and by himself. He died in February 1832, having survived Matthison and Frederica Brün by little more than a year. 'He is dead,' (wrote Zschokke,) 'and I do not believe that 'there is any country in Europe where he was not known, and 'where he has not left those who mourn for him as for a 'friend.' 'He is dead,' replied Anastasia de Circourt, 'and no 'one can give us back what we have lost in him. His memory 'ought to draw those together who were once beloved by him. 'Write me a few words of comfort. . . . Bonstetten must 'remain one of the best recollections of my young life. How 'I loved him! Every thought of him now turns to tears for 'his loss.' Charles de Bonstetten once said that love was as essential to his life as is the sunshine to an insect of a day. He lived and was loved, he died and was not unwept.

Thus peacefully closed a once restless and eventful life. Herr Morell says his youth and middle career were a drama, and that his old age was an idyll, gracious, calm, and sweet. If it was indeed an idyll, it was one distinguished by two curious features. Great and highminded men and women played the first parts, where its hero took but a secondary place; and the context of this playful poem was a stern and wonderful page in the history of the world.

ART. VI.—1. *British Columbia and Vancouver Island.* By D. G. F. MACDONALD. London: 1862.

2. *Four Years in British Columbia and Vancouver Island.* By Commander C. MAYNE, R.N. London: 1862.

3. *Vancouver Island and British Columbia; where they are, what they are, and what they may become.* By ALEXANDER RATTRAY, M.D., R.N. London: 1862.

4. *Narrative of the Canadian Red River Exploring Expedition of* 1857, *and of the Assiniboine and Saskatchewan Exploring Expedition of* 1858. By HENRY YOULE HIND, M.A., F.R.G.S. 2 vols. London: 1860.

5. *Papers relative to the Exploration by the Expedition under Captain Palliser, of that Portion of British North America which lies between the Northern Branch of the Saskatchewan and the Frontier of the United States, and between the Red River and the Rocky Mountains, and thence to the Pacific Ocean.* Presented to both Houses of Parliament, August, 1860.

THE unnatural contest raging between the United States has, not unreasonably, concentrated attention at the present time on that portion of American soil. For the moment, 'the

'Americans' mean for us Federals and Confederates. For the moment, the vast map of North America is the map of the United States, with a huge border of wilderness, 'Indian 'countries'—ancient civilisation reverting to still more pristine solitudes as in the forest-covered cities of Honduras and Yucatan, or solitudes but slowly emerging into civilisation, as throughout the Valley of the Ottawa and the 'Territories' of the Far West. The future fate of Washington's great Republic has become the American problem of the day; and, vast as are the regions outside its boundaries, it is scarcely surprising that they should be less regarded at present than the more exciting events happening within the Union. To some such cause we must attribute the slight attention which recent changes on its northern frontiers have received. There, we have founded two new Pacific colonies. There, the land of the beaver and the Blackfoot has become the land of gold and gold-miners. There, the transfer of the property and rights of the Hudson's Bay Company to a new and more numerous body of shareholders, has increased the public importance of their future operations. These are interesting events. Seen in the lurid glare from the vast conflagration now raging throughout the Union—like one of its own prairie-fires—we can at once perceive their importance and the great responsibilities which they entail upon us. Nor, indeed, is the one element of interest which is now uppermost in our minds altogether wanting. At the present moment, our troops, and those of the United States, stand face to face on the island of San Juan to support the claims of their respective Governments. These are, indeed, but miniature armies of occupation, yet who can say of what forces they might prove the pioneers, if the settlement of this dispute be indefinitely protracted? The British Government has forborne to urge a settlement of its claims on the Northern States during their hour of trial: and the Northern States are loud in their promises of a settlement hereafter. We shall see before we conclude that this is no idle controversy, and that it ought speedily to be brought to a definite issue.

Great Britain is still by far the largest of American landowners. In temperate regions alone—or, at least, in regions within the temperate zone—the British possessions considerably exceed the whole area of the United States. Events—in a great measure beyond control—have hastened the occupation of large portions of these districts. It might, indeed, have been possible to define more satisfactorily the precise powers and possessions which the progress of events was leaving to the Hudson's Bay Company.

But the discovery of gold within British territory, and the consequent peopling of our portion of the Pacific seaboard, are movements entirely beyond control. New communities—wildernesses to be subdued—neighbours whose ultimate destiny has roused the solicitude of the whole of the civilised world, now call on us to lay the foundations of a wise policy. Whether what we have already done has been well done, it is at least necessary that we should clearly understand the nature of our acts and the position in which they now place us on the American continent.

We propose therefore to pass under examination the whole of the inhabitable portion of country to the north of the United States' dividing line, known as British North America; and to inquire into the more pressing subjects with which it has of late become connected. A very rapid sketch, however, of the vast possessions of the Hudson's Bay Company, and the events which have now brought a large portion of them under the more immediate control of the Crown, may prove no uninteresting introduction to our task. 'There is 'a colouring of romance,' observes Mr. Gladstone*, 'over the 'whole history of this territory; and, although romance and 'law are not usually associated, yet I will venture to say that, 'turning from the wild life of these regions, and the pursuits 'of the people connected with the objects of the Company, to 'the legal points concerning its condition and status, there 'never was presented for the exercise of human ingenuity and 'intelligence a more interesting or more curious set of questions 'than are involved in the consideration of this matter.'

Few indeed were the projects which the impetuous cousin of Charles II. brought to a successful issue. Yet among them is to be numbered the origin of the Company of Adventurers of England trading into Hudson's Bay. While their first governor was blowing those glass bubbles in Spring Gardens, which 'have long amused children and puzzled philosophers,' the servants of the new Company were laying the foundations of a policy which was wisely to exercise the most ample powers over the most enormous territories ever entrusted to an association of private individuals. 'Rupert's Land,' acccording to the charter of Charles II., was somewhat vaguely defined as 'all 'the lands and territories upon the countries, coasts, and confines 'of the seas, bays, lakes, rivers, creeks, and sounds, in whatever 'latitude they shall be, that lie within the entrance of the straits 'commonly called Hudson's Straits.' And to the new pro-

* Debate on Hudson's Bay Company, July 20, 1858.

prietors of Rupert's Land was given—even more vaguely—'the 'whole and entire trade and traffic to and from all havens, 'bays, creeks, rivers, lakes, and seas into which they shall find 'entrance or passage by water or land out of the territories, 'limits, and places aforesaid.' Though the Company permitted more than a century to elapse without making any considerable incursions into these vast territories, yet, as we shall presently find, it needed no very forced interpretation to extend the powers given to them to the foot of the Rocky Mountains.

From whatever cause, it was not until the close of the last century that the Hudson's Bay Company entered upon any practical assertion of their claim to the vast inland districts; when, indeed, a rival company of great energy had already invaded them. The North-West Company numbered amongst its shareholders some of the most influential and enterprising merchants of the Canadas. It possessed no charter, enjoyed no royal privileges; but it found huge territories unoccupied, and it occupied them with wonderful rapidity, and with that somewhat more than ordinary *esprit de corps* which soon came to distinguish these two great trading associations. At the opening of the present century, this new rival Company had established 'Forts' (or trading depôts with the Indian hunters) throughout all the more remote districts. It had crossed the Rocky Mountains, and continued its forts down the Columbia, the Fraser, the Caledonia,—and, more generally, throughout the whole district then called New Caledonia, but now known as the Colony of British Columbia.

The Hudson's Bay Company understood their Charter as applying to 'all lands watered by streams flowing into Hudson's 'Bay,' and it required no very great ingenuity to trace these streams far within the fastnesses of the Rocky Mountains. Indeed, the whole of this huge country, from thence to the shores of the Atlantic, may be taken as one vast plain, uninterrupted by any considerable watershed. The great torrents which pour down the eastern flanks of the Rocky Mountains exhaust their early impetuosity ere they reach within 2,000 miles of the coast. Local depressions have led to that network of lakes, or, more properly, inland seas, which, in their vast size and frequency, render peculiar this portion of the surface of the globe. Evaporation, however, throughout these regions is but slight; and, immense as are these lakes, they are wholly unable to retain the great volumes of water which enter them. Hence they are found to be invariably furnished with outlets as large as the streams which supply them. These outlets either, in their turn, enter other lakes, or find their way as independent rivers to the

more distant sea-coast. In this manner, the whole country presents a complete network of water communication; and there is probably no portion of it to which the Hudson's Bay *voyageur* cannot paddle his light canoe, with an occasional unpacking at the various 'portages,' or falls in the course of the streams. Thus, to select one from many instances, the Peace River rises on the western side of the Rocky Mountains—at no very considerable distance, indeed, from the shores of the Pacific. Thence it threads its way through the valleys and passes of this great chain, and at length issues from its eastern flanks, a broad and deep stream, through portals some 3,000 or 4,000 feet in perpendicular height—apparently gliding from the heart of the mountain mass which towers overhead. From this point, pursuing its course with much tortuous winding, it joins Lake Athabasca. Lake Athabasca communicates with Lake Wollaston: Lake Wollaston with Deer Lake. From Deer Lake there is a complete network of water communication, by stream and lake, to the shores of Hudson's Bay. If the Charter placed its holders in possession of all lands watered by streams flowing into Hudson's Bay, it might be said to surrender to them the sources of the Peace River rising in New Caledonia—of the Saskatchewan, which might be traced from Oregon—of the River of the Mountains, which took its rise not far from the Russian possessions—of the Red River, which sprung from United States' confines—of the Churchill, which was fed by Polar snows—of a thousand streams and watercourses which permeated every portion of the 'Indian 'countries.'

But, on the other hand, still more peculiar features of the country supplied arguments to their already powerful rival. The whole of this great lake system is subject to considerable fluctuation. Controlled by no important or long-sustained fall of the huge expanse of wilderness stretching from the foot of the Rocky Mountains to the Atlantic and Polar Oceans, its waters, in their restless uncertainty, more nearly resemble the heavings of the great Deep itself. At one time, a lake discharges its outpourings towards the east: at another time, its redundant waters are found flowing towards the west. Now, Lake Athabasca supplies the Great Slave Lake: anon, it is itself the recipient. In this manner, the great streams which connect these reservoirs not infrequently change the direction of their currents. Now, the canoe of the explorer drops gently into the Lake of the Great Bear: his successor, on the same route, finds himself obliged to pull, and even to push with strong poles, against a swift tide. Even the rivers independent of

the lake system are not without their bewildering changes. Through the more level districts, it is difficult to say which way their deep sluggish waters are flowing. At fords, and shallower portions of their watercourses, springs, rising in the beds of the streams, may be found contributing their currents both ways, at the same time. Immense reservoirs of water, too, stored beneath the surface, sometimes burst up through the channels of these streams, and quite alter their courses. But the greatest vicissitudes are due to the seasons. And these are sometimes grand and terrific in the extreme. Many of these great watercourses, in the more high latitudes, become frozen to the depth of several feet. With the opening spring, their many tributaries, swollen with melted snows, and plunging madly down the steeps of the Rocky Mountains, pour their foaming torrents into the main channel. For some time the struggle is immense. At length the solid ice is rent asunder with the bellowing of thunder; and, broken piecemeal, clashing, tumbling, jarring, in a boiling sea, it retires sullenly down stream until it accumulates in sufficient quantity to form an impregnable wall. Here mass is elevated on mass, until the solid barrier is raised to some fifty or sixty feet above the ordinary level of the stream. In the meantime, the waters spread rapidly over the surrounding country, converting it into a wide and deep sea, and seldom retiring until they have made considerable changes in the water communication of the district.

