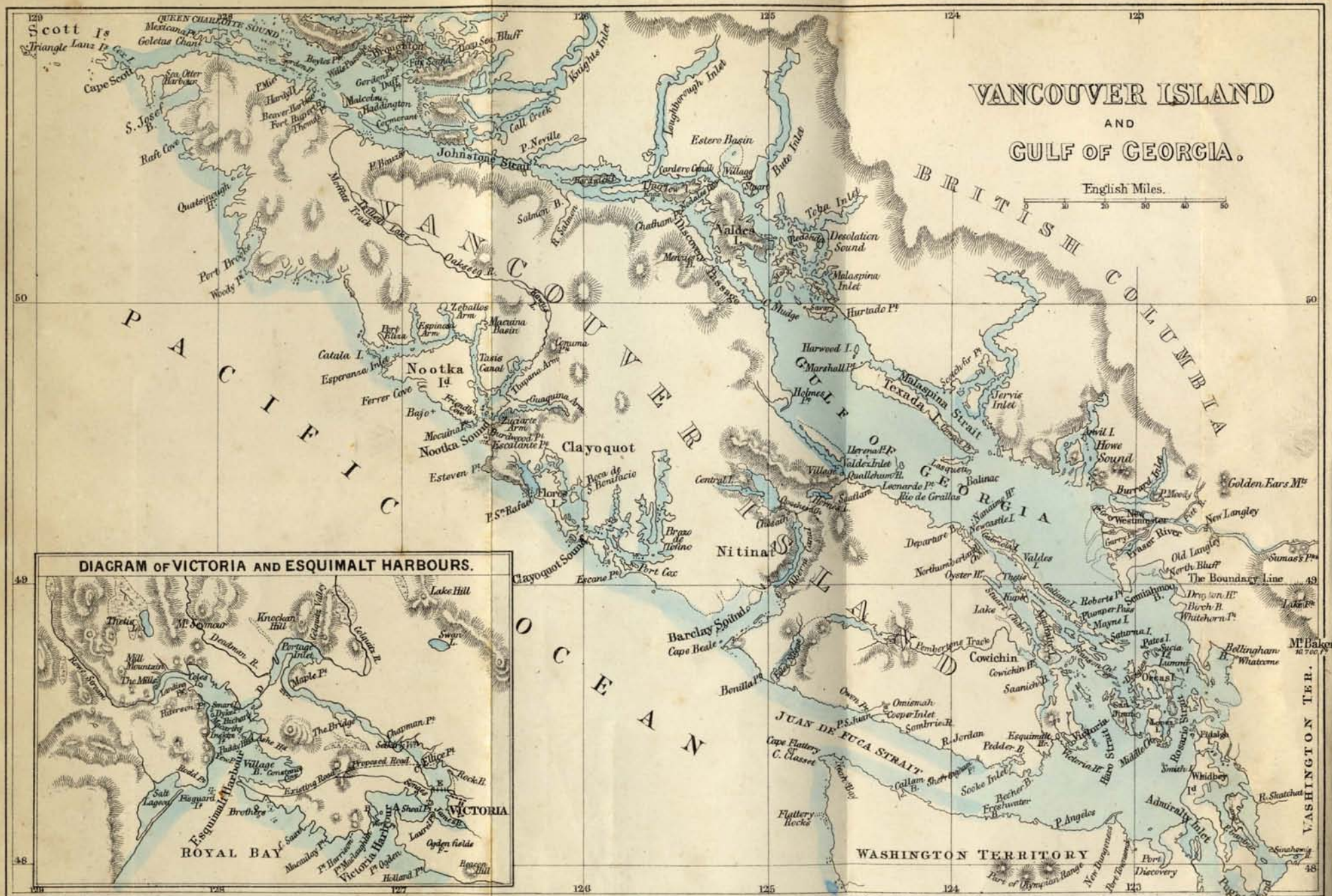


VANCOUVER ISLAND AND BRITISH COLUMBIA

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FACTS AND FIGURES

RELATING TO

VANCOUVER ISLAND AND BRITISH COLUMBIA

SHOWING

WHAT TO EXPECT AND HOW TO GET THERE

WITH ILLUSTRATIVE MAPS

BY

J. DESPARD PEMBERTON

SURVEYOR-GENERAL V. I.

"If, as I firmly believe, it is our duty to maintain our great and valuable Colonial empire, let us see that those principles are sound which we adopt in our Colonial administration" LORD JOHN RUSSELL

"I believe that much of the power and influence of this country depends upon its having large Colonial possessions in different parts of the world that by the acquisition of its Colonial dominions the nation has incurred a responsibility of the highest kind, which it is not at liberty to throw off" EARL GREY

LONDON

LONGMAN, GREEN, LONGMAN, AND ROBERTS

1860



TO
JOHN RAE, ESQ. M.D. F.R.G.S.

CORRESPONDING MEMBER OF THE GEOGRAPHICAL SOCIETY OF NEW YORK,
ETC ETC.

MY DEAR DR. RAE,

I would ask you, in glancing over the following pages, which I do myself the honour of Dedicating to you, to bear in mind, that, as the circumstances of the Colonies to which they relate will necessarily vary with every fresh discovery and Political change from year to year, and even from month to month, a studied composition would have been but labour lost.

From abundant material I have endeavoured to select facts sufficient to support the opinions expressed, the whole being so roughly put together as to constitute a mere temporary literary structure, which I hope at leisure hours in the Colonies to rebuild and reproduce in a more complete and perfect form.

I take the liberty of associating your name with the volume, not simply on account of private friendship or personal admiration, nor because you are familiar with and take a deep interest in the subject of it; but influenced in doing so by this additional motive: Arctic enterprise, in which you have taken so distinguished a part, may be said to be practically at an end; the idea revives painful recollections only,—of cold unendurable, ships abandoned, famine, and the tomb; and I had hopes of enlisting those energies, deprived of their object, but still unimpaired notwithstanding the hardships you have

undergone, in an enterprise of great national importance,—that of connecting England, *viâ* the Canadas, Red River Colony, Saskatchewan, British Columbia, and Vancouver Island, with Australia, by one unbroken chain of commercial and postal communication.

That the undertaking, large as it may sound, is far from being impracticable, will, I am persuaded, be inferred from the evidence adduced.

But it is to individual exertion and private enterprise that we must look for the realisation of the project, towards the accomplishment of which it seems certain that the interests of various classes of the community and the assistance of Governments will not be invoked in vain.

I remain, my dear Dr. Rae,

Very sincerely yours,

J. DESPARD PEMBERTON.

PARSONAGE HOUSE, KENSALL GREEN,

LONDON : *August* 20, 1860.

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FACTS AND FIGURES

RELATING TO

VANCOUVER ISLAND & BRITISH COLUMBIA.

CHAPTER I.

PRELIMINARY REMARKS.

I FEEL satisfied that neither preface nor apology are required to awaken or revive the interest felt in England on the subject to which the following pages relate ; but I think it due to the reader, before he shall have taken the trouble to read them, to say something of my object in publishing, the nature of the statements contained, and the authority on which they rest.

In my official capacity, I continue to receive verbal and written communications from a great number of persons resident in Great Britain or the Canadas, who, as intending emigrants, merchants, or capitalists, require some detailed information about the British colonies on the N. W. Pacific. To reply to these inquiries separately, and at the same time satisfactorily, is impossible, nor can I refer the querists to any existing publication containing useful, or even reliable, information.

To compensate for their scanty information on points

of practical utility, such publications usually treat at length of the discovery of America, generally by the agency of Christopher Columbus, but some, by that of John Cabot: they discuss the questions, whether Juan de Fuca was a myth or a man, and if the latter, who first verified the discovery of the strait named after him; whether this strait was the Strait of Anian, or if the latter connected Hudson's Bay with the Atlantic;—whether Perez or Cook first sighted Nootka; of the Spanish mine secretly worked at Hogg Island; the mysterious cairns of the north-west, and remains of a chimney at Neah Bay. All which questions I shall assume the reader to have already resolved to his own satisfaction; being more interesting to the historian or antiquarian, than to the practical inquirer of the present day, for whose perusal these pages are intended.

No doubt, the story of the early settlement of the north-west coast of America, with its thrilling adventures by sea and land, its brilliant discoveries and appalling disasters, its anecdotes of crafty Spaniards and unsuspecting natives, hardy trappers and reckless buccaneers, could not fail, if well told, to interest the public, and repay the publisher. This department I leave intact, intending in these pages not to trespass upon antiquity more than I can avoid, nor to revive, unless it be incidentally and where the interest is of the present time, even the more recent memories of the sagacious Mears, or the indefatigable Vancouver. The names of the early pioneers will always be heard with reverence, although wiser in their own generation than in ours, which is an age of steam and telegraph, of marvellous invention and rapid discovery. Humboldt himself, were he to live over again, would find it difficult to achieve an equal reputation by depicting

a continent, the privacy of which is invaded by our noblesse in quest of buffalo and bear tracks, where botanists search for seeds, and labourers for gold, where merchants travel, and where artists sketch.

It is my intention to use freely the published evidence of any modern witness, where such evidence is preferable to my own; so that this may, to some extent, be regarded rather as a compilation of facts than as an original treatise, in which the writer can have no other object than to supply correct information. An influx of strangers adds considerably to the work of the office under my direction; and, in addition to this consideration, I should feel much regret if, by any too highly-coloured or over-sanguine statements of mine, people were induced to undertake an unprofitable voyage.

But I had another motive in this publication—viz. that the books alluded to, in addition to containing a great amount of useless matter, not unfrequently propagate very erroneous statements with regard to these colonies. To correct these errors *seriatim* would be too tedious, and would in fact amount to writing the books over again; but I shall select, by way of example, a description of Vancouver Island by Colonel Walter Colquhoun Grant, read at the Geographical Society, and published by Mr. Routledge, bound up with some other material and a few of the admirable letters of the “Times” Correspondent. The colonel had of course no intention to convey an erroneous impression of the island, but fell into a very common mistake, that of applying to the whole island, which he did not explore or examine, a description which ought only to have been applied to a very small fraction of the island with which he was familiar. It does not answer to form opinions of any country on the *expede Herculem*

principle, and comments are futile where the ground has not been trod.

The colonel appears to have formed his opinion on a single excursion up the Sooke River. That every part of the ground he examined is quite as iniquitous as he describes the whole island to be, I can vouch. But within two miles of that river some very beautiful country has been since discovered by the Messrs. Muir. The publication says, "It is difficult to convey upon paper a correct impression of the interior, the sight of which, seen from the first eminence that he ascends, causes to the explorer a hopeless elongation of visage." No single view should have been so discouraging as this: had the explorer ascended a second hill, or perhaps a third, so agreeable might have been the prospect, as to have caused his countenance with pleasure to expand in the opposite direction. But it may be asked, how is it that some others who have seen the island have carried away a similar unfavourable impression? The answer is obvious, they have seen the island, but not explored it; they have seen from a distance the elevated rocks and hills, but have not wandered through the open lawns and rich valleys, which appear, in number and extent, to increase with every fresh addition to our knowledge of the country. To illustrate this in a familiar way: if dinner were on the table, and the arrangement looked at from a point on a level with the table-cloth, the mind would receive an impression of legs of mutton and coverdishes only, and the intervals of flowered damask would be unseen and unrecorded.

The same book abounds with absurdities like the following: "Between Fort Hope and Fort Yale, sixteen miles, the view presents no difficulties whatever to a canoe ascending—except in one place, where there is a

rapid, which, however, is no great obstacle, as, close to the shore, in the eddy, a canoe is easily towed past it ;” the fact being that the steamer “ Umatilla ” has plied between the points mentioned. And again, of certain Indians, “ they all prefer their meat putrid, and frequently keep it until it smells so strong as to be disgusting. Part of the salmon they bury underground for two or three months to putrefy, and the more it is decayed, the greater delicacy they consider it.”

I read this passage to the infinite amusement of a gentleman well acquainted with the part of the country to which it relates, and who had six times crossed the Rocky Mountains, without as much as hearing of anything of the sort.*

It is impossible to do justice to this subject, without considering with it the nature and extent of our relations, commercial or otherwise, with the Foreign States adjacent. San Francisco is at present the great centre of commerce, and holds as it were the keys of the Pacific ; despatching annually her mercantile fleet of 2000 sail, and 600,000 tons, to almost every port of importance in the world. Our principal trade is with her : Washington and Oregon supply our miners with beef and flour ; Victoria is built principally with timber from Puget Sound ; any spars of consequence that have as yet been shipped by English merchants were hewn in Admiralty Inlet ; and the only communications, postal or otherwise, to the country are by American roads or in American steamers. And if it can be at the same time shown, as I think it can, that our natural advantages are in many respects, in point of situation and products, superior to those of California,

* Dugald M'Tavish, Esq.

this consideration may tend to increased exertion, and may prompt us to enter into friendly and not unsuccessful competition, to share the commerce which San Francisco now monopolises.

Although, as I before mentioned, in point of facts produced, these pages may, in part, be regarded as a compilation, instances will occur in which I shall have occasion to express unreservedly my own opinions ; and as I write, not in an official capacity, but as a private individual, and in doing so violate no confidence, nor use any information to which the public could not have had access equally with myself, such opinions, if inconclusive or even injudicious, cannot do harm, since this hypothesis would deprive them of force, and since they are at best but the opinions of a unit of the community addressed to the mass.

The substance of some short despatches of my own, written to the secretary of the Hudson's Bay Company, I readily obtained permission from Mr. Thomas Fraser, the present secretary, to print ; extracts from them appear in the Appendix.

In venturing to impugn the policy adopted towards these colonies at their foundation, years ago, now generally accepted and become almost hereditary, I disclaim any allusion to the talented gentlemen who preside over the Colonial Department, nor have I the least ambition to identify myself with a class which exists, I presume, in most colonies, who hold that rulers at a distance are necessarily imperfectly informed. On the contrary, I would be ungrateful as well as culpable, if I did not acknowledge the kind interest, as well as the intimate knowledge of circumstances and places in these colonies, manifested by all the gentlemen of the Colonial Department with whom I have had the

honour to converse. In one respect especially they stand on vantage ground: disinterested and aloof from petty animosities and party politics, their decisions are arrived at with a judgment unbiassed, and with conscientious impartiality.

Nor can it be said that these remarks are inopportune at a time when England, counselled by statesmen of unsurpassed ability, cannot but regard with concern the continued exodus of almost the whole natural increase of Ireland * (some 70,000 or 80,000 a year) to people, not her own colonies, but to swell the millions of the states adjacent, because they hold out to the emigrant facilities so obvious and inducements so inviting, as, in the opinion of these, to neutralize the benefit of living under the flag of Great Britain; when the necessity for quicker communication with Australia and China is every day more apparent; and, when want of population has more than once led the country to the verge of war, and plainly shown that in launching this new colonial adventure upon the waters of civilisation, measures should have been at the same time taken to man the vessel with a British crew.

In conclusion, I would merely observe, that the same reason that induces me to publish,—the scantiness of our information on the colonies in question,—compels me to make the publication short. No advantage can be gained by diluting the little reliable information we possess.

* *Vide* "Times" leading article, May 3, 1860.

CHAP. II.

GENERAL APPEARANCE OF THE COUNTRY. — SALT WATER AND FRESH WATER NAVIGATION. — PROPORTION OF OPEN AND WASTE LAND. — FLORA. — FERTILITY. — PROFITS OF CULTIVATION. — STOCK. — TIMBER. — FISHERIES. — GAME. — MODE AND TERMS OF SALE OF LANDS.

General Appearance.

STEAMING for the first time eastward into the Straits of Juan de Fuca, the scene which presents itself to a stranger is exceedingly novel and interesting. On his right hand is Washington Territory, with its snowy mountain range stretching parallel to his course for sixty miles, flanked with Mount Ranier and culminating in the centre with Mount Olympus. Of these mountains the base is in some places at the coast, in others many miles from it. This range is occasionally intersected with deep and gloomy valleys, of which the Valley of Angels is the gloomiest and most remarkable; and every succession of cloud and sunshine changes the panorama. On his left is Vancouver Island, in contrast looking low, although even there as late as June some specks of snow may be detected on distant mountain tops. Straight before him is the Gulf of Georgia, studded with innumerable islands, which, to be seen to advantage, should be viewed toward evening, when, as is often the case, the sun is reflected from waters as smooth as those of an inland lake. In the background is British Columbia, and furthest of all the Cascade Range, and glittering peaks of Mount

Baker. At first sight the whole country appears to be clothed with forest, for it is not until we travel inland that we ascertain that in the lowlands the pines take frequently the form of belts, enclosing rich valleys and open prairies, lawns in which oaks and maples, not pines, predominate; marshes covered with long coarse grass, and lakes fringed with flowering shrubs, willows, and poplars. Nor is the scene in the strait wanting in animation: vessels trading with the sound, steamers, canoes filled with painted Indians, enliven the picture, to say nothing of vast numbers of waterfowl, which awaken the echoes on every side.

Navigation.

It appears far from improbable that this strait will ultimately become the great commercial thoroughfare for the commerce of the North Pacific, and that Juan de Fuca, when he discovered it 260 years ago; was right in his conjecture that he had found the north-west passage. This idea is strengthened by an examination of the ports which lay between San Francisco and the strait. That this coast line, nearly 600 miles in length, should not possess a single respectable harbour is a very remarkable fact. Of these harbours so called a sample or two will suffice. Retracing our steps, Humbolt is the first harbour of importance north of San Francisco: so still the water, it looks like an inland lake, with a country in the back ground of exceeding beauty; but the entrance is guarded by a heavy swell extending for miles along the shore, and by foam and breakers reaching far to the west. I first visited it in 1851 in the steamer "Sea-Gull;" the steamer "Preble" was a short distance in advance. The passengers, from a dislike to salt water, or to avoid risk of

being washed over, had gone below : the moment was a trying one, as an accident to the machinery must have proved fatal. Such an accident did occur to the "Preble;" she struck, became a wreck, and in what appeared but an instant, the waves seemed to overwhelm her and the spray to rise high above the funnel. I was there again in 1859, and from the elevated roof of a saw mill, in company with several other persons, witnessed a very impressive scene. A vessel had got entangled among the breakers, the crew had made every effort to wear her off the threatening shore, and stand out to sea, but the wind was insufficient. Her destruction seemed but a matter of moments; a gallant little steam tug, which had gone to the rescue, was every now and again lost to sight among the breakers. At length success was achieved, and amid cheers, which distance and the roar of waters prevented from being heard, the vessel was towed out of danger.

The entrance to the Columbia River is not a whit better; it is the terror of navigators. I crossed it but once, and then between walls of breakers; the rudder was disabled and the vessel cast away on a sand bank, luckily within the entrance, where she remained three days waiting for assistance. That the early navigators should have failed to discover rivers, however large, but with bars at the entrance such as this and the Fraser have, is not at all to be wondered at.

Of the other harbours within the 600 miles stretch of coast which I have not noticed, the traveller cannot fail to remark the absence of shipping in them. Vessels cannot remain long in roadsteads so exposed, liable as they are to be blown ashore by a westerly wind at any time springing up.

As to the commerce of the beautiful valleys of the Columbia and Willamette Rivers, it seems certain that an outlet for it will be found, by railway or otherwise, through the valley of the Cowlitz River, into Admiralty Inlet and thence by the straits into the Pacific.

In the few remarks that follow on the navigation and harbour facilities at and north of the strait, I shall avoid minute details, which those interested can find in the admirable charts and sailing directions of Captain George Henry Richards, and those of Captain Alden of the U. S. Coast Survey.

The Strait of Juan de Fuca is, on an average, eleven miles wide, and is free from sunken rocks or shoals; its direction is east and west for about seventy miles to its junction with the channels, which lead by a northerly course into the Gulf of Georgia, which separates Vancouver Island from the continent. The approach is safe for all descriptions of vessels, being liable to no other dangers than those incident to gales from the south-east, which, with considerable intervals of tranquil weather, are, in winter, not uncommon, and to fogs, or rather dense smoke arising from forests on fire in autumn. Although in the latter case soundings are a safeguard, and good anchorage can generally be found within a mile of either shore.

The facility of entering and navigating this strait has been greatly increased by the erection of lighthouses on the south shore by the United States Government, and on the north by the British. That at Cape Flattery stands 162 ft. above the sea, and in clear weather the light can be seen distinctly 20 miles off. New Dungeness is 100 ft. high, and has a fog-bell attached to the lighthouse. Besides these there are

lighthouses on Smith's Island, at Esquimalt Harbour, and Race Rock ; the last, however, is not yet lighted.

Once within the strait, on both coasts safe anchorage and good harbours are everywhere met with. On the north shore, thirteen miles east of Point Bonilla, is Port San Juan,—a spacious bay well sheltered from every winter wind. Thirty miles further inland, as it were, is Sooke Basin : perfectly land-locked, and large enough to hold a fleet, with the disadvantage that it is entered by a narrow and rather intricate channel. Four miles farther is Beecher Bay, and then come the harbours of Esquimalt and Victoria. That harbours such as these two last named should occur at the limit of sailing navigation is a very happy circumstance for these colonies. The waters of the Gulf of Georgia are well adapted for steamers, but, there, uncertain tides, and variable winds, fogs, currents, hidden dangers and detention, practically exclude sailing vessels.

Esquimalt Harbour has, we are told,* been selected by Government as the naval depôt of the Pacific : if true, a better selection could not have been made ; for, though not first class in point of size, it is capable of holding at least a dozen ships of the line, with any number of smaller vessels, while, if additional accommodation were required, the inner basin at Sooke, not far off, could readily be converted into a second Hamoaze. In point of shelter, holding ground, facility of ingress and egress, dock sites and warfage, Esquimalt Harbour is without a rival, and appears to be the natural port of entry for sailing ships which have made a long sea-voyage to either colony, and to be the proper starting-point for a line of steamers connecting with British Columbia.

* "Times," March 15, 1860.

Victoria Harbour is three miles from Esquimalt, and although it cannot compete with the latter as a naval depôt or as a port for clippers, it is far from unimportant. Ordinary merchant vessels, by attending to the tides, can readily enter, and, once within, there is ample space and depth. The main objections to it are that the entrance is rather difficult at night to find, which could be remedied by a light, and a narrow sand bar, which could be removed at small expense.

That these harbours are connected with upwards of 100,000 acres of arable land in the background is a strong recommendation to them.

To resume this question of navigation, I may mention that one peculiar advantage of the strait, as a refuge for sailing vessels, may be gathered from this consideration — that, if a ship, running from a storm in the Pacific, having entered the strait, should be baffled in her endeavours to reach the harbour or anchorages just described on the north shore, the winds preventing must be fair to take her into Neah Bay, Calum Bay, Port Angelos, or Port Townsend, on the south shore.

Next, taking a northerly course, we enter the Gulf of Georgia, having the contested group of Islands either on our right hand or on our left. Apart from questions of batteries and Whitworth guns, these islands are of no great value. They possess neither harbours nor town sites of consequence: the quantity of available land they contain is infinitesimal compared with that of either nation, adjacent and unoccupied. Destitute of fresh water streams, the fisheries in the neighbourhood are not remarkable; and since, if either nation possess these islands, they must, from their peculiar half-way position, become a thorn in the side of the American 24 per cent. tariff, it must appear to

persons who are not diplomatists astonishing that both nations did not at once decide the question by converting them into an Indian reserve, for which they are peculiarly adapted.

Having passed by this group of islands, Fraser River lies on our right hand, and Nanaimo opposite to it on the left; before us is Johnston's Strait, the narrows where tides adjust their different levels in very violent manner, and a meeting of waters occurs very different from that which Moore has so beautifully described.

The town of Nanaimo, comprising as it does some fifty or sixty buildings, steam-engines, tramways, and piers, is very picturesquely situated on the north shore of an excellent harbour, backed by a range of hills some 3000 ft. high. The river is very pretty in some places, particularly where tall maples overshadow it. In the harbour and rivers salmon abound, and excellent spars are found in the immediate neighbourhood. So great are the facilities for shipping coal, that, at any time of the year, 1000 tons a week can be removed without inconvenience.

The foregoing is interesting, since, as recently as August 25th, 1858, the Lords Commissioners of Her Majesty's Treasury laid particular stress upon the want of harbour accommodation, and of development of the coal fields of Vancouver Island; which, in the communication referred to, are assigned as their reasons for postponing the consideration of postal communication between Great Britain and these colonies.

If I were to continue to enumerate and describe the harbours and inlets on the western coasts of the continent and the island, and those of Queen Charlotte's Island, at least half a dozen, this small publication would, I fear, read like the commencement of a geo-

graphical dictionary. Enough has perhaps been said to show that the facilities for navigation in the vicinity of these colonies is unrivalled, and that there is no want of harbour accommodation.

Some, however, of the most important of the harbours omitted in the foregoing I shall have occasion to touch upon farther on incidentally.

Of those deep salt water inlets, with which the coast abounds, I may here mention two peculiarities. At the head of every one of those that I have ever visited a fresh-water stream is found. The second peculiarity is the frequency in them of gorges or contractions, through which, as the tide rises or falls, the water rushes with great violence. Some of these will, I have no doubt, be found valuable as water powers, although at present, skilled labour is too dear to make them so, and capital better expended on a steam engine. Whichever way the tide might rush, a turbine fixed in one of these gorges would work uniformly.

Having water communication still in view, and recollecting that British Columbia is heavily timbered, and no direct main roads are as yet hewn through the forest into the interior, on looking at the map we are struck by the fact that the Fraser River and the Columbia are the only avenues through which the country can be penetrated, if we except the natural passes in the Rocky Mountains.

Traversing the country diagonally from corner to corner, 1000 miles in length, in volume and velocity, Fraser River fully equals the Columbia, which it also resembles in the sand bar, occupying an area of fifty square miles at the entrance; less dangerous only because the long swell of the Pacific is interrupted by the chain of islands intercepting it. As it is, sailing

vessels constantly miss the channel and ground on it : if at high water, they are lightened to get them off ; if at low water, the rising tide sets them free. On account of the softness of the bottom, injury in such cases is seldom sustained.

For nearly a hundred miles from its entrance, as far at least as Hope, Fraser is navigable for steamers. In the middle of summer, when swollen by the melting snows of the Rocky Mountains, in which it rises, the water is highest, and the current, often six knots an hour, swiftest.

Twelve miles farther, at Yale, the rapids commence, and from that point to its junction with Thomson's River, some fifty-five miles, Fraser River presents a spectacle of exceeding grandeur, more interesting, however, to the artist than the navigator. Here, avoided by trails often thousands of feet above its level, white with foam, and impatient of confinement, the river is seen bursting through the walls of the mountain passes.

It was in order to avoid this portion of the river that the Harrison River and Lillooette route, 108 miles in length, was adopted, by which the traveller can reach a point north of the confluence of the Fraser and Thomson Rivers, by a succession of rivers, lakes, and trails, which, though rather circuitous, do not present difficulties so great as the portion of the Fraser described, the head of Harrison lake being the limit of steam navigation.

Entering the country by the Columbia, steamers take the traveller as far as the Cascades or Dalls, and thence, by the continuous valleys of the Okanagan and Similkameen Rivers, the valley of the Thomson is reached.

The interior of British Columbia is everywhere in-

tersected by natural water communications, in which respect it greatly resembles the Canadas.

Having thus taken an imperfect survey of the waters in the vicinity of the colonies, let us next take a glance at the land.

Land.

In area British Columbia, as the boundaries are at present arranged*, is about three and a half times as large as Great Britain, and Vancouver Island about half the size of Ireland. With a coast-line of 500 miles, and 400 miles in width, varying in elevation from nothing to 16,000 feet above the sea, and composed, as this country is, of lake and mountain, forest, marsh and prairie, frequently alternating; in these colonies, as might be expected, the greatest diversity of soil and climate is met with. As the latter has been justly termed the decisive condition on which the future of a country must mainly depend, I shall have occasion to discuss it pretty fully in another place; it may therefore be sufficient here to say, that in the southern portion of Vancouver Island, and in parts of valleys of the Frazer, Lillooette, Columbia, and Thomson Rivers, a climate quite as mild as that of Devonshire is indicated by birds of bright plumage, humming birds, cactuses growing in the open air, &c. While lands farther north, or in the neighbourhood of lofty mountain ranges, reproduce not unfrequently the climates of Hudson's Bay and Labrador.

* The entire extent of valuable land, eligible for immediate settlement, near the 49th parallel, extending from Red River to the Pacific, and unless by Blackfeet or Dacotahs utterly uninhabited, would in area equal half Europe.

As neither colony is as yet surveyed, it is impossible to state with accuracy the proportion that the open or available land in either colony bears to the waste : generally speaking, the tracts of land which are condemned as waste and unprofitable, are such as have not been surveyed, and exploration and settlement have invariably led to the discovery of tracts of open land where least expected. Of the land in either colony, the portion occupied (some thousands of acres out of 150 millions), is so small compared with the whole, that a considerable time must elapse before settlers arriving shall find it difficult to obtain farm sites containing a sufficient quantity of open land. In addition to this, an ample supply of timber, for building, fencing, &c., is indispensable in a farm ; and the quantity required for fuel only, is surprising.

Of Vancouver Island the southern portion only has been examined, and it is found to contain 100,000 acres of valuable farming land in the immediate vicinity of Victoria, extending to Cowichan, which again is found to contain about the same quantity of open land, which adjoins some 30,000 acres of open land at Nanaimo, and plains at intervals are found extending to Cape Mudge ; that is to say, for 150 miles measured along the coast Vancouver Island has been explored, and the capability of this portion of the island to support in affluence a large population is admitted, while a conclusion the very opposite to this is arrived at with regard to other portions of the island which have not been explored.

Similarly, in British Columbia, open plains of great extent are known to exist in the valleys of the Pitt River, the Fraser, the Similkamen, and the Thomson. At Langley and Kamloops, the Kootanie and the

Columbia, and every addition to our knowledge of the country tells favourably on the ratio in question.

The soil, where it is richest, in the river deltas, the valleys, and the plains, usually consists of black vegetable mould, six inches to three feet in depth, overlying a deep substratum of clay, gravel, or sand; it is generally covered with a luxuriant crop of fern, which is very difficult to kill and tedious to eradicate. The native grasses of the country are of a poor Alpine character, springing up early in April and dying away in September; swamp grass excepted, which supports the stock of the country in winter, but which is too coarse and woody in the fibre to fatten them. This deficiency is, however, to a great extent counterbalanced by native tares, clover, and vetches, which are, in most localities, abundant. The open grounds, also, grow berries of many kinds, and roots, such as onions, kamass, &c., on which the Indian, to a great extent, subsists.

In many places the wild flowers of England, and the common garden flowers, such as lilies, lupins, orchids, &c., occur in profusion, and blossoming shrubs of infinite variety. All that is known of the Flora is derived from a few specimens, not a dozen, collected by Menzies years ago; but as soon as sufficient time shall have elapsed to have examined the beautiful collection of Dr. Lyall, and those of Captain Palliser and Mr. Jeffrey, a cheap work on the Flora of the whole of the British Possessions in North America, from the able pen of Sir William Hooker, is expected. Sir William writes: "The botany of the coasts is, no doubt, very similar to that of the main land and valley of the Columbia, pretty fully described in the *Flora Boreali Americana*. It is on the mountains and the west coast that a difference will be found."

While mentioning shrubs, could not the north-west tea plant, which covers whole swamps, be turned to account?—the leaf resembles tea, the flavour not bad, and the effect exhilarating. Some years ago the Hudson's Bay Company imported a cargo, but it was stopped at the custom-house and, to avoid duty, thrown overboard; but if the plant is quite distinct from the real tea plant, it is possible that the customs could not have prevented its introduction free of duty.

To the swamps we are also indebted for the cranberry, which, for preserves, is fast becoming an article of export, principally to San Francisco.

I have omitted to mention strawberries, raspberries of three kinds, sallal, bearberries, similar to those of Scotland, blueberries, native currants and gooseberries, &c., as indigenous; important inasmuch as they add to the many points of similarity which strike us on comparing these colonies with home.

The fertility of the soil in the neighbourhood of the gold-bearing rocks is very remarkable, and is indicated rather by the production from ordinary seed of gigantic roots, and vegetables, and fruits, than by crops of grain.

