbs.	60735	5638	607 35	6245 35	
" China	19006	694	190 06	884 06	
Fruit, Canned	150363	7919	3505 17	11424 17	
		30937	9909 10	40856 10	40846 10
Hops, U.	11981	1710	718 00	2428 00	2428 00
Lime....Bls.	2251	2251	450 20	2701 20	2701 20
Malt....Bus.	38881	28745	5832 09	34577 09	34577 09
					482426 80

B. C. IMPORTS—CONTINUED.

	Quanti'y	Value.	Duty.	Value and Duty.	TOTAL.
PROVISIONS.		$	$ c	$ c	$ c
Butter, U. S.	224679	44726	8987 24	53713 24	482426 80
Cheese, G. B.	435	133	13 50	146 50	
" U. S	11982	1925	359 48	2284 48	
" France	3	3	09	3 09	
Lard	341888	37303	6838 07	44141 07	
Pork, G. B.	569	101	11 38	112 38	
" U. S	729023	78805	14421 07	93226 07	
" China	527	67	10 54	77 54	
Beef, U. S.	19240	1132	192 40	1224 40	
Mutton, U. S.	138759	10775	1387 59	12162 40	
Poultry, G. B		645	129 00	774 00	
" U. S.		2469	494 00	2963 00	
" China		1606	321 20	1927 20	
" France		29	5 80	34 80	
Meats c'nd & pre'rd G. B.		334	28 24	362 24	
" " U.S.	135986	14187	2719 72	16906 72	
" " Chi.	9964	1426	199 00	1625 00	
" " Jap.	316	10	6 20	16 20	
		195676	36124 52	231800 52	231800 52
Sugar. G. B.	42093	1917	1302 31	3219 31	
" U. S.	1656047	98770	59321 13	158091 31	
" China	17870	592	474 95	1066 95	
Syrup	12240	800	503 25	1303 25	
" G. B.	124	22	7 87	29 87	
" U. S.	276228	8894	5430 45	14324 45	
		110995	67039 97	178034 96	178034 96
TREES, FRUIT.					
Apple	12128	733			
Cherry	4681	245			
Peach	329	41			
Pear	3258	386			
Plum.	2798	549			
Other	912	912			
Currants, etc., G. B.	60	60			
" U. S.	563	563			
Grape and vines	81	81			
		3570			3570 00
Clover & grass s'd, G. B.	850	125			
" " U.S.	46724	4083			
		4208			4208 00
					900040 28

B. C. IMPORTS—CONTINUED.

	Quanti'y	Value.	Duty.	Value and Duty.	TOTAL.
		$	$ c	$ c	$900040 28
Tobacco unmanufact'ed.	58040	31875			31875 00
Eggs.....Doz	169800	34196			34196 00
VEGETABLES.					
Potatoes, U. S.....bus	14790	5180	2218 43	7398 43	
Tomatoes, U. S..... "	854	1783	434 45	2217 45	
Tomatoes, c'nd, G.B. .lb	4826	799	97 92	896 92	
" " U.S.. "	52483	2210	1049 66	3259 66	
" " Chi.. "	5261	136	105 22	241 22	
" " Fr.... "	50	35	1 00	36 00	
Sundries, G. B.....		42	10 50	52 50	
" U. S.....		842	210 50	1052 50	
" China.....		4676	1168 40	5844 40	
Sundries, including sweet potatoes, Jap.		20	5 00	25 00	
Sundries, including sweet potatoes, U.S.		8066	2016 00	10082 00	
		23789	7317 08	31106 08	31106 08
					997217 36
Add freight, say.....					$ 50000 00

Added to this may be considered :

17000 bbls Manitoba flour @ $5.50.....	$ 93500 00
200000 lbs Manitoba butter @ 20 cents.....	40000 00
150000 lbs Eastern cheese.....	11000 00
150000 d. Eastern eggs @ 25 cents.....	37500 00
	$1229217 36

We also got between 4,000,000 and 5,000,000 pounds of sugar from eastern Canada.

WAGES.