These peculiar features of the country were not lost upon so pushing and energetic a body as the North-West Company. If the Chartered Association could point to the great inland seas—the broad rivers, which communicated with their bay, the new Company was not slow to discover equally great inland seas—equally broad rivers, discharging their waters within the Arctic Circle. The possession of the vast North-Western districts was assumed to hang upon the results of geographical exploration, and its progress was watched by the shareholders and officers of these two great associations with the keenest scrutiny. What lakes really did communicate with each other—whence the main streams derived their sources,—and whether they ultimately found their way to the Atlantic seaboard, or discharged themselves into the Arctic Ocean, became invested with a curious importance. The possession of vast hunting fields was assumed to depend on the course of a stream, the outlet of a lake, even the breaking up of a hard frost. The whole of these immense regions, even far within the Arctic Circle, were explored with a persistence and devotion to the service of each Company, which their dreary landscape,

the fluctuating character of the drainage, and the embarrassing nature of the proofs presented, might hardly seem to warrant. Indeed, for several years, the course of geographical inquiry had no more ardent enthusiasts than the two great Firms whose chief business lay in peltries and blankets. Mr. Hearne, an officer of the Hudson's Bay Company, had, in 1771, followed down the Coppermine River to its mouth on the Arctic Ocean; and, indeed, was the first explorer to prove the existence of an ocean boundary to the north of the American continent. His papers and charts, however, were withheld for nearly twenty years from publication. During the interval, Sir Alexander Mackenzie, an officer of the great rival Company, selecting the largest outlet from Slave Lake, descended to the same shores by the river which now bears his name. Beyond the Rocky Mountains, too, rival explorers traced the eastern streams to their distant sources, or followed down the western streams to their mouths on the Pacific. Mr. Fraser, an officer of the North-west Company, followed down the stream which, in after years, the first discovery of gold in British Columbia brought into such notoriety; and the Simpson derives its name from a late governor of the Hudson's Bay Company. It would have been well had the rival zeal of these two great Companies always gone hand in hand with the cause of geographical discovery. But, unfortunately, the arguments of the compass and the chart were often abandoned for those of the rifle and the tomahawk. The Indian, too, was found to be a weapon even more murderous and unerring than either, and not infrequently his cupidity was aroused, and his brain set on fire, when exclusive possession of some trading district was to be gained, or some rival fort to be exterminated. These unhappy years of strife were at length brought to a close, in 1821, by the union of these two great Companies. And a rapid glance at the terms of this union may, perhaps, more fully prepare us for the main subject of our inquiry.

The North-West Company merged into the Hudson's Bay Company. The servants, property, and forts of the two associations became henceforth the servants, property, and forts of the older association, and the stockholders of the North-West Company became stockholders of the Hudson's Bay Company. The Charter of Charles II.—whatever be the powers and privileges which it conferred—was the only legal recognition which the Hudson's Bay Company had hitherto possessed. The North-West Company possessed no recognised territorial powers whatever. But the forts of the two united Companies now stretched from the Atlantic to the Pacific, and from the disputed Oregon

to the extreme limits of Arctic exploration. The Hudson's Bay Company, under its new formation, now obtained its first Parliamentary recognition. There were many reasons why neither Parliament nor the Company should be anxious to inquire into the rights and privileges conferred by the original Charter. Successive law officers of the Crown have reported in its favour, and no steps have been taken to subject it to a severer trial. Doubts, indeed, have frequently been expressed: it was doubtful whether Charles had power to alienate territorial rights without the sanction of his Parliament: it was doubtful whether Charles or his Parliament had any territorial rights to alienate over the regions in question.* There were many other points which it was not difficult to raise. But against them all it might be urged that the Company had exercised those rights and privileges for nearly two centuries, and that their wise and most successful policy was interrupted only when they ceased to enjoy a monopoly. No interpretation, therefore, was attempted to be put upon the Charter, and it was tacitly left in the possession of the Company, for whatever it might be found worth. The Company of course limited their pretensions under it to all lands watered by Hudson's Bay streams; but, even on this interpretation, there were still the whole of the 'Indian Countries,' to the shores of the Pacific,—apportioned into Trading Districts, and now occupied by their forts. These districts were now secured to the Company from intrusion by an exclusive License to Trade for twenty-one years. In this manner, the Company came to rule supreme over the whole of the country from Hudson's Bay to the shores of the Pacific,—being made up of its chartered territory and Indian countries, without any declared line of demarcation. This License was renewed in 1838, for a like period.

Hitherto, efforts to colonise Vancouver Island had been ineffectual. Its distance by sea was immense; while none but the hardiest servants of the great Fur Companies—and these, not always with safety—had attempted the overland route across the

* 'Your petitioners further show that, up to the year 1763, when, by the Treaty of Fontainebleau, Canada was ceded to the British Crown, the whole region of country extending westward to the Pacific Ocean, and northward to the shores of the Hudson's Bay, had continued in the undisputed possession of the Crown of France for a period of two centuries, and was known as La Nouvelle France.' (*Petition of Board of Trade of City of Toronto, April* 20, 1857.)

On the other hand, it is contended that the French right was ceded by the Treaty of Utrecht, and therefore did not belong to the Crown of France at the time of the conquest of Canada.

continent. Nor indeed did it hold out to the English emigrant any attraction to counterbalance that of the much nearer Atlantic settlements. It was reported to be not destitute of pastoral, and even agricultural lands; but it was overrun by furred animals, and the aboriginal tribes were not friendly. Without some preparation for their reception, there seemed little probability of settlers selecting its shores. Such a preparation the Hudson's Bay Company professed themselves willing to make, if placed in possession of the island; and, accordingly, in 1848 they received a parliamentary grant of it, — subject to the condition of successful colonisation.

Thus the Company came to hold their vast Possessions by three distinct tenures. These Possessions were, (1) their Chartered Territory, held by royal grant; (2) the Indian Countries, held by license for exclusive trade; (3) Vancouver Island, held by parliamentary grant. Vast, however, as were these territorial domains, the claims of the Company were by no means limited to them. To the north, they had rented that strip of Russian America which extends from Fort Simpson to Cross Sound. To the south, their forts were distributed over a very large portion of Oregon, and along the banks of the Columbia,— that stream, pending the International Boundary Settlement of 1846, being regarded as the dividing line between British and United States territories. The Company, too, maintained large herds of cattle in Oregon, and had brought a considerable portion of its soil under cultivation; and, encouraged by the markets opening throughout the South Sea Islands for their grain, cattle, and timber, had established a small offshoot there, known as the Puget Sound Company. Indeed, we may here mention that, from these operations within the Oregon territory, the Company have always considered themselves as entitled to large possessory rights within that neutral ground; on its annexation to the United States in 1846, they suffered no disturbance; and a Convention has been ratified within the last three months by the British and American Governments to determine what are the just claims of the Company in Oregon. Similarly on the Atlantic coast, the Company had established forts throughout a great portion of Labrador. And, on the Canadian frontier—never precisely defined—they claimed all lands watered by Hudson's Bay streams. Thus, at the close of the past half-century, the Company ruled supreme from the Pacific to the Atlantic,—from the United States to extreme Polar limits. Nor did sound policy appear to point to any near interruption to their reign. United States settlement

had room, for many years to come, to extend itself over the regions of the Far West; while, more northward, the inhospitable character of the sources of the Missouri had diverted its tide. The Canadian settler saw before him millions of unoccupied acres throughout the Valley of the Ottawa and the shores of the Great Lakes; nor did the slow, and, at times, deplorable course of Red River settlement hold out any inducement to him to attempt more inland and isolated occupation. Settlement along the shores of the Pacific was slow in the extreme; up to the great discoveries of gold there, a few monastic farmers and fur trappers were all that could be induced to visit its shores. What nobody seemed to want, the Company was turning to most profitable and benevolent uses. Thrice it had trebled its capital, and, for more than a century, had continued to pay over to its shareholders 'profits on the originally sub-'scribed capital stock, actually paid up, of between 60 and 70 per 'cent. per annum.'

Nor can it be fairly said that its management of the immense responsibilities entrusted to it contrast less favourably with its success as a commercial speculation. South of the International Boundary Line, the soil was deluged with streams of Indian blood; but north of that line the Company had succeeded in establishing the most peaceful and even friendly relations between themselves and the aborigines of the whole of their wide-spread territories. While to the Indian a 'Long-knife,' or United States citizen, continues to the present moment to be the most abhorred of all God's creatures, the hardy North Briton of the Company's service was certain of a welcome in every wigwam from Labrador to Vancouver Island, from the Sioux of the Border to the Esquimaux of the Coppermine. The peculiar traffic of the Company enabled it to offer to the savage the only employment which was consistent with his dignity; and although it undoubtedly drove a very hard bargain with him, yet the arrival of a 'brigade' of its traders in an Indian village was invariably the occasion of public rejoicing. The aborigines of half a continent came to look to the Company for clothing, the instruments of the chase, and, not infrequently, for food; and for these they gave in exchange (a fact we believe unprecedented in history) their voluntary and unintermittent service. If it was desirable that England should hold so large a portion of the American continent: if it was desirable that she should have some ostensible use to which she could turn it: if it was desirable that this unhoped-for progress of the savage in habits of continued industry should not be suffered to fall into disuse,—then, certainly,

there seemed no event, near at hand, sufficiently important to interrupt the Company's tenure.