Turnips as large as hassocks, radishes as large as beets or mangolds, and bushels of potatoes to a single stalk, are nothing astonishing. It is the same all along the coast as far south as San Francisco, where, at their agricultural exhibition, pumpkins 200 lbs., to 250 lbs., and a squash weighing 400 lbs. have been exhibited. At the house of an ex-consul at San Francisco I have seen Oregon pears, to demolish one of which required the united effort of five guests; the apples being large in proportion. These monsters are not usually wanting either in flavour or solidity: although I must confess my own opinion is that almost everything, in a new

country, is wanting in intensity compared with England. It is certain, for instance, that the game is not so juicy, that the flowers do not smell so sweetly, that the birds do not sing so well, and even the sting of the wasp is more quickly forgotten. Oregon apples and pears are in great demand in San Francisco, because they keep better the farther north they are grown. The Americans are an apple-loving people, and their consumption of them is astonishing. The British colonies are too far north to compete with the vineyards of Los Angeles, or the peaches of Obispo, but they may reasonably expect to assist Washington and Oregon in supplying the south with English fruits. Orchards in the colonies will be very remunerative. Those in Oregon have the disadvantage of being situated in the centre of the state, and fruit has to be carried to the Willamette River, and thence by steamers from Portland.

An acre of land planted with 200 apple trees, would, at the end of three years, on a minute calculation, cost a proprietor 30*l.* to 40*l.*, and the lowest selling price on the coast, of an acre of apple trees of that age, is 200*l.* The intermediate trees are chopped out with an axe as the orchard becomes too crowded.

Hops grow well in the country, and a brewery on a large scale would pay well, as any one interested may satisfy himself, by noticing the cargoes of bottled ale and stout sent from England to that coast. Native hemp (*Ortica canabina*) grows wild in many places, particularly round the Indian lodges. Some of the fibre was sent to H. M.'s dockyards, and was there tested and pronounced quite equal to Russian. I should not think that to cultivate it would pay as well as to grow common crops, such as wheat, oats, barley; but it

might pay well to trade it from the Indians at the proper season, and export to England the raw material, as the experiment above mentioned is sufficient to show that it is not deteriorated by the voyage.

It has been somewhere stated, by Sir Charles Lyell, that volcanic rocks produce, by their disintegration, a remarkably fertile soil : that their component ingredients, silica, alumina, lime, potash, iron, and the rest, are in the proportions best adapted for vegetation, which may in part account for the extraordinary productiveness mentioned : and we may reasonably doubt whether the sandstone districts will be found to produce results so unexpected. The same idea is repeated in the "British Quarterly" of 1851, which speaks of the facility with which volcanic rocks lend themselves to cultivation and to the natural growth of vegetation ; and adds, that perhaps no parts of the world are more richly cultivated or support a larger population than the neighbourhoods of Vesuvius and *Ætna*. Now, it will be recollected that the general character of the rocks in these colonies is igneous or volcanic. On the Columbia, I was much struck by the appearance of occasional basaltic masses, crowning some eminence above the river, rising above the forest, and at the moment, from their columnal structure and time-worn look, suggesting some ancient stronghold on the Rhine. Mount Baker is occasionally active : in 1853, I noticed, in company with others, a beautiful sheet of flame issuing from its summit, and this may perhaps account for sounds, too loud for the crash of falling timber, occasionally heard by travellers in the Rocky Mountains, and for plains, the surfaces of which are covered with small stones, differing widely from those immediately underneath.

The profits arising from the cultivation of grain crops and grasses are far from inconsiderable.

Open grass lands can of course be ploughed up at once, and a crop obtained. Fern lands require to be ploughed in the heat of summer, in order, by fermentation, to kill the fern, and to destroy, by exposure, bulbous roots, such as crocuses, kamass, &c., for which purpose pigs make admirable pioneers. To clear pine lands is not very difficult, being very resinous they burn up readily, and are easily overturned, as the roots do not descend but creep along the ground; in which respect, these trees stand like pawns upon a chess-board. Oak is more difficult to eradicate, as the roots go straight down. Marsh lands are usually easily drained, and reclaimed by burning them up in summer; these lands afterwards produce the best crops. The cost of clearing an acre of timbered land may be taken at 8*l.*; of the other descriptions less, varying with the locality. An acre of land produces from twenty to forty bushels of wheat, or a corresponding quantity of oats or barley, and continues to do so for some years without manure before it is exhausted; hitherto, wheat has sold in the colony at 8*s.* the bushel, oats at 6*s.* Hay pays remarkably well, varying in price during the year from 8*l.* to 16*l.*, or more, per ton.

For meat and vegetables the miners and the British fleet, which are supplied by public contract, afford a ready market. Indians everywhere grow potatoes, and carrots as far north as Queen Charlotte's Island; their plan is to repeat the crop until the ground is exhausted, and then to clear some more. The potatoes are excellent; and potatoes and salmon their standing dish. Meat in the colony is dear, 1*s.* to 15*d.* per lb., which to the consumer is counterbalanced by the remarkably

low price of teas, wine, spirits, and cigars ; in consequence of Victoria being a free port.

Stock.

Of stock, every variety, good, bad, and indifferent, can be procured on the coast.

The American horned cattle are particularly fine, and numbers of Durhams and Devons have been imported to San Francisco ; the Spanish cattle, which are the most numerous, are smaller, and very like the Guernseys at home.

The California sheep are hairy-looking animals, with long horns and long legs ; but they have lately begun to improve the breed by importing merinos and South-Downs, principally from Vancouver Island, where the best breeds are abundant.

The native horses of the country make admirable saddle hacks, and are most enduring, but have a singular repugnance to draught. The carriage horse is constantly met with. In addition to these, California can boast of a breed of racehorses of English origin, thoroughbred or nearly so, and of great bone and sinew ; they seldom run their best horses for less than four mile heats, a part of which, it is said, will be done at one minute and fifty seconds the mile * ; the original stock of these horses was taken at different times across the isthmus, which, from New York, costs from 75*l.* to 100*l.* ; and taking into account how natural to the horse the climate on the Pacific is, and how well adapted to his development such a sod as that which overspreads the valleys of Santa Clara and San

* This may be true. The Derby of 1860 was, I think, run at the rate of 1' 57" the mile ; but the horses alluded to in the text are aged. See Appendix, page 162.

José is, I shall not be surprised if, at no distant period, California should produce the finest racehorses in the world.

Horses of the character of the English dray horse, Clydesdale, or the Suffolk Punch, have not yet reached the country.

To have attempted a minute description of an area so extended as that embraced by these colonies, would have exceeded the limits of this publication. To compensate for this deficiency I propose, in the Appendix, from the unpublished journals of myself or others, to give the results of some recent explorations; merely premising that in no case ought one scrap of a country to be regarded as a specimen of the whole, any more than Wales is a sample of England, or the Wicklow hills of the open plains of Meath or Tipperary.

Timber.

The largest trees yet discovered on the Pacific coast resemble cedar, but are of the cypress kind; they are found at Mariposa and Calaveras, and measure upwards of 30 feet in diameter, and nearly 400 feet in height. No pines have been met with as large as these. Near Humboldt I noticed a forest of firs (which resembled the Douglas, but had smaller foliage and cones), in which a diameter of from 14 to 15 feet, and a corresponding height, was not uncommon. A few trees of the Douglas kind, of similar size, are found on the banks of the Columbia. In the British colonies, trees exceeding 9 or 10 feet in diameter, and 270 or 300 feet in height, are rarely met with. In the very large trees, alluded to as being found south of 49°, the annual rings are large and soft, and the timber comparatively weak.

In this respect, the timber north of 49°, being of more moderate dimensions, has decidedly an advantage. There the Douglas fir, which, with the silver fir (*grandis*), is the most abundant on the coast, will, I should think, prove, on being properly tested, to be the strongest fir or pine in existence. Broken in a gale, the stem is splintered to a height of 20 feet at least : and when being hewn down, it is astonishing to observe how small a portion of the trunk will withstand the leverage of the whole tree. On account of the quantity of resin it contains, the timber is exceedingly durable. The bark resembles cork, is often 8 or 9 inches thick, and makes a capital fire. H.M.S. *Thetis*, was sparred with it, — I am not aware with what result. If the wood is not too heavy, I should think it will make the best spars in the service. On the banks of Nitinat Inlet and elsewhere, forests of the Menzies pine occur, very suitable in point of size for first-class spars ; this wood appears to work beautifully. Hemlock spruce (*Canadensis*), from which laths are made, is very common. The banks of the Columbia, near Colville, appear to grow *ponderosa* almost exclusively. A small pine (*inops*), a portion of the bark of which Indians eat, is constantly met with near water, whether in the lowest swamps, or basins on mountain-tops. The Weymouth pine (*Strobus*) is common every where. The *P. Nootkatensis* I have not met with. These are but a few of the firs or pines which are generally met with. A series of experiments to test their physical properties has been commenced, but is as yet too incomplete for publication.

Although spar timber is common everywhere, the trees grow larger and straighter in the still valleys bordering on the Gulf of Georgia, than where more exposed on the coast.

There are two occasions on which touring in a pine forest is far from entertaining : viz. in a storm, when tree after tree, with a noise like thunder, comes crashing to the ground ; and secondly, when the forest is on fire. It is difficult to conceive anything more dismal than the appearance of charred and branchless forests where fires have swept. It is not uncommon in autumn, to see the country in this way illuminated by a blaze extending for miles in every direction.

Of oak there are two kinds ; the timber is weak, and the trees usually show symptoms of decay.

If curled maple is in England valuable for furniture, as I am told it is, it may be of service to some one to know, that it grows in abundance on the banks of the rivers in these colonies.

The trunks of the arbutus grow very large, and the wood in colour and texture so much resembles box, that for many purposes it might supply the uses of the latter. It is, however, specifically lighter.

The country also produces cedar or rather cypress (*Cupressus thyoides*), juniper, yew, birch, poplar, sorbis, &c., but I never noticed ash, beech, or elm.

Fisheries.

Situated as these colonies are, within the limits of the whaling grounds, they are certain, when a little more advanced, to become the resort of that portion at least of whalers which follows the right whale north of forty-five degrees. At present the whaling fleet, several hundred in number, pass by Victoria, since it has no dock to offer them, no certainty of supplies of provisions or tackle, nor facilities to repair them, and refit or winter at the Port of Honolulu. A few of them find

their way to San Francisco ; but there supplies are too expensive, and port charges and pilotage too high, to entice any number of them from wintering at Oahu.

Of small fish, salmon in millions ascend the rivers ; the most valuable is that which is taken from the middle of April to the end of July : this is succeeded by a small eight pounds salmon, which is taken from June to August. The next is a large white salmon. These three kinds are usually taken in main streams or in large lakes. Besides these there are the striped salmon, the hunchback, the hook-nose, and salmon trout in infinite variety. So dense are the shoals of salmon that ascend these rivers, that they can often be taken with a strong hook tied to a stick. The Indian lets his canoe float down the stream, and with a small landing net lifts them in. From the banks, the bear secures as many as he requires with his paws. None ever return ; they spawn, the waters receding leave them in the bushes, and the banks are covered with the dead. They are found of all weights, up to fifty pounds. In flavour the best kinds are equal to those of Europe, and in richness superior ; the other kinds are not so good. They can be taken with bait in salt water, but not in the rivers. As the coast Indians live on them, they catch them in a great variety of ways ; in weirs variously and ingeniously constructed, in baskets fixed to receive them where they leap. In shallow water they spear them, and in deep decoy them to the surface. I have also seen a whole camp of Indians occupied stoning them in shallow water.

Sturgeon, often of enormous size, are found in abundance on the sand bars at the entrance of the rivers. Soup made from them is rich, and resembles turtle. Isinglass is, of course, a drug in the market.

Besides the above, the waters abound with halibut, cod, skate, flounders, herrings, dog fish, and others too numerous to recollect.

Large cray fish are found, but not lobsters ; oysters are abundant.

Game.

Foremost among the inducements to the middle classes to emigrate to these colonies is the consideration that they can there enjoy many recreations, such as horse exercise, shooting, fishing, &c., which at home are attended with so much expense.

All the pleasures that can be derived from renting a moor or owning a deer park in Scotland, from supporting gamekeepers, resisting poachers, or incurring licences, from tipping whips, or feeing ostlers, are trivial compared with the sport within the reach of a settler with moderate means on the Pacific Coast ; to say nothing of game being there, in an economical point of view, a very important item.

For simplification sake, let us omit the buffalo as too distant, grizzlies or brown bears as too fierce, and mountain goats and sheep, as too wild and inaccessible in their retreats among the mountains.

If large game is an attraction, elk, the size of a Kerry cow, can readily be met with on the coast. Keeping to windward of them, they are not difficult to approach ; and once within the band, and a shot fired, they become confused, and an easy prey to the hunter. The antlers are five feet or so in width, and weigh upwards of thirty pounds ; the meat is excellent. Like all the deer tribe, they are found in winter in valleys near the coast, and in the heat of summer prefer central lakes and hill-tops, where they can catch the

breeze, and avoid the flies, which would otherwise torment them.

Deer, being capital swimmers, prefer the groups of small islands to the mainland, and a party of half a dozen hunters will, after an absence of a fortnight or three weeks, occasionally bring back to Victoria as many as thirty or forty, weighing 100lbs. to 150lbs. each. The Indians snare them in pitfalls, and kill them in traps. But the slaughter is greatest in snow crusted over with ice, strong enough to bear a man, but which the pointed foot of the deer, aided by its spring, too readily penetrates, and the animal is soon overtaken. The venison is seldom so good as that of the parks in England.

The black bear too is easily met with, and is never known to attack till wounded, or in defence of cubs ; some are very large. If young, the flesh is excellent, but rather too like pork ; but old bear is tough, and the strong smell, which no amount of cooking can neutralise, is far from enticing. They are generally seen where berries are abundant, or among charred stumps of their own colour, and usually stand up to look at an intruder before decamping, presenting a capital mark to fire at. They are difficult to kill, and even when shot through the heart, are active for some time after.

To see one of these animals steeple-chasing over the fallen timber of the forest, or spring up a tree in its native state, it is difficult to conceive its being similar to that we have seen so tame and spiritless in the menagerie, and conclude that there, though the body was living, "the heart must have been dead."

The Puma, formidable as it looks, is far from courageous ; it will dart up a tree from the smallest dog.

To sheep it is very destructive ; once within the fold it seizes them successively by the throat and rapidly sucks the blood ; even a man would be in danger if asleep in the vicinity of one.

The wolves are of different colours, and larger than a Newfoundland dog ; they are excessively shy.

To meet with any large game the sportsman has now, as might be expected, to go several miles from the settlement. His equipment for this purpose should consist of a double rifle with one sight, adjusted for point blank shooting only, with strong charge, up to 100 yards, a hunting knife, and ammunition, an oil skin and blanket, and an Indian or two to carry the game and keep the track, retracing, if required, in which department they excel. Dogs, unless remarkably well trained, are better dispensed with.

Of feathered game the duck-shooting is decidedly the best sport upon the coast. Of these there are fifteen or more different kinds ; the best are found at river deltas and in swamps, where, as you walk, they continue to rise straight up, often at the sportsman's feet. Away from the settlement a good shot has killed thirty and forty in a day. A good retriever is indispensable, and I may add that there is nothing like an Eley cartridge and large bore for taking them down.

Geese of several sorts are also abundant, so much so that in places I have seen Indian boys stalk and kill them with bows and arrows. At night too they sometimes steal upon a flock, rushlight in hand, and wring the necks of a considerable number. But the greatest numbers of wild fowl are killed in this curious way : The Indians observe the path in air, at the entrance of a river or elsewhere, through which dense flocks of wild fowl pass. While the birds are at rest

or feeding, a net is fixed vertically at the proper level, being attached to poles planted some hundreds of feet apart. The birds are suddenly startled, and fly against the net with such rapidity, that they fall stupefied, and are easily clubbed by Indians, who rush upon them from an ambush close by. A punt gun and swivel, with which to supply the market, would, even as a speculation, succeed.

Swans are very wary and difficult to bag; they are found sometimes on the lakes, sometimes on salt water. At the head of Alberni canal I saw five together.

The coast shooting has this great advantage over the grouse shooting, that the inconvenience of struggling through the bush is avoided.

The dusky grouse is large, two and a half pounds weight, sits all day drumming in a pine top or cleft in a rock, and at night and morning comes down to feed.

The willow grouse is smaller, of a brown colour, and is generally found in the neighbourhood of water.

Both are scarce near the settlements, being very easily shot, as if missed on rising, they settle in the nearest tree. Of either, even far from the settlement, it is difficult to bag more than five to ten brace. A good pointer is indispensable, as they lie very close. Snipe, on the contrary, increase with cultivation; in one field I put up forty or fifty. Besides the above, tall, buff cranes, standing four or five feet high, are stalked in the plains, and make good soup.

It is interesting to observe the rapid increase of small birds near the settlements in proportion as birds of prey, such as eagles, hawks, kites, &c., are scared away. In this way flocks of wild pigeons, doves of two kinds, three varieties of thrush, meadow larks, several kinds of sparrows, wrens, humming-birds, tom-

tits, and a bird that sings at night, evidently prefer quarters near a homestead to a precarious subsistence in the wilderness.

Mode and Terms of Sale of Lands.

As it is highly probable that the enactments and regulations under which lands are, in Vancouver Island, obtainable, will very shortly be assimilated to those of British Columbia, it will be sufficient here to detail the very liberal land arrangements adopted in the latter colony in January last.

By this law, any British subject may acquire 160 acres of unoccupied land, in anticipation of survey, in any part of British Columbia: excepting only such portions as are reserved by Government for public purposes, such as town sites, Indian reserves, or as may be required for mining. To acquire a good, inalienable claim to a perfect title, it is only necessary for the claimant to take possession as soon as he makes his selection, reporting the fact in writing to the nearest magistrate, with a description of the boundaries. On taking possession, he pays nothing for the land, but has to pay a small fee for recording the claim. When the land shall have been surveyed by the Government, the claimant or his heirs acquire a title from Government, on payment of a sum not to exceed 10s. per acre, but which it is expected will be reduced to 5s. per acre. This will of course depend on the decision of the Imperial Government.

With a view to encourage improvement, a person in possession can sell his land as soon as he shall have effected improvements to the value of 10s. per acre; this condition complied with, he can pass a good title

to the purchaser. The claimant can, in addition to the 160 acres so acquired, purchase at any time any additional quantity of land he pleases, at a price not exceeding 10s. an acre, of which 5s. per acre is paid down, and the rest at the time of survey, if demanded. As a considerable time must elapse before these lands can be surveyed, persons taking up land promptly, may be years in possession before they are called upon for payment.

Land so taken up and afterwards abandoned, may be claimed and taken up by any other person on the original terms, even if improved by the first occupant.

Persons so occupying land have the same legal remedies of action of ejectment and trespass against intruders, as if they had paid for the land and obtained an indenture.

Questions of boundaries or disputes with neighbours, are referred to the nearest magistrate to be disposed of in a summary way, but with an appeal to the higher courts.

The law gives to aliens, who shall take the oath of allegiance, the same rights and privileges as to British subjects.

Acquiring land in this way, previous to paying for it, is technically called pre-empting. This system was first adopted in America, some twenty years ago, nominally as a "relief law," in order to justify certain cases of occupation on a large scale, without previous permission, of federal lands. In more than one sense it was a relief law, inasmuch as it relieved the Government of what would have been otherwise a source of considerable embarrassment.

Sale of land is after all only the levying of a direct and immediate tax on one class of the population : and it was soon found, that by removing as far as possible

this, and every other impediment and restriction tending to retard the settlement of the country, the revenue was in reality increased by the influx of a taxable population. It was also argued, that the advantages and profits arising from the first settlement of a new country, ought to be enjoyed by the early settlers ; that they have peculiar hardships and privations to undergo, especial dangers and labours to encounter, and, therefore, that to these the law ought not to contemplate any competition, except from other actual settlers in selecting the most fertile lands and the choicest spots. Such was the basis of the American Act of September 4th, 1841, which, by several subsequent statutes, they have brought into perfect working order. It was no longer considered necessary to hold colonial lands, to a certain extent, in trust, to benefit the future redundant population of the country—generations yet unborn—and it was concluded that posterity should take care of itself.

The act which refers to British Columbia, is inserted in the Appendix, and objections taken to portions of it, which will require re-modelling before the whole can be brought into working order ; but these are trifles compared with the wisdom of the measure itself, and the spirit of extreme liberality in which it is conceived ; and it is to be hoped that the press will assist in promulgating it for the information of farmers possessed of moderate capital, and therefore but moderate profits in Great Britain.

CHAP. III.

MINERALS AND ROCKS. — GOLD IN BRITISH COLUMBIA, VANCOUVER ISLAND, AND QUEEN CHARLOTTE'S ISLAND. — COAL ON THE PACIFIC. — IRON. — COPPER. — PLUMBAGO. — LIMESTONE. — SANDSTONE. — MARBLE, AND VARIOUS COLOURED EARTHS. — SALT SPRINGS, &c.

THE wide distribution of gold in British Columbia is very striking: traversing the country diagonally from north to south, the Fraser River everywhere passes through a gold country. The same may be said of Thomson's River, and of the Columbia north of 49° . A glance at the map shows the aggregate length of these rivers to be much more than 1000 miles. As a rule, the gold is found in much smaller particles, and less in quantity nearer the mouths of these rivers, and both size and quantity increase as we ascend them. At Colville, for instance, gold is found in almost any part of the surrounding country, but not quite coarse enough to pay for working. In the neighbourhood of Fort Thomson, Shouswap and Kamloops Lakes, gold in quantity was first discovered and reported by Indians. For a considerable time Yale was the centre of attraction, afterwards Bridge River and the forks: but the vicinity of Fort George and Fort Alexandria, and the slopes of the mountain range in which the Quesnel River rises, are now found to contain, in the greatest quantity, the coarsest gold.

As to the produce of the country in this respect, and the success that an intending emigrant miner may fairly be led to anticipate, I take the liberty to denounce in the strongest terms, as unfair and calcu-

lated to mislead, the manner in which this part of the subject is treated in most books written on gold countries; which, if I were to follow, I should commence by enumerating the several successes of Brown, Jones, and Robinson; tell how Peter's eyes sparkled while he picked "a pocket" in a rock, and how in a valley exceeding in grandeur anything he had met before, Jenkins washed out so many cents to the pan. I could, without any sacrifice of truth, produce instances of several persons who realised, during a mining season, some 400*l.* or 500*l.* each, but unless I also recorded many a sad instance of failure, of constitutions ruined, and disappointed expectation, the induction would be useless, a wrong impression conveyed, and the exceedingly precarious nature of mining as an avocation lost sight of, ending with the disappointment of the inexperienced and the sanguine.

This remark will perhaps apply with greater force to British Columbia than to any other known gold country. Gold mining is laborious everywhere, but there, owing to the want of main lines of road, the labour is greatly increased. Sometimes, with the tracking line passed across his shoulders, the miner drags his boat or canoe against a swift current, often wading up to his waist in water. At other times we meet him toiling up some very rugged hill with a month's provisions on his back. And what has been the result? Since mining began in British Columbia in 1858, the miner's average earnings have not exceeded 100*l.* or so a-year, while the cost of living is at least 60*l.* a-year. An intending emigrant should dismiss from his mind any instances of extraordinary successes he may have heard of. Suppose he has become accidentally acquainted with an authenticated case of a

man making five or ten times more than the average in a season, such an instance only argues 5 or 10 to 1 against his (the intending emigrant) realising anything.

In 1858 the greatest monthly shipment of gold from British Columbia was \$235,000 and the least was about \$6000, and the total product of the gold mines for that year was estimated at \$1,494,211 (*vide* Gazette, April 19th, 1859). From data before me I believe the amount mined in 1859 to have been about \$2,000,000; but to be moderate, assume the product of the two years at \$3,000,000; the number of miners actually at work at any time in the country cannot have exceeded 3000, as the mining licences show (Gazette, June 9th, 1859, estimates them at 2000); which gives the miner's average annual earning at 100%, as I before stated.

In California the average earnings are about half as much, but the country is open and accessible, and therefore the means of living and creature-comforts much more plentiful, which leads the miner to prefer it far to British Columbia, notwithstanding the higher pay in the latter.

To make this clear, I estimate the working miners of California now at 200,000, and shall give the data on which I do so. The "Price Current" of December 31st, 1854, when the population of California was, in round numbers, 300,000, estimated the number of miners then in the State at 80,000 to 100,000; since then the population of the State has been increased chiefly by immigration, at the rate of 30,000 to 40,000 per annum, principally from the labouring classes, and is now not far short of 600,000, two-thirds * of whom are

* The *New York Herald*, copied by *Morning Chronicle*, March 5th, 1860, makes the population of California exceed a million,—a manifest exaggeration.

estimated by Mr. Greeley to be able-bodied men.* On these grounds I am safe in putting down the number of miners as above stated.

The yield of these mines is now, with tolerable regularity, \$50,000,000 annually ; and this will show that the British Columbia gold fields, however inaccessible, are twice as profitable to the miner, as the California gold fields are.

In stating the average of the latter, as I have done, at 50% per man per annum, it may be objected, that they cannot live, finding tools, quicksilver, mules, clothes, &c., on so little : to this I reply that 40,000 or 50,000 of their number realise a mere subsistence from mining, and are therefore ready, on the vaguest rumour and the shortest notice, to start for Victoria, Denver, Sonora, or the south, with a view to participate in the profits of any enterprise that may offer.

The surface diggings of California are now considerably exhausted, and the yield of the mines less by nearly \$9,000,000, than it was in 1853, while the population has been all along rapidly increasing. Additional force is given to the statement that the surface mines are partially exhausted, by the fact, that while the annual yield of gold is on the decline, quartz mills are now numerous, and quartz companies far more successful than heretofore.

The editor of the *New York Tribune* seemed to suspect this, when in 1859 he wrote as follows :—

“ I do not suppose that the gold mines of California will ever be thoroughly worked out ; certainly not in the next thousand years. Yet I do not anticipate any considerable increase in the annual production, because I deem \$50,000,000 per annum as much as can be

* Overland Journey. New York, 1860, p. 355.

taken out at a profit under existing circumstances. The early miners of California reaped what nature had been quietly saving through countless thousands of years. Through the action of frost and fire, growth and decay, air and water, she had been slowly wearing down the primitive rocks in which the gold was originally deposited, washing away the lighter matter, and concentrating the gold thus gleaned from cubic miles of stubborn quartz and granite, into a few cubic feet of earth at the bottom of her water courses. Many a miner has thus taken out in a day, gold which could not in weeks have been extracted from the rocks where it first grew. The hills in which it is now mainly found, can be washed down at a dollar or less per cubic yard, by the best hydraulic appliances; but when the miner is brought face to face with the rough granite the case is bravely altered."

SHIPMENTS OF CALIFORNIAN GOLD.

		\$			\$		
1851	.	.	34,492,000	1856	.	.	50,697,434
1852	.	.	45,779,000	1857	.	.	47,215,398
1853	.	.	54,935,000	1858	.	.	46,503,632
1854	.	.	50,973,968	1859	.	.	45,989,890
1855	.	.	45,182,631				

POPULATION OF CALIFORNIA.

1850	.	.	92,597	1854—55	.	300,000
1852	.	.	264,435	1859—60	.	600,000

If in California ten or twelve years has so considerably reduced the profits of surface mining, we may expect in British Columbia, within a like period, a similar result.

The surface gold is the great inducement to the labourer to come to the country; it requires a capitalist to work in quartz.

In California, farms to supply the surface diggers

became with them concurrently established, and the population took immediate root in the country, which was naturally open, fertile, and unimpeded.

In British Columbia we have the diggers, but owing to the want of natural or made roads, and the country being heavily timbered and rough, we see as yet no farming population.

Admitting the exhaustibility of the surface gold * which I have shown above, the earliest efforts of legislation ought to be to plant a farming population in the country to keep pace with and supply the miners.

Miners themselves seldom take to farming, for this their tastes are usually too speculative, extravagant, and nomadic.

To the statesman, the existence of surface gold presents a grand opportunity to settle a wild country, but on account of its extreme exhaustibility, from the time of its discovery, like the Sibyl's offer, the chance is ever on the wane.

When, in 1858, some 35,000 San Franciscan miners visited Victoria and as hastily returned, the circumstance of their non-detention was by many, especially by the local newspapers, considered as the greatest misfortune that could befall the country. Had the country been previously adapted by open communication, cheap land, &c., to invite with them a British farming population, this impression might have been a correct one; but, hitherto, the mines of British Columbia have been worked simply for the benefit of the merchants and shipowners of San Francisco, and I cannot think that, under the circumstances, Great Britain or the colonies have lost much by the exodus so much regretted.

* Hill's Bar, for instance, washed out.

The foregoing facts show clearly that the produce of the mines of British Columbia, compared with the population hitherto at work at them, has been highly satisfactory, and is indeed conclusive as to their richness ; but lest the smallness of the gross amount, compared with the produce of gold countries long established, should create an erroneous impression, I add the following remarks, taken from Mr. Waddington's able pamphlet on this subject : —

“The official exports (of gold) from California to the Eastern States in 1849, comprehending a lapse of more than six months from the first discovery of gold, amounted only to \$60,000. It is possible that as much more was sent to Chili and the Sandwich Islands, and we will suppose the same amount to have been taken away by private hands, though the opportunities at that time were few and far between. To the above we may add \$60,000 for what remained in the country, and we shall reach a total of \$240,000 for the production of California during the first six months. To make another comparison :—all the gold brought to Melbourne in 1834 amounted to 104,154 oz., or, at sixteen dollars per oz., \$1,666,464 ; whilst New South Wales, which is now so productive, gave, for the first six months of 1846, only 45,190 oz., or \$725,000.”

In Vancouver Island, although gold has in one or two places been actually worked, it has not yet been found in sufficient quantity to repay the cost of mining.

In 1852, I broke off almost at random pieces of rock in various places within a walk of Victoria, and the report on them by Mr. James Tennant (*vide* Appendix), of the Strand, will be read with interest, enumerating as it does the geological formations usually met with in the south-eastern portion of the Island, and showing that it is extremely probable that Van-

couver Island, when properly explored, will be found a gold-producing country.

Gold was known to exist in Queen Charlotte's Island as far back as 1852; when, in consequence of information obtained from Indians, the agents of the Hudson's Bay Company despatched the *Una* to the Island with a party of miners, drafted from the coal mines, well provisioned, and provided with every requisite to blast on a large scale.

Anchored in Mitchell Harbour, on the western side of the Island, a valuable quartz vein was soon discovered. It was seven inches wide, was traced for eighty feet, and contained twenty-five per cent. of gold in many places. For several days the vein was worked with but one bar to their success, and that a serious one. At every blast, the natives scrambled with the miners and with one another for the fragments. As neither side was armed, these arrangements were conducted with perfect good humour. By way of episode to the general engagements, both parties occasionally paused to witness a fair wrestling match between some sturdy Scotchman who had the science and any Indian that was ambitious to distinguish himself; and the miners themselves afterwards admitted that nakedness and fish oil often carried the day. At length the vein was abandoned, anchor weighed, and the *Una* wrecked and burnt on her way back to Victoria. The heaviest specimens of pure gold as yet obtained from Queen Charlotte's Island, weighed from fourteen to sixteen ounces. (*Vide* Appendix.)

Coal on the Pacific.

The consumption of coal at the Pacific is enormous, perhaps 200,000 tons a year. San Francisco alone, in

1859, imported 79,722 tons, and the quantity consumed that year amounted to 69,258 tons. In connection with the Panama Railway (on both sides), some seventy steamers ply, the combined tonnage of which is not far short of 100,000 tons. I mention these facts to show that the above-mentioned statement is not an exaggeration. The Pacific coasts produce, in many places, coal of good quality, but have not as yet supplied more than 10 per cent. of the consumption; of this 10 per cent. the principal part has been supplied by Chili, the produce of the North Pacific coal mines being, up to the present time, positively insignificant.

It is all very well to say, as is so frequently the case, "In nothing does Vancouver Island resemble England more than in the extensive deposits of coal which she possesses," but we might add, in nothing does she differ from England more than in the small production and sale of them.

Discoveries of coal in the neighbourhood of Mary's ville, Stockton, on the Sacramento and San Joaquin Rivers are frequently reported in the Californian papers, but these invariably turn out to be mere lignite beds. We hear nothing now of the coal of the Umqua and Coquille Rivers. Coose Bay, however, sends some coal to San Francisco; the place was pointed out to me by Captain Alden. It is about 400 miles north of San Francisco, on a bold, unsheltered part of that rocky coast, and to have called the place a bay required some nerve. The coal is, I believe, a mile or so inland; I saw some of it at San Francisco, and it looked particularly slaty. The coal of the Columbia River is brown in colour. I saw the Cowlitz coal tried in a steamer, and so great was the quantity of sulphur distilled from it that it might almost be swept off the deck.