Wages in British Columbia is regulated mainly by unions, which are strong numerically and in point of organisation. The supply of labor is usually equal to the demand. As a rule here, as elsewhere, the applicants for clerkships and soft situations are in excess of the vacancies, though, generally speaking, few persons have any reason to be idle. The schedule of wages for labor is about as follows, the nine-hour system being generally in vogue:

Stonecutters, stonemasons and bricklayers.....	$4 to $5
Their laborers.....	$1.75 to $2 per day
Plasterers.....	$4 to $4.50 per day
Carpenters and joiners.....	$2.50 to $3.75 " "
Ship carpenters and caulkers.....	$5 to $5 " "
Cabinet makers and upholsterers.....	$3 to $4 " "
Painters.....	$3.50 to $4 " "
Shoemakers.....	$2 to $3 " "
Tailors.....	$3.50 to $3 " "
Tailoresses.....	$1 to $1.50 " "
Bakers, with board and lodging.....	$65 per month
Butchers (cutters).....	$75 to $100 per month
Slaughterers.....	$75 per month
Cigarmakers.....	$2.50 to 4 per day
Boys as strippers, etc.....	$2.50 to $5 per week

Printers	45 cents to 50 cents per 1000 ems
Wagon-makers	$3.50 to $4 per day
Tinsmiths, plumbers and gasfitters	$3.50 to $4 per day
Machinists, moulders, pattern makers and blacksmiths	$3.50 to $4 per day
Longshoremen	40 cents per hour
Female domestic servants	$10 to $25 per month
Millmen	$1.50 to $2 per day
Farm Hands	$25 to $30 per month and board

PRICES OF PRODUCE.

The following price list of produce was obtained from [illegible] and represents the average prices paid by commission men to farmers [illegible] sources of supply. To the wholesale prices from 25 to 50 per cent. [illegible] more, in some instances may be added for the retail market. Prices are often much higher and sometimes lower, varying with the season and demand, but a fair yearly average has been endeavored to be arrived at.

Potatoes	$20 per ton
Oats	$22 " "
Barley	$22 " "
Wheat	$30 " "
Butter	25 cents per lb
Eggs	25 cents per doz
Peas	$25 per ton
Hay	$15 per ton
Cheese	12½ cents per lb
Nectarines	(same as peaches
Pears	$1.25 a box
Peaches	$1.25 per 20-lb box
Grapes	8 cents per lb
Strawberries	8 " " "
Raspberries	8 " " "
Cherries	5 " " "
Plums	5 " " "
Prunes	5 " " "
Fish	8 " " "
Chickens	$8 per dozen
Ducks	$9 " "
Apples	$1.25 to $1.50 per 50lb
Onions	$65 per ton
Cabbage	$35 " "
Peas and Beans	6 cents per lb
Tomatoes	$1.50 per 25lbs
Cauliflower	$1 per dozen
Turkeys	$3.50 per pair
Geese	$2.50 per pair

PUBLIC SCHOOL SYSTEM.

The public school system of British Columbia is equal, probably, to any other in Canada, with an educational standard about the same as that of Ontario. The main difference consists in the fact that here the schools are under the direct control of the Government, the maintenance of which is provided for by a direct vote of the Provincial Legislature. They are free, non-sectarian, with uniform text books. Trustees are elected by the people and have a local control in the appointment of teachers and conduct of schools, but all accounts are paid direct by the Department of Education, which is under supervision of a Minister and Superintendent. School districts may be formed where there are fifteen pupils of school age, and trustees, three in rural and six in city districts. There are three grades of teachers, first second and third class, requiring certificates of qualification from the Department. High schools may be formed in any city upon the

passing successfully of a limited number of pupils in the entrance examination prescribed for admission to the same. One third of the cost of maintenance of high schools is borne by the cities in which they are located. Teachers' salaries, male and female, range from $50 to $100 per month, according to grade. Universal suffrage for the election of trustees prevails.

MUNICIPAL GOVERNMENT.

The municipal code is very much similar to that in vogue in other provinces, modified to suit local conditions. The cities are each governed by independent charters, which vary somewhat in their provisions. The people of a rural locality may, when there is a population of 30 males or over, be formed into a municipality for the purpose of managing local affairs. The unorganised districts are directly under the control of the Government.

The Province has a Legislature controlling its own affairs with thirty-one members (six new seats were recently created), a Lieutenant-Governor, and an Executive Council of five members complete the Governmental paraphernalia. There are seventeen electoral districts. One year's residence in the Province and registration are the qualifications for exercising the franchise.

PUBLIC ORDER

Is most exemplary. In very few respects does British Columbia partake of the character of the "Wild West." While legislation is not puritanically restrictive, there is at the same time little disorder and less crime.

Outside of the crimes (mostly petty) incident to a large Indian and Chinese population, no Province stands so well as this. There are excellent facilities for enjoying all the social, educational, religous, political and other advantages, peculiar to a high state of civilization.

COST OF LIVING.

Board varies from $4.50 to $10.00 per week according to the class of boarding house or hotel. The general cost of living is enhanced about twenty-five per cent. as compared with that of the east.

PRICE OF LAND, LOTS, ETC.