Yet the ink was scarcely dry on the parliamentary grant which gave to the Company its latest addition of territory on the Pacific, when an event did happen which changed the whole aspect of that ocean and its vast shores. We allude, of course, to the great gold discoveries which began in 1849. Since that year, the Californian gold-miner has been gradually creeping up through the intervening Territories of Oregon and Washington. In 1857, the Governor of Vancouver Island reported the existence of gold in British soil on the opposite mainland; and, in the following year, the River Fraser was found to be richly auriferous throughout hundreds of miles of its course. The Company had been wholly unsuccessful in colonising the island; and, as their eleven years' tenure was now on the eve of expiring, the Crown resumed possession of it. In the same year, the twenty-one years' exclusive License to Trade over the Indian countries also expired. The License was not renewed; and that portion of the soil to the west of the Rocky Mountains was erected into the Colony of British Columbia. We thus see that there remained to the Company only their original Charter of Rupert's Land,—presumed to extend, as we have already stated, over 'all lands watered by Hudson's Bay streams.' The forts of the Company, however, were still left undisturbed throughout their late vast realms; and their business continued to be prosecuted with unabated vigour. In July of last year, occurred the latest act of this curious drama—wholly unexpected, we believe, beyond the council-chamber of the Company. The shareholders in the Hudson's Bay Company had hitherto been few in number—men of large substance—connected more or less, like Lord Selkirk and the late Mr. Ellice, with British North America. The profits of the Company were nominally about 50,000*l.* a year, raised, it is said, by bonuses to about 80,000*l.* An offer was made to the shareholders to dispose of their interest for 1,500,000*l.*—three times the nominal value of their stock—to one of the modern financial Companies. By this Company the shares were resold in the market, so that a new proprietary became identified with the right and interests of the Old Company. The first object of the new direction has been to prosecute the old staple trade in furs with unabated vigour. Besides this staple commodity, however,—the Company stands pledged to other and more public lines of policy. Telegraphic and postal communication between the Atlantic and Pacific settlements,—the opening of suitable districts to settlement throughout the Chartered Territory,—and a more general

development of the mineral and other resources of these hitherto unknown regions, are all put forward; and, indeed, the appearance of Sir Edmund Head as Chairman of the New Company affords no small guarantee that they are put forward with an honest intention of realising them. Whatever strictures may fairly have been addressed to the jealous and exclusive policy of the Company as it existed before the recent change, they are not, we trust, applicable to the new administration—who announce their intention of acting on a different system. Moreover it has very recently been stated by Mr. Fortescue in the House of Commons, that negotiations are opened for the transfer or surrender to the Crown of the territorial rights of the Company over the regions lying between Lake Superior and the Colony of British Columbia. It is probable that ere long the direct authority of the British Government will be exercised over districts to which the influx of gold-diggers and emigrants is now giving a new character and increased importance.

We shall now proceed briefly to survey these several districts of British North America, which are subjected in some measure to the changing and eventful influences of the times: and we begin with Vancouver Island. This 'England of the Pacific'—as this island, from its somewhat analogous position, has been called—presents an aspect by no means inviting (and certainly not maintaining the analogy), as it is approached from the sea. Instead of the white cliffs of Albion, dark, gloomy rocks rise perpendicularly out of the tide, and scowl over waters generally sparkling under a warm sun and blue skies. Behind this natural sea-wall, rise immediately a succession of round-topped hills, retiring inland, and clothed with the ever monotonous fir-tree of the coast, adhering to a poor and very scanty soil. The scene is backed by a still higher range of absolutely bare rocky mountain, running, like a backbone, through the entire centre of the island, and culminating in a jagged uneven *sierra* of pointed tops. Examined more minutely, however, Vancouver Island is not without its portions of more level, well-clothed, quiet English scenery, even occasionally opening into broad undulating downs. Much, indeed, of the bare, unfertile character of the central highlands (where the mountain loch, and the burn brawling by its fern-clad banks, not infrequently remind the traveller of scenery more near the Tweed) is often continued down to the coast, and we fear that a great part—perhaps even the greater part—of the island is wholly irreclaimable. But where alluvial deposits have accumulated—as on the banks of streams, valleys, and the more open tracts—pastoral and agricultural country, of

a rich, deep, vegetable mould, is found. On these portions, the various crops of southern England thrive luxuriantly. Wheat reaches as high as forty-four bushels to the acre, and potatoes, turnips, and all the productions of the English kitchen-garden, have taken favourably to the soil; but oats and more northern grain-crops have not hitherto been cultivated with a like success. It is thought, however, that an earlier planting may bring even these within the range of Vancouver Island productions. The climate is all that the English farmer can reasonably desire. So much mystery has hitherto shrouded the vast territories of the Hudson's Bay Company, and over so great a portion a rigorous winter is known, with certainty, to maintain a sway interrupted but by a short and angry burst of sunshine, that few perhaps of our readers are prepared to hear of temperate seasons and long and genial summers in those regions. But, whatever may be the results of our inquiry on the mainland, Vancouver Island possesses a climate which will contrast favourably with that of England. This, indeed, to the native of Southern Europe may seem but a poor recommendation; yet it is to be borne in mind that the English emigrant—and more especially the English farmer—is best fitted for a latitude closely approaching his own. On Vancouver Island he finds his English climate repeated under 'a favourable season.' Nearly coinciding with the south of England—indeed possessing a degree or two more of southern latitude—much of the character of Devon and its neighbouring counties is found sustained throughout the entire island. A short Spring ushers in a long and very beautiful Summer, generally lasting uninterrupted to the end of September. During these delightful months, there is a bright sun and skies generally free from clouds; rain seldom falls, and the heat is maintained in moderation by gentle land and sea breezes. Indeed the farmer generally counts on sowing, tending, cutting, and housing his crops under unbroken fine weather. Autumn brings with it a season of cold, damp, northerly winds, often accompanied by a genuine English fog. But the Winter, though not without days of continued rain, has its periods of fine clear weather, and the thermometer is seldom seen below freezing point. Indeed farming stock of all descriptions is generally left unhoused during the entire season. Up to the present time, European life in the island has been found remarkably healthy, and persons debilitated by a residence on the Chinese station have experienced rapid improvement there—a consideration of some importance, and to which we shall presently recur; for, as the period of acclimatisation to Europeans on the Chinese coast and seaboard appears to be much more protracted, and

indeed uncertain, than in other semi-tropical climates, and as our affairs there and in Japan may render necessary the presence of considerable land and sea forces, the selection of a suitable Sanatorium in the North Pacific becomes of considerable moment. 'Actual observation thus goes far to show,' writes Dr. Rattray, to whose careful records of the climate on the island and its neighbouring mainland we are indebted, 'that the climate is 'superior to that of England both in physical character and 'salubrity, and experience proves that it is equally well adapted 'for agricultural and pastoral farming.'

Victoria, its chief, and indeed its only town, is picturesquely situated on some undulating ground to the south of the island. Its harbour, of the same name, though chosen by the late governor of the island and its neighbouring sister colony, a gentleman long and intimately acquainted with Hudson's Bay Company's territories, is stated not to have been a happy selection. Its entrance is narrow, 'shoaly,' and intricate; and its internal accommodation confined; nor can ships be safely trusted to drop anchor outside. There is a very much larger, and, it is agreed among all seafaring men, a much safer harbour, about three miles from it, called Esquimalt. Esquimalt Harbour could easily accommodate fifteen or twenty ships of the line, and almost any number of ocean-going steamers, and 'in point of 'shelter,' writes the surveyor-general of the colony, 'holding-'ground, facility of ingress and egress, dock sites and wharf-'ages, it is without a rival.' Most of the buildings, however, in Victoria are still of a temporary nature; and as the hopes of its colonists have now been realised in their island becoming the chief Naval Station and Sanatorium for the Pacific and Chinese fleets, it is to be hoped that the great advantages of Esquimalt Harbour will again be brought under consideration. A naval hospital was built there so early as 1853, to accommodate the Petropaulovski squadron during the Russian war, and was subsequently used—when the Anglo-American Boundary Commission and the later San Juan dispute brought our ships into those waters—with marked effect on the health of the crews. There is now a road from the head of this harbour to Victoria; and ships of any considerable burden prefer to unload there. 'I cannot imagine,' says Commander Mayne, 'any sensible 'master of an ocean ship endeavouring to wriggle his vessel into 'Victoria with the larger and safer harbour of Esquimalt handy.'

In natural harbours, inlets, and dock-sites the whole coast —and, indeed, much of the interior of the island—abounds. The strong currents which disport themselves throughout the Gulf of Georgia, and, more generally, around the island itself,

have eaten several gaps into the line of sea-cliffs of which we have already made mention. Indeed, there can scarcely be a doubt but that Vancouver Island itself is a huge fragment detached from the mainland. In numerous instances, these inlets—or 'canals,' as they have come to be called—penetrate almost to the centre of the island, and many of them, from opposite sides of the coast, approach to within a few miles of each other. Thus, Esquimalt Harbour itself is but seven miles distant from the Canal de Haro; and many similar instances occur. They are all deep and free from obstruction, and, in a more extended state of agriculture and commerce, their natural facilities would be highly important. These harbours and inlets —in common with the neighbouring seas and gulfs—absolutely swarm with herrings, salmon, mackerel, and cod. A fine description of sturgeon also is found. But the fish of these coasts are an element of so much importance that we must again recur to the subject when we reach the mainland.

The most important production, however, of Vancouver Island at the present time is coal. A fair average coal has been discovered at Nanaimo Harbour, opposite to the mainland, and on two adjacent small islets, known as Newcastle Island and Douglas Island. Here two seams, of from six to eight feet in thickness, have been worked at an average depth of fifty feet from the surface. Vessels drawing sixteen feet of water can approach within a few yards of the pit's mouth; while the harbour itself is excellently sheltered, and can safely be entered by ships of considerable burden. The coal is little if at all inferior to the coarser descriptions of North of England coal, and has already entered into extensive use by the river and coasting steamers of the mainland, the Hudson's Bay Company, and the British and United States men-of-war from time to time visiting the coast. The want of a suitable coaling station on the northern portion of the Pacific has for some time been severely felt. Indeed, throughout the whole of that vast ocean—both on its waters and along its new and rapidly increasing settlements—a great and still growing demand for coal has arisen. River steamers now ply on all the great streams from the Colorado to the Fraser; while the various cities and towns springing into existence along their banks are becoming large consumers. The recent introduction, too, of steam-machinery into gold-mining has much increased the demand. The single port of San Francisco alone receives as much as 14,000 tons per month, and British Columbia gives promise of becoming an equally large consumer. Nor has the demand on the high seas received a less proportionate increase. It is but a very few years since an ocean-

going steamer on the waters of the Pacific was a most rare sight. A few sailing craft lazily prosecuted the Polynesian trade, and occasionally a Chinese or Australasian clipper ran home by 'the 'Horn,' in preference to the Cape of Good Hope route. In all other respects the waters of the Pacific were as silent as the shores they washed. Various circumstances—as, the increased Chinese trade, the opening of Japan, but far more than all, the great Gold Discoveries—have produced a rapid and important change. Now, lines of ocean-steamers, of a very large and superior description, ply between Panama and California, between Panama and Vancouver and British Columbia. The great Australasian and New Zealand merchant fleets invariably select the Pacific for their homeward passage; steam communication between these flourishing settlements and Panama, to meet the West Indian mail boats, will probably not be much longer delayed; and the large number of nations now trading throughout Pacific waters require the constant attendance and protection of their respective navies. To all these, coal is a matter of absolute necessity, and it has hitherto been supplied from England and the Atlantic States of the American Union by the tedious Cape Horn route, at 3*l.*, 4*l.*, and even 5*l.* per ton. Nanaimo coal can be raised to the pit's mouth at 10*s.* per ton, and it has already extended its sale as far south as San Francisco. Indeed, the present prices along the mainland would seem to warrant the hope of very fair profits in working those coalfields; while their existence at Vancouver Island adds considerably to the importance of that colony.