The next coal we come to as we go north is at Bellingham Bay, and as this coal field is the only one on the Pacific in American territory, yet discovered, that can at all compare or compete with the coal found in the British settlements, I shall give a more extended description of it. The field consists of four principal beds; cropping out on the coast, dipping north, I should have thought, at an angle of 45° (the engineer said it dipped 1 in 2).

In quality the coal is undeniably very inferior to that of Nanaimo, the beds being often mixed with shale and clay, and lighter in colour. The thickest bed is four or five feet, and not nine or ten feet as usually stated. The working of these beds at an angle like that mentioned, and roofed with clay as is generally the case, will be very expensive. The shores of the bay in which it is found are shoal all round, in fact a mud flat, and sea-going vessels have a difficulty in finding it through a labyrinth of islands, intricate passages and uncertain currents.

In Vancouver Island from Nitinat to Port San Juan, the northern boundary of the Straits of Juan de Fuca, is flat, and sandstone all along; at Nitinat the Indians showed me specimens of coal; at Sooke, a shallow boring passed through one inch of coal; at Säanich coal is found of a bad quality in what looks like clay and slate. The strike of the Bellingham Bay coal from east to west would point to Säanich.

About *Nanaimo* the prevailing rock is sandstone, varying in texture from the hardest conglomerate and millstone grit to a soft and workable building stone. The harbour is admirably sheltered and easily approached; vessels draw close alongside a wharf to load. There several beds of excellent coal are found,

nearly horizontal, but dipping sufficiently toward the south and west for drainage, and generally roofed with sandstone. They are all worked within fifty or sixty feet of the surface, and are found cropping out on the islands, for several miles inland, and high up the Nanaimo River towards the interior of the island, which will give some idea of their vast extent. They are used in Her Majesty's steamers, those of the Hudson's Bay Company, and the river steamers.

The American sea-going steamers and those of the Pacific Mail Steamship Company do not use them; this is not owing to the want of a reciprocity treaty, as is elsewhere shown, because, after paying duty and all other expenses, they can be sold in the San Francisco market at half the price of the foreign coal which these steamers burn. The agents of these companies assert that the specific gravity of the coal is so much less than that of anthracite or English coal which they consume, and that they burn so fast and freely that they take up too much room, and require, in consequence, such continual stoking that to burn them is not economical, even at half the price of English coal: if this is not true it ought, by experiment, to be contradicted. If it is true, it might be remedied by obtaining coal at a greater depth from the surface, for clearly the density of the coal must be greater in proportion to the pressure from above under which it was formed. It is not true, as has been stated, that in burning this coal leaves behind it a good deal of slag; on the contrary, it burns to a white ash.

The Hudson's Bay Company have some forty buildings and two engines at Nanaimo, giving it the appearance of a flourishing town; there is a considerable quantity of mineral land in the neighbourhood unsold.

Farther up the coast at Valdez Inlet we find the sandstone formation again ; in the inlet itself I noticed a seam of coal, six inches in thickness, cropping out.

The coal found at Koskeemo, south of Beaver Harbour, was but eighteen inches in thickness ; there the sandstone is everywhere broken up by primitive rock, which, in that neighbourhood, predominates. Labour on the coast is too dear to make the working of any seam profitable, which does not exceed considerably eighteen inches. When I last visited the former workings of the Hudson's Bay Company there, the place was so overgrown with poplars, and every vestige of dwellings had been so removed by Indians, that a stranger would not have discovered that coal had ever been worked there.

On the coasts of British Columbia coal has been discovered in several places. That within the entrance of Burrard canal on the south side, was known to the Hudson's Bay Company several years ago ; it was discovered by Mr. Henry N. Peers. The beds are thin, and the fact that they preferred to mine on the island showed that their opinion of it was unfavourable.

Coal has also been discovered in the delta of Fraser River, but its situation is unfavourable to exclude water.

On the Skeena river, which reaches the sea at Port Essington, Major Downie in 1859 claimed to have discovered extensive deposits of coal.

In addition to the foregoing minerals, I would mention that I saw specimens of copper, nearly pure, taken from Deer Island, in the neighbourhood of Fort Rupert, and of iron and plumbago, taken from various parts of the coasts.

Limestone is everywhere abundant, and sandstone of course. Blue marble is also abundant on the coast,

often intersected with veins of white; the thickest of these I have seen, was nine inches. I mention this because San Francisco pays annually for white marble some 15,000*l.*, some of which, of inferior quality, is found at a point inland seventy-five miles from Sacramento, but the principal part is supplied from Vermont, by rail to New York and thence shipped; it is also imported from Italy, and is principally used for mantel-pieces and monuments, and costs upwards of 1*l.* per foot in the rough. I should add, the coast abounds with earths of different colours, with which the Indians occasionally paint their canoes.

I shall conclude this chapter with an instance of the salt springs of Vancouver Island. Salt on the coast for curing fish and beef, and other similar purposes, is exceedingly valuable. The Sandwich Island salt contains too much lime to be used for these purposes. Liverpool salt is retailed in the Sound, as high as 15*c.* per pound; this makes the subject worth investigating.

A gallon of water from the Nanaimo spring produced 1*lb.* of salt (a gallon of sea water produces $4\frac{1}{2}$ oz.), the spring produced about a gallon a minute—the specific gravity of the water, taken roughly, was about 10·60. These springs will not of course compare with the brine springs of Worcestershire, or those of Utah, which contain $\frac{1}{3}$ their weight in salt, but for the reason mentioned, the subject is not uninteresting. The offensive smell alluded to in the Report of Professor Taylor (*vide* Appendix) on two of these springs, arose from the decomposition which unavoidably took place, as the samples were bottled for nearly a year before they were placed in his hands.

CHAP. IV.

CHIEF TOWNS OF VANCOUVER ISLAND AND BRITISH COLUMBIA. — VICTORIA.
 — LANGLEY. — NEW WESTMINSTER. — HARBOURS AND FORTIFICATIONS. —
 ONE BRITISH CAPITAL ON THE PACIFIC SUFFICIENT.

GIVEN an uninhabited country : to choose a town site which shall ultimately become the capital, is a puzzle, and might, perhaps, with advantage, be included among civil-service examination questions. If England were such a country, I risk nothing in saying, nine competent persons out of ten would not have selected London, nor if one did, would he have believed that his selection would ripen into so wonderful a result. Why is Dublin, with its sand-bars and mud-flats, the capital of Ireland ? It might bewilder a clever person to say why half the chief cities of Europe are not second-rate cities instead.

It needs no prophet to say that British interests require one capital on the Pacific, so eligibly situated, that it shall be capable of entering into friendly competition with San Francisco in commerce and in comfort ; and of rapidly outstripping the mushroom “ cities ” of the coast.*

* I hope the term will be excused, as I mean no disrespect to any of the very beautiful cities America has built : but, on the coast, it is no uncommon thing for a Tap to be “ inaugurated,” a Newspaper started, a Wharf projected, and a City proclaimed ; and shortly after, to our astonishment, we find that the barrels have been rolled away, the patriotic type set to echo the grievances of a different locality, and that the entire institution has “ whittled out.” In fact, Americans are so enterprising, that they frequently commence a

Victoria * was selected by Governor Douglas, whose intimate acquaintance with every crevice in the coast ought to carry considerable weight, as "the site" in 1842, when he expressed his confidence "that there was no sea-port north of the Columbia, where so many advantages could be found combined;" an opinion which was confirmed by Sir George Simpson, in his despatch of June 21st, 1844, in which he states, "The situation of Victoria is peculiarly eligible, the country and climate remarkably fine, and the harbour excellent." And again: "June, 1846,—Fort Victoria promises to become a very important place." The site on the east side of the harbour has many advantages; it is level, extensive, and clear, and from every street the view of distant snow-capped mountains is a picture. Eight fertile agricultural districts, containing 100,000 acres of connected open land, surround it. The suburbs and park adjacent are shaded with oak trees; and although

town in anticipation of events on which its future success must depend; and, therefore, cannot be expected to draw prizes every time. When, for instance, I first saw Eureka, I was standing in a damp forest, on the banks of a shallow and rather muddy river, and naturally inquired, Where? To which my companion replied, "This is the city. Within a hundred yards of us stands a liquor store, it will be roofed in a day or two — come and take a drink."

* As with other inventions, copyright should extend to names of towns. Letters directed to Vancouver Island and Australia will no doubt, in time to come, be assorted on the same route, and letters intended for Victoria town may find their way to Victoria colony, as has to my knowledge occurred; or they may be left behind at Victoria near New Orleans, or elsewhere. Englishmen abroad like their towns to be called after a member of the royal family, because it reminds them of institutions which distance but serves to endear. In this case, however, had the Queen been petitioned to name the chief town, as in the case of B. C., it is probable that, as a matter of practical convenience, a different name would have been selected.

there is no water in the town, unless what is procured from wells, water can be readily led into it, from springs and lakes in the back ground. The streets are broad and macadamised, and the private dwellings, public buildings, churches, &c., have been erected with so much taste, and are kept so attractively neat, that even now, the appearance of the town is thoroughly English. The houses are generally built of wood, planed, relieved by cornice, &c., and painted, the chimneys being brick, but there are a good many brick buildings as well. The population of Victoria is about 3000.

Subsequently to the establishment of British Columbia as a Crown colony in 1858, the ruling authorities decided that a separate capital for British Columbia — one seaport, and that of the greatest consequence — to be established somewhere in the neighbourhood of Fraser River, was indispensable.

A point on the left bank, nine miles from the entrance, was first proposed; but afterwards abandoned (in November, 1858) in favour of a point sixteen miles further up the river, on the same side.

The spot selected was the site of a former establishment of the Hudson's Bay Company, known as "Old Fort Langley." The anchorage is good, and the river deep enough to admit of ships being moored close into the bank: with a cheerful aspect and surface well adapted for building and drainage. The greater part of the site is dry and elevated, and the open lands of New Langley are at no great distance in the rear. A trail connects it with Whatcome and other American towns in the neighbourhood of Bellingham Bay. Here 3000 building lots were laid out, of which 342 were sold in two days, for 13,000/., on which a deposit of ten per cent. was paid. A court-house, jail, parsonage, and

church were built, and 400 or 500 persons were about to commence operations, when another capital was announced.

The site last determined on was on the right bank, fifteen miles from the entrance, where the Fraser divides to form the north and south branches.

No exertions were spared to found the new capital with *éclat* and stamp it with success. Engineers, military and civil, were for months employed projecting its squares and terraces. At the auction sales it was announced that in certain quarters, its "West-end," no shop fronts should be admitted. Majesty itself was approached to find a name for it, and it was called in the colonies "The Phantom City."

On perusal of the foregoing and papers in the Appendix the idea will naturally suggest itself, that it would be far better if the influence of Government were exerted to concentrate the energies of so small a population as the country contains to the erection of one capital, whichever of them is best adapted to become the British *dépôt* of the commerce of the West.

The seaboard of California is nearly double that of British Columbia, yet one San Francisco is found sufficient.

Any port within Fraser River, or in its neighbourhood, can never be the resort of sea-going vessels. Fogs and calms for months in autumn, the rapid currents of the Haro archipelago, the narrow channel passing through miles of shifting sand, uncertain tides, and the rapidity of its own current, must prevent Fraser River, however well adapted for steam navigation, from ever becoming the resort of sailing vessels.

As a town site, New Westminster is decidedly objectionable. Too elevated, expensive to grade, and

heavily timbered, its progress must necessarily be slow ; the extensive swamps and marshes so close to it are not an advantage, to say nothing of the music of acres of frogs in spring, and the stings of myriads of mosquitoes in summer ; its impregnability may be unquestionable, but if unfortunately this quality renders it inaccessible to the merchantmen of the Pacific, and to the trade of Puget Sound, what object could an enemy have in attacking it? The enemies that soldiers there will have to contend with are depression and disease, from want of exercise in open grounds. Langley, which is now abandoned, was better circumstanced in this respect, and as to trade ; and the town site was clear. The argument in favour of separating the capital from the people you want to trade with by a broad and rapid river, lest they should at a future time become hostile, is at least questionable, since, assuming war, and that Government measures are such that we may at the same time assume a British population, your position on the foreign frontier is quite as menacing to the supposed enemy as theirs to you.

Besides, the qualifications, such as accessibility, easy gradients to approach it by, &c., requisite to constitute a town site eligible for commercial purposes, are the opposite to those required for defence. Is a commercial community to carry fuel and water perpetually up hill, to be pestered with ferries and mulcted in clearances and gradients, and to undergo a thousand daily inconveniences, from a morbid apprehension of future attack that may never occur? Better far, one would suppose, from mercantile considerations only to choose the site, and if in time property should accumulate there, then to call upon science to fortify it.*

* In addition to the foregoing, if San Juan or Orcas Island,

The high open grounds between Victoria and Esquimalt Harbours would be a very healthy place for a principal military station, and being close to the naval station, which the Government have so wisely selected, detachments of troops could, in the event of war, be rapidly conveyed to any point on the coast required, in Her Majesty's steamers, on which, after all, should such a calamity occur, the issue would mainly depend.

The harbour of Victoria is far from perfect, but is capable of vast improvement at small outlay; besides, it almost joins Esquimalt Harbour, admitted to be the most perfect harbour on the coast. Hobson's Bay may be said to be the port of Melbourne, though separated from it by some miles. The waters of Esquimalt and Victoria Harbours are in one place only 600 yards apart; and a line of railway to connect them would be half the length of the Melbourne and Hobson's Bay railway, which has been attended with such remarkable success. Reference to diagram on Map II. will explain at once this question of harbours. The main defect of Victoria Harbour is a sand bar from A to B, having on it eight or nine feet at lowest water. The basin of the harbour is deep enough for vessels drawing eighteen or twenty feet. Now if instead of connecting the harbours by a canal D, as has been proposed, the bridge at E were removed and the inlet *embanked* at C instead, which would be preferable as far as the road is concerned, and proper sluice-gates made in the embankment, the bar at the entrance being once dredged, the whole body of water from C to D might be used continually to scour the harbour out and act upon the

either of which commands the approach to New Westminster, should be declared not to belong to Great Britain, what purpose could be gained by erecting fortifications there?

bar. If, in addition to this, the distance B A were slightly narrowed with sheet-piling, the improvement would be complete, and Victoria Harbour would be made one of the best harbours for merchantmen on the coast at a total expense not exceeding 5000*l.* or 6000*l.* The water on the bar of Fraser River is about the same as on the bar of Victoria Harbour; but in the first case a vessel has five miles of it to cross, in the latter say a few hundred yards.*

Hopetown, at the head of steam navigation on the Fraser, is beautifully situated on the banks of the Quequealla River. The town site is a perfect one, and the variety and beauty of the surrounding scenery is such, that I could not attempt to describe it. The same remark might apply to Yale in a lesser degree. The latter looks wilder and less cultivated.

These were originally the sites of Indian villages; not here alone, but invariably, the Indians on the coast have shown great sagacity in choosing, for their village sites, spots the most favoured by nature, commanding and accessible at the same time. Fresh water, fuel, and drainage are attended to; facilities for boat navigation are never forgotten; and, whether we look at their camps, or from them, we quit them with the impression that the savage has a clear conception of, and knows how to appreciate, the picturesque and beautiful.

* Further information on this subject will be found in the Appendix, and in Parliamentary Papers relating to British Columbia, dated 1859, Part II. pp. 14, 19, and 60.

If Victoria or Esquimalt, the head of sailing navigation within the straits, is not the natural site for the British Capital on the North Pacific, would it not be more reasonable to look for the desired locality on the western coast, at Barclay Sound, for instance, clear of the straits, than to run the gauntlet of tides and islands of the Gulf of Georgia?

Port Douglas is a promising town, but the site is very limited. The town consists at present of twenty small dwellings, a saw-mill, and a wharf. No doubt the several towns on Fraser River will ultimately bear to Victoria the same relation that Stockton, Sacramento, and Mary's-ville now bear to San Francisco.

The local government of California for a considerable time retarded the growth of San Francisco, by endeavouring to make Benicia the capital.

Victoria has many advantages over San Francisco. The cold gusts that constantly toward evening blow upon the latter from seaward, through the Golden Gate, as it were through a funnel, are far from agreeable, carrying with them, as they frequently do, clouds of exceedingly fine, penetrating sand. San Francisco is separated from the neighbouring agricultural country—from the beautiful valleys of Santa Clara and San José, by miles of sandy hillocks, hopelessly barren. There shaky titles retard improvement, and the administration of justice is proverbially defective. To all this I need hardly add Victoria presents a bright contrast.

As the country improves and population increases, Government will, of course, have occasion to lay out and dispose of many town sites. But there is in this nothing to prevent the recognition of the principle—one capital for the British possessions on the Pacific,—or the announcement of the site of it, when finally fixed upon.



BRITISH COLUMBIA
VANCOUVER ISLAND
and part of
UNITED STATES.

English Miles
0 10 20 30 40 50

CHAP. V.

INSTITUTION OF THE COLONIES OF VANCOUVER ISLAND AND BRITISH COLUMBIA. — THEIR PROGRESS TRACED, AND COMPARED WITH THAT OF THE ADJOINING AMERICAN STATES. — THEIR COMMERCE. — POLICY OF ENGLAND AND AMERICA RESPECTIVELY, WITH REGARD TO THEIR POSSESSIONS ON THE PACIFIC.

HAS the progress of Her Majesty's Colonies in the North-West Pacific been commensurate with their natural geographical and commercial advantages, and with the resources of soils, minerals, timber, and fisheries which they are shown to possess, with a climate admitted to be better adapted to the constitution of Englishmen than that of any other portion of the Western Hemisphere from Cape Horn to Aliaska; and if not, why not? — are questions which I shall now endeavour to answer to the satisfaction of the reader, and at the same time to show, by a production of facts, the present commercial status of these colonies, with reference to that of the American States adjoining.

The first step taken by Great Britain to establish a colony on the north-west coast, omitting at present the consideration of Red River Colony, as too far inland to promise early success, was in 1849, one year after the gold discoveries in California, when by a Crown grant the Hudson's Bay Company were entrusted with the colonisation of Vancouver Island. The provisions of the grant are too well known to require detailed insertion here; but the principal inducements held out to immigrants under it were as follows.

1st.— That no grant of land should contain less than twenty acres.

2nd. — Purchasers of land to pay one pound per acre.

3rd. — That purchasers of land provide a passage to Vancouver Island for themselves and their families, if they have any ; or be provided with a passage (if they prefer it) on paying for the same at a reasonable rate.

4th. — That purchasers of larger quantities of land should pay the same price per acre, namely one pound, and should take out with them five single men, or three married couples, for every hundred acres.

5th. — That all minerals, wherever found, should belong to the Company, who should have the right of digging for the same, compensation being made to the owner of the soil for any injury done to the surface ; but that the owner should have the privilege of working for his own benefit any coal mine that might be on his land, on payment of a royalty of half a crown per ton.

6th. — That the right of fishing at first proposed to be given to the Hudson's Bay Company, having been relinquished, every freeholder should enjoy the right of fishing ; and that all the ports and harbours should be open and free to them, and to all nations either trading or seeking shelter therein.

The circular from which the above is taken, then makes provision for the establishment of places of public worship, and the maintenance of ministers of religion, a policy afterwards abandoned ; and concludes with a proposal to form a colonial legislature combining the usual elements of governor, council, and assembly, with powers to enact laws and enforce taxes.

A programme so illiberal, so restrictive, and so detrimental to the memory of the colonial administration of Earl Grey, for ten years stopped the settlement of the country. Ultimately the grant was revoked, and on the 1st June 1859, Vancouver Island colony fell directly under the management of the Crown, previous

to which date the exclusive right to trade from the Pacific to the Rocky Mountains, which the Hudson's Bay Company had before possessed, was withdrawn, and the colony of British Columbia instituted by the Act of August 2nd, 1858.

The obstacles which I shall now enumerate have been repeatedly assigned and accredited by the Government, as having hitherto prevented the successful development of these colonies* :—

1st,—the attraction of the gold region of California; 2nd,—the high rate of wages in the colony and territories adjoining preventing settlement; 3rd,—the great distance from Great Britain, involving either a tedious voyage of five months and 17,000 miles, or the expense of the overland route by Panama or the plains; 4th,—the high price of land; 5th,—Duties averaging 24 per cent. levied on British goods in the neighbouring American ports.

* “The high rate of wages in Oregon and California, and the attraction of the gold districts in the gold country, have not only operated to prevent persons of capital settling in Vancouver Island, but have also obstructed the Hudson's Bay Company, and the Puget Sound Company, in their endeavours to bring land into cultivation, and provide means of subsistence for settlers.”—*Governor of H. B. Company to Secretary of State for the Colonies, Nov. 24, 1852.*

“Its commerce, trammelled and met by restrictive duties on every side, its trade and resources remain undeveloped.”—*Governor of Vancouver Island's Address to Assembly, August 12, 1856.*

“Causes over which the local government had no control, and which are too well known to need recapitulation, have hitherto prevented the settlement from acquiring that development, which its founders may have expected.”—*Secretary of State for the Colonies, to Governor of Vancouver Island, Feb. 28, 1856.*

See also index to Report of Select Committee on the Hudson's Bay Company, under heading, “Vancouver Island: Causes of Non-Settlement.” “The distance from England, and the nearness of the Californian gold fields, have prevented the settlement and progress of the island.” Also Blue Books on this subject, *passim*.

And since, with the exception of No. 4, these impediments, if such, continue to exist, it will be well to examine into them separately: and I think it can be shown that the colonies of North West America have not been retarded at all to the extent supposed by the combination of causes alleged; but that the real bar to their development still exists in their utter isolation and absence of connection with each other; in which remark I include not Vancouver Island and British Columbia alone, but also Red River, and (why not?) Saskatchewan, all which should derive, from connection, with each other, the Canadas, and as a consequence with England, the same vitality, that Washington, Oregon, California, and the intervening states, derive from the chain of excellent communications by land that bind them to one another, and to the Eastern American States; and in the case of Vancouver Island and British Columbia, in the want as well of main lines of internal communication and of other works of a public nature, indispensable to the success of the first arrivals: that from want of numbers it is impossible for these to procure by taxation the capital required to open up communications in a country so vast and wild, and endow it with the elements of success; but that if this capital were once obtained, and judiciously and honestly applied, success would attend the first adventurers, immigration on a large scale ensue, resulting in a prosperous, and therefore taxable population, sufficiently numerous in a short time to pay the interest of what I may term their national debt, and ultimately to discharge the debt itself, and to add to the power and commerce of England; that the requisite capital could be procured, and the benefits stated conferred, without trenching, to any great extent, upon the revenues of Great Britain; and I shall afterwards endeavour to in-

dicating the nature and extent of the works required for the purposes stated, and approximately the cost of them.

I demur to the first impediment, by adducing the parallel instances of Oregon and Washington. These states, which are notoriously not gold-producing, although samples may be found there, as in Vancouver Island, are nearer to California than the British settlements are, therefore obstacles Nos. 1 and 2 have all along applied to them more forcibly than to the latter. Oregon and Washington were formed into a territory by Act of Congress, dated August 14, 1848, and Great Britain commenced her colonies in January, 1849, so it may be said the start was a fair one. As to comparative natural advantages, even Americans admit the great superiority of those of the British settlements. Look at Oregon as its boundaries are now defined — in point of physical aspect, every part of the coast is dangerous to navigation on account of the heavy surf continually beating against its shores; there is not a tolerable or accessible harbour in its whole length, its rivers are choked with sand-bars: in point of agricultural advantages, it certainly has its rich valleys, much in the way that British Columbia has, from the sea to the cascades, 80 to 150 miles; and within this tract is embraced the only valuable portion of the State. Within the valleys of the Willamette, Umqua, and Rogue Rivers, the farming population, and all the counties yet established, are concentrated. The tract from the Cascades to the Blue Mountains, will never be of use beyond some pastoral purposes, and from the Blue Mountains to the Rocky Mountains, has been justly characterised as wild, sterile, and impracticable; mountain ranges and isolated buttes; and unless in the immediate neighbourhood of the valleys of the rivers men-

tioned, the country is altogether too rugged for any industrial purpose.

Of Washington Territory a more favourable account must be given : it has its inlets, canals, and islands, the latter often capable of the most profitable cultivation, but the whole tract of country within it capable of cultivation is very limited, included within the narrow strip of country extending from Admiralty Inlet to the Columbia, and hemmed in by the Cascade Mountains and the Olympic range : the great plain of the Columbia, occupying the main width of the territory, from the Cour d'Alene range to the outliers of the Cascades, is a hopeless desert, and, unless close to the river and its branches, utterly uninhabitable.

And now to compare results. *Vancouver Island* colony was established ten years ago, and *British Columbia* two ; in neither have we, as yet, any farming population worth mentioning. America feeds us ; America carries our letters to us ; we reach them by American steamers, or we travel by American routes ; the bulk of the merchandise we consume comes from American ports. In Vancouver Island, the rich valleys of Cowichan, Puntledge, and Barclay Sound are unconnected and by land unapproachable. I was sixteen days reaching Nitinat from Saänich.* Even between Esquimalt Harbour and Victoria the capital, three miles, the road is execrable, and while a small expenditure would render Victoria Harbour one of the most commodious on the coast for whalers or merchant vessels, it remains unlighted and unfrequented. The island is unimproved, progress being entirely limited to Victoria district and Victoria Town, and caused in the latter very exceptional cases, I believe, by its free port, and the effect beneficial to it of the restrictive duties

* 60 or 70 miles.

levied in American ports, as I shall afterwards have occasion to show.

In British Columbia, with the exception of a few trails, the only attempt at opening a communication into the interior has been on the Harrison River and Lilouette Route, forty-four miles by water and sixty-four miles by land. Miners are the only population, except the few traders that supply them: the gold finds its way to San Francisco, the miners winter there, and the surface gold — the principal inducement to labouring emigrants — threatens to be seriously diminished before a farming population is established in the country; the export trade of these colonies is as yet too insignificant to be worth detailing.

To complete the comparison, I shall now give the result of a state census of Oregon and Washington combined, taken in 1850.

Number of dwellings	.	.	.	.	.	2374
Number of families	.	.	.	.	.	2374
Number of farms	.	.	.	.	.	1164
Population { white	.	.	.	.	13087	Washington . 1201
free coloured	.	.	.	.	207	Oregon . 12093
						<hr/>
Total						13294

By the census taken in 1855, the population of Oregon alone was estimated at 33,324, showing an increase of nearly 176 per cent. in three years, and had at the same time fifty manufacturing establishments at work.

By a census taken in 1856, the population of Washington territory was 5500, and the following statement of the exports of last year shows that their commerce kept pace with their population, and that notwithstanding its greater distance from San Francisco, Puget Sound has nearly usurped the trade that formerly belonged to Humboldt Bay, Umqua, and Trinidad.

STATEMENT OF PRODUCTS AND MANUFACTURES,
Shipped from Puget Sound to Foreign Ports, from January 1, to December 22, 1859.

Destination.	Lumber, Sawed.		Shingles, Laths, and Pickets.		Spars.†		Doors and Windows.			Wool		Skins and Furs.	
	Feet.	Value.	No.	Value.	No.	Value.	No.	Pkges.	Value.	Lbs.	Value.	Pkges.	Value.
		dols. c.		dols. c.		dols.			dols.		dols.		dols.
Victoria, V. J.....	3,539,501	62,657 90	1,125,640	6,589 50			907	47	3,147	9,000	2,000	10	1,650
Westminster. B. D.													
Melbourne.....	2,679,050	30,480 14	50,600	1,060 00	20	700							
Sydney.....	1,935,022	33,768 47	15,000	225 00	8	870							
Shanghai.....	348,314	6,354 00			359	11,841							
Amoy.....	194,314	4,414 71			642	14,945							
Hongkong.....	616,960	8,845 50			137‡	12,480							
Honolulu.....	1,297,592	15,901 70	113,475	1,807 00	155	1,700							
Valparaiso.....	3,007,442	44,525 97	76,110	975 60	89	2,011							
Callao.....	1,501,795	15,700 00			14	820							
England.....	16,400	244 00			157	7,756							
Total	15,136,390	222,892 39	1,380,625	10,657 10	1,581	53,123	907	47	3,147	9,000	2,000	10	1,650

TABLE. — Continued.

Destination.	Salmon.		Flour.		Grain.		Hay.		Potatoes and other Vegetables.		Cattle, Sheep, and Horses.		Coal.		Fruit Trees.		Total.
	Bushls.	Value.	Bushls.	Value.	Bushls.	Value.	Bales.	Value.	Bushels.	Value.	No.	Value.	Tons.	Value.	No.	Value.	
		dols.		dols.		dols.		dols.		dols.		dols.		dols.		dols.	dols. c.
Victoria, V. J.....			3202	28,714	455	376	168	1,075	29,172	12,271	2,145	73,207	20	120	1000	500	192,327 40
Westminster, B. D.					320	162			100	50							212 00
Melbourne.....	20	200															41,440 14
Sydney.....																	34,863 47
Shanghai.....																	18,195 00
Amoy.....																	17,359 71
Hongkong.....																	21,325 50
Honolulu.....	100	603							150	100							20,111 70
Valparaiso.....																	47,512 57
Callao.....																	16,520 00
England.....																	8,000 00
Total	120	803	3,202	28,714	775	534	168	1,075	29,422	12,421	2,145	73,207	20	120	1000	500	417,867 49

* Some minor Chinese ports included. † Large and small, and some square timber included. ‡ And one cargo, value, but not quantity given.

EXPORTS OF LUMBER FROM CALIFORNIA.

FROM HUMBOLDT BAY.		
To Melbourne	600,000	
To Honolulu	100,000	
	<hr/>	700,000
FROM SAN FRANCISCO.		
To Australia	1,136,923	
To Peru	821,497	
To Mexico	540,236	
To Sandwich Islands	106,540	
To Victoria, V.I.	287,206	
To other Countries	1,742,994	
	<hr/>	4,635,396
Total feet		<hr/> 5,335,396

As to the second allegation, it will be at once admitted that the rate paid for labour of different kinds in San Francisco and California, regulates equally the labour markets of Oregon, Washington, and the British possessions; a high rate of wages is the principal inducement to the largest and most useful class of emigrants; far from being an impediment to settlement, the cause assigned ought to produce in these colonies the most beneficial effects.

From the foregoing I deduce that we must look for some other agency than those stated in No. 1 and No. 2, for the want of success complained of.

Before passing to the consideration of Allegation No. 3, I shall here shortly detail the nature and extent of the trade of the British colonies with San Francisco, so as to give this branch of the subject a connected form.

The Pacific Mail Steam Company run steamers once a fortnight both ways, between Victoria and San Fran-

cisco, carrying passengers at \$50 a head, and freight \$20 per ton. Sixty-three vessels, representing a tonnage of 52,508, also cleared at San Francisco within the last year, carrying freight to the island at \$3 to \$4, and passengers at \$25 to \$30 : the vessels are for the most part American.

Our exports consisted of gold in 1859, to the value of \$2,000,000, as under that head was shown ; which export in 1858 was estimated at \$1,500,000.

Coal (perhaps) 2000 tons, in 1858 it was 1755 tons. Oregon and Washington export about 200 tons a month, and the whole amount of coal imported into San Francisco from the coast north of it in 1859, was 4772 tons.

In addition to the above, we may have exported a small quantity of fish and oil, and a few barrels of cranberries, and here we must stop. The spars sent to England in 1859, had to be procured on the American side ; as, although our timber is just the same and ports to ship it from better, no business of the kind had up to that time been established either on the island or the mainland.* I omit furs altogether from the consideration of exports, affording no criterion of colonial wealth or of colonial improvement, but rather the reverse.

Next, as to our imports in 1859. The gold above mentioned was spent principally in San Francisco in the purchase of the list of goods annexed.

Value of Imports in 1859.	{	from San Francisco	.	.	.	\$1,199,380
		„ Puget Sound	.	.	.	192,539
		„ Elsewhere	.	.	.	108,081
						<hr/> \$1,500,000

* Some enterprising London merchants have recently established, under very able management, a business of this description at the head of Barclay Sound.

In addition to this, the Hudson's Bay Company imported some few cargoes of English goods, principally for their own trade, and which constituted the only shipments of consequence from England.

LIST OF GOODS SHIPPED FROM SAN FRANCISCO TO VICTORIA, V. I.
AND BRITISH COLUMBIA IN 1859.