The replies elsewhere give and idea of the price of farm lands in the Province generally. Acre property in the vicinity of Vancouver, Westminster and Victoria, suitable for market gardens, can be obtained from $50 to $300. per acre and is steadily on the rise.

City lots, according to nearness to the business centres, range from $2. to $500 per foot. Compared with the price of real estate along the Sound and down the Coast, city property is still very low.

LAND RETURNS.

	1882.	83.	84.	85.	86.	87.	88.	89.
Pre-emption records.....	72	200	308	345	311	303	548	496
Certificates of improvement..	29	60	77	82	69	73	157	..
Certificates of purchase	201	328	604	305	369	351	355	587
Crown grants	129	374	406	306	374	320	332	481

Total acreage deeded: 23,609, 54,637, 146,197.

Acreage leased for timber cutting: 128,811, 50.472.

Acreage covered by coal prospecting license.

TIMBER, LUMBER, ETC.

The trees of the forest are:—the Douglas fir, spruce, white pine, hemlock, cottonwood, maple, yew, arbutus, cherry, cedar, tamarack and a few others, but the prineipal are the Douglas fir and cedar which grow to an enormous size. There is between 50,000,000,000 and 100,000,000,000 feet of choice

timber already in sight in the explored regions. The following is the latest Government returns regarding this industry.

GOVERNMENT TIMBER RETURNS.

MILLS.	LOCALITY.	DAILY CAPACITY.
Moodyville Saw Mill Co.	(Burrard Inlet.)	105,000 feet.
Hastings Saw Mill Co.	Vancouver	65,000 "
Royal City Planing Mills	"	30,000 "
Royal City Mills	(New Westminster.)	110,000 "
Leamy & Kyle	Vancouver	50,000 "
W. H. Sayward	Victoria	40,000 "
Wm. Sutton	Cowichan	35,000 "
J. Martin & Son	New Westminster Dis.	25,000 "
Haslam & Lees	Nanaimo	70,000 "
Ross & McLaren Lumber Co.	New Westminster	200,000 "
Knight Bros.	" "	25,000 "
Shuswap Milling Co.	Yale	32,000 "
Muir Bros.	Sooke	12,000 "
Brunette Saw Mill Co.	New Westminster	30,000 "
Fader Bros.	Vancouver	70,000 "
Port Moody Saw Mill Co.	Port Moody	15,000 "
W. A. Johnston	Cariboo	20,000 "
J. B. Nason	"	7,000 "
Indians	Alert Bay	5,000 "
Cunningham & Co.	Port Essington	80,000 "
G. Williscroft	Georgeton	12,000 "
Indians,	Kincalith	3,000 "
Vancouver Lumber Co.	Vancouver	35,000 "
Victoria Lumber Co.	Chemainus	50,000 "
North Pacific Lumber Co.	Vancouver	100,000 "
G. F. Slater	Vancouver	30,000 "
Aggregate daily capacity		1,284,000 feet.

TIDAL RANGES.

	Rise of high water	
	Annual, spring.	Average rise.
Victoria	8.7 feet	7.5 8.1 feet
Port Simpson	17.9	14.5 16.2
Nanaimo	12.3	10.7 11.5
Vancouver	10.68	9.74 10.1
Port Townsend	8.6	7.6 8.1
San Francisco	5.2	4.4 4.8

MINING RETURNS.

The output of gold for forty years amounts to $52,236,753. The greatest yield was in 1864, when $3,735,850 worth was mined, and about 4,500 miners employed.

About 4,500,000 tons of coal have been mined since the year 1874.

SEALING.

Following canned salmon, the important item in the exports for 1889 under the head of fisheries, was the export of 35,000 seal skins, valued at $245,000. The sealing industry is centered at Victoria, where a large number of ships annually market their catch of seal. Victoria had twenty-four schooners engaged in sealing last season. This year the fleet has been increased to about thirty vessels. Between 600 and 700 men were engaged in the industry last year, over half of whom were Indians. In addition to the schooners owned in Victoria, quite a number of United States ships market their catch there. There are both fur and hair seals.

*MINING IN BRITISH COLUMBIA.

By Andrew C. Lawson, Ph. D.