For the high price of 1*l.* per acre, affixed to the lands of the island, it would be unreasonable to lay the blame on the Hudson's Bay Company; it was a condition of the agreement imposed upon them, we believe, by Lord Grey. One pound per acre was the ruling price throughout the various Australian and New Zealand colonies, then coming into notoriety, — the 'sufficient price' of the Wakefield Theory—a price that has still been curiously, and perhaps injuriously, maintained throughout almost the whole of those settlements. It was only when, as in the case of Vancouver Island, it was brought into competition with the prices ruling on the American continent, that the contrast became too marked to escape the notice of the English emigrant. On the resumption of the island by the Crown, the price of land was at once reduced, and the terms of payment made singularly 'easy.' The present fixed price is one dollar per acre,—or less by a quarter of a dollar than that in the neighbouring territory of Oregon; and the payments are one-fourth, or one and a penny, at the end of the first year of

occupancy, one-fourth at the end of the second year, and the remainder at the end of three years. These terms apply only to surveyed lands. Throughout all districts as yet unsurveyed, the settler may occupy his farm (on lodging a sufficient description of its boundaries at the Government Survey Office) without payment until it has been brought within the Government map—his occupancy constituting in the meantime an inchoate title.

While, then, the agricultural and pastoral resources of Vancouver Island, though far from contemptible, would scarcely seem to place it on a level with other Pacific settlements—as California, Queensland, New Zealand—it is not unlikely that its English climate, its various unoccupied openings for trade in its coal, fisheries, and timber, and the high-priced goldmining markets on the adjacent mainland, may bring to it a slow, but steady, accession of immigrants, more accustomed to watch and profit by such openings than to follow in the better-worn tracks. To the Crown, however, its possession has now become of greatly increasing importance. Its situation at the head of the Pacific, its coal-fields, and its harbour of Esquimalt—the finest and most commodious, with the single exception of San Francisco, along the whole Pacific coast of America, are not without their obvious advantages; moreover, a glance at the map will show that without Vancouver all approach to the British portion of the American coast would be impossible, and that the power which holds British Columbia must regard possession of the island as a matter of absolute necessity. This, however, is a subject of so much moment that it may be well to refer somewhat more fully to it in examining the San Juan question.

As we approach the mainland, the coast scenery of the island is repeated on a scale, more gigantic indeed, but yet more sombre. More dark and lofty rocks now rise out of the flood. The sad-looking and ever-monotonous pines of the coast spring from every fissure and crevice—leaving bare only the smooth unbroken knobs of trap, where they can obtain no hold. The inlets, or 'canals,' so remarkable a feature of the island, now become much longer, and burrow like fiords into the mainland. As we advance more to the north along the coast, all these features rapidly rise in grandeur; and at Desolation Sound, the strait, dwindled to a mere narrow channel between Vancouver Island and British Columbia, lies, for some 200 miles, between scenery of a most wild and romantic character. Black rocks spring up into every variety of fantastic shape; the dark green pines rest on white and towering backgrounds of

eternal snow, and the thunder of a hundred torrents, leaping from cliff and summit, communicate an air of awful sublimity to the whole scene. Here the canals become much more frequent, and, though extremely narrow, encouraged Vancouver, the navigator whose name is still retained by the neighbouring island, with the hope—incredible as it may seem to us now—that they would be found to penetrate across the whole continent, to Hudson's Bay and the Atlantic Ocean. It is curious to follow the persistence with which he tried inlet after inlet, in the expectation of discovering the long-sought passage which was to unite the two great oceans,—pushing his ship between overhanging rocks, and often advancing fifty and even eighty miles into the country, not without considerable danger to himself and his vessel. These inlets are generally found to terminate in open and not unfertile valleys, through which one or more streams of inconsiderable magnitude find their way.

As the traveller, however, crosses from Victoria to the mouth of the Fraser, on which New Westminster, the capital of British Columbia, stands, these scenes of northern desolation are altogether absent; and, on a clear day, as he threads his way through the intervening Haro Archipelago of islets—now smiling platforms of green sward gay with wild flowers, now mere pine-covered specks on the gulf—the whole landscape, though not without the grandeur inseparable from such vast masses of wood, rock and snow-capped range as the peculiar configuration of the mainland brings into view, is lit up with a far warmer colouring. From such a point of observation, too, Victoria certainly wears its most pleasant aspect. The town itself is seen from the most favourable point, and the gardens and fields now brought into cultivation around it very considerably enhance its attractions. Before, however, we set foot on the mainland, it becomes our duty to direct attention to a subject of the most pressing and urgent importance.

It will be in the recollection of our readers that General Harney, on being appointed commander of the forces in the neighbouring United States Territory of Oregon, took forcible possession of the Island of San Juan, one of the largest of the Haro group we have just mentioned. Through extreme moderation on the part of England, hostilities with the United States were averted, and the whole matter in dispute was referred to the more amicable discussion of the two Governments. In the midst of negotiations somewhat protracted, the present Civil War broke out, and all correspondence on the subject was temporarily suspended. The United States troops still maintained possession of the island, and an equal number of British

troops were sent to take up a similar position on it. Thus matters remain to the present moment; and a few words will be sufficient to explain the very considerable issues which they involve.

We have already mentioned that the large and undefined country, which passed under the general name of 'Oregon,' had for many years been used as a neutral territory by the great fur companies and traders of both England and the United States. After much protracted discussion, and somewhat threatening complications, the negotiations of the two Governments at length resulted in the Oregon Treaty of 1846. By this treaty, a Boundary Line was to start from the western extremity of the Great International Lakes, and, following the forty-ninth parallel of latitude, was to be continued to the shore of the Pacific. All on the north of that line was henceforth to be the exclusive property of England: all on the south was to remain in the possession of the United States,—that portion of the continent known as Russian America being, of course, wholly unaffected by the terms of agreement. The British portion of the Pacific seaboard became, as we have already seen, the New Caledonia of the Fur Traders, and, eventually, the colony of British Columbia of the present day. The United States' portion was erected into the *two* 'Territories' of Washington and Oregon—that of Washington being next the boundary line. We mention this, as the term Oregon now disappears from our narrative, that Territory being excluded from all connexion with the present question by the intervening Territory of Washington. In fact, it will be sufficient to bear in mind that the Oregon of former days was an undefined region on the coast to the west of the Rocky Mountains: the Oregon of the present day is a United States' 'Territory,' some hundreds of miles to the south of the international boundary line. Having brought this international boundary line to the shore of the Pacific, the Treaty of 1846 proceeds to state that the line is to be further continued 'to the centre of the Gulf of Georgia, and thence 'southward, *through the channel which separates the continent 'from Vancouver Island,* to the Straits of Juan de Fuca.' We have put these words in italics as containing the whole gist of the matter. So little was known of the physical geography of those regions as late as in 1846 that it was assumed that there was an open roadstead, leading from the mainland to the ocean, between Washington Territory and Vancouver Island. We have already seen that there is a whole archipelago of islets; and further examination showed that there were *three*

channels through which ships of burden could make their way through them up to British Columbia. The Boundary Commissioners of 1858, sent out to determine by astronomical observation the line of the Oregon Treaty, lost no time in reporting these discoveries to their respective Governments. The most southern passage, known as the Rosario Channel, lies next the coast of Washington. Its adoption as the continuation of the boundary line would place the whole archipelago of islets in the possession of England. The Haro Channel, claimed by the United States, lies along the coast of Vancouver Island, and would bring the archipelago within United States' soil. These two channels are about twenty miles apart. That on the Washington side was the only one, up to a recent period, in use; and, indeed, had been used by all the English and American navigators: that on the Vancouver side, though marked on some of the Spanish charts, was quite unknown to more modern traders until the masters of Hudson's Bay company's vessels availed themselves of its shorter route to Victoria.

Of course, to two such vast landowners as Great Britain and the United States, the rocks and pine-clad acres which lie between these two channels are intrinsically valueless. It is, however, their peculiar position which constitutes their importance. Let us consider for a moment how the claim of the Unites States' Government would affect these British possessions on the Pacific. British Columbia can only be approached through the Straits of Juan de Fuca—the entrance to the Gulf of Georgia,—lying between the Territory of Washington and Vancouver Island. These straits are thirteen miles wide at their entrance on the Pacific, but soon diminish to eleven miles. When we come opposite the islet of San Juan, the passage dwindles to five miles. Small steamers, by hugging the coast of Vancouver Island, can place five miles between themselves and San Juan; but large ocean-going vessels must pass within two miles of that islet, as also of the islets of Henry and Stewart. They would thus be exposed to the full range of modern artillery. Nearly similar objections might be urged by the United States' Government against the adoption of the Rosario Channel, if that passage were a key to any of the possessions of the Union. But the Gulf of Georgia simply leads to British Columbia, and to no place else. Fortunately, however, we are not restricted to those two channels. The Boundary Commissioners of 1858 ascertained the existence of a third channel, navigable for steam vessels, to which the name of the Douglas Channel has been given. It lies midway between these two entrance passages, leaving the islet of San

Juan on its left. Thus, since it is no longer possible to carry out the precise instructions of the Oregon Treaty—seeing that there are three channels in place of *the* channel—the adoption of this middle channel, in place of the impossible 'middle of 'the channel' of the Treaty, would seem to place the least strain upon its interpretation, and may certainly be accomplished without the least injury to the rights of any nation in existence. By the adoption of this channel as a continuation of the international boundary line, it is not at all necessary that it should be used by the ships of either nation. Each nation would then possess a safe and commodious channel, lying beside its own territories. We must regret that negotiations were allowed to be brought to a close, however temporary, without so reasonable and obvious a compromise being insisted on. It must be conceded by all parties that the island of San Juan can be held by Great Britain only for *defensive* purposes. It must be conceded by all parties that it can be held by the United States only for *offensive* purposes. Indeed, it is simply a question whether England shall be allowed to visit her own possessions and export her own gold, without passing under the guns of a foreign Power.