Absynthe, cs.	72	Corn, sks.	98
Agricultural implements, pcs.	32	Corn meal, puns.	4
Alcohol, bbls.	136	do. bbls.	40
do. cs.	172	do. sks.	381
Anchors, no.	56	Coffee, bags	544
Bacon, hhds.	225	do. cs.	360
do. cs.	447	Cordage, coils,	251
do. pkgs.	554	do. pkgs.	95
Barley, bags	16,937	Cheese, bxs.	95
Beans, bags	11,065	do. pkgs.	118
Beef, bbls.	99	China goods, pkgs.	1613
do. cs.	21	Chocolate, cs.	26
Beer, csks.	858	Clothing, pkgs.	666
do. kegs	11	Clocks, pkgs.	3
do. cs.	101	Crockery, csks.	9
Bitters, cs.	122	do. pkgs.	35
Boilers, no.	2	Drugs, pkgs.	904
Boots and shoes, pkgs.	1321	Dry goods, pkgs.	1633
Buckwheat, bags	3	Fancy goods, pkgs.	4
Butter, firkins	1028	Fire crackers, bxs.	450
Building materials —		Fish, drums	19
Lumber, feet	287,206	do. bbls.	6
do. pcs.	131	do. kits	140
Blinds, bdl.	1	do. bxs.	28
Doors, bdls. and no.	748	Flour, bbls.	2654
Sash, bdls. and no.	369	do. hf. sks.	4620
Pickets, bdl.	1	do. qr. sks.	39,761
Bran, bags	2473	Fruit, green and dried, bbls.	145
Brandy, hhds.	13	do. bxs. do.	481
do. $\frac{1}{2}$ pipes	3	do. pkgs. do.	64
do. $\frac{1}{4}$ pipes	27	Furniture, pkgs.	1136
do. octaves	442	Gin, pipes and puns.	57
do. cs.	45	do. bbls.	9
Bread, bbls.	477	do. kegs	2
do. cs.	767	do. cs.	248
do. pkgs.	473	Glass, bxs.	163
Bricks, M.	203	Glassware, pkgs.	131
Brooms, doz.	179	Groceries, pkgs.	2567
Camphene, cs.	857	Guns, cs.	4
Candles, bxs.	2920	Gunnies, bdls.	104
Carts, no.	6	do. bales	48
Cement, bbls.	148	Hams, casks	15
Cider, bbls.	139	do. bbls.	260
do. cs.	491	do. pkgs.	33
Cigars, cs.	157	Hardware, pkgs.	2250
Coal, csks.	4	Hay, bales	2011
Copper, cs.	2	Hollow-ware, pkgs.	10

Hollow-ware, pcs.	56	Rice, mats	10,209
Hops, cs. and bales	23	do. csks.	36
Iron pipe, pcs.	200	Rum, puns.	23
Lard, bbls.	6	do. bbls.	45
do. cs.	397	do. keg	1
Leather, rolls	21	Saddlery, pkgs.	139
Lead, white, kegs	172	Safes, iron, no.	17
Lime, bbls.	423	Salt, sks.	518
Liqueurs, cs.	104	do. bbls.	14
Liquors, unspecified, octaves	59	do. bxs.	44
do. do. bbls.	71	Sardines, cs.	101
do. do. kegs	250	Saw mills, no.	2
do. do. cs.	400	Ship chandlery, pkgs.	255
do. do. pkgs.	248	Shot, bags	19
Maccaroni, bxs.	132	do. kegs	9
Machinery, pcs. and pkgs.	393	Soap, bxs.	5095
Malt, sks.	386	Spices, cs.	489
Matches, cs.	103	do. pkgs.	50
Matting, rolls	62	Spirits turpentine, cs.	13
Merchandise, pkgs.	1017	Starch, bxs.	112
Metals, bars	600	Stationery, pkgs.	169
do. cs. and bbls.	409	Steel, pkgs.	239
Molasses and syrups, bbls.	15	Stoves, no. and pkgs.	816
do. kegs	1252	Sugar, mats	2132
do. cs.	153	do. bbls.	465
Nails, kegs	751	do. bxs. and cs.	348
Nuts, pkgs.	37	do. pkgs.	56
Oats, bags	1416	Tar, bbls.	2
Oakum, bales	96	Teas, pkgs.	802
Oars, no.	442	Tin, plate, bxs.	180
do. pkgs.	38	Tin ware, pkgs.	12
Oil, bbls.	65	Tobacco, bales	7
do. cs.	176	do. cs. and bxs.	855
do. pkgs.	31	Tools, pkgs.	10
Paints, pkgs.	937	Trunks, no.	79
Paper, pkgs.	97	Tubs, nests	38
Pianos, no.	7	Twine, pkgs.	7
Pickles, preserves, &c.	1484	Vinegar, bbls.	32
do. kegs	350	do. kegs	81
do. pkgs.	29	Waggons, no.	3
Pipes, cs.	95	Wheat, bags	177
Pitch, bbls.	38	Whisky, puns.	39
Plaster, bbls.	90	do. cs.	236
Pork, bbls.	316	do. bbls.	136
Potatoes, bags	394	do. kegs	51
Powder, kegs	34	Wine, pipes	3
do. bxs.	23	do. csks.	187
Printing materials, pkgs.	7	do. bbls.	32
Provisions, unspecified, pkgs.	174	do. kegs.	32
Pumps, no.	11	do. cs.	1258
Pure spirits, pipes	12	do. bskts.	242
do. bbls.	9	Yeast powders, cs.	128
Quicksilver, flasks	19	Zinc, rolls.	17

A close examination of this list will throw a flood of light on the present condition of the colonies. In the first place the *total amount* is astonishingly large, nearly

equal in value to that of the entire export of the staple commodities of San Francisco, such as hides, horns, oil, wool, &c. to New York, and far exceeding the exports of San Francisco to any other port.

The annexed table, showing the aggregate value of the exports of San Francisco, and among what countries distributed, for the past four years, according to returns made to the custom-house, will corroborate the statements last made.

To	1859. <i>dollars.</i>	1858. <i>dollars.</i>	1857. <i>dollars.</i>	1856. <i>dollars.</i>
New York	1,418,100	1,284,000	2,158,000	1,113,500
Australia	730,427	380,099	314,604	1,123,367
Mexico	682,490	702,112	744,055	781,059
Peru	156,616	137,872	139,700	337,693
Great Britain	29,100			
France	7,000			
Sandwich Islands	358,538	273,535	295,200	249,303
China	252,061	224,568	313,896	239,942
Russia in America	15,640	3,875	36,545	127,911
Russia in Asia	55,505	53,174	68,607	
Chile	347,034	150,495	157,698	116,787
Society Islands	52,606	54,523	51,576	61,819
New Grenada	205,952	46,617	40,000	43,126
Ports in Pacific	2,155			35,453
Johnson's Island	1,147			
Vancouver Island	1,199,380	1,413,221	30,149	23,376
Costa Rica	13,779	38,025	2,999	12,000
East Indies		278		2,750
Batavia	1,455	6,779	2,500	
Nicaragua		797		2,430
San Salvador			7,086	
Manilla	3,912		7,143	
Japan	514			
Guam (Ladrone) Isl's		10,193		
Total	5,533,411	4,780,163	4,369,758	4,270,516

Examining the goods' list in detail, we find that it includes every kind of agricultural produce, not even to the exclusion of hay. Freights are high on the coast, and hay is bulky and liable to heat and set fire to the ship. Notwithstanding all this, in winter when hay is indispensable at Victoria, and sells at prices ranging

from 8*l.* to 16*l.* per ton, Californian hay is the only hay in the market, a fact exceedingly encouraging to intending emigrant farmers from this country. The list includes every kind of building material, lumber, bricks, &c. At the close of 1859 there was but one saw-mill at work, or I believe, in existence, and not a single brick-making machine in the island. The bulk of the lumber we consume is supplied from Puget Sound, as seen by a former tabular statement.

While on this subject I would mention, the retail price of anything in San Francisco is about four times as much as it would be in London; and although cargoes frequently arrive there to find an overstocked market, and are sold at a loss to the owners at auction or otherwise, still these retail prices vary but little from time to time. In Victoria retail prices are generally 15 per cent. higher than in San Francisco. The Hudson's Bay Company sell lower considerably, but generally send a stock of goods unsuited to the market, selected, as they are, for a special purpose.

Passing on to Allegation No. 3, let us inquire to what extent distance from England retards the settlement of these colonies, and whether this is an element so damaging that it cannot be overcome.

The Atlantic can now be crossed at an expense, ranging from 2*l.* 10*s.* upwards, and for that small sum the British emigrant can be carried to the eastern coast of the American continent. If, therefore, a road to the British colonies on the western coast were constructed, emigrants from Great Britain and from the United States would, with the exception of that small difference, be on an equality with respect to the expense of locomotion.

The American territories south of the British are principally peopled *viâ* San Francisco, where 30,000 to 40,000 people arrive within the year, and we have the evidence of Mr Horace Greely* and others, that the great mass of this increase of population comes from the Atlantic slope direct, and that these territories are not *progressively populated*. The passenger statistics of the port of San Francisco and of the overland routes corroborate this statement; and it may safely be asserted, that three out of four arrivals at San Francisco have either crossed the continent or the isthmus. But, in addition to a route by which the colonies can be reached, internal communications are indispensable to the success of the emigrant; for instance, the difficulty of transport only was removed, in the case of emigrants sent by the Hudson's Bay Company to Vancouver Island, the majority of whom took leave of the British settlements shortly after their arrival, and found occupation on American farms, or work in American mills.

The difficulty of transport only was also removed in the case of hosts of deserters, Irish, Germans, and others from the American army of the west, whose interests would have led them, if possible, to settle out of their own country, in Vancouver Island or in British Columbia,

* "Of course these (the annual increase) were not all from the Atlantic slope, *viâ* the Isthmus or Nicaragua; but the great mass of them were." — *Overland Journey to California*, 1859, p. 369.

In 1859, arrivals at San Francisco by sea were .	38,183
Departure .	24,781
	<hr/>
	13,402
By various overland routes .	25,000
	<hr/>
Addition to the population	38,402

on the same principle as our deserted seamen settle in American territory ; but I cannot call to mind a single instance of their having done so.

In 1858 and 1859, a considerable number of Canadians, after suffering great hardships by coming by the overland trails, to my own knowledge went back discouraged. These men had spent all the money they had, in travelling to the island *via* Red River : their intention was to farm, which, without some capital to commence with, is not remunerative — had they been labourers they would no doubt have remained, as it was, they returned impoverished and exhausted.

From the considerations above stated, it may be gathered that until these colonies are traversed by a main road, and internal communications established, even if carried there free of expense, emigrants may still find it more profitable to settle elsewhere.

That the price of land has hitherto been too high in these colonies, particularly when America was in many places “ donating ” contiguous lands, and that the pre-emptive law, recently promulgated in British Columbia, will have the best effects, I am fully prepared to admit.

And while regarding this as the best measure up to the time of a governor of acknowledged ability, and hoping that its benefits will soon be extended to the island, I cannot believe that it is alone sufficient to relieve these colonies from the stagnation under which they suffer.

For the last five years, land, although too dear, has not been oppressively so on the island. To be sure the nominal price was 1*l.* per acre ; but a liberal allowance for rock and swamp, payment by instal-

ments, allowing an interval of two years to elapse before the payment of the second, greatly modified those terms to the advantage of the early settler; still the country lands continued unoccupied; but in addition to this, in 1852 and 1853 the governor tried to establish frontier villages, offering free grants of twenty acres to persons of his own selection, with no other restriction than the stipulation of receiving their combined services in the event of Indian disturbances in the neighbourhood, which there was then some reason to apprehend—but without success. The fact is, in these, as in every other new colony, speculators in land are a class who clamour against and assail, under the cloak of advocating liberal measures, every act of Government which has not a tendency to place the lands of the colony in their hands in anticipation of settlement; and attacks on Government on this head should be examined into with caution and even with mistrust. The settlers in the new American states, not satisfied with a very liberal preemptive law, ask to have the land for nothing. The Secretary of the Interior, in his annual reports of 1859, alludes to the expectation in the public mind that Congress would pass a law making a “gratuitous distribution of the public domain:” and again, “should, however, the new policy of a gratuitous distribution of the public lands be adopted,” &c., which is enough to show that whatever enactments on this subject are made, land grievances will still continue.

Again, where skilled labourers can earn 300*l.* a year, and common labourers 150*l.*, it is impossible that 5*s.* to 10*s.* an acre, the price at which lands have been hitherto offered, can have been the bar to their settlement; fully admitting at the same time as I do,

the sound policy, but not the absolute necessity, of making this first tax on the settler as moderate as possible.

Again, at the prices first named, the cost of fencing a piece of land is much greater than the price of it; the oxen and plough required to break it up will be worth more than a hundred acre section; and on going in this way further into particulars, we at length find that the price of land is but an item, and a comparatively small one, in farming expenditure; and yet it is not contended that the other and greater items alluded to prevent the settlement and development of a country.

The last allegation (No. 5) touches reciprocity.

I do not meddle with the question, Whether free trade between the British and Americans on the west coast, would or would not benefit either or both, but merely undertake to show that the want of it has not been as yet influential in retarding the former.

The following consideration ought not to be lost sight of; the extravagant prices of American merchandise of every description on the coast is attributable, in some measure, to their exorbitant port dues, but mainly to the 24 per cent. tariff which of course prevents American merchants from procuring their goods in the cheapest markets.

Suppose Victoria with its free port once to become the depôt of British merchandise. She must command the retail market of the entire Sound and British Columbia, and undersell the Americans in the Russian settlements and Sandwich Islands, to say nothing of the opposite Asiatic coast.

Hitherto, as before explained, Victoria has had no trade worth mentioning with England ; her wants were supplied from San Francisco, and ruled by San Francisco prices ; the desired result has not yet taken place.

If we had had a surplus of agricultural produce, lumber, wool, fish, &c., there was nothing to prevent our sending it, as San Francisco has done, to the Russian settlements, South America, Australia, Sandwich Islands, China, and even Japan. Why complain of the want of a market for goods of which we are consumers only, and not producers? After the communication to and within the colonies shall have been established, and commerce with England result from population, the Americans themselves will be the first to find the disadvantage of their restrictive duties in competing with us at the more distant markets.*

* Extract from the Government Address on opening the General Assembly at Victoria, August 12, 1856 :—

“ Gentlemen, I am happy to inform you that Her Majesty’s Government continue to express the most lively interest in the progress and welfare of this colony.

“ Negotiations are now pending with the Government of the United States, which may probably terminate in an extension of the reciprocity treaty to Vancouver Island.

“ To show the commercial advantages connected with that treaty, I will just mention that an import duty of 30*l.* is levied on every 100*l.*’s worth of British produce which is now sent to San Francisco, or to any other American port ; or, in other words, the British proprietor pays as a tax to the United States, nearly the value of every third cargo of fish, timber, or coal, which he sends to any American port. The reciprocity treaty utterly abolishes those fearful imposts, and establishes a system of free trade in the produce of British colonies.

“ The effects of that measure, in developing the trade and natural resources of the colony, can, therefore, hardly be over-estimated.

“ The coal, the timber, and the productive fisheries of Vancouver Island, will assume a value before unknown ; while every branch of

It was an admitted maxim of the customs' department in England that when an import duty exceeded 30 per cent., to prevent smuggling was impossible. If this was true in England, with a fleet of revenue cutters, and picketed with coast guards, how much more forcibly will the argument apply to the frontier that separates the British colonies from America, exposed and extended as that frontier is! As soon as we commence to undersell our neighbours, we shall supply them independently of tariffs.

I do not say that a removal of those duties would not benefit both, but merely that our neighbours will first have cause on that score to complain.

At a public meeting of the inhabitants of Minnesota at St. Paul's (July 10th, 1858), the following resolution was passed:— "That the people of Minnesota will join heartily with the people of Canada in the policy of colonising the western districts of British America, which is about to be established; and that relations of reciprocal trade with the United States, if not now existing, should be extended over that region of North America."

trade will start into activity, and become the means of pouring wealth into the country.

"So unbounded is the reliance which I place in the enterprise and intelligence possessed by the people of this colony, and in the advantages of their geographical position, that, with equal rights and a fair field, I think they may enter into successful competition with the people of any other country.

"The extension of the reciprocity treaty to this island once gained, the interests of the colony will become inseparably connected with the principles of free trade, a system which, I think, it will be sound policy on our part to encourage."

It is hardly necessary to say, the proposed measure did not ta effect.

I doubt if an exception can be raised even in the matter of coals. The greatest portion by far of the coals consumed in San Francisco is English, and they also consume for domestic purposes as much Vancouver Island as Oregon coal. The observations previously made on this head show that the prospects of finding coal, suitable for steam purposes, in Vancouver Island are much more promising than in Oregon. At present say San Francisco pays 5*l.* a ton for English coal, while Nanaimo coal is sold at 1*l.*, and adding \$3 to \$4 freight, and 24 per cent. duty on the cost of production, Nanaimo coal will still be the cheapest in the market ; and we see a certainty of sale for all the coal suitable for steam purposes that Vancouver Island or British Columbia can produce* : and how great the consumption is, may be conjectured from the fact, that a year ago the aggregate tonnage of San Francisco steamers exceeded 35,000 tons, a figure which must since then have materially increased.

The greatest anomaly under this head existing is, that British Columbia should impose 10 per cent. duties on the produce imported from Vancouver Island ; for although many articles are exempt from this regulation, it applies to the supplies which the miners principally require ; such as flour, beans, salt meat, &c.,—a source of revenue for which it is probable a direct tax on gold exported will ultimately be substituted.

From the enumeration and discussion of alleged causes of non-settlement of these colonies, I have omitted altogether one that has been occasionally as-

* This view is in fact confirmed by a letter received lately from the island, mentioning that the tonnage carrying coal from Nanaimo in the month of January last had increased to 2000. The price of Nanaimo coal at the pit's mouth varies from \$4 to \$6.

signed, viz. that the Hudson's Bay Company used their influence systematically and intentionally to discourage and retard settlement in the country, because I thought it useless to enter upon or refute a charge which has not been accredited, by any unprejudiced person familiar with the facts, although my intimate acquaintance with the subject, and absence of all connection with the Company, would fully enable me to do so. Underselling merchants of less capital, by whom they are surrounded, is a very unpopular avocation, and whether they do so in Oregon or the colonies, it will have the same effect, a chorus of denunciation will attend them wherever they trade.

Having disposed of our first inquiries, we are here naturally led to ask why is it that America has succeeded so well with her colonies in the north-west, where England has comparatively, I might almost say signally, failed? The cause is, on examination, sufficiently obvious. Each nation asserts and acts upon a policy towards its colonies *there*, diametrically opposite to that of the other.

England proposes to the first emigrant, land to occupy with free institutions, and leaves it optional to them to establish for their own benefit, and that of their successors, all leading communications, execution of survey, public works, and postal arrangements, or to omit to do so if they feel unwilling or unequal to the task.

America, on the contrary, insists on the execution of those works of magnitude which she considers essential to begin with, holding the lands and the revenues derivable from customs and posts, until fully indemnified for the outlay incurred.

To show that this case is correctly stated, I shall first quote from the despatches of Sir Edward Bulwer

Lytton the principle on which the colony of British Columbia was founded, and which, I may add, has been as strictly as possible adhered to, up to the present time.

“October 29th, 1858.—Now as the Mother Country expects all colonies, not conquered nor founded for purely imperial purposes, to be self-supporting, &c.,” and again, “Dec. 30th, 1858.—I cannot avoid reminding you, that the lavish pecuniary expenditure of the Mother Country in founding new colonies has been generally found to discourage economy, by leading the minds of men to rely on foreign aid instead of their own exertions; to interfere with the healthy action by which a new community provides step by step for its own requirements; and to produce at last a general sense of discouragement and dissatisfaction. For a colony to thrive and develope itself with steadfast and healthful progress, it should from the first be as far as possible self-supporting.

“No doubt it might be more agreeable to the pride of the first founders of a colony which promises to become so important, if we could at once throw up public buildings, and institute establishments on a scale adapted to the prospective grandeur of the infant settlement. But after all, it is on the character of the inhabitants that we must rest our hopes for the land we redeem from the wilderness; and it is by self-exertion, and the noble spirit of self-sacrifice which self-exertion engenders, that communities advance through rough beginnings to permanent greatness. Therefore it is not merely for the sake of sparing the Mother Country that I invite your cordial and intelligent co-operation in stimulating the pride of the colonists to submit to some necessary privations in the first instance,

and to contribute liberally and voluntarily from their own earnings (which appear to be so considerable), rather than to lean upon the British Parliament for grants, or for loans, which are rarely repaid without discontent, and can never be cancelled without some loss of probity and honour. It is my hope that when the time arrives for representative institutions, the colony may be committed to that grand experiment unembarrassed by a shilling of debt, and the colonists have proved their fitness for self-government by the spirit of independence which shrinks from extraneous aid, and schools a community to endure the sacrifices by which it guards its own safety and provides for its own wants," &c.

Eloquent as the despatch from which the foregoing is extracted is, and matchless as a piece of literary composition, I cannot avoid thinking that the principles laid down in it might with advantage be re-considered. If, as Adam Smith says, the same reasoning may, in cases of this kind, be applied to communities as to individuals, it would be equally impolitic for an individual to borrow money at interest, on the security of a large landed estate, for its improvement; repayment of such a loan would occasion discontent: and, if the lender should propose to cancel the bond and with it the debt, the borrower would experience a certain twinge of moral degradation. Colonial infancy is ignored: the chrysalis must fly at once. Placed in the heart of a country of great promise and capabilities, but at present inaccessible and uninhabited, the reader, if he were to commence as a farmer or merchant, would, in this view, succeed better without roads to travel or traffic upon, or postal communications to distract; and the habit of self-reliance thus engendered,

would be more valuable to him, far, than the profit of capital, however judiciously expended.

On the other hand it may be possible, that if a tract of country is adapted by nature for early settlement, its lands, and the revenues derivable from the population, which, with reasonable facilities and access, its resources may, within the first year or two, attract and enrich, may afford ample security for the capital required to develop and place those resources within the reach of the immigrants intended: that otherwise such a country is not fit for early settlement, and the attempt ought not to be made; and that when a country is, in the opinion of our wisest statesmen, thus eligible, imperial and colonial interests being so intimately blended as they are, it may in certain cases be to the interest of England to encourage the expenditure of, and in some instances even to provide, the capital required to make the country habitable, or at least accessible, and to control that expenditure, the debt being a charge against the lands and revenues of the country generally, recollecting that when the time should arrive, proper in the opinion of England, to grant free institutions to the inhabitants (which when granted in advance of population, tend merely to benefit some party or clique), it is unreasonable to suppose that a colony of Englishmen would then object to accept with them their just responsibilities, or desire to repudiate advances made for their benefit if judiciously and honestly expended.

Many public works, of the greatest utility, however, carry with them the capability of defraying, when executed, their own expenditure, a principle that should be taken advantage of wherever it exists, of which a detailed instance is given in Chap. VII., in speaking of a proposed British emigrant route to the Pacific.

Public opinion on this subject in America, as we may gather from the President's last message, which may generally be regarded as an echo of the popular voice, is widely different from the policy above described. In speaking of the financial condition of the country, he says, "We ought never to forget that true public economy consists, not in withholding the means necessary to accomplish important national objects confided to us by the constitution, but in taking care that the money appropriated for these purposes, shall be faithfully and frugally expended." In practice, these maxims are usually effectuated as follows:—

In the States, until the population of a territory is sufficient to justify its admission into the Union, a government is provided for it by the parent state. The President, with the concurrence of the Senate, appoints all the principal officers, under whose direction the roads at first most required are made, customs and postal arrangements established, the necessary public buildings erected—even lunatic asylums and libraries are not forgotten*—at the sole expense of the Federal Government. A local legislature is formed with limited powers to tax, the application of the proceeds being controlled by the officers of the Federal Government, which is kept well informed by a delegate to Congress, who is allowed to speak in the House of Representatives, but not to vote. The Federal Government usually cedes to the territory some small tracts of wild land to practise upon, under certain restrictions as to sale. When the territory is admitted into the

* It is said that Iowa for a considerable time after her population was sufficient to secure her admission as a state into the Union, evaded the distinction so as to reap the full benefit of immaturity.

Union as a state these grants are increased in all to 500,000 acres for internal improvements, but even then the Federal Government continues to retain the principal appointments and reimburses itself for the previous outlay by continuing to receive the proceeds of customs, post office, and land sales, in the latter case less ten per cent. per annum of the net proceeds or balance which remains after paying the civil lists, which percentage or balance becomes the property of the state.

The system appears in many respects inferior to our own, especially as many of the principal officers are liable to be removed by a change of the ministry at Washington, but it has this advantage in a remarkable degree, that by rapidly opening up communications and removing the most formidable impediments to the first settlers, a sudden impetus is given to emigration, the wilderness is quickly converted into a territory, and the territory into a state.

CHAP. VI.

ROUTES TO THE PACIFIC. — BY LONG SEA. — BY ROYAL MAIL LINE, OR
viâ NEW YORK, ACROSS THE ISTHMUS OF PANAMA, TO SAN FRAN-
 CISCO, AND THENCE TO THE BRITISH COLONIES. — THE FOUR OVER-
 LAND AMERICAN ROUTES. — POSTAL.

THERE are at present seven routes open to the traveller, by any one of which he can reach the colonies on the Pacific. Of these, three are by water or chiefly so, and the others across the continent. In the order mentioned, I shall shortly describe each of these routes.

The only direct way to reach Vancouver Island and British Columbia at present, is to take advantage of any vessel sailing from London or Liverpool that may offer. Exceeding 17,000 miles, this passage is the longest that can be taken from England to any known port rounding either cape, unless it be to some place in the neighbourhood of Sitka, or Petrapaulouski; little short of five months *, it occupies a considerable fraction of a man's life time: let us cherish the idea that it will be superseded, before the surface gold of British Columbia begins to be exhausted, or the country converted into a succession of distorted ridges and unsightly mounds, by a North Pacific British Emigrant and Postal route,

* Sir E. B. Lytton to Gov. Douglas, Sept. 2, 1858: "I may further observe, that a ship has been chartered, and is in course of preparation for the conveyance of the larger portion of this detachment by the Horn; but as the passage will consume nearly four months, and it is desirable that you should have the" &c. (This should have read five months.)

which, as is elsewhere shown, could be opened at an expenditure of about 250,000*l.* and by which the colonies could be reached at least a week sooner than now by Panama, the quickest route, and at a fraction of the expense of the latter.

All long sea voyages are monotonous, and in this case remarkably so, as land is seldom seen or visited from port to port; the only variety, and that not an agreeable one, being met with in coming round the Horn.* For any one who can go aloft and work his passage through, such a voyage seems sensible enough; but, for an unoccupied passenger to vegetate for five months at sea is a matter of much greater difficulty.

In short, if the reader will take up any published account of a very long sea voyage and read it two or three times over, he will have read what I must have written, had I described in detail the only British route existing to Her Majesty's colonies in the North Pacific. This voyage is very nearly as expensive as that by Panama, without taking into account the value of the passenger's time.

In addition to this, supposing an emigrant bound to British Columbia to have arrived by sea at Esquimalt Harbour, he is obliged to retrace his steps eastward a considerable way in order to reach his destination. This countermarch, as it were, will cost him as much as it would have cost him, in the first instance, to have crossed the Atlantic.

The difficulties and even dangers which the traveller had to encounter in crossing the isthmus, previous to the partial opening of the railway in 1852, or its completion at a cost exceeding a million sterling, in 1855, are still fresh in the recollection of many.

* See Appendix, page 154

Who that crossed it then can forget the heat and filth of Chagres, the packs of curs and flocks of buzzards, the struggle in bungos and with boatmen up the river, the scenes of riot and debauchery at the villages, jungle fever, and the bones that marked the mule tracks through the plains of Panama, and stamped that short but fatal route of fifty miles, as the Golgotha of the West?

All this is changed now: after an interesting voyage of seven or eight days from New York, in a first-class steamer, supplied with every comfort and luxury that can be desired, Aspinwall is reached. During the voyage, the traveller will have seen the low coral islands of the Bahamas, and coasted along the shores of Cuba, in colour and elevation contrasting happily with the hills of San Domingo and the blue mountains of Jamaica.

Luckily there is no detention at the town of Aspinwall, where all the inconveniences of Chagres are met with in a milder and mitigated form. Once in the cars—the railway passes through a deep marsh which it quits at Gatun on the Chagres: thence traversing a dense tropical forest, with occasional clearances and haciendas, and arriving at Barbacoas, it crosses the river, and the summit from which Balboa discovered the Pacific is seen. As the traveller advances, he obtains views of the river, reflecting from its bright surface the deep rich greens of the tropical jungle or forest, or the blossoming parasites which hang in festoons above the banks. Having passed the summit level, the scene changes, and at a distance the level savannahs and the spires of Panama are descried.

In the meantime the telegraph has done its work, and the Pacific steamer is in readiness to convey the passengers to San Francisco. So that the whole time

occupied in the transit of the isthmus, does not exceed five hours.

By these very expeditious arrangements, the passenger loses the chance of seeing many a magnificent pile of Moorish architecture, half overgrown with tropical vegetation; the remains of old Panama, its broken down bridges, and the bay in front, the resort of innumerable sea-fowl, from the sand-piper and sea-gull to the red flamingo and stately pelican. But in missing these, and many other objects of the greatest beauty and deepest interest, the dangers of taking Panama fever, to which Europeans on a first visit are particularly liable, is greatly diminished; as well as the risk of being riddled with jiggers and galipatos, or on waking some morning to find one's hair converted into a flourishing nest of ants.

Aspinwall can be reached in about the same time, sixteen to twenty days, by the Royal Mail line of steamers, *viâ* St. Thomas from Southampton, as it can, *viâ* New York from Liverpool. But as the connection between the Royal Mail Line and American conveyances is very imperfect, I recommend travellers, unless very patriotic, to avoid it. Having been myself a victim, and in consequence of doing so, detained fifteen days on the isthmus, I speak from experience. Besides which, the British line is dearer for passengers, and twice as dear for letters.

Panama to San Francisco occupies about fourteen days. Being a coasting voyage, in a steamer resembling a floating hotel, in the still waters of the Pacific, if not overcrowded, the passage is a very agreeable one. Having passed the beautiful islands of Tobago and Taboquilla, the Pearl Islands loom in the distance. The views of the mountains of Mexico and the isthmus

are constantly changing. Half-way is Acapulco, where the steamers stop to coal. The city, beautifully situated among groves of cocoa and palm, at the base of mountains which rise from the edge of the harbour, one of the most perfect in the world, is still a relic of the former times of Spain. The colouring is exquisite: the Mexicans in the market-place, selling fruits, shells, and pearls, which seem to be the staple commodities; the old Spanish churches and wells; divers swimming round the steamers; and coaling by torch-light, are studies of peculiar interest.

The traveller will do well to avoid the Tehuantepec route *viâ* New Orleans, semi-monthly, as in its present condition the road is comparatively useless alike for purposes of travel and postal communication. The land portion of the transit across the isthmus — being upwards of a hundred miles in length — consists of an unpaved and imperfectly graded road, passing over a precipitous mountain, and barely practicable for wheeled vehicles; and, in consequence, a mail made up of a few light sacks is all that the contractors have carried, and all, it is presumed, that they have been able to carry since the commencement of the service.*

But as the Nicaragua route, likewise from New York to San Francisco, is about to be reopened, and as I passed over it twice, I shall here shortly describe it, although not counted among the seven routes mentioned at the commencement of this chapter.

Compared with the Panama route, there is a saving by it of 700 miles. The whole distance from San Juan del Nor, on the Atlantic, to San Juan del Sud, on the Pacific, is 212 miles.

* Vide also Panama Star and Herald, Jan. 17, 1860.

Ascending, in a small but comfortable steamer the river St. Juan, in nineteen hours the traveller reaches the Castilio rapids, and changes steamers ; five hours more take him to Port Carlos, where the river joins Lake Nicaragua ; there, changing steamers again, twelve hours take him across the lake to Virgin Bay, connected with the Pacific by a very agreeable mule ride of three or four hours, the last figures depending to a great extent upon the natural disposition of the animal the traveller may happen to select.