Success in the past

As a mining country, British Columbia is known to commerce and the eastern world chiefly for its placer gold and for the coal of Vancouver Island. The success which has attended these two kinds of mining in the thinly populated and undeveloped condition of the country in the past, is but an earnest of the greater success which awaits the future exploitation not only of gold and coal but of the majority of the mineral substances of value to man. The history of the Province, since attention was first drawn to it by the gold excitement of thirty years ago, shews that nearly all the exploration to which the country has been subjected, up to within very recent years, has had for its object the finding of placer gold. Other mineral deposits have been ignored and passed by as of little account, and it is only within the past five years, since the realization in fact of the vigorous railway policy of the Dominion Government that there has come into existence in the Province a class of prospectors and explorers who appreciate the value and importance of minerals other than the gold of the placers. This new movement in the exploration of the country has very naturally set in from the south, and may properly be regarded as the advance guard of the army of hardy pioneers which has already won its tribute from the Cordilleran ranges of Nevada, Idaho and Montana, and now pushes northward into Kootenay, Okanagan and Nicola, eager for fresh conquests.

The new movement in mining

Decline in placer mining

Placer mining as it has been carried on in the past, chiefly by the cradle and the shovel, is steadily shrinking in importance not only relatively to other kinds of mining, but absolutely. This fact comes out clearly from a review of the figures for the yield for any series of years. The placers of the Province have yielded in all gold to the amount of $54,697,727 since they were first worked in 1858 to the close of 1889. The maximum yield was in the feverish days of '63, for which year it approximated four millions of dollars. Since that date the annual winnings from the gravels have steadily diminished. The yield by decades for the last 30 years is as follows:—

Yield,	1859-69	$27,983,106
"	1869-79	16,332,731
"	1879-89	8,061,818

Openings for hydraulic mining

The yield for the last year was only about half a million of dollars and is the lowest yield yet recorded. To those unacquainted with the condition of the country these figures would seem to indicate an exhaustion of the placer deposits. But this is far from being the case. The mining of the last 30 years has been almost entirely the manual labor of individual miners, whose only capital was their "grub-stake" and whose plant consisted of a shovel and a cradle or half a dozen of sluice boxes. This method of working is only applicable to an extremely limited portion of the auriferous gravels which form the banks of the Fraser and other gold-yielding streams of the Province. The ground which has been actually mined forms but a small fraction of a per cent. of the gravel which it would probably pay to move by modern hydraulic appliances. It is noteworthy of the times that concomitant with the decline in the importance of placer mining in the small way by individuals and the increasing interest which is being manifested in other kinds of mining, there is considerable inquiry being made as to the possibilities of working auriferous bench lands on the large scale by hydraulic processes. There can be little doubt that there is a large and safe field for the investment of capital in this direction, and once this class of mining is fairly inaugurated it is entirely probable that the yield from the placers will far outweigh the results which have been achieved by the enterprising but slow and costly process of the past.

Search for origin of placer mining

Another feature of the wane of the placers as hitherto worked, is that the attention of prospectors is being drawn more and more to the sources

*For detailed and more extended information, the Annual Reports of the Minister of Mines for the Province and the various publications of the Dominion Geological Survey should be consulted. Much of the information contained in the present brief sketch is drawn from these sources.

from which the gold now found in the gravel, was originally mined. At present the enquiry is directed chiefly to quartz veins and is characteristic of the well known placer mining districts of Cariboo and Lillooet. It is not at all improbable, however, that this is only one of the sources of the gold of the placers and that the conglomerates of the older geological formations will, when carefully prospected be found in places to be sufficiently rich in gold to pay for stamping as is the case in the Black Hills of Dakota.

Placer Mining Districts

The principal districts of the Province where placer mining is at present carried on are:—

	YIELD FOR 1889.
CARIBOO.	
Barkerville Division	$78,542
Lightening Creek Division	41,150
Quesnelle mouth Division	37,000
Keithley Creek Division	61,200
CASSIAR	54,910
KOOTENAY.	
Western Division	12,700
Eastern "	36,300
LILLOOET	60,364
YALE.	
Osoyoos Division	10,500
Similkameen Division	5,800
	$ 428,466

Silver Mining in Kootenay.

The new prospecting and mining movement which has been referred to as setting in from the South of the Province is at present most active in the Kootenay district and has already resulted in the discovery of a great number of veins of lead-silver or copper-silver ores, many of which are undoubtedly rich and will yield large profits when mined. Mining properly speaking can scarcely be said to have begun yet in the district except in a few cases owing to the difficulties of transport which have hitherto existed. Prospecting, however, has been very active and many of the leads are well stripped and opened into: so that with the increased shipping facilities which have been established this year on the Arrow Lakes and the stretch of railway now under construction between Sproat's Landing and Nelson, it is confidently anticipated that next year will see extensive mining operations and heavy shipments of ore. The principal mining camps in the Kootenay district are *Toad Mountain* where copper-silver ores prevail; *Hot Springs* on Kootenay lake where the dominant ore is argentiferous galena, with native silver; *Hendryx*, also on Kootenay lake, and *Illecillewaet* on the Canadian Pacific Railway, the ore at the last named camp being also chiefly a galena ore. All these camps are with the new transport facilities tributary to Revelstoke on the Canadian Pacific Railway. This fact is generally recognized and has resulted in the establishment of a well equipped Smelting Works at this centre, at which a thriving young town is being built up, and is already commanding considerable attention as being prospectively one of the largest distributing, trading and manufacttring points of the interior. Nelson on Kootenay lake is another mining town which has sprung into existence on Kootenay lake and bids fair with the development of the mines to grow to a place of importance.