From the international boundary line, British Columbia possesses a seaboard of some 500 miles—extending inward to the culminating ridge of the Rocky Mountains, about 400 miles from the coast. Its territories, therefore, extend from the sea-level to 15,000 or 16,000 feet above it—a circumstance to be borne in mind in considering the nature of its climate and the capabilities of its soil. This rise, however, from the sea-coast to the lichens and eternal snows of the great American Cordillera is not uninterruptedly maintained. A subordinate range, known as the Cascade Range, runs parallel with the Rocky Mountains, at a distance of about fifty miles from the sea-shore. To the foot of this range, the ascent is pretty evenly, though slowly, sustained, but after the traveller has passed through its defiles, he comes out on a table-land, elevated from 3,000 to 4,000 feet above sea-level, and stretching away thence to the foot of the Rocky Mountains. Indeed, the Rocky Mountains themselves are not so much one continuous ridge as an aggregate of short parallel ridges standing on this plateau, and running from NNW. to SSE., with long deep valleys between—clustering more thickly, indeed, culminating, and then rapidly ceasing altogether some 500 miles from the sea-coast, but, also, found scattered in detached ranges throughout a large portion of the intervening space. While, therefore, there is every gradation of temperature from that of the coast-line to

the region of its Rocky Mountain passes, where the cold is something almost incredible; where we are told that trees freeze to the heart, that huge fragments of rock are shattered from the parent range as by a powerful 'blast,' that the hoofs of horses burst and the horses themselves are suffocated from ice forming in their nostrils, and that the traveller must envelope himself in as much fur as he has strength to carry,—yet the whole surface of the country is characterised by the same leading general features:—

'The impression left on the mind is one of grandeur, gloomy vastness, awful solitude, rendered more dismal by the howl of beasts of prey; streams white with foam, flowing amid cliffs and ravines, forming at places magnificent waterfalls, whose lonely thunder swells and dies away in the interminable solitude of unpeopled space; tremendous precipices, yawning gulfs, and towering rocks whose naked backs have withstood the storms of six thousand years,—are all there to astonish and rivet the attention. Forests of deepest green present to the wandering eye vast masses of foliage, fresh and glittering in the sunlight; whilst far above, overhanging cliffs and mountains, in the sky, glow piles and pyramids of snow and ice, and glacier gorges of remarkable splendour. It may with truth be said that in these wild regions you get such awful glimpses of sublime scenery that your very soul is hushed within you.' (*Macdonald.*)

The forests abound in most excellent timber, attaining to a size quite in proportion with the gigantic features of the country. Among them there are some very valuable descriptions of pine, many of them reaching to a height of 150 and 200 feet, with a circumference at base of 25 and 30 feet. The most valuable of these is the Douglas pine, which grows exceedingly straight, and attains to a height of 300 feet. It is thus most excellently suited for masts and spars of ships. In Kew Gardens may be seen a specimen of this pine 200 feet high. When growing, it is a very graceful and ornamental tree, and it appears to be admirably adapted to the climate both of England and Scotland. The cedars, too, attain to a very considerable size, many being found upwards of 200 feet high. There are also the oak, maple, birch, with several other kinds peculiar to the region; together with vast and almost impenetrable thickets of underwood abounding with wild fruits, wholesome and grateful to the palate.

About six miles to the north of the international boundary line is the mouth of the Fraser, and some fifteen miles from its entrance stands New Westminster, placed, with considerable success as to defence and picturesque effect, on its right bank. Though the entrance to the Fraser is not free from shifting banks and shoals, ships of considerable burden can go up to

the capital, and even to Fort Langley, seventeen miles beyond it. The scenery of the river is wild and romantic; but without an extensive system of drainage its banks do not hold out much hope of successful agricultural operations. Indeed, more generally, throughout the whole extent of region west of the Rocky Mountains, the river banks, having lost valuable portions of their soil from the violence of the summer floods, are not the most eligible sites for agriculture. The Fraser itself, when swollen by the melting of the Rocky Mountains' snow, rises in places forty and even fifty feet above its ordinary level, and sweeps through the country at the prodigious rate of twenty miles an hour, the rate of an ordinary railway train.

In common with the whole of the seas, gulfs, bays, rivers, and lakes of the entire district and coast, the Fraser swarms with prodigious quantities of fish. Indeed, in the harbours, herrings are literally raked into the canoes, by means of a flat piece of board, sixteen or eighteen feet long, and about two and a half inches broad, studded with a dozen tenpenny nails—and in this rude manner an Indian will fill his canoe in an hour or two; and the traveller along the banks of the shallower streams may catch the salmon in his hands, or 'gaff' them from the bank with his walking-stick. The herrings closely resemble the ordinary Scotch herring, though somewhat smaller in size; but of the salmon there are no less than four varieties — three differing from the English variety, but all, with the exception of the hump-backed salmon, of excellent quality and flavour. About the middle of July these salmon begin to ascend the streams from the sea in immense shoals. Whether it is that the temperature of the coast region is too mild for the proper development of the ova, or that, near the entrance of rivers, they would be more liable to be devoured by fish of prey, which prowl about the coast, attracted by the immense swarms of smaller fish, certain it is that Nature has implanted in these creatures an extraordinary desire to reach the head-sources of the various streams, which they resign only with their lives. Indeed, so invincible is this instinct in the salmon of British Columbia, that its origin must probably be traced to some cause still more peculiar,—which we may perhaps find in the rapid incline of its river-beds, and the high and impetuous floods from the melting of mountain snows, which would sweep the spawn back into the sea. During the months of July and August these salmon may be seen hurrying on to their fate,—passing up each stream in countless myriads, and succeeding each other in interminable shoals: —

'Onward they speed. The impetuous current is breasted, rapids

are passed, cascades leaped. Onward, onward! The shallow waters are reached; but still they press forward, wriggling through meandering streams too scant for swimming. Onward, onward! ever onward; while myriads are left upon the strand, and die still struggling onwards. The fish are, upon entering the mouth of a river, in tolerably good order, but after travelling up stream a few hundred miles they become poor,—poor indeed,—and much injured. The skin, broken and abrased, loses its brightness, often becomes a deep pink, and robbed of its silvery scales; the head disfigured from blows and falls upon the rocks; the fins torn and divided in their efforts to force through spots too shallow; the eyes, once so bright, are now sunken and lustreless. None of these poor salmon ever descend the river again, but perish.' (*Macdonald.*)

The bodies of these fish, exposed to a short and scorching northern summer, taint the air for miles around; until, with the autumnal melting of the snow, they are again set afloat, and swept back into the ocean. The fry, however, remain in the mountains until the following spring, when they descend more leisurely to the sea, where they are said to remain for four years. In all probability, it is their immunity from danger, amid these mountain fastnesses, which thus recruits so prodigious a waste by not less prodigious supplies. Nevertheless, from some unassigned cause, there is a dearth of salmon every fourth year throughout the rivers; and, as it furnishes the staple food of the whole native population, they would all miserably perish but for another curious phenomenon. Every fourth year, when the salmon fail, we are told that the country swarms with rabbits, which are used as a substitute. Besides herrings and salmon, there are immense quantities of cod, bass, mackerel, flounder, skate, sole, hallibut, sardines. Sturgeon, sometimes exceeding 500 lbs. in weight, are found at the entrance of the various rivers, and in the larger inland lakes. The harbours and coast abound with oysters, a very large and excellent description of cray-fish, crabs, mussels, and other shell-fish—excepting, however, lobsters; while the thousand lakes with which the interior is studded possess trout, pike, perch, carp, eels, and a 'white-fish,' from 2 lbs. to 6 lbs. apiece, found also in the great lakes on the east side of the Rocky Mountains, and said to be the only description of fish of which the palate does not grow weary. On the whole, the fisheries of British Columbia offer wide and remunerative fields for the introduction of capital. The Indians, up to a very recent period, bartered their finest salmon for a tobacco leaf apiece—that is forty salmon for a pound of tobacco; though the late accession of population has caused them to look for a higher price. And at Fort Rupert, Commander Mayne informs us, immense quantities are annually used for manuring

the Company's garden. A judicious introduction of our Scotch practice of 'kippering' the fish, might lead to a valuable trade and a useful addition to the food of man.

As the Fraser rises in the extreme culminating ridge of the Rocky Mountains, on the northern confines of the colony, it may be said to traverse its whole area from corner to corner, and, indeed, is the main artery of the entire district, receiving in its headlong course almost every stream of importance. It presents a broad navigable channel up to Fort Hope, eighty miles from its mouth. Up to this point, it is known as the Lower Fraser; and, during this portion of its course, its banks, though low, are in a great measure secured from the impetuous floods, which devastate the higher portions, by the more level character of the country, and the consequent diminution of velocity in the current. Governor Douglas gives us the following favourable picture of the Lower Fraser:—

'The banks of this river are almost everywhere covered with woods. Varieties of pine, and firs of prodigious size, predominate. The vine and soft maple, the wild apple tree, the white and black thorn, and deciduous bushes in great variety, form the massive undergrowth. The vegetation is luxuriant almost beyond conception, and at this season of the year presents a peculiarly beautiful appearance. The eye never tires of ranging over the varied shades of the fresh green foliage, mingling with the clustering white flowers of the wild apple tree, now in full bloom, and filling the air with delicious fragrance. As our boat, gliding swiftly over the surface of the smooth waters, occasionally swept beneath the overhanging boughs that form a canopy of leaves impenetrable to the sun's scorching rays, the effect was enchanting.'