In Central America generally, extending into Mexico, the rainy season commences about the 1st of May, and continues almost without intermission from 5, or $5\frac{1}{2}$ months in the former, to 4 months in the latter ; at any other time, to any one unaccustomed to tropical scenery, nothing can be more enjoyable than a tour through this country. The banks of the San Juan are clothed with evergreen forest, the dense foliage of which, thickly interwoven with blossoming vines, blossoming parasites, and blossoming cactuses, hangs over the water and hides the banks. The infinite variety of this forest is indescribable ; mahogany and logwood, looking like ash and acacia ; mangroves, each supported by innumerable stems ; extending branches, bound to the earth by what look like ropes and perfectly twisted cables ; bamboos like feathers, and palms like plumes ; cocoa-nuts and palmettos, bananas and plantains, with their gigantic leaves and dangling fruits, bewilder the beholder. Nor is the scene wanting in animation, enlivened as it is by flights of macaws, parrots, buzzards, &c. ; in the trees, monkeys, nearly all ring-tailed ; egrets and cranes pacing the sand-bars, and huge alligators basking in the mud. Where the banks are clear, occasional haciendas are passed ; the houses

two-thirds roof, built of bamboo and thatched with palm, are more like hermitages or moss-houses than anything else, and the dusky inmates invariably rush out to hail the steamers passing. The lake is beautiful ; the conical islands of Omatepec, some 4000 or 5000 feet high, with distant mountains rising majestically in the back-ground, and the crumbling fortresses built to repel the Buccaneers, buried in vegetation as they are, form the most beautiful pictures conceivable.*

The passage from San Francisco to Vancouver Island in an American steamer occupies four or five days. It thus appears, allowing for slight detentions at New York and San Francisco, London to Vancouver Island, *viâ* the isthmus, is made in about forty-five days, and that the enormous expenses, 80*l.* to 100*l.*, and the fact of their being so very circuitous, are the main objections to the routes *viâ* Panama, Nicaragua, or Tehuantepec, as thoroughfares to the British Colonies:

In shortly describing the four overland routes in American territory by which travellers can reach San Francisco, it should be premised, that although it is customary to admit that the unremitting efforts of America to spread her republic in the West have been very successful, the gigantic character of the works undertaken with this view, and to connect the Eastern States with the Pacific, and the enterprise and liberality with which they are, in the teeth of obstacles almost insurmountable, carried out, are by no means so generally understood.

Of this truth a very remarkable illustration occurs in (No. 1), the great overland route from St. Louis and

* An interesting account of the town of San Juan will be found in Harper, Dec. 1854.

Memphis, *viâ* El Paso, to San Francisco, which is now more used than any of the other continental routes. The mail service by it is semi-weekly during the travelling season; it is subsidised by the United States Government at \$600,000 per annum, and is the longest mail-coach road in existence, being, from St. Louis to San Francisco, 2765 miles. It is travelled night and day by four-horsed coaches, and with perfect regularity; the distance is accomplished in twenty-two days. The cost to a passenger is about 20*l.*, and 5*l.* or so in addition, incurred for meals, which are obtained at regulated charges and fixed stopping-places along the road. Each passenger is allowed 50 lbs. of baggage, and can, at any place he pleases, await the next coach, of which he is three days in advance. For the first few days the process is found excessively fatiguing, but after a little practice the traveller sleeps regularly and soundly in the carriage, and finds enjoyment in the constant change and varied scenes experienced. This route is admirably provided with horses, mules, and coaches. Military stations have been established at regular intervals along the entire route; each station has a guard of twenty-five men, well armed; this force is thought ample, considering the manner in which the buildings themselves, on a principle similar to that of the martello towers in Ireland, are constructed to resist effectually any number of hostile Indians, at one time likely to collect in a single body. Each train of emigrants, who seldom use the coaches, but drive their own teams and carry their own Penates, is guarded through the wilderness by twenty-five men, who take this duty in rotation, and are thus kept fully occupied. In this way the emigrant is provided with information as to halting places, water and provender for his cattle, fuel, &c., as he advances.

The vehicles used upon the road from Fort Smith, westward, are of the description known as "celerity coaches." Built like a common coach, the body is hung on springs in the usual way; instead, however, of the heavy wooden top, with iron railings round, in common use, they are roofed with canvass, lightly supported, as in the case of a common waggon. This covering affords ample protection against the weather, while it greatly diminishes the weight of the vehicle, and its liability to upset. The rolling stock on this line consists of 100 such coaches. The route in some places passes through long stretches of the Great American Desert, quite destitute of water; in one case there is seventy-five miles of barren sand. In these localities the stations are supplied by regular water-trains, fitted up expressly for the purpose. The waggons used carry large tanks, which resemble the boilers of a steam-boat, and, for sake of lightness, are made of block tin; each waggon is drawn by four mules. These teams convey water regularly to the different stations, where reservoirs are built to receive and preserve it for the use of passengers, and the employees and stock of the company contracting. This is, of course, a very expensive way to get water, but as every effort to procure it otherwise has failed, there is no alternative. Workshops and smithies are, of course, established at intervals along the road.

Of the next route (No. 2), from San Antonio, *viâ* El Paso, to San Diego, semi-monthly, (weekly from San Antonio to El Paso and Fort Yuma), it will be sufficient to mention shortly, that the San Diego and San Antonio route consists of a weekly mail service, receiving a subsidy from the government of \$200,000 per annum; that the distance between the two places

named is by it 1570 miles, travelled by the stages in 28 days; the most serious objection to this route is that passengers are detained at one place on the road before being carried through to San Francisco.

The third route (No. 3) opened to San Francisco, is the Kansas and Stockton, passing through Santa Fé. The service is monthly, and the subsidy from the United States government is \$80,000 per annum; the entire distance from Kansas city to Stockton is 2026 miles; it is generally regarded as an exceedingly level and rather monotonous road.

The last route (No. 4) is from San Joseph and Placerville, *viâ* Salt Lake City. By this route the distance from San Joseph to San Francisco is 1770 miles, and time taken to travel there, 38 days. It is a weekly mail service, for the carrying of which the United States government pays \$320,000 per annum. This is the high road to Utah, and is said to be better connected than the other routes with Washington and Oregon, the stretches of sand seldom exceed twenty miles, and it is the highway over which nearly all the earliest emigrants to California travelled. These routes are coloured pink on the annexed map, mere branch roads being coloured blue.

To describe minutely each of these routes, the proper time to start, the country traversed, and the equipment required, would far exceed the limits of this publication. To those interested I would recommend the perusal of a small book, the "Prairie Traveller," by Capt. Marcy, published in New York in 1859, which contains "itineraries" of the principal routes from the Mississippi to the Pacific.

I have, in the foregoing, omitted to include among the routes to British Columbia and Vancouver Island,

the trail *viâ* Red River, North Saskatchewan, and the Punch-bowl Pass in the Rocky Mountains, or other similar trails usually travelled by the brigades of the Hudson's Bay Company. To hardy trappers, lightly equipped, and confident in their knowledge of the passes of the country and its resources, as well as from their skill in woodcraft and mastery over the Indians, these routes are perfectly safe, but should not be encountered by strangers or emigrants. The Fort Benton route I omit, as unfinished and described in another place. The various routes through Mexico are rendered unsafe by brigands, who take advantage of internal dissensions and perpetual insurrections to pillage travellers wherever they meet them; one-third of the nation are highway robbers, and, whether Castileon and Chemorrow or Juarez and Miramon contend, under cover of the political darkness which always pervades that beautiful country, practise their avocation with unparalleled audacity and impunity: otherwise, something would have to be said of the stage route from Vera Cruz through the ancient and beautiful city of Mexico to Acapulco, connecting with steamers on either side.

Meagre as the sketch above given of the principal American overland emigrant routes is, it is sufficient to show that America has already connected her possessions on the Pacific with the Eastern States, by 8131 miles of mail-coach road, opened and maintained by the nation at a gross expenditure of \$1,196,447 per annum. And when to the postal subsidies paid by the American government to the four overland lines just described, are added \$738,250 annually paid to the contractors to carry the mails from New York and New Orleans *viâ* Panama to San Francisco semi-monthly, and from New Orleans to San Francisco, *viâ* Tehuantepec, also semi-

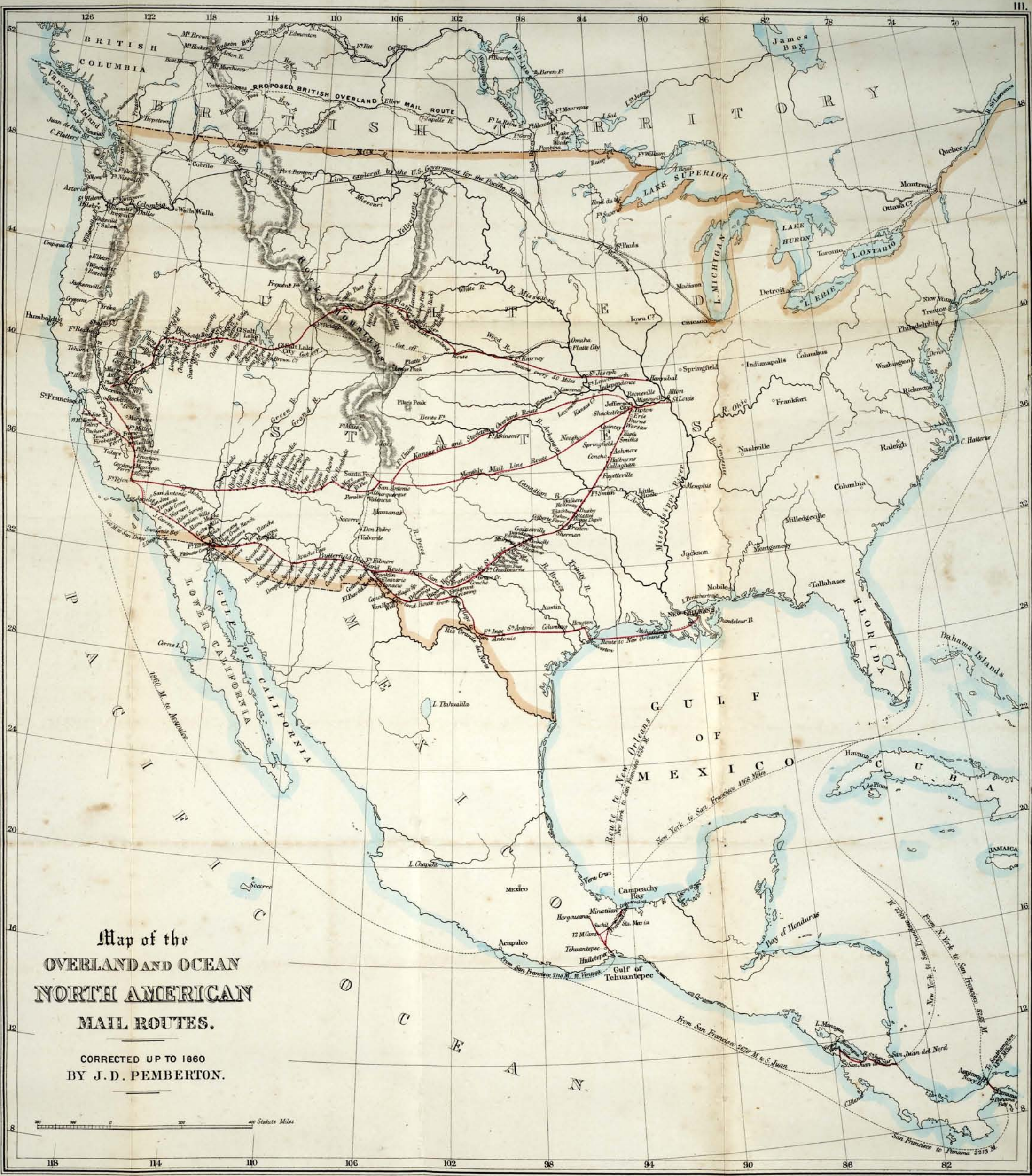
monthly, \$250,000 per annum, on the same account ; and for local mail service, \$508,697 per annum, which was the case in 1859, we find that America has been disbursing, on the plea of carrying the mails to the North Pacific, but in reality, to open up communication to the country and to colonise it *, in round numbers 550,000*l.* annually, and incurring an annual loss on this account of 377,000*l.* This expenditure is quite independent of the cost of her military roads, such as the Fort Benton route, described in the next chapter,—that from Fort Smith to the Colorado, &c. ; and as, according to the statements of the Postmaster-General (of this year), the population in whose favour this enormous outlay is incurred does not exceed 650,000† persons, the American portion of the coast of the Pacific is peopled at a cost to the Federal Government, amounting to 17*s.* annually for each settler or emigrant, including all ages and conditions.

* A comparison of the expenses and products of the routes named, leaves no room for doubt that the postal communication which they afford is not looked to by the government as an end, but as an instrument for the advancement of ulterior objects. Indeed, it has not been concealed, but openly avowed by the friends of the policy which maintained these routes, that they were intended as the pioneers of civilisation ; as the means of rapid and regular communication between remote military posts and the government, and most especially as an instrumentality for promoting the settlement of our frontiers, and thus appreciating the value of the national domain.—*Report of Postmaster-General U. S.*, Dec. 3, 1859.

In England also, "The decision on Post-Office contracts is not a mere Post-Office question, but frequently involves considerations of an imperial character, affecting our political relations, our colonial empire, the efficiency of our army and navy, and the spread of our commerce."—*First Rep. Sel. Com. Packet and Telegraphic Contracts*.—May 22, 1860.

† I am, however, of opinion that those figures are understated.—J. D. P.

Under these circumstances, it is not surprising that the Americans should, for a long time back, have carried, without caring for remuneration, from San Francisco to the British colonies, our little mail bag, the moderate dimensions of which are preserved by a high charge on letters, a charge on newspapers equal to their cost, and a practical prohibition of pamphlets, and of books however small.



Map of the
OVERLAND AND OCEAN
NORTH AMERICAN
MAIL ROUTES.

CORRECTED UP TO 1860
BY J. D. PEMBERTON.

CHAP. VII.

PROPOSED BRITISH EMIGRANT AND POSTAL ROUTE TO THE PACIFIC FROM CANADA, SOUTH OF THE LAKES, THROUGH RED RIVER AND BRITISH COLUMBIA, TO VANCOUVER ISLAND. — TRADE WITH CHINA AND JAPAN. — POSTAL COMMUNICATIONS WITH AUSTRALIA. — CONCLUSIONS ARRIVED AT.

CENTURIES* have elapsed since England first entertained the dream of a north-west passage for her vessels trading to India and the China seas, and during no portion of that period was the search more energetically conducted than within the last thirty years. That dream is now dispelled; and in passing through those icy portals in 1850-'51, M'Clure, more fortunate than his gallant competitors, may be said, as far as mercantile interests are concerned, to have closed the gates behind him. The apathy that usually succeeds expectations disappointed, where every effort has been made to ensure success, did not in this case last long; for in 1857 our legislators and the public seem to have been struck with the fact, that in searching for a north-west passage in the Polar seas, they had overlooked the true north-west passage which exists in British territory, north of 49°, and that if a tithe of the exertion and expenditure incurred in investigating the former route had been applied to the latter, the original intention would long before this have been realised.†

* 1495.

† The expenditure of Great Britain on Arctic expeditions from 1800 to 1845 alone exceeded 1,000,000*l.* sterling.

True, however, to the principle that inventions in their earlier stages assume the most complicated forms, every project that has been hitherto brought prominently under the notice of the public or of government, having in view the connection of the Atlantic with the Pacific, has been wanting in the essential requisite practicability, and has been set aside, not owing to want of interest in the subject, but to the complexity of arrangements involved. Reports of exploring parties sent out by our own and the Canadian governments, by the Hudson's Bay Company, and the United States, furnish us with evidence in itself sufficient not only to reason but, better still, to act upon; and, I shall endeavour to show how, by divesting this subject of the incumbrances which have been hitherto supposed properly to belong to it, the attainment of the desired end is quite within our reach, and that the communication to, and connection of, the north-west colonies, of the kind most required, can be effected at an outlay inconsiderable when compared with the great national interests at stake.

It is hardly necessary for me to commence by stating, that, however desirable an interoceanic railway, passing entirely through British territory, might be, it is impracticable at present, and will continue to be so, until the population in the country through which it should pass shall be sufficiently numerous to justify its construction.

At present the country north of 49° , through which it would have to pass, may be said to be uninhabited, and it would take a season to estimate how many years would elapse, and how many millions be expended, before such a work would be finished.

Great stress has been laid on the advantage English merchants would derive from it, shortening, as it would,

the route to China and the Asiatic coast by some 3000 miles ; but it may reasonably be doubted whether to them the saving of interest on capital would not be more than counterbalanced by the additional cost of transshipping the goods, and of land carriage for 2500 or 3000 miles, and whether, after all, our teas and silks might not continue to be transmitted by sea.

To the emigrant speed is not so much an object as certainty and economy. On the great overland route from St. Louis to California, fewer emigrants travel in the stages than on horseback, driving before them the cattle that are to stock their future farms ; attending waggons carry the wife and children, and pack mules the provisions. They choose the best time of year, and the cavalcade proceeds leisurely along ; double time is occupied in the journey, but the stock and merchandise which they take with them are worth more than double, when they reach the west coast, what they cost in the States, which amply compensates for the delay. The advantage of a railroad over a good waggon road, would be felt more by tourists than by emigrants ; and with regard to postal arrangements, since in either case a line of telegraph would be established, the superiority of the railroad is, even in this respect, not so very considerable ; and, lastly, for the conveyance of troops in the event of a war, so long a track would be so liable to interruption, that for war purposes a railway could not be depended upon. But since, from its utter impracticability at present, it is needless further to discuss the advantages or disadvantages of a railroad that cannot now be made, I shall proceed at once to describe, in a general way, the nature of the communication required to connect the colonies, how easily this might be effected, and then to

explain in detail the grounds on which the opinions brought forward, or assertions made, are based.

Looking at the map of the Canadas, their railroads extend westward as far as Sydenham on the Ottawa River and (the Grand Trunk) to Detroit, on the southern shore of Lake Huron; from this point a railway in American territory extends to La Crosse. Whatever line of communication is adopted, must pass through the Red River country, somewhere between Pembina and Lake Winnipeg. Assume, therefore, that Assinaboia is a point in this line of communication. As soon as it is a fact that the Red River and the Pacific are to be connected, the people of Wisconsin and Minnesota will lose no time in extending their communications to the junction of the Siouxwood River with the Red River, which, as the river is there five feet deep, we shall call the head of steam navigation. Put a few short river steamers, of the class that can be built from 1000*l.* to 5000*l.*, on the Red River to connect these communications (180 miles) with Assinaboia. Open a waggon road, for which the country is particularly favourable, from Assinaboia, *viâ* Assinaboine River and Quapelle River and Lakes, to Elbow on south branch of the Saskatchewan River in lat. 51° long. 107½° (430 miles).

Put a few steamers of the class before mentioned on the South Saskatchewan, to complete the communication (300 miles), to the base of the Rocky Mountain; here taking advantage of the Vermilion Pass, open a waggon road in the best route obtainable (400 miles) to Hopetown, which may be considered the head of navigation on the Fraser for steamers of at all considerable size.

Such is the skeleton plan or bare outline of the

proposal made, the distances and times being given in the following table :—

	Miles.	Time.	
		days.	hrs.
Portland to Chicago, Canada Grand Trunk . . .	1008	2	0
Chicago* to St. Paul's (if by railway)	350	1	6
St. Paul's to Pembina (if by railway)	450	0	15
Pembina to Elbow, waggon road	500	10	0
On South Saskatchewan, by steamer	300	1	12
From pass of Rocky Mountains across stream to Hopetown by waggon road	400	8	0
Hopetown to Victoria by steamer	170	1	0
Portland to Victoria	3178	24	9

In short, the advantages of this route might be summed up as follows:—that by opening it in the cheap way suggested, while you connect together all the colonies of British North America, an emigrant from England could reach Victoria in one week shorter time than he can now do by Panama, the quickest and most expensive route.

I am confident that the roads on this route can be opened for traffic with 100,000*l.*, and 100,000*l.* more ought to be ample to construct half-a-dozen river steamers (at 5000*l.* each) to build workshops, stables, and defences, sufficient to commence with, as well as to pay for superintendence of works in process of construction; the total estimate being 200,000*l.*, the expenditure of which would be spread over an interval of three years.

For, as I shall show, the link between Chicago and

* At present two trains daily from Chicago to La Crosse (thirteen hours) connect with two lines of steamers on the Mississippi to St. Paul's, in summer; and in winter stage coaches on the roads replace the steamers.

Red River would not cost any thing to the promoters ; a waggon road from Pembina or Assinaboine to the Elbow is already travelled by wheeled carriages, and 50*l.* per mile would make the road a tolerably good one. The road connecting the Saskatchewan with Fort Hope would cost 200*l.* per mile ; Hopetown is already connected by steamers with Victoria.

Before entering further into detail, the reader may perhaps be disposed to admit, that the line is a very promising one, and the sum comparatively small ; but to ask, Where is the 200,000*l.* to be obtained ? The answer is as follows ;—Government would only have to encourage and suggest, and contractors would be found ready to compete to open this road and maintain it on some such terms as the following :—The contractor or private company to find the capital required, and establish the line. To run bi-weekly conveyances both ways, while the season should be open ; passengers' fares and freight being liable to revision, bound to carry horses, cattle, &c., in the steam boats across the Saskatchewan plains, as want of fuel, &c., would make this part of the route difficult to emigrants. The contractor to have a right to levy small tolls, also liable to revision, on travellers using the road but not the vehicles. The Government on their part to guarantee 6 per cent. on the capital, which at the worst could not exceed 12,000*l.* per annum, diminished by whatever postal assets the line should realise,—to pay the contractor something for carrying the mails, which would diminish the risk of loss to him ; and, with regard to the termination of the contract, the Government would of course reserve the right, notice having been given, to pay off the contractor at any time, at a valuation of his works and stock. If the line paid more than 12 per cent., the surplus might

form a sinking fund. The effect would be, that the lands all along the line of road to be opened, 1200 miles, would be so enhanced in value, that the proceeding might be made a source of revenue, instead of a loss to the country.

There can be no grounds to apprehend that the receipts of this road would be liable to be diminished by a competing line south of 49° . On the contrary, I shall have occasion to show that it is more reasonable to suppose that the British line would draw off a considerable proportion of the traffic of the valley of the Columbia River.

To enter more into detail, let us examine first the principal obstacle, to the route, — the Rocky Mountain Chain.

For the last ten years the talent of *Westpoint* has been concentrated upon this subject, endeavouring to solve in a practical manner, within American territory, the problem we are now considering; and we cannot examine the reports of their numerous explorations, without admitting that, although baffled by the natural barriers, which exist for a distance of 1200 miles south of 49° , their military engineers have done their duty admirably.

In endeavouring to connect the Mississippi with the Pacific, they have thoroughly explored eight different routes, and for 1000 miles south of 49° , no single pass in the Rocky Mountains has been detected less than 6000 feet high, and which does not present difficulties far greater than are met with in the passes north of 49° , — a result very clearly expressed in the following table : —

Description of Route examined.	Distance in straight line.		Sum of Ascents and Descents.	No. of Miles of Route through Arable Land.	No. of Miles of Route through Lands uncultivable.	Summit of the Highest Pass on the Route.	Remarks.
	Miles.	Miles.	Feet.	Miles.	Miles.	Feet.	
Route near 47th and 49th parallel. St. Paul to Seattle. }	1410	2025	19,100	535	1490	6044	{ Cadotte's Pass. (If a railway) Tunnel proposed at elevation of 5219 ft. Cadotte's Pass. (If a railway) Tunnel proposed at elevation of 5219 ft.
St. Paul to Vancouver. }	1455	1864	18,100	374	1490	6044	
Route near 41° and 42°. <i>Via</i> South Pass from Council Bluff to Benicia. }	1410	2032	29,120	632	1400	8373	
Route near 38° and 39°. Westport to San Francisco by the Coo-che-to-pah and Tala-ee-chay-pah Passes. }	1740	2080	49,986	620	1660	10032	{ Tunnel proposed at elevation of 9540 ft. ! Tunnel proposed at elevation of 9540 ft. !
Route near 38° and 39°. Westport to San Francisco by the Coo-che-to-pah and Madelin Passes. }	1740	2290	56,514	670	1620	10032	
35°. Fort Smith to San Pedro. }	1360	1892	48,812	416	1476	7472	
35°. Fort Smith to San Francisco. }	1360	2174	50,670	644	1530		
32°. Fulton to San Pedro. }	1400	1618	32,784	408	1210	5717	
32°. Fulton to San Francisco. }	1620	2039	42,008	759	1280	5717	{ Average estimate of foregoing routes exceeding 20,000,000/. sterling (if for railway.)

To determine the places in the Rocky Mountains where the first and second of the routes mentioned in the table should cross, seven passes were examined: 1st. Maria's Pass, tunnel at 8000 or 8500 ft. (limit of

perpetual snow in that latitude); 2nd. Lewis and Clark's, 6323 elevation, $2\frac{1}{2}$ miles of tunnel through rock proposed, so as to obtain approaches 40 ft.—60 ft. per mile (1 in 132); Cadotte's Pass, tunnel $4\frac{1}{2}$ miles long, to obtain approaches 40 ft.—60 ft. per mile. The remaining passes are even worse than these.

North of 49° the depressions in the Rocky Mountains are much greater. Of the Kananaskis pass, Captain Palliser says that with but little expense it could be rendered available for carts. He describes it as a gorge winding through the mountains, among cliffs of a tremendous height, and adds that his onward progress was not impeded by obstacles of any consequence, the only difficulty he experienced being occasioned by quantities of fallen timber, caused by fires. The extreme height of this pass is 5985 ft. In descending on the western slope, he writes, "This portion of our route continued for several days through dense masses of fallen timber destroyed by fire, where our progress was very slow, not owing to any difficulty of the mountains, but on account of the fallen timber, which we had to climb over and then to chop through, to enable the horses to step or jump over it." Here he learned from the Kootanies, that there was a very plain and easy road to Fort Colville, distant eight days from their camp.

Without dwelling longer on the advantages of this pass, I turn to that described by Dr. Hector, a little to the north of the former, called Vermilion Pass, of which the extreme elevation is 4944 ft. "Dr. Hector followed the S. Saskatchewan River right up to the main watershed of the continent; then followed it until he reached a transverse watershed, which divides the waters of the Columbia and N. Saskatchewan River, on the one hand, from those of the Kootanie and S. Sascat-

chewan Rivers on the other. There he found the facilities for crossing the mountains so great as to leave little doubt in his mind of the practicability of constructing even a railroad connecting the plains of the Saskatchewan with the opposite side of the main chain of the Rocky Mountains." Dr. Hector, writing of this pass, says, "The ascent to the watershed from the Saskatchewan is hardly perceptible to the traveller, and no labour would be required, except that of hewing timber to construct an easy road for carts, by which it might be attained." And again, "A road for carts down the valley of Vermilion River from the height of land to the Kootanie River, could be cleared without difficulty; for supposing the road to follow a straight line along the river, and the descent to be uniform, which it almost is, the incline would only be forty feet in a mile." To gain a similar grade in American territory would require several miles of tunnel through rock as before shown.

All idea of constructing a railway within the limits of the barrier described having been abandoned, America is now endeavouring to open the second route in the table, on a principle similar to that I am now advocating within British territory; a special appropriation having been made by Congress to connect Fort Walla by a military road with Fort Benton on the Missouri. The work has been commenced, and 260 miles of the road completed. Steam-boats can navigate Oregon River to Fort Walla Walla, and the Missouri to Fort Benton, thus affording, except for the interval of 600 miles, a line of steam-boat communication between the Atlantic and Pacific, across the widest part of the States*, being 250 miles south of the

* This is after all a rather roundabout arrangement. Railways

line proposed, and passing through the great American desert; an additional difficulty, so well understood, that Congress made a special appropriation for the purpose of sinking artesian wells there; which was done, but without success, in reporting upon which the Secretary of war writes, Dec. 1. 1859: "It may be considered now as demonstrated, that to bring water from subterraneous streams to overflow the surfaces of the great western plains is, for any reasonable amount of expenditure, impracticable." In short, taking into consideration the mountain pass, the hopelessly barren nature of the country traversed, and the circumstance of its having for its outlet the bar of the Columbia instead of the Straits of De Fuca, this route cannot compete with that proposed to be made in British territory.

It cannot be urged that the extension of the American line to Seattle, a port on the east side of Puget Sound, as talked of, would make the comparison more favourable to the American line; by it the distance of St. Paul's from Seattle, is 2025 miles, of which, 1152 miles would pass through an uncultivated region, "affording but little game at uncertain seasons, and at a late season not a sufficiency of grass for animals.*

Governor Stevens† of Minnesota, "believes that the most desirable route to the Pacific will be found in the possession of Great Britain, and that a great interoceanic communication is more likely to be constructed through the Saskatchewan basin than across the American

westward to the Missouri end at Council Bluffs. The distance by train from St. Paul's to Fort Union, is 700 miles. *Vide Itinerary of Capt. Marey, W. S., published in 1859, in "Prairie Traveller."*

* Mr. Martin McLeod, an American authority.

† Report Select Committee to House of Representatives, Leg. Minnesota, 1858.

desert — the cretaceous and comparatively rainless areas of the southern latitudes within the territories of the United States.”

As there is nothing to apprehend from competition, let us examine a little further into the detail of the line proposed, and the soil and climate of the country through which it passes.

The construction of a road from Canada round the north shore of Lake Superior, is not proposed, on account of the engineering difficulties, severity of the climate compared with that to the south of the lake, and because the country through which it would have to pass is utterly useless for settlement. On these points Dr. Rae's evidence in 1857 was conclusive. But adopting the more southern route will not prevent the business of Red River and Saskatchewan, as well as that of Minnesota and Wisconsin passing through Canada. On this point nothing can be more conclusive than the Report of the United States Postmaster General to his own Government, dated December 3, 1859. When writing of the Canadian line of steamers, between Portland and Liverpool, he says, “This line is hereafter to run weekly, Portland being the terminus on this side during the winter, and Quebec during the summer season ; and in connection with the Grand Trunk Railway over the Victoria Bridge at Montreal, now completed, *it will afford the means of the most direct and probably the most expeditious communication between Chicago and Liverpool.* Arrangements have been made with the Canadian Post-office department to transport, for the sea-postage, any mails it may be desirable to send by this line ; and, in order to give them as much expedition as possible, it is intended to have Chicago and Detroit, as well as Portland, constituted Offices of

Exchange, for United States and British mails. Bags will then be made up at each of these offices, and will not be opened until they reach Liverpool. The running time from Chicago to Portland, *viâ* Detroit, Toronto, &c., is not expected to exceed forty-eight hours, and either from Portland or from the contemplated terminus of the railway, near the mouth of the River St. Lawrence, where the mails are to be transferred to and from the steamship, the distance to Liverpool is several hundred miles less than from New York." Besides, there is nothing to prevent Canada from extending, in connection with her steamers on Lake Superior, road or railway communication westward to Pembina; which with her usual energy, would, if practicable, be likely to follow as a sequence to the plan proposed, which (proposal) if encumbered with this additional consideration must necessarily be greatly delayed in its execution. It is further to be recollected that all the works proposed to be executed are confined to British territory. The objection that a small portion of the route proposed must at first pass through American territory cannot stand, for this is reciprocally the case in a dozen other instances. The traffic between Montreal and Liverpool is virtually through the State of Maine, &c., but, the telling argument is this: the entire traffic of England with her colonies in N. W. America is now carried by a circuitous route on American roads or railroads, or (the Atlantic excepted) in American steamboats; and will it not, under those circumstances, be desirable to adopt a plan by which for the present but a fractional part of that traffic will be excluded from British territory?

Railways now connect Chicago with La Crosse, steamers and coaches ply from La Crosse to St. Paul's;

so that 450 miles which separate St. Paul's from Pembina are the next consideration. North of Crow Wing to Pokegama Falls, for 250 miles, the Mississippi is navigable for steamers drawing three feet of water, and the North Star steamer is said now to ply between the points. Also, as before mentioned, Red River is navigable to its junction with Siouxwood River. So that the head of navigation on the Mississippi is separated from the corresponding point on the Red River, by an interval of less than one hundred miles of country, particularly favourable for the construction of a road or railway. But if the British road were once commenced, it is more than probable that a railway from La Crosse to Pembina would keep pace with it, my authority for the latter statement being as follows. By an Act of Congress (March 3, 1857), a grant of land was made to Minnesota, to aid in construction of a railroad, from Stillwater *viâ* St. Paul's, to Red River. In May following, *the Minnesota and Pacific Railway Company was incorporated*, and the above-mentioned lands provisionally transferred to them, one of the conditions being the construction of the railroad under consideration. This company, it appears, has actually contracted for the construction of eighty miles of the road, of which fifty miles was to be completed by the 25th of May (1860). The population through which this fifty miles passes, was estimated at 67,000 two years ago, and if its progression has been as rapid as before, that 67,000 has now become 200,000. St. Paul's had then a population of 16,000 ; St. Anthony and Minneapolis, 10,000 ; and the Valley of the Mississippi and Crow Wing, is said to have now population and business enough, unassisted, to execute and maintain the work proposed, with profit to the promoters.