Iron.

The most important deposits of iron ore at present known in British Columbia are on the coast. Good qualities of magnette occur at various places on Texada Island, and at one of these, on the southwest side of the islands the ore has been mined and shipped to Irondale, on Puget Sound, where on being mixed with a local bog ore, it is smelted by the Puget Sound Iron Co. The close proximity of these deposits to the coal of Vancouver Island affords an inviting opening for the establishment of smelting works at Nanaimo or Comox. Other considerable deposits of iron ore on the coast are at Sooke on

Vancouver Island, the Queen Charlotte Islands, while, it is reported, in undermined quantities from the Walker groupe of islands, and from Rivers Inlet. In the interior of the Province iron ores are reported to have been found in the vicinity of Hope and Nicoamen on the C. P. R'y, in the Nicola and Similkamen valleys, Kamloops Lake, and on the Fraser, half way between Lytton and Lillooet. Copper ores are known to occur at a number of localities, both on the coast and at the interior. On the coast the chief occurences are on Howe Sound, Texada Island, Queen Charlotte Islands and at Sooke on Vancouver Island. In the interior the chief yield of copper will probably be from ores which are worked primarily for the precious metals which are contained in them. Copper

Lead will probably be produced in considerable quantities in connection with the silver mining in various parts of the province, particularly at Field, Illecilewaet and Kootenay Lake. Lead

Zinc is reported to occur in considerable deposits in the mountains between Howe Sound and Burrard Inlet. Zinc

Antimony ore occurs on the Fraser, between Lytton and Lillooet and other deposits are said to occur in the southern part of the Province. Antimony, etc

British Columbia is at present probably the most important source of platinum in North America. The yield for 1889 was about 1,000 ozs., taken chiefly from the Tulameen and Upper Similkameen, where it occurs in association with the placer gold. Platinum

Mercury is reported as occuring as Cinnabar on Homathco and Kicking Horse Rivers, and in the native state at Silver Peak, near Hope. It is also vaguely reported to have been found in the Lillooet district. Mercury

Among the other minerals and metals of economic interest that are known to exist in different parts of the Province may be mentioned: arsenic, molybdenum, bismuth, iron-pyrites, plumbago, nickel, asbestos, mica, nitre, bitumen, amber, and various kinds of precious stones and mineral waters. Building and ornamental materials in the shape of granite, marble, sandstone, limestone slate, and clays are abundant, especially on the coast, and both granite and sandstone are exported to United States ports. Other Minerals

In East Kootenay the localities of greatest promise as yielders of the precious metals, are in the vicinity of Field on the C. P. R'y; Carbonate Mountain, on the Columbia; Ottertail, on the C. P. R'y; Spilimichene and Jubilee Mountains; and Spilimichene river. The centre for the treatment and smelting of ores from these localities will be, for the most part, the town of Golden, where a smelter is now being erected. East Kootenay

The history of coal mining as a steady industry in British Columbia began about the same time as the placer mining. While, however, gold was mined in greatest quantity in the early days of the development of the Province and has been gradually dwindling in importance ever since, coal mining, on the other hand, began in small things and has steadily grown in importance, till to-day it is an industry of considerable proportions and a source of much wealth to the Province. Coal mining is confined entirely at present to the east side of Vancouver Island, the measures from which the coal is won being a formation of the Cretaceous which forms a narrow strip along the coast lying in a little disturbed condition on the older rocks. The coal is at a depth from the surface of 400 or 500 feet on an average and has a general dip at low angles under the waters of the Strait of Georgia so that probably much of the mining of the future will be sub-marine, as is now the case with portions of the New Vancouver colliery at Nanaimo. The principal collieries are at Nanaimo, Wellington and Comox, but coal will undoubtedly be found in paying quantity and quality in many other portions of this coast and the search for areas of coal-bearing rocks is at present one of the most inviting line of prospecting that could be engaged in. The exact extent and distribution of the Cretaceous rocks of this coast has not yet been ascertained; and a systematic search for coal measures, conducted on geological principles would probably be well rewarded. Coal Mining

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