The removal of a few rocks in the course of the stream at Hope would extend steam navigation to Yule, sixteen miles higher up. Above Yule, however, Nature has placed insuperable barriers to any further advance, and even the light canoe must be abandoned. From Yule to Lytton, sixty miles higher up, the Fraser cuts its way through the Cascade Ranges, and scenes of wild and terrific grandeur are presented to the eye of the traveller. A succession of granitic ranges, some sixty miles in extent, have, in the course of ages, been cut through by the river, to the depth of 2,000 or 3,000 feet; and through this chasm, one of the giant streams of the American continent pours its waters, already impelled by a highly inclined descent of some 400 or 500 miles from their source in the Rocky Mountains. Indeed, throughout the whole of these regions, these violent bursts of great bodies of water are of constant occurrence, and the reader of the earlier explorations of the great Fur Companies' officers will frequently

meet with such names as 'Mad River,' 'the Cauldron Linn,' 'the Devil's Cauldron,' and others of like significance. They are more generally known as 'cañons;' and the present cañon, marking the commencement of the Upper Fraser, possesses the usual characteristics of this curious feature of the great Rocky Mountain plateau. One or more paths, or 'trails,' midway between the torrent and the surface of the range, generally skirts the wall of these chasms; and along this path is the only method of proceeding. As the traveller enters on one of these trails, a scene of awful grandeur lies before him. Some 1,500 feet overhead, the rocks nearly touch, and a thin jagged thread of light alone marks the surface of the mountain tract he is traversing. At a like distance below his feet, the whole body of the stream, white and tumultuous within its narrow bounds, whirls past him at railroad speed; while a thousand wild reverberations, arising from the convulsed waters, and multiplied from every crag and projecting rock, assail his ears. But it is as he lifts his eyes to his onward course that the full grandeur of the scene opens upon him. Before him stretches a long vista of on-coming waters, lit by the thread of light we have already mentioned, and rolling down a swift incline of cascades, rapids, projecting pinnacles, and vast rocks in the bed of the torrent. When the melting of the snows increases the mountain streams to their full extent, they may be seen madly plunging down miles of these cañons, at the prodigious rate of twenty-five, and even thirty miles an hour. With so much to assail both eye and ear, it might be thought that the progress of the traveller, thus suspended between heaven and earth, would be sufficiently perilous. But, as he proceeds, he finds his dangers rapidly to increase. Ever and anon, along the narrow trail, a crag projects from the perpendicular wall of rock, and completely cuts off the path, overhanging, by several feet, the torrent boiling some half-mile below. The Indian method of crossing these impediments is characteristic, and at first sight appalling. Three poles are suspended, by means of deer-hide ropes, from the top of the cliff. The two inner ends of the first and third are made to rest on the interrupted pathway, on each side of the projecting crag; the third pole crosses them on the outside; and on this narrow ledge, literally overhanging the chasm, the traveller is obliged to round the impediment. There is absolutely nothing to take hold of, and each passenger accomplishes the task by keeping his face as close to the rock as possible.

Above these barriers, the course of the Fraser changes considerably. The traveller emerges on a more level plateau, raised some 3,000 feet above the sea, and much better

suited to agricultural operations than the lower tract to the west of the Cascade Range. Singular, too, as it may appear, all testimony concurs in affixing to this more elevated region a milder and more equable climate than that found along the coast district. The dense pine forests at length disappear: undergrowth is extremely rare; and the land becomes more open. We may search in vain throughout British Columbia for those apparently boundless oceans of waving green sward and motley-painted wild flowers, through which a hundred crystal rivulets meander, under the soft and rosy haze of a summer's sun—known as the American Prairie. Yet this portion of the Upper Fraser presents the nearest approach to it, and is similar to that description of soil more frequently found on the west side of the Rocky Mountains, and to which the Californians have given the name of 'rolling country,'—wide and open valleys, alternating with low and not unfertile ranges running parallel with them. Indeed, a little above this point, the junction of the river Thompson with the Fraser leads out into a very extensive tract of country which was described in the House of Commons by Sir E. Bulwer Lytton as 'one of the 'finest countries in the British dominions.'* We are scarcely prepared to go to such an extreme length in speaking of any district of British Columbia, yet it is but fair to give the words of the Governor of the Colony, when describing that portion of the territory under his command:—

'The district comprised within these limits (rivers Thompson, Bonaparte, and Chapeau) is exceedingly beautiful and picturesque, being composed of a succession of hills and valleys, lakes and rivers, exhibiting to the traveller accustomed to the endless forests of the coast districts, the unusual and grateful spectacle of miles of green hills, crowning slopes, and level meadows, almost without a bush or tree to obstruct the view, and, even to the very hill-tops, producing an abundant growth of grass. It is of great value as a grazing district; a circumstance which appears to be thoroughly understood and appreciated by the country packers, who are in the habit of leaving their mules and horses here when the regular work of "packing" goods for the mines is suspended for the winter. The animals, even at that season, are said to improve in condition, though left to seek their own food, and to roam at large over the country; a fact which speaks volumes in favour of the climate, and of the natural pastures. It has certainly never been my good fortune to visit a country more pleasing to the eye, or promising a more healthy and agreeable climate, or a greater extent of fine pasture land; and there is no doubt that, with a smaller amount of labour and outlay than in almost any other country, the energetic settler may soon surround himself with all the elements of affluence and comfort.'

Departing still farther from the Fraser, and leaving the

Thompson district on the left, the traveller comes to another large district, watered by the river Semilkameen and its tributaries, and equally favourably spoken of for agricultural operations. Lieutenant Palmer, sent to explore this district, reports to the Colonial Government that the soil, though light and sandy, is free from stone, and that the wild vegetation is exceedingly luxuriant. The banks of the streams, too, are well secured from freshets, and are fertile to the water's edge. Throughout all these districts gold has been discovered in very considerable quantities; but the enormous yields of Cariboo have more recently drawn almost all the miners to itself and its neighbourhood.

Returning to the junction of the Thompson and the Fraser, and following the upward course of the latter, the traveller passes through a more level district, but finds little to notice save an occasional fort of the Hudson's Bay Company, and the addition of some very considerable tributaries—as the Loon, the Chilcotin, the Quesnelle, &c.—to the main stream. At Fort Alexandria he finds himself some 400 miles from the mouth of the Fraser, and as high as lat. 53°—a somewhat high latitude for a large mass of continent. Yet, even here, we are told—'The surrounding country is beautifully diversified by 'hill and dale, grove and plain. The soil is rich, yielding an 'abundant succession of crops of grain and vegetables, un-'manured.' Occasionally, however, the agricultural operations of the Company's servants (for as yet we have no other experience to guide us) have been much impeded by severe spring and autumnal frosts. Here, too, the Fraser is found navigable for light steamers, and preparations are being made to connect Alexandria by steam with Fort St. George, 150 miles higher up the stream. Beyond Fort St. George, the river, which has hitherto been pursuing a main NNW. course, now bends completely round to the opposite direction, and ascends to its source for some 200 miles through one of the immense valleys of the Rocky Mountains. And within this bend lie the now famous gold-fields of Cariboo. The whole of this bend is plentifully intersected by a tissue of streams, rivulets, and creeks,—arising in the numerous flanks of the ranges, and ultimately forming themselves into considerable tributaries to the Fraser. Cottonwood Creek, Antler Creek, Lightning Creek, and many others, are already familiar to the reader; and it is probable that to their action and that of numerous older water-channels now obliterated, we must attribute the disintegration of the quartz-reefs from the parent ranges, and the consequent alluvial deposition of the gold which they contained on the bed-rock through-

out this extensive district. These alluvial deposits, offering a readier access to the miner, have hitherto been the chief objects of attraction; but the experience of California and Australia would lead us to infer, with almost absolute certainty, that the remaining portions of these quartz-reefs still retain enormous quantities of gold, which will shortly engage the quartz-miner. All these creeks and water-channels join the Fraser on its right or concave bank. Crossing over, however, to its convex bank, we again enter upon a new, or, more probably, a continuation of the same, auriferous region of immense extent. Indeed, it has been too much the habit to associate auriferous regions in general with streams and water-channels, of ancient or modern date. More full experience leaves it beyond doubt that the origin of goldbearing quartz-reefs has had no connexion whatever with the water-system of such regions; though, of course, alluvial deposits of gold — the 'placer' of California, the 'river-bar' of British Columbia, the 'diggings' of Australia—are entirely to be attributed to its action on the reefs. To say that the Fraser and its thousand tributaries are auriferous, is but to assert that they have rolled for ages over an extensive system of gold-bearing quartz-reefs, and by slow degrees washed the golden particles out of their matrix—without, however, carrying them to any appreciable distance. We mention this lest our frequent allusion to creeks and water-channels should lead to the supposition that auriferous districts followed the course of such streams; the fact being that such streams have happened to take their course over auriferous districts. Crossing over the Fraser, and advancing still further to the north, the gold-miner is now at work on the various tributaries of the Peace River—one of those immense streams which, rising and ending inland, have hitherto been known only to the servants of the Hudson's Bay Company. Advancing still farther north, the gold-miner is found on the River Stickeen and its tributaries, on the borders of Russian America. Awarding their full merit to the richness of Ballarat, Bendigo, and the Californian mines, the well-sustained accounts from the Cariboo goldfield would lead us to infer that its auriferous treasures are the greatest hitherto discovered. Judging too, from analogy, we are of opinion that they will be found to extend, without any marked diminution of richness, through an immense extent of territory.

As, in the first instance, the bed-rock, or 'bottom' on which the alluvial gold rests, was found to be but a few feet from the surface, and as an ordinary claim could be thus completely exhausted in four or five days, we might infer, without the

experience of Australia and California, that these goldfields, and the population they are attracting, would be of a temporary character. We must, however, bear in mind that the shallower gold deposits of Australia and California have invariably led to 'deep leads,' in their immediate neighbourhoods, where each claim affords steady and highly remunerative employment for four, five, and even six years. Such, indeed, would already appear to be the case throughout this northern extension of the Californian mines. Each river and watercourse is furnished with a gradually ascending series of 'benches,' where the bed-rock dips rapidly from the surface, and is also found to be highly auriferous. Nay, where the shallower deposits of Australia and California have been worked out, and the soil resting on their bed-rock has been completely carried away, the far more permanent and steady business of quartz-mining has followed on the same site, engaging large joint-stock companies, and employing powerful and costly machinery. Such, we may fairly infer, will be the case over the whole region of which Cariboo forms but the outskirt. Indeed, such an air of permanence have these goldfields to the local authorities that they have recommended a further extension of the northern bounds of the colony; and, accordingly, towards the close of last session, a bill was passed by the imperial Parliament for that purpose, extending the northern frontier from lat. 56° to lat. 60°.