From * the foregoing it is evident, that while every effort ought to be made to form a rapid communication between Red River and the Western colonies on the Pacific, there is no necessity to encumber the undertaking at first, by considering or discussing the communications most required, from Red River eastward, to the Atlantic,—communications which are certain to spring into existence, contemporaneously with the execution of the portion of the route westward from Red River.

The Red River flowing from south to north is navigable from $46^{\circ} 23'$ lat., gradually deepening to sixteen feet at Lake Winnipeg, from soundings taken by Captain Pope. Captain Palliser writes of it : “ My descent of the whole of Red River, from its principal source, has enabled me to judge of its great facilities for steam boat navigation.” Professor Hind says that, owing to some sharp turns in the river, steamers intended for it should not exceed 120 feet in length.

The great natural advantages for settlement of the valley of the Red River are too familiarly known to require notice here ; it is enough to say that its prairies, covered with long red grass, extend far up the Assinaboine River, to the junction of which with the Moose River there is, for upwards of 400 miles, a well defined track over the plains, over which the cart that accompanied Sir George Simpson passed without inconvenience. “ On the east, north, and south,” he says, “ there was not a mound or tree to vary the vast expanse of greensward ; while to the west were the gleaming bays of the Assinaboine, separated from each

* There is now considerable traffic in spirits and furs between St. Paul's and Pembina. The number of carts that arrived at St. Paul's from Red River in 1858, was 400.

other by wooded points of considerable depth." Captain Palliser appears also to have taken carts with him westward as far as the Elbow, and says that, as far as 106° W., long. he had suffered no inconvenience from want of wood.

Although Captain Palliser writes, "I have been able to ascertain that there exists a valuable water communication between the south Saskatchewan and the Red River, and that a good-sized boat, and even perhaps a small steamer, might descend from the south Saskatchewan, ascend the west Qui-Appelle River, cross the Qui-Appelle Lakes, and then descend the Qui-Appelle into Red River." In the proposal made, a waggon road is preferred, as the above statement is too insufficiently supported to act on. Still this water communication might be of some use in connection with *freight*.

The navigation of the south branch of the Saskatchewan is probably better than the north *; if so, being in the direction required, it is preferable to the latter. As on this point uncertainty still exists, it is to be regretted that by the exploring parties engaged it was not thought necessary to launch a raft or boat, properly provided, at the western end, and by a proper examination extending to the Elbow, to remove or confirm existing doubts on the subject. It is also to be regretted that none of the many military engineers, who have within the last couple of years been sent to the Western colonies, and whose talents and education so preeminently qualify them to conduct such an investigation, their instructions taking them through American territory instead of across the mountains by the Hudson's Bay Company's trail (as Captain Palliser went), had an opportunity to examine the country on the passage outward. Captain

* See note at end of chapter.

Palliser, writing in September, of the south branch, in 109° long., says, "This magnificent river rivals the Missouri in size and volume, and even at this, the lowest state of water during the whole year*, was navigable for craft of any size, as I found by sad experience, having been so unfortunate as to lose one of my waggons in the channel of the river, at a depth of sixteen feet." In another place he says of the south branch, "We found it very deep in lat. $50^{\circ} 55'$, our horses as well as ourselves being obliged to swim." Of the south branch, Sir G. Simpson says, "It is of considerable size without any impediment of any moment, one-third of a mile in width at twenty miles above its junction with the north branch." "A smart ride of four or five hours brought the party, through a country very much resembling an English park, to the north branch in lat. 53° , long. 108° . The Saskatchewan is here, observes Sir George Simpson, upwards of a quarter of a mile wide, presenting, as its name implies, a swift current. It is navigable for boats from the Rocky Mountain passes in long. 116° to Lake Winnipeg, upwards of 700 miles in a straight line, but by the actual course of the stream nearly double that distance." From these remarks I infer that the volume of water in the south branch is greater and more lasting than in the north, an inference which is strengthened by examining their relative positions on the map.

Mr. James M'Kay, an intelligent partner of the Hudson's Bay Company, who is in charge of Fort Ellis, and from his long residence in the neighbourhood ought to be good authority, insists that both branches of the

* Here the Captain is evidently in error; the water is lowest early in spring. Rep. Sel. Com. H. B. C. 1857. No. 788.

Saskatchewan are as navigable as the Mississippi at St. Paul's, quite to the vicinity of the Rocky Mountains.

From early in May until late in October *, the river would probably be navigable and full. There is distinct evidence that on the southern branch there are "fewer rapids," if any, and long reaches wholly without rapids.† While we have evidence of the prevalence of curves in the north branch, and in the south branch from Elbow to its junction with the former ; as far as the south branch has been examined, from the Elbow towards the Rocky Mountains, it appears straight.‡

From the nature of the ground through which it passes, obstacles, if any, would consist of mud flats or sand-bars at sharp turns in the river, which might easily be removed by dredging, or the application of a little engineering skill.

The absence of timber on the banks is a decided advantage ; floating timber on a swift river, snags, and "sawyers," are exceedingly dangerous, troublesome, and expensive impediments to steam navigation.

Fuel cannot be wanting : on Red Deer River a group of coal exists, in which three beds measure twenty feet, twelve of which is pure coal. At Souris River coal is found, and at Edmonton in abundance ; but for a long time the steamers on the south branch would, no doubt, burn wood, taken down with a favourable current, from Red Deer River, which is navigable (Battle River is not), or from some other point equally favourable on the western side of the river to be navigated.§

* Sub. Com. H. B. C., 1857, p. 49.

† Sir G. Simpson, Ev. H. B. C., 1857, Nos. 778 and 788.

‡ Parliamentary Papers, relating to Lake Superior and Red River Settlement, p. 151.

§ In regard to transporting wood for fuel, as 1300 lbs. of coal

The route proposed would be quite near enough to the valuable agricultural land that borders on the north branch to answer as its outlet, and this remark will refer equally to the "rich soil so well adapted for pasture and agricultural purposes" so abundantly distributed on the banks of Battle River; and we should not omit from the consideration the large district west of the Rocky Mountains, watered by the Columbia and its tributary, the M'Gillivray or Flatbow River. It is estimated at 20,000 square miles, and has been described in enthusiastic terms by the Catholic Bishop of Oregon, De Smet in his Oregon missions. The territory of the Kootonais Indians would seem, from his glowing description, to be divided in favourable proportions between forests and prairies. Of timber, he names birch, pines, cedar, and cypress; speaks of specimens of coal, and "great quantities of lead," apparently mixed with silver.* The source of the Columbia seemed to impress him as a very important point. He observes that the climate is delightful, extremes of heat and cold seldom known, the snow disappearing as it falls. He reiterates the opinion that the advantages nature seems to have bestowed on the source of the Columbia, will render its geographical position very important some day, and that the magic hand of civilised man would transform it into a terrestrial paradise; that it can be reached in waggons from Salt Lake City, along the western base of the Rocky Mountains; and that Brigham Young proposed to lead his next Mormon exodus to the source of the Columbia river: considered in connection with

make as much steam as 4500 lbs. of wood (if pine), coal can be with economy transported three and a half times as far as wood, other considerations being balanced.

* An ore similar perhaps to that at Washoe.

the Mormon establishment, a sort of half-way post on the Salmon River, a branch of the Columbia, it seems not impossible that such a move may have been contemplated by the Mormons.*

That a good road can be made from Vermilion Pass to Colville has been already shown; that a road equally favourable can be found south-westward to Hopetown, will appear probable from the following remark of Dr. Hector; that looking from the pass across Brisco range, from south-west to south, mountains are not seen, "so that if any portion of that country is occupied by any, they must be of very inferior altitude." Mountains do intervene, but not in unbroken ranges, and the road would have to be traced through the valleys of the Flatbow, Arrow, and Okanagan lakes, successively to that of the Similkameen River, and thence to Hopetown. What is known of this road is excellent, with the exception of the crossing at Manson's Mountain, twelve miles from Hope, which (I had no means of measuring it) to me did not appear more than 1800 feet or so high; but all the country in the immediate neighbourhood of it looks so broken, that I have no doubt, when properly looked for, a better crossing in the range to which this mountain belongs will be found. The valley of the Similkameen and Flatbow rivers are known to be fertile, and to abound with excellent pasture. The Okanagan and Arrow valleys will, I apprehend, be found more rugged, but by no means formidably so.

* *Vide* Report Sel. Com.: Leg. Minnesota, 1858.

Climate of proposed Route.

As some very erroneous impressions regarding the climate of the different localities through which the proposed line must pass prevail, I may be excused for making the following remarks. It is commonly said that in point of temperature, in North America, the same effect is experienced by travelling through 1° of long. westward as by travelling through 1° of lat. southward. This is manifestly an exaggeration; still it is a fact that, as we move westward, the climate becomes milder, and the average annual temperature is increased. This increase of temperature, in the region we are speaking of, on the same latitude, amounts probably from side to side of the continent, to 15° Fahr.*, an effect, perhaps, produced by the summer winds of the Pacific, which blow almost constantly from west or north-west, wafting warmth and moisture through the passes of the rocky chain. But whatever the cause, the fact is certain; the south part of Vancouver Island, for instance, having a climate much milder than in England, is a hundred miles north of Quebec. An isothermal† line drawn across the continent would, of course, be far from straight, but the general obliquity of such a line may be judged of in this way:—If such a line were drawn from New York it would pass through Lake Winnipeg to Fort Simpson; in other words, if New York were, with respect to latitude, similarly placed on the west coast, Fort Simpson, *a thousand miles* north of it, would enjoy a tempe-

* Sir John Richardson makes this 20° Fahr.

† *Vide* Physical Geography, Maury, Plate VIII.

rature equally favourable with it. *Mr. Blodget*, who has published an extensive work on the climatology of the United States, remarks that nine-tenths of European Russia,—the main seat of population and resources—is farther north than St. Paul; that, in fact, Pembina is the climatic equivalent of Moscow, and for that of St. Petersburg (which is in 60° north), we may reasonably go to lat. 55° on the American continent. Like European Russia, also, the Saskatchewan district has a climate of extremes, the thermometer having a wide range; but it is well understood that the growth of the cereals and of the most useful vegetables depends chiefly on the intensity and duration of the summer heats, and is comparatively little influenced by the severity of winter cold, or lowness of the mean temperature during the year. Therefore, it is important to observe that the northern shore of Lake Huron has the mean summer heat of Bordeaux, in Southern France, namely 70° Fahr., while Cumberland House, in lat. 54° , long. 102, on the Saskatchewan, exceeds, in this respect, Brussels and Paris. The United States Army Meteorological Register has ascertained that the line of 70° mean summer heat crosses the Hudson River at West Point, thence descends to the latitude of Pittsburg, but westward is traced through Sandusky, Chicago, Fort Snelling, and Fort Union, into British America. “It is warmer,” he says, “at Fort Benton on the Missouri, in long. $110\frac{1}{2}^{\circ}$ west, and lat. $47\frac{1}{2}^{\circ}$ north for every season, than at St. Paul, Minnesota. The mean winter temperature at Fort Benton is 25° , and the same as that of Chicago, Toronto, Albany, and Portland, Maine. At St. Paul it is but 15° or 10° less. It is not so cold as this on the main (south) branch of the Saskatchewan.”

Allowing the 15° Fahr. before mentioned; considering 1° lat. south equal to 1° Fahr.; also, as usual, 300 feet of altitude equal to 1° Fahr.; the average climate of the Vermilion Pass would probably resemble that of Moose or York factories in the southern part of Hudson's Bay, of which Dr. Rae* says the summer there extends from early in June to early in November, five months. Mr. A. C. Anderson's opinion on this subject, from his long residence in the country, is entitled to attention: of the Upper Fraser he says:—

“The regular freshets begin at the latter end of April, and last during May and June. About the 15th of June may be regarded as the culminating point; and by the middle of July the waters are generally greatly subsided. There is rarely a freshet of much consequence at any other season; but this sometimes happens, and I have known a sudden freshet from heavy rains, in October, raise the river beyond the summer limit.

“Snow begins to fall in the mountains early in October. In July there is still snow for a short distance on the summit of the Fort Hope trail, but not to impede the passage of horses. From the middle of October, however, to the middle of June, this track is not to be depended upon for transport with pack animals.

“The summer climate about the Forks is dry, and the heat is great. During winter, the thermometer indicates occasionally from 20° to 30° of cold below *zero* of Fahrenheit; but such severe cold seldom lasts on the upper parts of Fraser's River for more than three days; the thermometer will then continue to fluctuate between zero and the freezing point, until, possibly, another interval of cold arrives.

“But the winters are extremely capricious throughout

* Ev. II. B. C. Affairs, 1857, No. 435.

these regions, and no two resemble each other very closely. *In general the snow does not fall deep enough along the banks of the main streams to preclude winter travelling with pack animals.* The quality of the pasture is such (a kind of bunch grass in most places) that animals feed well at all seasons. There are many spots between the Simlikameen Valley and Okanagan that are specially favourable for winter ranches. In some the snow never lies, however deep it may be around."

Mr. John Miles, on May 1st, found the Saskatchewan country completely free from snow, and the river very full of water.*

Of a climate known to be capricious, whether we compare seasons or localities, it is of course impossible to speak with certainty; but, we have evidence enough to justify the inference that Vermilion Pass would be open at least five or six months, (perhaps seven) out of the twelve, and the remaining portions of the route much longer.

One peculiarity of the climate of the country it requires in England an effort to realise. Surrounded by snowy peaks, the air is often not only warm but sultry. Even at Victoria, where snow seldom exceeds a few inches, or Langley, we have evidence of this every day. The snow itself is not of the damp, compact nature we are accustomed to, it is light, dry, and drifting; on this account, when it does come to thaw, it disappears with astonishing rapidity.†

The annexed data extracted from the reports of the Secretary of War, U. S., 1853—1854, record some particularly interesting facts on this point.

* Ev. H. B. C. Affairs, No. 4684. Jan. 9th, 1858, "Little or no snow on the ground" from Edmonton to Rocky Mountain House, Explor. British North America, p. 25.

† *Vide* also Par. Rail. Report, vol. i. p. 47.

Mr. Pinkham crossed the mountains from Walla-Walla to Seattle, by the Yakima pass, the summit of which he crossed on the 21st of January. For about six miles on the summit, the snow was found to vary from 4 ft. to 6 ft. in depth—occasionally 7 ft. The area covered by snow exceeding 12 in. in depth, was somewhat less than 70 miles; of this 45 miles were 2 ft. and upwards; 20 miles were 4 ft. and upwards; and 5 miles were 6 ft. and upwards. All the snow was light and dry; it was the accumulated snows of the winter to January 21st; deposited in successive layers of 2 in. to 2 ft., which have generally lain undisturbed since their fall, and they present little obstruction to removal in comparison with the compact drifted snows of the Atlantic states. The winter and spring temperature of the Yakima pass, 3000—4000 ft. elevation, are given as follows:—Nov. 36°; Dec. 28°; Jan. 28°; Feb. 30°; March 31°; April 38°. The mean temperature at Puget Sound, from observations extending over four years, is exactly 10° higher than these; at the Sound the winter rain is 20·6 in., and since more rain usually falls in the neighbourhood of mountains than on plains, and snow occupies from ten to twelve times the bulk of an equal quantity of rain, it is probable that the accumulated snows of winter, in the Vermilion Pass, would exceed twenty or twenty-one feet, but that the pass would frequently be open in December and passable in May.

There was no necessity to consider, in connection with the foregoing statements, any questions connected with unextinguished claims of the Hudson's Bay Company to the lands required. First, because the Directors have distinctly stated, that they are already prepared to recommend to the shareholders of the Company to

cede any lands which may be required for such purposes; and, that the terms of such cessions would be a matter of no difficulty between Her Majesty's Government and the Company *: but principally because it is clearly to the interest of the Hudson's Bay Company to co-operate with and promote any plan of colonisation, the onus and responsibility of which is not imposed upon them; since any such plan, if carried into execution, must raise immensely the value of the improved lands adjoining their numerous forts, the legal title to which, it may be conjectured, would be confirmed to them.

In relation to China, Japan, and Australia.

I before mentioned my doubts of the trade of the Asiatic continent with England being carried over the line, if constructed. But there can be little doubt that if Victoria should become a depôt of English goods, trade with China must result, and the island become in this respect a "half-way house." Its geographical position is more commanding than even that of San Francisco. Recollecting that in the North Pacific the westerly monsoons blow strongest all the summer north of 45° , and that, during the same period, the north-east tradewinds south of the Sandwich Islands, and the calms of Cancer in the latitudes of Shanghai and Canton, prevail; and that in a straight line China may be said to be equidistant from Vancouver Island and San Francisco; a steamer from the island would reach Canton in about the same time as from San Francisco,—say forty or forty-two days; a sailing ship from the latter would be five or six days in advance; but

* *Vide* Papers relative to the H. B. C.'s Charter and Licence of Trade in April 1859, pp. 15 and 16.

since, on the return voyage, in either case a vessel must keep so far to the north ; while the average passage from Hong Kong to San Francisco is fifty-five days, it would not exceed forty days to Vancouver Island.

The overland route suggested involves, however, a consideration of even far greater magnitude than the foregoing. I allude to the increased rapidity of postal communication between England and the Australian colonies. In transmitting intelligence, to or from, the saving of time, compared with that now required, would not fall far short of a month. Vancouver Island is nearer to Sydney by 900 miles than Panama is, which any one can test with a map and compass. In November last (30th November 1859), the legislative council of New South Wales unanimously resolved "that the house continuing to maintain its opinion on this unfortunate subject, in which it considers the future interests of this colony are deeply involved, will not entertain any question in regard to a postal subsidy, which shall ignore the deliberate conviction respecting the Panama route, to which this branch of the legislature gave expression in February last ; and at the same time expresses its readiness to concur in fulfilling any obligations devolving upon this colony, so long as it is compelled to avail itself of the existing arrangements." Would not the proposed route, if executed, remove this difficulty, and happily unite all the colonies so disconnected at present ? As Judge Haliburton, on a similar subject, remarked, "Here is the bundle of sticks ; all they want is to be properly united." If, as anticipated in the depth of winter, the overland route should be interrupted, the connecting steamers could, during the interval, run to Panama.

Conclusions arrived at.

From a perusal of the facts stated in this and the foregoing chapter, and bearing in mind that the trade of the West Indies is a declining one, and that of the North Pacific Colonies is every day more promising; that from London, the West Indies and Panama, can be reached as quickly, *viâ* Halifax, Portland, or New York, as at present by the Royal Mail line of steamers; that the commerce of England with North America, generally steadily increasing, is more than double that of the West Indies, Central and South America, put together; — the following very important conclusions will, I think, be drawn, that, if the northern route through British territory can be opened as easily as described; and if a line of steamers were encouraged to run between the Australian Colonies and Vancouver Island, while the land route might be open, and the same steamers were to run between Australia and Panama in winter; and if one of the lines of steamers at present subsidised to Canada or the States, were extended to Aspinwall*, the postal subsidy of 238,500*l.* per annum to the Royal Mail line, might be dispensed with without injury to any existing interest; and the steamers themselves, if withdrawn, would not be missed; the postal subsidy of 135,000*l.* to Australia, *viâ* Malta, Alexandria, Suez, and Ceylon, applied to the shorter Pacific route; and, if that portion of the subsidy of 122,625*l.* to Alexandria, Calcutta, and China, which applies to China only, were withdrawn, and applied to encouraging a line of steamers from Vancouver

* £14,700 per ann. is paid to the Cunard line for extension to Bermuda and St. Thomas.

Island to China, British commerce would benefit immensely by the change; the colonies of Great Britain in North America would be united, rendered accessible, and their trade developed; a great saving to the nation at large, and in the million which is annually expended in postal subsidies, by England, would be effected; and it is even highly probable, that the interests of large steam companies, which, at first sight, would appear to suffer, might benefit from a change which could, after all, be to a great extent accomplished by a transfer of steamers from one path on the ocean to another.

P.S. Since the foregoing was written, it is reported that Captain Palliser has examined the course of the South Saskatchewan river, and has ascertained that it is not so straight as was conjectured; that it forms a deep loop or southerly bend between 110° W. long. and 113° . If so, an alteration in the detail of the proposed route might be required: more land travel and less by water.

It is also said that the south branch is more divided than the north branch at equal distances from the mountains; it does not, however, follow from this, that the main stream of the former, its lower level being taken into account, may not contain a greater body of water than the latter. The principal objection to using the north branch as the thoroughfare from west to east is its indirectness, adding 300 miles to the entire distance.

Traversing, as the north branch does, a country fertile and available for early settlement, which a considerable portion of the south branch does not, steamers would no doubt soon be placed upon the former as a consequence of the occupation of the country, which the opening of the more direct communication must occasion.

Laden batteaux, or light canoes, may pass the grand rapids in safety, but these oppose a serious barrier to the more northerly navigation, as it would be premature to talk of the construction of two or three miles of expensive canals and locks, besides which an accumulation of ice often obstructs the navigation at the head of

Lake Winnipeg for weeks after the rivers that flow into it are free.

It is true that light carts have frequently passed between Red River and Edmonton, but as the whole country is well adapted to the construction of waggon roads, this circumstance alone should have little weight in determining a preference for one route over another.

Whatever route may be adopted, it should be recollected that in this country, while navigation is uncertain before the 1st of May and later than 31st of October, traffic on roads would be a certainty for a longer period of the year.



CHAP. VIII.

SOCIETY IN THE COLONIES.

IT is fortunate for these colonies that notices of the society, which an emigrant or tourist may expect to meet with in them, are rare. Such as have found their way into print present anything but a flattering picture or exalted idea of the social elements of the place. The following passage, for instance, occurs in a book already referred to : —

“Of small birds, there is the Mexican woodpecker, and a large mis-shapen species of bullfinch—note it has none ; and indeed *aves vocales* may, generally speaking, be said never to be met with on the west coast of America. The settler in these parts misses equally the lively carol of the lark, the sweet cheerful note of the thrush, and the melancholy melody of the nightingale ; still more will he of gentle mind, as he wends his solitary way through these distant wilds, feel impelled to hanker after the pleasures of society, and to long for the charm of conversation with the fair daughters of his country.”

To classify ladies with birds, singing birds especially, is at once novel and poetical. In this light, for the rosy robin, the gentle dove, the musical linnet, (but never for the mis-shapen bullfinch,) unfeathered representatives might easily be conceived. Indeed the suggestion will naturally occur that, instead of the very limited number of birds now worn in hats, a dive into natural

history would lead to the number being vastly extended: the bird worn could be emblematic of the wearer, and a new and very beautiful system of feminine heraldry result. But the fact that the category commences with small birds is sufficient to show, modern fashions being taken into account, that the allegory was written some years ago. This must have been the case, for at the present time (although when away from the settlements one must not expect to meet ladies, like so many Moseses, in the bush) society in the colonies will, in this respect, compare favourably with that of any locality in Great Britain where the numbers are on a par. Nor is the place so intolerably dull as it's painted; for in this, as in most other colonies, Philharmonic concerts, balls, theatricals, and social entertainments of a quieter character, are not neglected.

The next notice taken of the society of the place occurs in the *Illustrated London News*, the pictures in which, as in this instance, do not always remind one of the originals: in it (March 12th, 1859) the Editor characterises the population as "the offscourings of the civilised world;" the place as "bereft of the humblest needs of existence;" and the Indians as "savages of the lowest types of humanity." The annexed statement of the able Judge of British Columbia, extracted from a recent and interesting letter of *The Times'* Correspondent, places this matter in a very different light.

The Judge writes:—

"It is a legitimate subject of no small congratulation that in a country so wild and almost pathless (certainly roadless) as this, with a population generally pointed at as the refuse of California—with a magistracy weak

in numbers, weaker in their great inexperience, from the judge downwards, every one of them new to judicial and magisterial business—with a police never twenty in number, and never more than four or five in one place—the population all armed, and all engaged in the most exciting and demoralizing pursuit which man can follow (namely, gold-hunting)—there should have been in the whole of the present (now last) year not one murder, not one attempted murder, not one duel, and but one assault with a deadly weapon at all in the whole of British Columbia. Under Providence, this wonderful result, unexampled in the history of new gold-mining countries, has been without doubt produced by the firmness of the Governor, and the unhesitating sternness with which one or two ‘difficulties’ which occurred at the close of the past year had been met and punished. It has been thoroughly impressed upon our whole population that the cowardly and ruffianly outrages perpetrated to so lamentable an extent elsewhere, under the above euphonism, will here consign the offenders without the hope of mercy to the gallows, or a life-long imprisonment.”

The Judge remarks with reasonable pride that Blackstone is more regarded in his jurisdiction than Judge Lynch; and while he draws an accurate and just comparison between “the statistics of blood” on the south and those on the north side of the 49th deg. of north latitude favourable to the latter, yet he does ample justice to the Californians who have come to British Columbia. Of them he reports that they have always—“Manifested a great desire to see justice fairly done, and great patience with the difficulties which the magistrates and the judiciary have had to contend with. I have frequently complimented my

rough auditory—sometimes 150 miners—on the good order and manly respect observed in my court.”

As a class, the miners of British Columbia have a much worse character than they deserve. Generally speaking, they are not only civil and sober in their habits, but well read and intelligent. On their first arrival in the country, however, they were accompanied with the usual proportion of gamblers and “Rowdies;” but for these, the place was soon made anything but a desirable residence by the firm and uncompromising attitude of the British authorities. The fact is, it would be as unfair to identify the miners with the black-legs who follow them as it would be to class the British army with the suttlers who hang* about the camp.

Again, it is rather difficult to attach a definite meaning to the expression, “humblest needs of existence,” of which the people are bereft; beef and mutton, and fish and game, milk and vegetables, appear to be within the reach of the poorest—the native fruits of the country make excellent pastry. The best teas at 1s. and 1s. 4d. per lb. find their way, *viâ* Sandwich Islands, from China. Wines round the Horn and cigars from Manilla pay no duty. English fruits are grown, and those of the tropics imported. Grapes are 1s. per pound. Every restaurant prints an elaborate bill of fare. There is no want of public baths. Saddle-horses can be hired, and vehicles to drive about in. The blacks make excellent cooks. The editor must have had an uncomfortable dream.

Again, these Indians are far from being the lowest types of humanity, notwithstanding their moral de-

* Or rather, who ought to be hanged.

gradation, where visited by the whites. On the contrary, many of them are remarkably good looking, with aquiline features—make useful servants—are sometimes strictly honest to their employers only—can plough and drive oxen—are exceedingly hospitable in their own homes, and teachable when dwelling amongst the whites; they lack neither courage nor intelligence. Some are exceedingly ingenious. One Indian made a ring for me out of a five-dollar piece, and in it set the stone; and the workmanship of the whole was perfect.

I have known an Indian stock a gun, making the ramrod and screw at the end of it, the fitting and finish of the whole being unexceptionable. They weave blankets, carve their own pipes, construct canoes, and raise enormous weights in the construction of their dwellings. They are eminently commercial, and can quickly understand the intricacies of a tariff; give a pencil and sheet of paper to an Indian, and he can generally make a rude map of a country he has travelled through. As guides, fishermen, and hunters they are extremely useful. In the same tribe intermarriage is generally prohibited, and to prevent war between tribes they have a law that relationship follows on the mother's side. The wealth of each is periodically distributed for the benefit of all; they scorn to profit by the leavings of the dead, and bear pain heroically.

By the way, who are the Aborigines Protection Society? The Blue Books of 1858 teem with excellent advice and pathetic appeals from them to Secretaries of State and Governors of Colonies, on behalf of the red man, illustrated with dissertations on the feuds of the Gryphons and Arimaspians, whoever they were, and the faults of the treaty made by William Penn. The

fireside newspapers report their meetings and their views; but does the Society, ever by raising subscriptions, send out persons to give vitality abroad to the admirable doctrines which they inculcate at home? It is unreasonable to suppose that the high officers of the crown should undertake duties that ought to devolve upon the benevolent community at large, and such as are usually accomplished by general opinion acting upon private enterprise.

In both colonies there are said to be some 80,000 Indians, and wherever the whites have been brought into contact with them, steamers and rockers have banished the fish, and hunters for market the game; spirits are traded in the camps, disease and famine have thinned their numbers, and whole tribes have been reduced to immorality and want.

From England one missionary only, the indefatigable Duncan, has appeared among them as an instructor, (the efforts of the priests being directed rather to their spiritual than to their intellectual necessities,) but even he has shown that Indians are eminently capable of being taught. It is hopeless to expect that the Bishop can do much to ameliorate their condition; the moral and intellectual wants of the European population are quite enough to absorb his attention.

The Bishop of British Columbia is said to have been singularly successful in achieving the influential position which ought to belong to his office, by instituting educational establishments, founding a collegiate school, a want previously much felt, and by otherwise energetically promoting the moral and social welfare of the inhabitants immediately upon his arrival. This success is the more signal because but a short time before considerable outcry was raised in the colony against

anything bordering upon a state church. The local newspapers declaimed against it, and the House of Representatives passed resolutions opposing it. The very title of bishop seemed a serious impediment to his success. It is impossible not to admire the tact and judgment with which he met and overcame those difficulties, and literally, if I may be allowed to use the term, "turned the tables," converting those who would have otherwise ranked as opponents into supporters of the church of the most useful kind, by informing them that he asked for no assistance from the state; that his was the voluntary system; and that therefore he was prepared to receive contributions in support of the church, from all who were opposed to its receiving assistance from the state.

The latest advices show that the Celestials are rapidly finding their way into British Columbia. If in California, where undisguised antipathy to the race has always existed, where special enactments have been framed to expel them, and where they have been for years the victims of organised or casual oppression, their numbers increased from 15,000 in 1855 to 50,000 in 1860; it may be conjectured that the influx of them to the gold fields of British Columbia, where they are certain, in common with all foreigners, to meet with protection as well as toleration, from California and China direct, will be remarkable. In California they are disliked, because they are regarded as a people who tell fearfully on the surface digging of the country, who extract large quantities of gold, and who, living as they do on a handful of rice and a few nondescripts, and ultimately carrying back with them to China the wealth which their matchless industry has enabled them to acquire, are in reality detrimental to the

country. To them a month's wages in China is not more than the ordinary wages of a labourer for one day in British Columbia. An experiment was tried some years ago, to test the practicability of importing Chinamen as labourers into Cuba, and found successful. There 600 of them were apprenticed at \$4 per month. A British merchant, settled at Amoy, describes the scene of despatching a vessel with 400 labourers, at \$3 per month and rations to Honolulu as follows: "The only sorrowful persons were those whom from disease or deformity we were compelled to reject. These we placed a distinguishing mark upon, but this they removed, and presented themselves for selection three or four times. We were obliged to send them from alongside in hundreds; and the last day, so great was the rush, that we thought they would have taken the vessel from us."

The Chinese are adepts in the art of washing clothes, and monopolise that business wherever they go.

With the Indians they appear to get on well, having many points in common; foremost among which may be reckoned immorality, and absence of cleanliness in their dwellings. I do not know whether or not they are such inveterate gamblers among themselves as Indians are.

See Appendix, page 170.

CHAP. IX.

A FEW SUGGESTIONS TO DIFFERENT CLASSES OF INTENDING
EMIGRANTS.

PERSONS emigrating frequently form too high anticipations of becoming suddenly wealthy, and therefore become too soon disappointed; and some who, from some cause or other, do not carry with them the elements of success, reason thus: that because they have failed in everything they undertook at home, the time has come to repair their fortunes abroad. Never was there a greater fallacy. They forget, that of any family with whom they are acquainted, the members who have emigrated are the boldest and the most enterprising; that from home “the stronger sex, the stronger age, the stronger hands, the stronger will, are ever flying;” and they are, therefore, on their arrival in the colony, disappointed to find superior competitive talent in every walk of life.

Of the former class, the best illustration I can give is to select, almost at random, one from a bundle of letters from enquiring emigrants, which will convince any indifferent person, that the caution is not misplaced. The following is an extract:—

“Dear Sir,—Confident that you will do for me the best you can, it is, I know, almost idle for me to specify any particulars as regards my own views; but I may mention, I would of course like to get a spot of land as

near as possible to the site of a new town, near a good harbour, or on a good river, where trade would be likely to be actively carried on; and having a taste for beauty in scenery, and delighting, as well as all my family, in the sea, I would, if practicable, like to have with approximation to the sea, beauty in scenery, a place having a constant supply of fresh water, well wooded, lying well to the *south aspect*, with land of *good quality*, having shelter from any prevailing winds, free of marsh or swamp, having a limestone or other quarry upon it, whereby building materials could easily be got; but there are many, many other advantages which you might see, which would outbalance any ideas or suggestions of mine, such as a coal mine, a good mill site with good water power, which in a new country is not a bad speculation; building ground or the probable site of a ship's quay, or a locality where a town is likely to spring up. . . . My fortune would be made in a short time, &c.

“I have, &c.

“ * * * .”

The writer will not be angry with me, I am sure, for publishing a portion of a letter which affords no clue to his identity; particularly as, knowing him to be both talented and deserving, in doing so I express a sincere wish that he may become possessed of the quay and the coal mine too.

I shall here take the liberty of addressing a few remarks to the different classes of persons likely to contemplate emigration.

First, persons seeking government offices, and whose names are written down on lists, are very numerous in the colony. The salaries are generally inadequately

low. With such an object in view, I would recommend any one not to emigrate until he had first procured an appointment to whatever office he might be in quest of.

All the professions are overstocked ; this, of course, includes the bar, the church, engineers and surveyors, &c. Private tutors, governesses, and anybody that can teach any thing would do remarkably well in the country.

I am not aware of there being any ladies' school in the island, — a want much felt.

Artists are seldom met with. It seems strange that it does not occur to some enterprising publisher in England, to commission an artist, so as to reproduce in England some of the majestic views of the country. Those published by Dickenson and Co., New Bond Street, and one of Victoria, by Day and Son*, all which are very true and characteristic, are the only views I have seen. If it pays newspapers to depute special correspondents, seedsmen to employ collectors, &c., why should not art pay also? Let us hope that some of the talent so assiduously expended on the Cam and Isis may yet find a profitable vent abroad. Richmond is very beautiful, but rather confined and flat ; it only wants the cascades in the foreground, and Mount Hood or Mount Browne glittering in the distance, to make a picture of it.

To capitalists these colonies offer the greatest inducements. As a rule, the newer the colony the higher is the rate of interest, and the more numerous the openings for investment. For instance, a good brewery would succeed well, judging by the immense consump-

* Lithographers to the Queen, Gate Street, Lincoln's Inn.

tion of bottled ale and stout in the colony. Hops thrive remarkably well. Many of the productions of the country might be traded in with advantage ; such as timber, salmon pickling, oils, bear's grease, large quills, hemp, porpoise leather, deer horns, skins, &c.

Money in Vancouver Island can be lent on good security, at rates ranging from 25 to 30 per cent. per annum ; and the opportunities for investment are so varied, and the field so immense, that I should altogether exceed limits allotted in attempting to specify.

The admirable openings that exist for farmers with small capital in Vancouver Island and in British Columbia, will appear evident from a perusal of the foregoing pages.

Assisted by every circumstance which at home would be an encumbrance or an impediment, with a market close at hand, and high prices for every thing he can produce, the farmer's prospects are extremely promising ; and, in consequence of the dearness of labour in every department, the larger his family the wealthier he is. There is nothing to deter a farmer in the fact that the extent of prairie land is small compared with that occupied by forest, lake, and mountain. At the present time there is abundance of open land in both colonies not taken up. If there is a preponderance of timbered and waste land, compared with land ready for the plough, this condition must make the latter all the more valuable, as population, and with it the demand for land, increases. So that, regarded in a self-interested light only, the less the good land the better for the farmer, provided he loses no time in taking advantage of the very liberal land regulations recently adopted ; otherwise, every season of postpone-

ment must inevitably, on his arrival, push him farther from the chief towns and settlements.

As the rates of labour are of course regulated by those of San Francisco, the annexed schedule, taken from the *Mercantile Gazette*, San Francisco, Jan. 4th, 1860, is here appended.

RATES OF LABOUR IN SAN FRANCISCO.

	Dollars.		Dollars.
Blacksmiths, per diem . . .	4	Lapidaries, per diem . . .	5 to 8
Do. helpers, " . . .	2½ to 3	Lumbermen, per month . . .	35 50
Brass foundry, " . . .	3 4	Millwrights, per diem . . .	5 7
Boiler makers, " . . .	4 5	Metal turners, " . . .	3½ 4½
Boat builders, " . . .	5 6	Machinists, " . . .	3½ 4½
Ballast men, " . . .	2½ 3	Moulders, " . . .	4 5
Bricklayers, " . . .	5 7	Marble cutters and polishers	
Bookbinders, " . . .	3½ 6	per diem, . . .	2 4
Do. Folders, " . . .	2 3	Millers, " . . .	4 6
Brickmakers, per month . . .	40 75	Mattress makers " . . .	5
Brickburners, " . . .	50 75	Mates of vessels, per month . . .	50 75
Bakers, " . . .	40 75	Mill sawyers and planers,	
Barbers, " . . .	50 100	per month . . .	50 75
Butchers, " . . .	60 100	Plumbers, per diem . . .	5 6
Cheesemakers, " . . .	35 75	Pump makers, " . . .	3½ 4½
Choppers, " . . .	35 60	Pile drivers, " . . .	4 5
Coachmen, " . . .	35 50	Painters, house, " . . .	4
Coppersmiths, per diem . . .	4 5	Do. sign, gold, per ft. . .	30 60c
Carpenters, " . . .	4½ 5	Do. do. plain, " . . .	35 45c
Do. Ship, " . . .	5 6	Pilots, per month . . .	150
Caulkers, " . . .	5 6	Porters, " . . .	30 100
Carriage makers, " . . .	2½ 4	Printers, per 1000 ems . . .	75c
Coopers, " . . .	2½ 3½	Riggers, per diem . . .	4 5
Cartmen, " . . .	2½ 3½	Shipsmiths, " . . .	4 5
Chasers, " . . .	7 10	Do. helpers, " . . .	2 4
Cooks, per month . . .	35 80	Sailmakers, " . . .	5 6
Coal-heavers " . . .	75	Stevedors, " . . .	4 5
Chambermaids, " . . .	25 30	Stonemasons, " . . .	4 5
Day labourers, per diem . . .	2 3	Shoemakers, " . . .	2 3
Deck hands, (riv. nav.)		Stewards, per month . . .	40 80
per month, . . .	40 50	Seamen, " . . .	30
Draymen, " . . .	50 75	Seamen, coastwise, do. . .	25 30
Engineers, " . . .	75 150	Shoemakers, per month . . .	80
Polishers, per diem . . .	2 3	Servant girls, " . . .	20 35
Freestone cutters, " . . .	4	Tin-workers, per diem . . .	4
Firemen, per month . . .	50 60	Tin-roofers " . . .	3 5
Gardeners, " . . .	35 60	Tanners and Curriers, per	
Granite dressers, per diem . . .	2½ 3½	month . . .	40 75
Hodmen, " . . .	2 3	Tailors, per diem . . .	3 5
Hatters, per week, . . .	25 40	Upholsterers " . . .	5
Harness makers, per diem . . .	2 4	Woodsawyers, " . . .	2½ 4
Hostlers, per month . . .	30 50	Wheelwrights, " . . .	4 5
Jewellers, per diem . . .	5	Watchmakers, " . . .	5
Locksmiths, " . . .	4	Waiters, per month . . .	25 50
Limeburners, per month . . .	40 50		

I presume labour is dearer on the north-west Pacific coast than anywhere else; referring to some statistical papers, I notice that while for several years past the general rate of increase of population on the coast has been something like 6 per cent. per annum (not 20 per cent., as stated by the editor of the *New York Herald*), the wages of labour have fallen in the same proportion, so that from year to year the variation in this respect is not remarkable, which to workmen proposing to emigrate is a very important consideration. It will be noticed that, from this schedule, farm servants are omitted; the reasons for this is, that as a class they can scarcely be said to exist. Shepherds, ploughmen, gardeners, ostlers, &c., command the highest rates of skilled labour. The miners seldom turn their attention to these pursuits, for engaging in which, want of early training, wandering habits, and a speculative turn of mind unfit them.

But perhaps the greatest want of all is felt in the absence of female servants. Colonists have ceased to endeavour to remedy the defect, by importing them, as, whether they possess personal attractions or not, they are certain to get married soon after their arrival. It is much to be regretted that as yet none of those princely, benevolent, energetic individuals, who are more frequently met with in England than anywhere else, have taken the matter up, or endeavoured to effect for the surplus female population of England, and for the distant colony, what was done at New South Wales by Mrs. Caroline Chisholm, whose courage, perseverance, and success in conducting a great enterprise of this kind, will be referred to with affection and with pride by future generations of the colony she so signally assisted to plant.

Persons who understand a trade, such as saddlers, shoemakers, tailors, and watchmakers, &c., with capital enough to start a shop, and make themselves known, would be certain to succeed.

Persons desirous to try gold digging will find all the reliable statistical information on the subject, procurable in the Chapter on Minerals, and will there find that to succeed at it, a man must be strong, and capable of encountering fatigue and even hardship with patient endurance. In fact, it is a sort of labour that our "navvies" would succeed in, and have succeeded in, to perfection. For example, "Bendigo" and his companions have, by their excavations near Ballarat, written their names on the sands and in the maps, in a very indelible way.

I am the more particular to mention this, because I have met with many young men, who, not acquainted with the practical processes of gold mining, form romantic ideas about what is in reality very hard work. To such, I should suggest, get *Harper's Magazine*, of April last * ; it contains a practical account of the various processes resorted to, and woodcut illustrations of implements used in mining ; construct a "rocker," the materials of which will not cost many shillings. Place the rocker under the pump, and fill the box that is on the top with gravel. Now, recollecting that a few half-pence worth of gold to a (milk) pan of gravel pays the miner 2*l.* a day, file three-pennyworth from a half-sovereign into the box ; rock away with one hand and pump with the other, only stopping to shovel gravel into the box, as often as you empty it ; in this way you will be able not only to acquire a good idea of the amount of physical exertion required, but also to test

* 1860.

your skill in the art, before you have occasion to practise it many thousand miles from home. By attentively reading the article in question, you will also see that the art of "prospecting," on which so much depends, can be learned quite as well at the duck-pond in the garden, as on the banks of the Fraser or Saskatchewan. And if, after counting the cost, you still determine to try your fortune, I should say the surface diggings of British Columbia, or the gold deposited from disintegration that has been going on for ages past, are as yet unexhausted. Be early in the field, and may success attend your adventure!

The steps that have been taken to facilitate the purchase of lands by aliens will be found in the Appendix.

APPENDIX.

To J. D. Pemberton, Esq.

Port Rupert, July 9th, 1859.

DEAR SIR,

I beg to forward a copy of my rough journal to Nootka, and with it a chart*, unfinished, but pretty correct, of the Koskimo Inlet, Portage, and coast of Vancouver Island, as far as Nimkish River. Regarding the opposite coast (the mainland), I have little to say; grizzly bears are found there as far north as Lynn's Canal (lat. 59°); but I heard of but one instance of their being found on Vancouver Island, namely, one shot last winter up the Nimpkish Lake. He had most probably found his way across from the mainland.

Dear Sir,

Yours truly,

HAMILTON MOFFAT.

Journal of a Tour across Vancouver Island to Nootka Sound via Nimkish River, in the year 1852, by Hamilton Moffatt, Hudson's Bay Company's Service.

Thursday, July 1st.—About 10 A.M. left the Fort for the Nimkish village, en route to the Nootka tribe. Having arrived at the Nimkish River at 7 P.M., I procured guides and got everything in readiness for an early start in the morning.

Friday, 2nd.—Left the village at daybreak in a canoe with six Indians; at 9 A.M. reached the Nimkish fishing village, on the borders of the T'sllelth Lake; entered the lake about 10 A.M. The shores on either side at this end rise perpendicular from the water's edge to the height of some 1500 or 1600 feet, and from 4000 to 5000 feet a little inland, and in many places capped with snow; the width of the lake at the entrance is about half a mile, gradually

* See Map, No. I.

widening to one and a half miles; I endeavoured to ascertain the depth with a forty fathom line, but did not succeed. Our course through the lake was about south-east, and the length I have since ascertained to be fully twenty-five miles. In the evening we encamped at the River Oakseey, distant about a mile from the head. Discovered a tree resembling the walnut, having a trunk about four and a half feet in circumference, and emitting a fine perfume.

Saturday, 3rd.—After passing a most unpleasant night, on account of the rain which poured down in torrents the whole time and until 10 A.M., we again embarked in our frail craft for the ascent of the River Oakseey; stopped for a short time at the mouth to examine a large beaver's dam, the finest I have yet seen. The whole of this day was spent in working up the rapids, of which the river is one continuation; encamped in the evening at Waakash, the half way house to the second lake, a distance of twelve miles. The banks of the river are rather low, and abounding in splendid red pine and maple of all sizes, but not the slightest vestige of cleared land to be seen. The country a short distance inland from the river is very high.

Sunday, 4th.—Left encampment about 4 A.M. for another of the Nimkish fishing villages, at which we arrived at noon, where we landed to obtain a supply of fresh salmon, but were only able to procure three and a few trout, as it was rather early for the fish to be up the river. The river at this place branches off in two different directions; the distance from Waakash to this place is about seven or eight miles, and the river, as yesterday, nothing but rapids. We remained only a short time here, and started for the Lake Kanus, distant about six miles. The Indians having told me that this part of the river was very shallow, and that the country through which we had to pass to the lake pretty open, I started on foot with a portion of my crew, and arrived at the lake after a very pleasant walk; the country through which I passed was clear, with occasional belts of wood and brush, and abounding in partridges, of which I shot a good many. I also noticed a pond of cold spring water, of great depth, without an outlet, similar to what are at home called blow-wells.

During my walk I was informed of a tribe of Indians living inland, having no canoes or connection with the sea-coast whatever. I have since learned that these people sometimes descend some of the rivers for the purpose of trade with the Indians south of Nootka, and they offered to guide me to the place at any time I should wish; the name of the tribe is Sïa Kåalituck; they number about fifty or sixty men, and were only discovered a few years back, by one of the Nimkish chiefs while on a trapping expedition. The following is the Indians' story of their discovery :—

Our party while sitting round the fire on the banks of a small rivulet, observed a beaver playing in the water, and having followed the course of the stream in hopes of falling in with a dam, came suddenly upon a lake, and the first thing which struck our attention was a small village situated at the opposite side. Upon entering the camp we were well received by the Indians, and opened a trade for skins, of which they had an abundance, and which they used for clothing. They informed us, that southern Indians (as we supposed the Sanetch) had been there on war parties, and killed a good number of them. This tribe are known to the Nootkas, who have a superstitious idea that they are the spirits of their dead, on account of their speaking the same language. From the time the Nimkish say it takes to perform the journey, and from the Sanetch (or more probably the Comox) having knowledge of these people, I have not the least doubt that a road might with little difficulty be discovered from here to Victoria, through the very centre of the island.

After passing through this lake, which is probably ten miles long, we encamped at the base of a snow-capped mountain, two very fine cascades falling several hundred feet from its summit; and the streams which they form abound in trout of excellent quality and great size, numbers of which we caught.

Monday, 5th.—Early this morning I started, accompanied by an Indian, for the summit of this mountain, which I named Ben Lomond, but did not succeed in reaching any further than the second tier of snow, on account of the ascent being so steep; so having been disappointed in my walk, I returned to the camp at 9 A.M., and set out for the walk across the portage (which was a succession of mountain defiles), to the head waters of the Nootka River. This river, during its course of three or four miles from its source, disappears three different times. Stopped about noon to dine, and after half an hour's rest recommenced our journey, and arrived in Nootka Sound at 7 P.M., after passing over sixteen or eighteen miles. I have not, however, reached my destination for the night yet, the Indians wishing to encamp further down the sound, on account of some superstitious fear of ghosts. Stopped for a short time at the fishing village, where I saw the wheel of a ship. The Indian houses here are very large, in fact more so than those of the Indians near Fort Rupert.

Tuesday, 6th.—Having passed a very comfortable night under cover of a large quantity of salmon frames, we started early for the Nootka village in Friendly Cove, passing through a long inlet that runs about south-east, surrounded by lofty mountains covered to the very top with timber, but of stunted growth. We arrived at our desti-

nation at 4 p. m., having occupied five days on our journey from the Nimkish village.

Upon entering Friendly Cove we were received by a discharge of cannon from the chief's house ; until we were about to land scarcely an Indian was to be seen, but at a given signal the whole tribe darted from their houses and commenced a grand dance in honour of the arrival of a white man to visit them, after which a sea otter was presented to me by the chief, and we landed amid the welcome shouts of the Nootkas. In the evening a grand fancy *dress ball* was given, and a large quantity of blankets and other property distributed.

Wednesday, 7th.—Nothing strange or new ; time mostly spent in feasting and smoking in the houses of the different chiefs, all of whom seemed to be on the highest terms of friendship.

REMARKS.

The timber in the interior of the island is very fine, in fact the banks on both sides of the Nimkish river, from the first lake almost to the Nootka inlet, are lined with splendid red pines, large and long enough for the spars of the largest men of war ; the water communication is also a great consideration ; spars could be squared, rolled into the water, and floated down without difficulty to any depôt, such as the anchorage at Illece or even Beaver Cove. Other timber is also abundant.

The various kinds of rock along the bed of the river, as far as I could see, were granite, sandstone, conglomerate, and hard dark boulders.

The various berries of the country grew in great abundance, with the exception of the small dark berry resembling a beaver shot ; I am unacquainted with the name ; it is plentiful down south and at Comox. Salmon of various kinds, of splendid quality, are found in abundance on the coast, as well as halibut and other sea fish.

Rock oysters of large size I procured to the north of Nootka, some fifty miles, but saw few other shell-fish, except the large sea mussel and the barnacle. Crabs and sea egg were plentiful, also the sea cucumber, and the various species of star-fish and sea anemones.

The zoology is the same as the other parts of Vancouver Island, except that the purple marmot is occasionally found at Koskimo, but not the common grey marmot. The white land otters which have at various times been forwarded from here, were killed near Kioquettuck.

The Indians from Nootka to Newitsee number probably about

1500 men. The depth of the Nimkish Lake I have since sounded, and got no bottom at seventy-five fathoms, from the stern of a canoe, her bow being aground on shore.

EXCURSION FROM QUALLCHUM (LAT. $49^{\circ} 23'$), *viâ* LAKE HORN AND
ALBERNI CANAL, TO THE PACIFIC.

To His Excellency the Governor.

Victoria, Vancouver's Island,
December 15th, 1856.

SIR,

I HAD the honour, in the middle of October last, to receive your instructions to examine a part of the island from a point north of Nanaimo to an inlet of the sea reached by Mr. Horne, and beg to submit for your information, and that of the Governor and Committee of the Hudson's Bay Company, the result of such observations as I was able to make, together with a map on which they are laid down.

As it was rather late in the season, I was not able to take many observations, and the map must be regarded as a mere reconnaissance, which would, however, materially assist in any future survey, the part about Barclay Sound being the least accurate.

The principal observations attempted being as follows; and the filling in is by compass and estimation.

A correction is made in the coast-line between Valdez Inlet and point Leonardo.

The track from Quallchum to Horne's Lake is principally through burnt woods; soil gravelly. Horne's Lake is probably 150 feet above the sea; the summit level between Horne's Lake and head of Alberni Canal is 800 to 900 feet above the sea; the track through forest, soil gravelly, and indifferent. A better road might be cut a little to the south of the lake: for a road from Nanaimo to the head of the canal the country is not yet examined. A ridge of mountains (some snow on them) occupying the middle of the island in the direction of its length, but not unbroken, is shown on the map.

Alberni Canal.—Deep; perfectly free from rocks, or any impediment to navigation; one mile wide; hills 1500 to 1800 feet high on both sides, covered with pines, and springing from the water's edge; small waterfalls from great heights frequent; sandstone met

with at the head of the canal, and occasionally in the rivers; pine tops on the hills bent from the south-west.

*Barclay Sound**, when properly examined and surveyed, will, I should think, be found capable of affording admirable shelter to vessels of any class. The coast between Barclay Sound and Point Bonilla is dangerous (sunken rocks and heavy seas when wind is westerly).

Head of Canal to Opochesath.—River broad (say eighty yards) and shallow. River to central lake exceedingly rapid—several waterfalls, forty or fifty yards wide—and contains two or three times as much water as the Nanaimo River does at the same time of year; quantities of white cedar on the banks: the scenery about Opochesath and head of the inlet is often very beautiful; but there is no great extent of valuable or open land.

Central Lake is surrounded by mountains, covered with pines. Ice said to be very thick on it in the winter; length not ascertained; after ten miles *no bottom at 100 fathoms*. Occasional soundings at low-water in fathoms, in the canal and lakes, are marked on the map. Fish (trout excepted) and game of all kinds are scarce in the interior in winter time. Salmon is found in great abundance in the canal and in the stream falling into it; halibut also; and elk and deer are plenty on the coast, even near the Indian villages.

Timber.—In the immediate neighbourhood of Barclay Sound, the land is low and rocky, or swampy, and timber indifferent. Some of the valleys extending from the canal contain fine timber, and in the neighbourhood of Opochesath spars of large size. Woods oftenest met with are, *P. Menzies*, *P. Inops* (Hooker), *P. Douglasii*, hemlock spruce, Weymouth pine, white cedar, and arbutus.

The precautions you were good enough to suggest with regard to the Indians on the sea-board, who are numerous, were quite necessary, and by availing myself of your better judgment and greater experience in those matters, I had no difficulty with them. Your opinion that no confidence is to be placed in them is quite correct.

I have, &c.

J. DESPARD PEMBERTON.

* Was subsequently visited by Captain Prevost of H. M. S. S. "Satellite," whose opinion of the entrance to Barclay Sound was unfavourable. When there, I looked for Port Effingham, so highly spoken of by Mears, and confess I could not find it. Mears' map of the sound bears but little resemblance to the original.

FROM COWICHAN HARBOUR TO NITINAT.

To His Excellency the Governor.

Victoria, Nov. 12th, 1857.

SIR,

Early in September last I was honoured by your instructions to examine and report upon the country between Cowichan Harbour and Nitinat of the Indians (not the Nitinat usually marked on maps of Vancouver's Island in Barclay Sound).

The party consisting of myself, Lieutenant Gooch, of H. M. S. Satellite, who joined as an amateur, but was afterwards of much service in every emergency; two marines, and two seamen, selected from the Satellite by Captain Prevost; two men of the Surveying Department; and Antoine an Iroquois hunter,—nine men in all; taking with them ten or twelve days' provision, which with their arms and ammunition was as much as they could carry; left Cowichan Harbour on the 4th of September, and reached the Nitinat camp, on the west coast, safely on the 19th of the same month.

I might have given more time to the examination of this exceedingly interesting section of country, but from the unavoidable scarcity of hunters in our party, it was necessary to reach the coast when we did. Game, consisting of elk, black bears, deer and grouse are to be found on the route, as well as fish in the rivers and lakes, but for the reason mentioned our party killed nothing of much use on the way, except one deer and one bear, another badly wounded by Antoine having got away.

The principal instruments and chronometer I carried myself, but as the country is heavily timbered, after passing Mount Prevost, and the fallen trees slippery to walk on, occasional falls was a thing unavoidable, which so damaged the instruments that I regret to say the observations, though taken with the utmost care, proved useless, and the map annexed a compass sketch.

The valuable tract of country extending from the sea to Mount Prevost and the Somenos village, you have yourself examined, and will therefore not require a description of from me. After passing the Somenos Plains the Cowichan River becomes more rapid, and the country covered with pines of different kinds; between the Somenos Plains and the large lake, several tracts of country eligible for settlement will be found, but they will require to be cleared. The situations alluded to will have all the advantages of a fertile soil, good water, game and fish, variety of timber, the appearance

of the surrounding country being generally pretty and cheerful, often grand. The same remarks will apply to the land in many places bordering upon the large lake.

In the valleys, Douglas pines, twenty-three feet to twenty-eight feet in circumference, are not uncommon. Indians occasionally hunt and fish on the border of the large lake, and the stumps of huge cedars, cut down at its western extremity, show that they once manufactured their largest canoes there. We met no Indians between Somenos village and South River. In rounding Mount Gooch we passed through a forest of hemlock-spruce, larger than any I had seen before, often eight or nine feet in diameter.

South River contains a large body of water, has several falls, a considerable quantity of flat land on its banks, particularly on the right bank; pine-trees (*P. Menzies*) six feet to nine feet diameter, of corresponding height, standing at regular intervals; the undergrowth of raspberries, ferns, &c. being exceedingly thick. The banks of Nitinat Inlet are rocky on the west side, and mountainous on the east. Off the entrance, which in one place does not look more than one hundred feet wide, there appears to be a bar. I was not able to take soundings.

The tide rushing out through this narrow entrance with great velocity, and meeting the tide coming in, makes a whirlpool, which has a very remarkable appearance. Perhaps at high water a vessel of large size could be floated in, as the water then is still.

Gold-bearing rocks are met with in the mountains, sandstone is frequently found in the beds of the rivers; the coast about Nitinat is formed of sandstone, and small seams of coal are occasionally met with in it; in the inlet I noticed one large cliff of bluish primitive limestone.

Trusting that the circumstances mentioned in the earlier part of this report will somewhat excuse its incompleteness,

I have, &c.

J. DESPARD PEMBERTON.

EXTRACT FROM JOURNAL OF CAPTAIN VANCOUVER.

"FETCHED five miles to the S. E. of the breakers, into the entrance of an opening that had the appearance of admitting us a considerable way up, though in the Spanish charts this inlet is not noticed.

"In this neighbourhood there is a greater extent of low country

than about Nootka or Clayoquot; it produces forest trees of many sorts and of considerable size; and, on examination, there might probably be found a more eligible situation for an establishment than at either of those places."

This place ought, if only in compliment to the great navigator, to be carefully examined.

FORT SIMPSON TO THE INTERIOR OF BRITISH COLUMBIA.

Extract of a Letter from Mr. William Downie, giving an account of his Journey from Victoria to Queen Charlotte's Island, and thence by Fort Simpson to Fort St. James, Stuart Lake.

Stuart's Lake, Oct. 10th, 1859.

SIR,

I beg to make the following report of my trip to Queen Charlotte's Island, and my journey thence by Fort Simpson to the interior of British Columbia.

I left Fort Simpson for the Skeena river on the 5th of August. From Fort Simpson to Port Essington is about forty miles. The salt water here appears a light blue colour, and runs inland about thirty miles; the coarse grained quartz of Fort Simpson is no longer seen here; granite appears. The banks of the river are low, with small hard wood, and cotton-trees on its margin, with some good-sized white oaks, the finest I have seen west of Fraser River.

Vessels drawing more than four feet of water cannot go more than twenty miles up the Skeena river, and it is very unlike the deep inlets to the southward. At our camp here some Indians visited us; they told us they were honest, but in the morning the absence of my coat rather negatived their statement. Next day we found the river shoal even for loaded canoes, as it had fallen much. I went up a small river at our next camp, called Scenatoys, and the Indians showed me some crystallised quartz, and to my surprise a small piece with gold in it, being the first I have seen in this part. The Indian took me to a granite slide, whence he asserted the piece of quartz in question had come from; I found some thin crusts of fine quartz, but nothing like a rich vein. Ten miles further I found more fine grained quartz, but no gold. I am of opinion, however, that good paying quartz will be found here.

From the small river just mentioned at the mouth of the Skeena or Port Essington, it is seventy-five miles; a little below it, an Indian trail leads to Fort Simpson; it is through a low pass, and the distance is not great.

From this, ten miles further up, is a small river called the Foes, on the south side; hence is an Indian trail to Kitloops, on the Salmon River. The south branch of Salmon River is called Kit-tama.

By this time we were fairly over the coast range of mountains, and those ahead of us did not look very high. The current here was strong, and much labour required to get the canoe along, and we had to pull her up by a rope from the shore.

Gold is found here, a few specks to the pan, and the whole country looks like a gold country with fine bars and flats, and clay on the bars. The mountains look red, and slate and quartz can be seen.

Our next camp was at the village of Kitthalaska; and I started in a light canoe ahead of my party, as our canoe, by all accounts, could not get much further; I then determined to penetrate to Fort Fraser (supposed to mean establishment of H. B. Company).

The Indian who was with me informed me that a large stream called the Kitchumsala comes in from the north, the land on it is good, and well adapted for farming; the Indians grow plenty of potatoes here. To the south a small stream, called the Chinkootsh, enters, on the south-west of which is the Plumbago Mountain; I had some of it in my hand; it is as clear as polished silver, and runs in veins of quartz. Near this are the words "Pioneer H. B. C." on a tree nearly overgrown with the bark. The Indian told me this was cut by Mr. John Work, a long time ago. From here to the village of Kitcoonsa the land improves, the mountains recede from the river, and fine flats run away four or five miles back to the mountain sides, where the smoke is seen rising from the Indian huts; they are occupied in picking and drying berries for the winter. The Indians here were very kind to me, and wished me to build a house and live with them.

Above the village of Kitcoonsa the prospect of gold is less; below it, a man could make a dollar a day. As the season was so advanced I was not able to prospect the hills which look so well about here, and unless the Government take it in hand it will be a long time before the mineral resources of this part of British Columbia are known. I think this is the best looking mineral country I have seen in British Columbia.

From here to the village of Kitsogatala the river is rocky and dangerous, and our canoe was split from stem to stern.

Here we enter an extensive coal country, the seams being cut through by the river, and running up the banks on both sides, varying in thickness from three to thirty-five feet.

The veins are largest on the north-east side, and sandstone appears; it is soft, and gives easily to the pick.

The veins dip into the bank for a mile in length, and could be easily worked on the face by tunnels, and also by sinking shafts at the rear on the flats, as they run into banks of soft earth. I have seen no coal like this in all my travels in British Columbia or Vancouver Island. Here we had some danger from Indians, but a small present of tobacco, and putting aside all fear, or even appearance of it, succeeded in quieting them. I find it best to be cool and determined in the prospect of a fight.

The land around Naas Glee is first rate, and wild hay and long grass abounds. Potatoes are not grown here. There is no heavy pine timber in the neighbourhood, and the canoes are made of cotton wood.

Our course from Naas Glee to Fort Killamaurs, was N. E. and the distance about fifty miles. The land is good the whole way, with long grass on the benches near Fort Killamaurs. This is a very lovely place, and no sound to be heard save one,—our voice. It seems a great pity to see this beautiful land, so well adapted for the wants of man, laying waste, when so many Englishmen and Scotchmen would be glad to come here and till the soil. Babine Lake is deep, and in some places five or six miles wide; there are islands and points of land to afford shelter from the storm, wherever the wind blows from.

At the head of Babine Lake there is a fine site for a town, and a good harbour could be made. A stream runs down here which would supply water for the town. This is what I call the head waters of Skeena River. There is plenty of water in the lake for steamers, and it is a hundred miles in length. From here to Stuart's Lake there is a portage over a good trail, and through the finest grove of cotton wood I have ever seen, to Stuart's Lake; the ground was thickly strewn with golden leaves, giving the scene an autumnal appearance, altogether different to what we expected to find in British Columbia.*

WILLIAM DOWNIE.

To His Excellency, GOVERNOR DOUGLAS, C. B., &c. &c.

* The harbour of Fort Simpson is a very safe, though not a perfect, harbour; the anchorage is good. It is apparently exposed to the west and south-west, but it is protected from the swell by a reef, covered at high water and exposed at half tide. This harbour may be by and by of importance, especially if it shall be found necessary to open a road into the northern part of British Columbia, direct from the coast.—J. D. P.

DOUBLING CAPE HORN.

For the information of persons intending to emigrate by long sea, who will naturally wish to know at what times and under what circumstances the voyage round the Horn is most favourably made, the following remarks, extracted from "Navigation of the Pacific," by Captain A. B. Becher, R.N. F.R.A.S. &c. 1860, are here inserted:—

Doubling Cape Horn from the Atlantic.—Seamen who have doubled Cape Horn have given different directions on some points of the subject, but those will be adopted here which appear to be the most trustworthy. But before pointing out the proper routes it may be right to say a word or two on the most favourable season for entering the Pacific from the eastward.

Captain J. Weddel grounds his opinion on the experience of five years in navigating these parts, and considers the months of March and April as the worst for doubling Cape Horn. He says the difficulties of doubling this cape may be greatly diminished by choosing the proper season for it, and loss of time may be avoided as well as injury to the ship.

In the beginning of November northerly winds set in and continue till the middle of February, when they are succeeded by those from S. W. During these months the westerly wind is not of long duration, and then the passage is easily made. From the 20th of February, or thereabouts, to the middle of May the winds generally vary between S.W. and N.W., and are very strong. During this time, therefore, a badly-found ship and one that is not tight should not attempt the passage. But from the middle of May to the end of June the prevailing winds are easterly, with fine weather; and these six weeks offer a good opportunity for doubling the cape, even in sight of the island of Diego Ramirez. Then in July, August, September, and October the prevailing winds vary from S.W. to N.W., and August and September are especially stormy months.

These remarks appear conclusive as to the best time for doubling Cape Horn.