This brings us to a very important subject of inquiry. It will be borne in mind that New Westminster, the capital of the colony, has been placed in its extreme south-west corner, while the whole bulk of the population is now moving to its north-west corner, and even beyond it. Cariboo itself is some 600 miles from New Westminster; while between them lie streams which can never be made navigable, and roads which are only available to the 'packer.' The actual distance of Cariboo from the coast-line is much less; and, in all probability, some of the inlets which we have already mentioned will be found to still further diminish the intervening land communication. Several of these inlets are now being examined for that purpose. Jervis Inlet has been very favourably spoken of; and, still further north, the Head of Bute Inlet would afford a port within 200 miles of this great auriferous region. Further north still, there is the Burke Channel running inland fifty miles, after which it divides into Dean's Canal, and the North and South Bentinck Arms, all navigable, and running inland about twenty-five miles more. Into the North Arm flows the river Bell-Houla, which might further facilitate communication. From a navigable point on

this river, Alexandria has been reached in eleven days with pack-horses. In any case, however, it is doubtful whether Fraser River will continue to be the port of entrance for the large mining population which may be expected to settle on this auriferous region, and New Westminster is already falling into the background. Indeed, in auriferous countries in general, the connexion between goldfields and capitals rapidly diminishes. The earlier periods, when Australian and Californian gold-miners emptied their pockets and ruined their healths in Melbourne and San Francisco, soon disappeared altogether. Even in such distant and lately-peopled inland wildernesses, it is curious to mark with what celerity Supply waits upon Demand. All the goldfields of these countries now possess wealthy and permanent cities of their own, and are surrounded by large agricultural districts, in full producing activity. From what we have already described, it will be seen that the inducements to such a movement in British Columbia are peculiarly pressing. A large mining population cannot long continue to be fed with food carried many hundreds of miles on mules and even men's backs. It may, therefore, be fairly inferred that the whole of this auriferous region around the head-waters of the Fraser and Peace Rivers will seek to render itself self-supporting; and it is worth while to inquire with what prospects of success.

Unfortunately, all the works which we have placed at the head of this article fail us as we approach this the latest extension of the colony. The Hudson's Bay Company, however, possessed, and still continue to possess, several forts throughout this district, and from the agricultural and horticultural experience of their resident officers — else restricted to fish, of which the palate soon grows weary—we may be able to glean some useful information. Forts Alexandria and St. George we have already mentioned. Their soil is excellent, and the produce of the kitchen-garden and dairy good. The more ordinary domestic animals require little acclimatisation, while in spring the country swarms with all descriptions of game. Autumnal frosts, however, especially around the more northern St. George, are greatly to be feared. More to the north still, we meet Fort St. James, standing on Stuart's Lake—a fine body of water, about fifty miles long, plentifully stocked with salmon and sturgeon. And here, the climate becomes variable in the extreme—'frost in the morning; scorching heat at noon; 'then rain, hail, and snow.' This fort is situated almost under the shadow of the Rocky Mountains, and, even at midsummer, when the wind blows from their glaciers, ice is found on the shallower pools. Nevertheless, the Company's officers have

continued to grow potatoes, turnips, and other productions of the kitchen-garden. Fish, however, formed their principal fare. On the same latitude, however, but lower down towards the coast, at Fraser Fort on Lake Fraser, there is a fine champaign country, and a much milder climate. The lake is open up to December, and remains closed only until May. All the productions of the kitchen-garden have been grown here with success—with barley, and even wheat. Throughout all these forts, there has been found no lack of good soil—though it is certainly patchy—and probably a more careful attention to the seasons might render farming operations securer. The scenery is really splendid, and 'towering mountains, hill and dale, forest 'and lake, and verdant plains, blended together in the happiest 'manner, are taken in by the eye at a glance.'* Further north still, we meet Fort M'Leod, on M'Leod's Lake, whence the Peace River receives some of its earliest waters, as fixed by Sir Alexander Mackenzie. Some, however, trace the Peace River to a still more northern branch, known as the Finlay Branch of the Peace River; and this branch marked the northern limit of the colony up to the time of the late extension we have just mentioned. M'Leod's Lake lies involved in labyrinths of dreary dark valleys, surrounded by towering mountains which almost exclude the light of day. Snow-storms are frequent and violent, frequently overwhelming the establishments of the Company; and all the symptoms of a rapid approach to high latitudes become apparent. Salmon, *usque ad nauseam*, has been almost the sole food of the Company's servants, and they represent the whole locality as most cheerless, 'the same miser-'able solitude being everywhere.' Yet much of this we must attribute to the high altitude, and the chilling effects of the Rocky Mountain glaciers; for, in reality, Fort M'Leod is in the exact latitude of Newcastle, and, as we shall presently find, the lowlands of the interior, on the same parallel, possess a much more favourable climate. However, disease, except goitre, is almost wholly absent, and the Company's servants are distinguished for the hale old age to which they attain.

Without productive gold-mines, it will be readily inferred that the whole of this more northern extension of the colony would present little hope of early settlement, in the face of much more inviting lands now open to the English emigrant in many portions of our Colonial Empire. Yet, as the soil

---

* M'Lean's 'Notes of a Twenty-five Years' Service in the Hudson's 'Bay Territory.'

undoubtedly contains large and permanent deposits of the precious metal — perhaps exceeding those of California and Australia—and as settlement has now taken that direction, we have no hesitation in stating, on a careful examination of all the materials within our reach, that the district possesses sufficient resources within itself to be entirely self-supporting—ordinary manufactured imports being of course excepted. The farmer will, probably, be obliged to pay more strict attention to the seasons,—grain-crops and domestic animals may have to undergo some acclimatising process,—inland communication will have to be opened, and, possibly, a nearer point on the coast brought into connexion,—and dwellings, of a more substantial character than the gold-miner is ordinarily accustomed to in his first operations, erected. When these things are brought about—and, in a golden land, they are accomplished with wonderful rapidity—this whole auriferous district may be expected to be entirely self-supporting, and the present enormous prices of commodities will quickly disappear. No injurious effects on health need be anticipated, either from soil or climate, for those who are fitted for the work. But, indeed, this northern auriferous district is not strictly limited to itself for a supply of its markets. A little above lat. 56°, occurs one of those passes in the Rocky Mountains, through which an Overland Route from the eastern settlements, and, possibly, an Inter-Oceanic Railroad, loom in that future which all new colonies love to contemplate. At present, however, we will only consider this pass with reference to the district immediately at the foot of it on the eastern side of the Rocky Mountains. It is through this pass that the Peace River, swelled by many a tributary and reservoir on the western flanks, bursts through the Rocky Mountain chain, and descends to the great Chartered Territory of the Company, below. The pass itself is thirteen miles long, and its 'portage' is one of the most difficult to which the Hudson's Bay voyageur is exposed. Yet, should the district of the Lower Peace River prove favourable for agricultural operations, and should permanent markets offer themselves throughout its upper portions, we may feel pretty confident that the Peace River Pass would present no insuperable obstacles to profitable settlement on the lower portion of this stream. The course of our examination, however, has now led us down to the last portion of the territory of the Hudson's Bay Company, and it may be profitable to consider it on general and more independent grounds.

East of the Rocky Mountains, we stand on land watered by Hudson's Bay streams, or, at least, by streams whose communi-

cation, by lake or cross-channel, with Hudson's Bay we can find no difficulty in tracing. It therefore forms part of the original Chartered Territory of the Company. The exploring expeditions under the command of Captain Palliser, and the simultaneous expeditions of the Canadian Government, have collected most valuable information as to the soil, climate, and general capabilities of these regions. And, with their help, we now proceed to lay before our readers the principal facts bearing on the future of those immense inland districts.

Let us for a moment suppose that it were possible to crowd the whole of this inland region within the four walls of a picture. On our right we should then have Lake Superior, the Canadian frontiers, and the shores of Hudson's Bay: on our left, the grand chain of the Rocky Mountains. In the foreground would be seen the United States' international boundary line; while, stretching away, and dissolving into illimitable space, would appear that mixture of land, sea, and ice-bound morass into which this wilderness degenerates towards its northern confines. Before, however, we inspect the foreground of our picture, it becomes necessary to say a few words as to our standing-point on United States' territory. Frequent mention has been made of the vast resources of the 'Far West' for the purpose of settlement, and, within limits, we have already alluded to its large capabilities. It becomes necessary now, however, to more exactly define those limits.

Perhaps we shall somewhat surprise our readers if we inform them that one-third of the United States is wholly unfitted for occupation by man. This, indeed, is not the popular language of American citizens, nor will an inspection of their ordinary maps disclose to us the important fact; yet it certainly is the language of their scientific men, who have practically examined into the subject, and who have not refrained from raising their voice in the cause of truth. 'Hypothetical 'geography,' writes one of these more plain speakers*, 'has 'proceeded far enough in the United States. In no country 'has it been carried to such an extent, or been attended with 'more disastrous consequences. . . . On the same kind of 'unsubstantial foundation, maps of the whole continent have 'been produced and engraved in the highest style of art, and 'sent forth to receive the patronage of Congress and the ap-

* Report on the United States and Mexican Boundary Survey, made under the direction of the Secretary of the Interior, Washington, p. 45.

'plause of geographical societies at home and abroad; while the 'substantial contributors to accurate geography have seen their 'works pilfered and distorted, and themselves overlooked and 'forgotten.' And these remarks are now fully borne out by the late and most laborious surveys of United States' territory, for the purpose of connecting the Atlantic states with the Pacific by means of railway communication.

Let us now briefly examine into the limits of this large unavailable portion of soil. The United States' portion of the continent is divided into three nearly equal parts by two marked and parallel lines. One of these is the culminating line of the Rocky Mountains; and the other is the main course of the Mississippi, having its springs on the confines of British territory. The Atlantic portion of these three divisions consists of a most excellent soil up to the east bank of the Mississippi. The Pacific portion is no very dissimilar continuation of British Columbia, along the more immediate seaboard. The Rocky Mountain chain, however, here retires much further inland, and the territory so gained is one of absolute barrenness. Of the third, and intermediate division, the portion from the Mississippi line to the 98th meridian is not unfertile—'but the whole space 'to the west, between the 98th meridian and the Rocky 'Mountains, denominated the Great American Plains, is a 'barren waste, over which the eye may roam, to the extent of 'the visible horizon, with scarcely an object to break the view.'* And the whole result is thus concisely summed up by Professor Hind, who accompanied the Canadian expedition we have referred to as Geologist:—

'It is impossible to examine a correct map of the North American continent without being impressed with the remarkable influence which the Great American Desert must exercise upon the future of the United States and British North America. The general character of this desert south of the 49th parallel (the international boundary line) is described elsewhere, and the important fact has been noticed that any railroad constructed within the limits of the United States must pass, for a distance of 1,200 miles west of the Mississippi, through uncultivable land, or, in other words, a comparative desert. Along the 32nd parallel the breadth of this desert is least, and the detached areas of fertile soil greatest in quantity, but the aggregate number of square miles amounts only to 2,300 in a distance of 1,210 miles.'

Leaving, however, for a moment, the political connexion of

* Meteorology in its connection with Agriculture. By Professor Henry.

this fact with the British portion of American territory, let us follow out its physical connexion.

It will be borne in mind that the international boundary line (corresponding with parallel 49) starts from the western shore of the Lake of the Woods—that last link in the chain of great international lakes which commences with Lake Ontario—at its intersection with the 96th meridian, and strikes the Rocky Mountains in the 115th meridian. The midland tract of arid country we have just been describing crosses this line, as it extends into British North America in its progress northward, between the limits of the 98th and the 114th meridians. Thus its western shores sweep along the flanks of the Rocky Mountain chain, while its eastern boundary is confined by another very curious tract of country, to which we shall presently draw attention. Between these two limits, it advances as high as lat. 52° 30′; when—owing to causes not yet sufficiently investigated, but among the chief of which there can be little hesitation in placing that gradual depression in the Rocky Mountain ranges to which we have already alluded (thus allowing the fertilising showers of the Pacific to clear their tops and fall inland), this arid tract comes to a termination. This extension, then, of the Great Midland American Desert may be rudely described as a section of a circle, resting on the portion of international boundary line we have already mentioned, and reaching its highest point in lat. 52° 30′, or some 250 miles from the borders of the United States. This fact, now established beyond doubt, clears away much fine writing and speaking to which the colonising resources of the great 'Chartered Territory' have given rise. With its recognition, must disappear 'the fertile valley of the great Saskatchewan, 'containing an unlimited extent of arable land'* Nor is it true that 'with this one exception (Grand Rapids) you could 'take a vessel of considerable size up to the foot of the Rocky 'Mountains.' The Saskatchewan is impeded by several obstructions, and communicates no fertility whatever to the country through which it flows. It derives all its waters from Rocky Mountain sources, and has merely cut a channel—some 200 feet below the surface—through the district in question, without draining it—for there is nothing to drain; or without bringing any fertility with its tide.

Omitting now, for a moment, all consideration of the tract of country forming the boundary of the Great Midland

* Debate on Hudson's Bay Company, House of Commons, July 20, 1858.

American Desert, let us inspect some other portions of our picture. On the right, we have Lake Superior—the western frontiers of Canada,—and the shores of Hudson's Bay. Along the western sides of these limits, extends a country of very marked geological formation, to which has been given the name of the Laurentides, as commencing with the banks of the St. Lawrence; and the name Laurentian Series, applying to rocks of similar formation, has now established itself in the language of geology. The Laurentides are about 200 miles in breadth. Issuing from Upper Canada, and sweeping along the northern shores of the great international lakes, they take a NNW. direction, and traverse the whole of British North America, striking the Arctic Ocean between the limits of the mouths of the Coppermine and Fish Rivers. Throughout the whole of this course, they present a rocky undulating surface, covered, in more than two-thirds of its area, by countless smaller lakes, ponds, and marshes. Even in the lowest latitudes of the Laurentides, the cold of winter solidifies the whole of this water-system, and converts it into a widely diffused series of refrigerators. In spring, too, the thawing of so large a network of ice absorbs and checks the warmth necessary for the growth of vegetation. Thus, these Laurentides are of little avail for the purposes of agriculture, and oppose a very considerable barrier to the extension of settlement from Canada into the Chartered Territory. They abound, however, in the baser minerals, and the northern shores of the great lakes are now the scene of very considerable mining activity. But their higher portions promise to be of little use for the purposes of habitation. About the top of Lake Winnipeg, in lat. 52° 30′, their course is crossed by the line of 'strong woods,' which descend from circumpolar regions to this extreme southern limit. Following now, this line to the west, we find it rising a little, till it reaches its extreme northern height about the region of the Peace River; when it again descends, and, sweeping along the flanks of the Rocky Mountains, approaches, and finally unites with, the western shore of the arid district we have already described. All on the north of this line, or bow, we may fairly assume as unsuited for settlement. This, indeed, may seem a sweeping assertion when applied to the latitude of Edinburgh; but we are to bear in mind the great climatic influences of the heart of a vast continent, thickly interspersed with frozen lakes, and, by means of its 'strong woods,' intercepted from the fostering heat of the sun. All on the south of this line we have purposely left untouched, and we now proceed to examine it.

It will be now seen that there are two boundary lines, or bows (exceedingly rude ones, it is true, for it is difficult to determine where one description of soil begins and another terminates; and, indeed, in general they interlace each other to a considerable extent), both uniting on the 49th parallel as it strikes the Rocky Mountain range, but each, in its sweep round to the east, again crossing this parallel in a different point,—the one at the 96th meridian, or shore of the Lake of the Woods, and the other at the 98th meridian. One of these lines is made up of the western boundary of the Laurentides, and the southern limit of the 'strong woods;' and the other constitutes the northern boundary of the great midland arid district of the United States, as it flows out into British territory. Between these two lines appears to be the only portion of soil suited to settlement throughout the whole of the vast expanse from the Rocky Mountains to the Atlantic colonies. Doubtless, at first sight this result may seem somewhat disappointing, but the long and laborious examinations of the two perfectly independent expeditions we have already referred to preclude all supposition that this analysis of the great Chartered Territory is a fanciful one. The Reports of these expeditions describe this curious Fertile Belt as a partially wooded country, abounding in lakes and rich pastures, 'in some parts rivalling the finest park 'scenery in our country.' Though extending through three or four degrees of latitude, the climate appears to be pretty nearly the same over its whole area, from which it is inferred that it coincides closely with the curves of the isothermal lines. The soil is a rich deep vegetable mould, occasionally spreading out into most lovely prairie country. For more than half the year, however, winter holds stern and uninterrupted sway; the rivers and lakes are set fast; the whole surface of the country acquires its permanent covering of snow, and the mercury may frequently be seen as low as 45° below freezing point. Spring, indeed, at once changes this aspect of things, and affords a very delightful season. It is, however, exceedingly short, and is succeeded by a burning summer, which forces melons and cucumbers to ripen in the open air. Such are the usual characteristics of the climate of the Red River Settlement, that singular little colony in the heart of a mighty wilderness; and though the site of this settlement would certainly appear to be the best throughout this Fertile Belt, yet its progress hitherto scarcely leads us to expect any large accession of population. It was established so early as 1811 by the Earl of Selkirk, who purchased a portion of territory from the Hudson's Bay Company, and peopled it with the hardy Scot of the Orkney

and Shetland Isles; yet, since its early occupation, all additions by independent immigration have been very inconsiderable; while it has lost most of its original occupiers and their families, much of its present population (some 6,000 souls) being composed of Indian 'half breeds.' We say 'independent immi-'gration,' for many servants of the Great Fur Companies, habituated to a life in the wilderness, and inured to Arctic rigours, have selected it for their residence when retiring from the service.

It would be an intolerable evil if so small and comparatively insignificant a portion of British soil as this 'fertile belt' were to involve us in complications with our neighbours. With our examination of the whole midland region, much of this danger, it will be granted, disappears; for no one is likely to invade 'strong woods' or a desert; while the existence of a large disaffected population, or, in fact, of any large population at all, becomes highly improbable. It must, however, be borne in mind, that a class of desperadoes has been for many years hanging on the skirts of the great Union. Indeed, curiously enough, in writing of these very scenes in 'Astoria' Washington Irving foresaw their approach:—'Here may spring up new and 'mongrel races—like new formations in geology—the amalga-'mation of the "debris" and abrasions from former races, 'civilised and savage; the remains of broken and almost ex-'tinguished tribes; the descendants of wandering hunters and 'trappers; of fugitives from the Spanish and American 'frontiers; of adventurers and desperadoes of every class and 'country, yearly ejected from the bosom of society into the 'wilderness.' The earlier days of California gold-mining afford us a fair specimen of the chaos in which these men can involve a country; and now, for the first time, the discovery of gold on British soil has invited them across the international boundary line. For these, however, the more industrious and progressive settlements possess little congeniality; and to such a position the districts on the west of the Rocky Mountains seem fast attaining. We cannot yet say what prospects there are of large gold discoveries on the eastern slope of the Rocky Mountains. Gold has been discovered in the Saskatchewan, but hitherto in very inconsiderable quantities. But, in any case, it is desirable that all persons entering the district should have full facilities for settling on the soil and developing its resources. The industrious farmer and prosperous trader are far more likely to strengthen our hands than to involve us in difficulties. In this manner, we have come to enjoy such perfect security in Canada; and we have no stronger guarantee

for the integrity of that portion of our colonial empire than the loyalty of the colonists themselves. There is very little prospect of rapid settlement in the region between Canada and British Columbia. The Peace River may possibly be occupied by farmers growing for the markets of the Cariboo goldfields; settlement may even flow in slowly from the Canadian frontiers, or it may be that the more advanced settlers of the United States may cross the boundary line. However it enters, the population is not likely to be large, and our whole security consists in making it a contented one. Liberal in its commercial dealings, and not unkind to the savage, the old Hudson's Bay Company placed many obstacles in the way of private enterprise, which would now be intolerably irksome. These are the traditions which the present administration of the Company will do well to sink into oblivion. The existence of a great chain of colonies between Canada and the Pacific, we now see to be a matter of physical impossibility; but in such a population as the district may attract, it is desirable to infuse the spirit and the loyalty of the British race.

ART. VII.—1. *Reports from the Select Committee on Ordnance, together with the Proceedings of the Committee, Minutes of Evidence, Appendix and Index for* 1862 *and* 1863. Ordered by the House of Commons to be printed. July 1863.

2. *The Story of the Guns.* By Sir EMERSON TENNENT. London: 1864.

3. *Aide-Mémoire to the Military Sciences.* Edited by a Committee of the Corps of Royal Engineers in 1853. 2nd edition, 3 vols. 8vo. London: 1853—1862.

THESE Parliamentary Reports and the meritorious publication of Sir Emerson Tennent, suffice to give the reader a very exact notion of what has been spent, produced, and invented by England in order to solve the great problem which perplexes the military Powers of the world.* About twenty

---

* We have also placed the 'Aide-Mémoire to the Military Sciences' at the head of this paper, because it is a compendious encyclopædia of military knowledge, to which we are greatly indebted But the publication of the second edition, commenced in 1853, was only terminated in 1862, and in that interval of time the changes introduced into the *matériel* of European armies are incalculable. Hence on the subject of Rifled Ordnance and other topics connected with it, the work is defective. We would suggest to the publishers that a sup-