As to the route to be adopted when from the eastward, continues Capt. Weddle, this greatly depends on the time of being off the cape, and on the strength of the westerly winds which prevail in these latitudes. I prefer, under all circumstances, to pass west of the Falkland Islands. In the summer the Strait of Lemaire may be taken, as it shortens the passage by fifty or sixty miles; and this may be done without danger, provided we have daylight for clearing it, admitting that at the southern end we meet with southerly winds.

Cape Horn is about thirty-one leagues from Cape Good Success,

with Barnevelt Island between them. If desirous of anchoring near Cape Horn the route S.b.W. $\frac{1}{4}$ W. (compass) during the night will take a ship clear of the N.W. current, which sometimes sets among the islands at the entrance of Nassau Strait. If not intending to anchor, the most advantageous route after leaving the Strait of Lemaire would be to make to the southward, passing south of the cape and Diego Ramirez at a distance of several miles.

In the summer, when working westward in the vicinity of the cape, towards evening take care to be near the coast of Terra del Fuego, because during the night northerly winds often come off the land and veer west in the morning. This, however, depends in a great measure on the seasons mentioned for passing Cape Horn. In fact, during those months when the wind is most violent, as in March, August, and September, the seaman should follow the directions given by Anson and King, who recommend standing to the south as far as 60°, where a smoother sea and more moderate and steadier winds will be found. Nevertheless, when a ship is obliged to make her passage along the coast, the places where she may anchor with safety are Wigwam Bay, Port Maxwell, Indian Cove, New Year Sound, and Clear Bottom Bay.

Such are generally the remarks of Captain Weddel. We will now see what others say on doubling the cape.

As we have already observed, Captain King recommends a ship from the Atlantic intending to double Cape Horn to run down the coast of Patagonia at a hundred miles distance. Captain Fitz-Roy does not agree in this opinion. I do not think, he says, that it would be important for a large well-built vessel to keep near the east coast of Patagonia. The sea, it is true, is smoother there, but the current near the coast sets northward, with more strength than out at sea. But, when in sight of the coast no ice is met, while further east it is found even north of the parallel of 40° S. Instead of going to the south as far as the parallel of 60° S., as Captain King says, I prefer to work to the westward near Terra del Fuego, towards Nassau Bay. In Orange Bay a ship may await a favourable moment to make a long board to the west. If disappointed of this, she may return to her anchorage under Black Island in Euston Bay, or elsewhere, and await a more favourable time. To make westing is the principal object to be kept in view till we reach the meridian of 82° west. We do not find ice near Terra del Fuego, but frequently meet with it seaward from this island. In the route here pointed out near Cape Horn and the land many dangers and injuries to the vessel will be avoided by remaining quietly at anchor during the bad weather, and profiting by any change of weather or wind to make westing. It appears from this that Fitz-Roy prefers in all cases the route nearest

the land. Weddel's opinion differs from his, for he advises this route during summer, and the sea route down to the parallel of 60° or thereabouts during winter.

Fitz-Roy's opinion is here supported by that of Cook, La Perouse, and Krusenstern, as well as Capt. Beechey. I do not see, says this officer, the necessity for going far south to double Cape Horn. One thing I only recommend, namely, to adopt that tack on which most westing is made without thinking of latitude further than to pass twenty leagues south of this cape. With north-west winds I should run south-west, and with south-west winds north-west, and in case neither board is favourable, I would stand to the southward, unless I was in too high a latitude. The strongest winds are not found near the coast, as is supposed; quite the contrary: and at thirty miles from it, the sea breaks from the inequality of the bottom. There is, however, one serious objection to approaching the coast east of Cape Horn, and that is, the rapidity with which the current sets across Lemaire Strait, particularly with southerly winds. This is not the case west of Diego Ramirez, and I do not see any objection in this part to approach the coast to about forty or sixty miles. Near Diego Ramirez I found little or no current.

When doubling Cape Horn from the eastward, we should pass inside or west of the Falkland Islands, and pass east of Staten Island, but as near as possible to it, because south-west winds are often met with as soon as the Pacific Ocean is open. North-west winds off the Falklands generally become west or south-west as Staten Island is approached, and with the wind from west off this island we have only to run south. However, this course need not be taken unless we can make westing. Even if we gain little or nothing on the other tack, we should keep near the shore, for there is no advantage in making southing if it is not to avoid losing in the westing. We should not, however, take much liberty with the coast while east of Cape Horn. Such are the most general rules for doubling this cape.

As to passing through Lemaire Strait, or outside Staten Island, opinions differ. The prudent course is to adopt the latter, although the passage through the straits gains to windward and shortens the route. But with a southerly wind it should never be taken, for with the tide running against the wind, the sea in the strait becomes boisterous. With a calm it would still be wrong to adopt it, unless the west coast of the strait (for anchorage) cannot be reached, on account of the tide setting toward Staten Island. Everywhere else the anchorage is in deep water and close to the shore. However, with northerly winds, this route appears to be very advantageous. Such is King's opinion, and Captain Fitz-Roy's also, whose opinion is un-

questioned, and who considers that there is no difficulty in taking Lemaire Strait. The only danger to be apprehended is calm. Vessels from the southward are not very liable to this danger, in south-west winds at least; and in this case they would probably find north-west winds in the northern part of the strait. The Bay of Good Success is, however, admirably situated for affording shelter should wind or tide fail.

In passing Staten Island from the southward, the tide rips, extending some distance off the north-east part of the island, should be avoided; but there are no dangers near the island. The foregoing is sufficient to convey an idea as to how to double Cape Horn from the eastward.

Most seamen who have frequented these latitudes (as King, Basil Hall, Beechey, La Perouse, &c.) agree that the barometer does not give any certain indications near Cape Horn, and that it can only be depended on in middle latitudes. That although the mercury often rises or falls before a change in the weather, the rising or falling more often follows the change. The mean height of the barometer is 29.5 inches. With north-west winds the mercury is low; if it falls to 29.0 or 28.8 inches, expect south-west winds, which only commence when the mercury ceases to fall. But again, a fall in the mercury often occurs without being followed by any change in the weather.

Magellan Strait.—In reference to the Straits of Magellan, King's directions for the Patagonian coast must be followed by vessels from the Atlantic to the Pacific. For steamers, especially if small, this passage will be advantageous; but with a sailing vessel it is both tedious and dangerous.

For a small vessel coming from the Pacific to the Atlantic, the passage of Magellan Strait is very advantageous. It is always safe, very nearly as quick, and not so dangerous as the route by Cape Horn. Thus: entering by the Gulf of Trinidad, she would take Conception Strait, Sacramento or St. Esteban, then Smyth Channel, and the strait at Cape Tamar. In these channels northerly winds prevail, and anchorages are at hand to pass the night in.

The winter months are undoubtedly the best for the Straits of Magellan when going west. When coming from west the summer months are preferable; the nights being short and westerly winds prevailing.

Doubling Cape Horn from West.—Passing from the Pacific into the Atlantic Ocean by Cape Horn, the principal objections are: dark cloudy weather, a heavy sea, and floating ice. For a large ship the passage is easy enough, and the summer months (January and February) are considered as the most favourable for it. A small vessel

having doubled the cape, would do better, and find a smoother sea, by passing inside the Falkland Islands from Lemaire Strait. For a large vessel, Beechey considers it preferable to pass east of the Falkland Islands, especially in the winter, because the wind has then a hankering for the eastward, and thus, when past the islands, she would be in a good position for reaching the River Plata.

One of the most formidable dangers of doubling Cape Horn is that of smashing a low iceberg at night, when it is blowing fresh and a heavy sea running. According to all seamen it appears that in the winter and spring months (July, August, and September) they are most commonly met with. Sometimes these floating masses are only a few yards above the water, and therefore very difficult to discover in the night. In the dark nights of winter these dangers therefore are to be provided against by the best look-out that can be kept: for they are mostly met in fresh winds and a heavy sea. And as Captain Basil Hall advises, it will be best at night under such circumstances to lie off the cape. With fine weather and a quiet night small sail may be carried, but the look-out should be doubled, the greatest possible precautions adopted, the sails being set so as not to prevent the watch from seeing all round. The following precaution is recommended by him. Having reefed the topsails and courses, the yards should be braced nearly sharp up, bowlines hauled, and every thing ready for going about in the night, however the wind might come. Then when an iceberg is seen near ahead it may be avoided by putting the helm up or down. In all cases the yards braced in renders either plan easy of execution.

The foregoing are the best instructions seamen can have for doubling Cape Horn under all circumstances; and we will now consider the navigation of the western coast of America.

Navigation of the West Coast of America.—The navigation of the western coast of America presents no difficulties, care being taken, if going north, to keep in Humboldt's Current; and in running along the north coast during summer advantage should be taken of the Mexican Current. Thus the passage may be easily made from the Straits of Magellan to Acapulco, by taking care to profit by the monsoons of the Chili coast; and the passage will be shorter or longer according as the monsoon is favourable or not.

REPORT OF ANALYSIS OF TWO SAMPLES OF WATER FROM VANCOUVER ISLAND.

Sample A, marked March 17, 1854, taken from Salt Spring Island, (Admiral Island.)

Sample B, marked March 30, 1854, taken from a Salt Spring at Nanaino.

Summary.

The results of the analysis show the following to be the constitution of the two waters:—

In the Imperial Gallon.

<i>Soluble.</i>	A.	B.
	Grains.	Grains.
Chloride of sodium, and traces of other salts .	4994	3446
<i>Insoluble.</i>		
Impurity	160	nil
Total contents in Imperial gallons .	5154	3446

Proportion of saline matter (chiefly salt) by weight per cent:—

	A.	B.
Saline matter (chiefly salt)	6·5	4·9
Water	93·5	95·1
	100·0	100·0

The quantity of *common salt* in the imperial gallon of B. is about twice as great as in Atlantic sea-water, and it could much more easily be obtained pure, as it is not contaminated with the salts of magnesia.

The water B., although less rich in salt than A., is preferable to the latter for the extraction of salt. The product from B. is purer. The springs are far from being saturated brine. Water will dissolve four times as much salt as is contained in B. I have found the water of the Dead Sea in Palestine to contain as much as twenty-four per cent., three-fourths of this being common salt.

ALFRED SWAINE TAYLOR, M.D. F.R.S.

Lecturer on Chemistry, &c., in Guy's Hospital.

Chemical Laboratory, Guy's Hospital,
October 21st, 1854.

Samples of the salt extracted from A and B are at the laboratory, under the care of the assistant, Mr. Andrews.¹

¹ Those interested in the manufacture of salt from brine springs I would

PROFESSOR JAMES TENNANT ON THE ROCKS OF VANCOUVER
ISLAND.

149 Strand, November 29th, 1852.

SIR,

I send the names of the specimens; those marked with a * are on the first page. Several of these, viz. 5*, 8*, 9*, and 13* contain gold, although I do not find gold in Nos. 6*, 10*, and 14*. I believe the vein from which the specimens were taken does contain it. I have not found gold in any of the specimens from No. 1 to 43 without a * on page No. 2.

I have, &c.

JAMES TENNANT.

To the Secretary,
Hudson's Bay House.

Page 1.

- No. 1*. Dark coloured compact limestone, with veins of calcareous spar.
- 2*. Veins of quartz partly crystallised, in which no gold is to be seen.
- 3*. Serpentine.
- 4*A. Quartz crystallized.
- 4*B. Clay slate, or killas.
- 4*C. Clay slate, with minute crystals of iron pyrites, and veins of quartz..
- 5*. Part of quartz vein, with particles of gold disseminated.
- 6*D. Clay slate, containing crystals of iron pyrites, and veins of quartz.
- 6*E. Clay slate.
- 7*. Dark coloured limestone rock, with calcareous spar, similar to No. 1.

refer to the Prize Essay on the Manufacture of Salt, by Mr. H. Owen Huskisson, which obtained the Society's medal; Parliamentary Report on the subject in 1836; Fownes's Chemistry; and Ure's Dictionary of Arts and Manufactures; also, Utah and the Mormons, by Ferris. The American Patent Office Reports of 1857 (vol. Agricultural) contain an interesting article on the manufacture of salt from brine springs, as practised in America, copied from the Illinois Journals.—J. D. P.

- 8*. Part of a vein of quartz imperfectly crystallised, containing gold.
- 9*. Clay slate, with small crystals of iron pyrites and veins of quartz partly crystallised, the latter containing a small quantity of gold.
- 10*. Clay slate, with numerous small crystals of iron pyrites, and veins of quartz crystallised.
- 11*. Clay slate; this with Nos. 4, 6, 9, 10, 13, and 14 contains much silica.
- 12*. Serpentine.
- 13*. Clay slate, containing numerous small crystals of iron pyrites and veins of quartz; in the latter particles of gold are distributed.
- 14*. Quartz, partly crystallised, containing a small quantity of auriferous iron pyrites.

(Signed) JAMES TENNANT.

THE PACIFIC SQUADRON. NAVAL STATION.

(From *The Times* Correspondent, June 26, 1860.)

It is true, that if all that is required for a naval station be so much water for so many ships to float and to anchor in, and so many acres of ground for docks in a wilderness, these essentials are obtainable in Burrard's Inlet, which is about five miles across country from New Westminster. But, as the naval station placed in that locality involves the navigation of a portion of the Straits of Fuca, of the whole of the Canal de Haro (under the guns of the American batteries if San Juan be given up), together with the crossing of the Gulf of Georgia, often a tempestuous sea, as well as the other inland waters which intervene between Burrard's Inlet and Esquimalt and the ocean, all of which navigation would be an addition to a voyage long enough already, and which would be avoided by leaving the squadron to rendezvous at Esquimalt, where the ships now lie, most competent judges prefer Esquimalt for the head-quarters of the squadron. Esquimalt is near the ocean, easily accessible by day and night now that a lighthouse is placed at its entrance. It has good anchorage in Royal Bay, just outside, where a fleet could ride. Besides these conveniences, it possesses great facilities for fortifications over every other harbour in the Pacific

Ocean. It could be made impregnable at less cost than any other harbour in these seas could be rendered partially secure; and it is well situated for supplying ships to defend the entrance into the Straits of Fuca—a measure to the accomplishment of which “Port San Juan,” situated on Vancouver’s Island, near the entrance, possesses important facilities in having a good harbour three miles long, and capable of anchoring a fleet in safety. From this port one or two ships could blockade the entrance, and make Fuca’s Straits a British lake, while Esquimalt is close at hand to afford supplies and all necessary assistance.

While these are some of the advantages of Esquimalt, let us glance at the disadvantages and inconveniencies of making Burrard’s Inlet the head-quarters.

The tedious navigation to and fro between Esquimalt and the inlet I have already mentioned. There is also the additional expense of provisioning the squadron. At Victoria the men-of-war get all they want, and at Esquimalt itself there is a bakery which supplies them with biscuit. The Admiral’s communications with England would be delayed considerably if he were on the coast of British Columbia. Shut up in the inlet the squadron would be out of the way, and distant from the points in the Straits of Fuca where its services must always be most needed. Vancouver’s Island will be the point of attack, if an attack is made on one of these colonies by any hostile power, as it must be secured to make the continent tenable if taken, so that if Burrard’s Inlet were made the naval station it would involve this anomaly,—that while the head-quarters were over there, the ships would always be stationed here. The naval station must be at Esquimalt.

HORSE-RACING IN CALIFORNIA.

From *Bell’s Life*, July 1st., 1860.

Sacramento Races (Contreville Course).

First day, Tuesday, April 24.—A purse of 800 dollars, for all ages; Metairie Club weights; heats, one mile.

H. Peyton’s gr. f. Susy Hawkins, by Jack Hawkins out of Lola Montez, by Gray Eagle, 2 yrs.	1	1
M. Morison’s ro. f. Kate Mitchell, by Ned Murray, dam —, 2 yrs.	2	dis
J. Merritt’s (A. F. Grigsby’s) b. c. Billy Hood, by Imp. Lawyer, dam —, 2 yrs.	3	dis
Time, 1:52—1:53 $\frac{3}{4}$.		

Second day, April 25.—A purse of 600 dollars, free for all ages ;
Metairie Club weights ; heats, two miles.

N. Coomb's ch. h. Billy Cheatham, by Cracker out of Lucy, by Mingo, 6 yrs.	1	1
E. S. Lathrop's (W. M. Williamson's) b. m. Bonny Belle, by Belmont out of Liz Givens, by Imp. Langford, 6 yrs.	2	2
First heat	1: 51 $\frac{1}{2}$	1: 56 — 3: 47 $\frac{1}{2}$
Second heat	1: 55	1: 52 $\frac{1}{2}$ — 3: 47 $\frac{1}{2}$

Third day, April 26.—Great Match for 10,000 dollars (four mile heats), between the Californian-bred colt Langford and the Kentucky-bred colt Ashland.

E. S. Lathrop's ch. c. Langford, by Belmont out of Liz Givens, by Imp. Langford, 4 yrs, 100 lb. up	W. Pierce	1	1
Hon. N. Coomb's b. h. Ashland, by Imp. Glencoe out of Mary Bell, by Sea Gull, 5 yrs., 110 lb. up	J. Williams	2	dr
First heat	1: 52		
Second heat	1: 54	— 3: 46	
Third heat	1: 57 $\frac{1}{2}$	— 5: 43 $\frac{1}{2}$	
Fourth heat	2: 00 $\frac{1}{4}$	— 7: 43 $\frac{3}{4}$	

Match for 100 dollars ; heats, one mile, to rule.

J. Merritt's b. c. Billy Hood, 2 yrs.	1	1
J. B. James's gr. g. Jim Thurnan, 3 yrs.	2	dis
Time, 1: 56—2: 08 $\frac{1}{4}$.		

Fourth day, April 27.—The Proprietors' purse of 300 dollars ; free for all ages ; heats, one mile ; best three in five.

Capt. H. Peyton's gr. f. Susy Hawkins, 2 yrs. (pedigree, &c. as above)	1	1	1
E. S. Lathrop's (W. M. Williamson's) b. m. Bonnie Belle, 6 yrs. (pedigree as above)	2	2	2
Time, 1: 51 $\frac{1}{2}$ —1: 52—1: 50.			

LAW OF LAND SALES IN THE COLONIES.

As the law itself is short, and to intending settlers particularly interesting, it is inserted here, omitting the preamble :—

1. That from and after the date hereof, (January 4th, 1860,) British subjects and aliens who shall take the oath of allegiance to Her Majesty and her successors, may acquire unoccupied and unsurveyed, and unsurveyed Crown land in British Columbia (not being the site of an existent or proposed town, or auriferous land available

for mining purposes, or an Indian Reserve or Settlement,) in fee simple, under the following conditions.

2. The person desiring to acquire any particular plot of land of the character aforesaid, shall enter into possession thereof and record his claim to any quantity not exceeding 160 acres thereof, with the magistrate residing nearest thereto, paying to the said magistrate the sum of eight shillings for recording such claim. Such piece of land shall be of a rectangular form, and the shortest side of the rectangle shall be at least two-thirds of the longest side. The claimant shall give the best possible description thereof to the magistrate with whom his claim is recorded, together with a rough plan thereof, and identify the plot in question by placing at the corners of the land four posts, and by stating in his description any other land marks on the said 160 acres, which he may consider of a noticeable character.

3. Whenever the Government survey shall extend to the land claimed, the claimant who has recorded his claim as aforesaid, or his heirs, or in case of the grant of certificate of improvement hereinafter mentioned, the assigns of such claimant shall, if he or they shall have been in continuous occupation of the same land from the date of the record aforesaid, be entitled to purchase the land so pre-empted at such rate as may, for the time being, be fixed by the Government of British Columbia, not exceeding the sum of ten shillings per acre.

4. No interest in any plot of land acquired as aforesaid, shall before payment of the purchase money, be capable of passing to a purchaser unless the vendor shall have obtained a certificate from the nearest magistrate that he has made permanent improvements on the said plot to the value of ten shillings per acre.

5. Upon payment of the purchase money, a conveyance of the land purchased shall be executed in favour of the purchaser, reserving the precious minerals, with a right to enter and work the same in favour of the Crown, its assigns and licencees.

6. Priority of title shall be obtained by the person first in occupation, who shall first record his claim in manner aforesaid.

7. Any person authorised to acquire land under the provisions of this Proclamation, may purchase in addition to the land pre-empted, in manner aforesaid, any number of acres not otherwise appropriated, at such rate as may be fixed by the Government, at the time when such land shall come to be surveyed, not to exceed ten shillings per acre; five shillings to be paid down, and the residue at the time of survey.

8. In the event of the Crown, its assigns or licencees, availing itself, or themselves, of the reservation mentioned in clause 5, a reasonable compensation for the waste and damage done, shall be paid by the person entering and working, to the person whose land

shall be wasted or damaged as aforesaid, and in case of dispute, the same shall be settled by a jury of six men to be summoned by the nearest Magistrate.

9. Whenever any person shall permanently cease to occupy land pre-empted as aforesaid, the Magistrate resident nearest to the land in question may in a summary way, on being satisfied of such permanent cessation, cancel the claim of the person so permanently ceasing to occupy the same, and record the claim thereto of any other person satisfying the requisitions aforesaid.

10. The decision of the Magistrate may be appealed by either party to the decision of the Judge of the Supreme Court of Civil Justice of British Columbia.

11. Any person desirous of appealing in manner aforesaid, may be required, before such appeal be heard, to find such security as may be hereafter pointed out by the rules or orders hereinafter directed to be published.

12. The procedure before the Magistrate and Judge respectively, shall be according to such rules and orders as shall be published by such Judge with the approbation of the Governor for the time of British Columbia.

13. Whenever a person in occupation at the time of record aforesaid, and he, his heirs, or assigns, shall have continued in permanent occupation of land pre-empted, or of land purchased as aforesaid, he or they may, save as hereinafter mentioned, bring ejectment or trespass against any intruder upon the land so pre-empted or purchased, to the same extent as if he or they were seized of the legal estate in possession in the land so pre-empted or purchased.

14. Nothing herein contained shall be construed as giving a right to any claimant to exclude free miners from searching for any of the precious minerals, or working the same upon the conditions aforesaid.

15. The Government shall, notwithstanding any claim, record, or conveyance aforesaid, be entitled to enter and take such portion of the land pre-empted or purchased as may be required for roads or other public purposes.

16. Water privileges and the right of carrying water for mining purposes, may, notwithstanding any claim recorded, purchase or conveyance aforesaid, be claimed and taken upon, under or over the said land so pre-empted or purchased as aforesaid by free miners requiring the same, and obtaining a grant or licence from the Gold Commissioner, and paying a compensation for waste or damage to the person whose land may be wasted or damaged by such water privilege or carriage of water, to be ascertained in case of dispute in manner aforesaid.

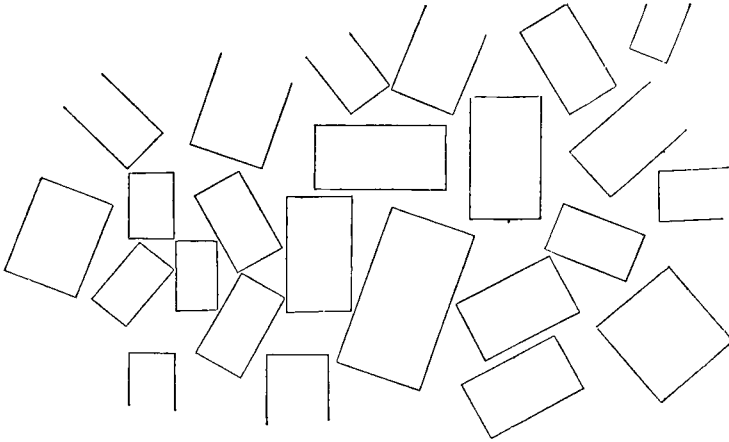
17. In case any dispute shall arise between persons with regard

to any land so acquired as aforesaid, any one of the parties in difference may, (before ejection or action of trespass brought,) refer the question in difference to the nearest Magistrate, who is hereby authorised to proceed in a summary way to restore the possession of any land in dispute to the person whom he may deem entitled to the same, and to abate all intrusions, and award and levy such costs and damages as he may think fit.

That the measure before detailed will require some modification and amendment appears probable.

For instance, if Clauses 1 and 2 were carried out in their integrity, the future survey of the country would prevent the confusion of posts and land landmarks, and the kaleidoscopic appearance exhibited in figure No. 1.

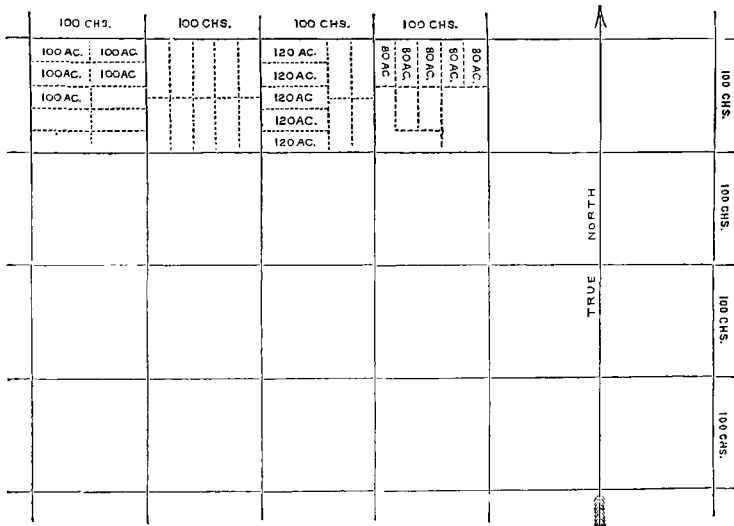
Fig. 1.



And in point of economy, a decided mistake would be made, viz. that the marking of allotments and survey of the country would fail to be executed in a single operation.

I should recommend instead the decimal system of allotment, adopted with perfect success in Vancouver Island. Main lines are run, $1\frac{1}{4}$ mile apart, forming squares of 1000 acres each, within which allotments of any size required can be arranged *ad libitum* to suit any frontage. Where the land is valueless, the detailed surveys within the great squares are omitted; and in this way, with the greatest facility, any part of the country is surveyed roughly or minutely, according to its value, and connected with the rest, which will be at once understood by a glance at fig. 2.

Fig. 2.



Adopting this view, the claimant would of course have to be content to accept the lines of the allotment which might include his improvements.

In Clause No. 3. I should think it will be ultimately found necessary to name an exact time when the survey may be expected to take place, and the claimant be required to pay for the land.

And in Clause 17. If the dispute should be one of boundaries, one would suppose that the difficulty ought to be referred to the Surveyor-general; that a magistrate, unless he brushed up his mathematics to some purpose, might have considerable difficulty in settling it.

AS TO THE PURCHASE OF LANDS BY ALIENS.

Victoria, Vancouver's Island, November 25, 1858.

1. According to the law of England, which is also the law of British Columbia, an alien may hold lands, but is liable to have them declared forfeited to the crown at any time.

2. No alien can be disturbed in the possession of lands by any other person than the Crown authorities by reason only of his being an alien.

3. The Colonial Government proposes to secure to aliens the full rights of possession and enjoyment of any lands which they may purchase at this sale for the space of three years. At the end of that time they must, if they wish to continue to hold the lands, either become themselves naturalised British subjects, or else convey their rights to British subjects. Such conveyances it is the intention of the Colonial Government not to disturb on the ground of any vendor being an alien.

4. It is the intention of the Colonial Government to endeavour to obtain from the Home Government their sanction to measures for carrying into effect the above views, which measures are now in preparation; but they must depend, for their full effect, on the ratification by the Home Government.

The above was issued by the Chief Justice.

*Extract from Despatch from Sir E. B. Lytton to Governor Douglas,
August 14, 1858.*

4. Foreigners, as such, are not entitled to grants of waste land of the Crown in British colonies. But it is the strong desire of Her Majesty's Government to attract to this territory all peaceful settlers, without regard to nation. Naturalisation should, therefore, be granted to all who desire it, and are not disqualified by special causes, and with naturalisation the right of acquiring Crown land should follow.

RULES AND REGULATIONS FOR THE WORKING OF GOLD MINES,
ISSUED IN CONFORMITY WITH THE GOLD FIELDS ACT, 1859.

Whereas it is provided by the Gold Fields Act 1859, that the Governor, for the time being, of British Columbia, may, by writing under his hand and the public seal of the colony, make rules and regulations in the nature of by-laws, for all matters relating to mining.

And whereas, in conformity with the said Act, certain rules and regulations have already been issued bearing date the 7th of September, 1859.

1. The mines in the said level benches shall be known as "bench diggings," and shall for the purpose of ascertaining the size of claims

therein be excepted out of the class of "dry diggings," as defined in the rules and regulations of the 7th of September last.

2. The ordinary claims on any bench diggings shall be registered by the gold commissioner according to such one of the two following methods of measurement as he shall deem most advantageous on each mine, viz.: One hundred feet square, or else a strip of land twenty-five feet deep at the edge of the cliff next the river, and bounded by two straight lines carried as nearly as possible in each case perpendicular to the general direction of such cliff across the level bench up to, and not beyond the foot of the descent in the rear; and in such last mentioned case, the space included between such two boundary lines when produced over the face of the cliff in front as far as the foot of such cliff and no farther, and all mines in the space so included shall also form a part of such claim.

3. The gold commissioner shall have authority in cases where the benches are narrow to mark the claims in such manner as he shall think fit, so as to include an adequate claim. And shall also have power to decide on the cliffs which, in his opinion, form the natural boundaries of benches.

4. The gold commissioner may in any mine of any denomination where the pay dirt is thin or claims in small demand, or where from any circumstances he shall deem it reasonable, allow any free miner to register two claims in his own name, and allow such period as he may think proper for non-working either one of such claims. But no person shall be entitled to hold at one time more than two claims of the legal size. A discoverer's claim shall for this purpose be reckoned as one ordinary claim.

5. All claims shall be subject to the public rights of way and water in such manner, direction, and extent as the gold commissioner shall from time to time direct; no mine shall be worked within ten feet of any road, unless by the previous sanction of the gold commissioner.

6. In order to ascertain the quantity of water in any ditch or sluice, the following rules shall be observed, viz.,

The water taken into a ditch, shall be measured at the ditch head. No water shall be taken into a ditch except in a trough whose top and floor shall be horizontal planes, and sides parallel vertical planes; such trough to be continued for six times its breadth in a horizontal direction from the point at which the water enters the trough. The top of the trough to be not more than seven inches, and the bottom of the trough not more than seventeen inches below the surface of the water in the reservoir, all measurements being taken inside the trough and in the low water or dry season. The area of a vertical transverse section of the trough, shall be considered as the measure of the quantity of water taken by the ditch.

The same mode of measurement shall be applied to ascertain the quantity of water running in a trough or out of any ditch.

Issued under the Public Seal of the Colony of British Columbia at Victoria, Vancouver Island, this sixth day of January, in the year of our Lord one thousand eight hundred and sixty, and in the twenty-third year of Her Majesty's reign, by me,

(L. S.)

JAMES DOUGLAS.

By His Excellency's Command,

WILLIAM A. G. YOUNG,

Acting Colonial Secretary.

CHINESE.

(From *The Times* of June 26th, 1860.)

From the mines the news was never better. New diggings are constantly being discovered, and large earnings being made all over the mining region. The Chinese immigration, which was expected, is beginning to set in. About 800 Chinamen have arrived within the last fortnight, some of them in two vessels from China direct, others from San Francisco. They have nearly all gone up to the mines.

Accounts from China say that a large immigration may be expected if the Chinese are well treated.

There are no distinctions made against them in these colonies. They have the same protection as all other persons, and in the mines they are allowed the same rights, liberties, and privileges as all other miners, and the great bulk of the population is very glad to see them coming into the country. Fears for the result are the phantoms of a few nervous and ill-informed persons.

From *The New Westminster Times* of April 11th, 1860.

According to the San Francisco *National* "arrangements are making at that port for the conveyance of seven thousand Chinese passengers to British Columbia;" and the same authority states that "it is highly probable that the total departures during the spring may greatly exceed that number." Thus we will have during the

summer a Chinese population of at least 10,000, or more than double that of our other inhabitants.

“So considerable an accession to the population of the English possessions, will be very favourably received at this time by our northern neighbours. The movement of the Chinese in that direction, affords strong confirmation of the mineral wealth of British Columbia. This sagacious people do not migrate in large squads without sufficient preparation and satisfactory assurance that they will improve their condition by the change. Their agents have carefully investigated the Fraser river country, and reported favourably. It is found to offer better opportunities for the Chinese than the California gold fields under the present mining regulations. The sudden exodus of ten thousand or more of Chinese will have the effect of quieting for a time the irritation against that race which now prevails pretty generally throughout our diggings.”

THE END.

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