

could possibly be, Mr. Dunkin, in the session of 1866, at Ottawa, avowed his determination to assist in making the then proposed Confederation beneficial to the country at large. He took an active part in maturing the necessary preparatory legislation, and was one of the most prominent advocates of the educational interests of the minorities in both Upper and Lower Canada.

In July, 1867, he was invited by the Hon. Mr. Chauveau to join the Local Cabinet, and accepted the office of Provincial Treasurer. His duties in this position were necessarily of an intricate character from the unsettled accounts between the two sections of the old Province and the Dominion. In the negotiations that took place towards the final adjudication of these claims, Mr. Dunkin acted with somewhat more deliberation than the Treasurer of the Western Province; but neither with respect to these negotiations, nor in his course in the Local Legislature and the House of Commons, can it be said that he has acted otherwise than in strict accordance with his pledge of 1866, to exert his utmost influence to make the Union a success. With that intention he entered the Local Government of his own Province; and with the same views he enters the larger Government of the Dominion. As the successor of Mr. Rose, in the representation of the British population of Quebec in the Privy Council, Mr. Dunkin enjoys the fullest confidence of his large and influential constituency; while among all classes, national, political, and religious, he is held in high personal esteem.

PRUSSIAN DRILL PRACTICE.—BRIDGING THE ELBE.

The events of the last wars have confirmed the generally acknowledged fact, that while on account of the easier mode of moving military trains and the general progress made in engineering, small and mediate streams have almost lost their former importance as tactical sections and as being an impediment to motion; on the other hand large streams from a number of causes not only have not lost but rather gained as a means of defence. It follows from this that the quick and reliable bridging of such streams must be of the greatest importance in times of war, in consequence of which greater attention has within the last few years been drawn to these tactics, and to the efficiency of the pontoniers in general, by almost all armies, but especially by the Prussian Northgerman army.

The disposable bridging materials for the great drill practice near Lauenburg in August last, were calculated to supply a hundred pontoon and twelve trestle stages, with which, according to the different breadths of the river, bridging was to be effected, extending to a length of 700 paces or 1700 feet. These materials were transported from Magdeburg in ten large transport machines constructed for the purpose. For the engineering service there were assembled at the above named town the pontonier-companies of six pioneer battalions, which were reinforced by calling out the full complement of the reserves in times of peace, and to which were added a corresponding number of train-companies. The depot was established at Hohnsdorf, on the opposite side of the river Elbe. Two companies of the troops were quartered in Lauenburg, the others in the adjoining villages on both shores of the river.

The more important exercises were executed in the presence of the chief of the whole Prussian-Northgerman corps of engineers, Lieutenant General von Kamecke, and were witnessed by a great number of foreign officers who were commissioned by their governments to be present, among these being several English and Austrian officers. Also some officers of the engineer-corps of Wurtemberg and Baden were desired to assist the troops in the performance of their work. The unfavorable weather which continued during nearly the whole time of the exercises occupying several weeks, rendered their execution very difficult. The river being rough, the moving of the pontoons against wind and current, and the joining and mooring of the many different parts of the bridge, which is at any time a very difficult task, required on most occasions double exertions. More difficult yet proved the putting up and joining of the trestles which were to connect the bridge with the shore, the performance of which on account of the swampy bottom of the river compelled the pontoniers to work up to their breasts in water. Notwithstanding all these difficulties, at the chief bridging on the 5th August, a bridge of more than 700 paces in length was built in one hour and thirteen minutes, while on the preceding days the building of smaller bridges of from 400 to 500 paces required but 46 to 52 minutes. With the same precision and rapidity the taking down of the bridges was performed.

Thousands of spectators from the whole neighbourhood witnessed these more or less interesting exercises, and in spite of wind and rain a flotilla of boats and skiffs surrounded the different places of practice, impeding often the pontoniers in their work. The bands of the pioneer-battalions were usually playing on the shores, presenting with the encampment of the troops after their labours were over, the merry picture of a cheerful, variegated camp life.

A terrible tragedy occurred at Sleepy Hollow, near Tarrytown N. Y., about two o'clock on Monday afternoon. A man named V. W. Buckhant shot his wife, a New York Merchant named Alfred Randall, and a son of the latter named Charles Randall. Mrs. Buckhant was shot through the temple, Alfred Randall through the heart, and his son in the side. Mrs. Buckhant and Alfred Randall are dead; the younger Randall lies in a very dangerous condition. Buckhant gave himself up immediately after the occurrence and is now lodged in jail at White Plains. The cause of this appalling tragedy is unknown.

THE NORTH-WEST TERRITORY.

No. 2.—ITS MORE FERTILE PORTION.

By the Rev. An. McD. Dawson, Ottawa.

Having dilated, in a former paper, on the more northerly regions of the great North-West and their immense resources, it may not be out of place to point out what is considered excellent and highly favourable to colonization in the countries that extend southward along the eastern slope of the Rocky Mountain range. These countries are watered by magnificent rivers. Chief among these rivers is the two-fold Saskatchewan, with its north and south branches, and its numerous tributaries, which, rising in the more rainy, mountainous regions, carries moisture and fertility to the vast prairie lands which it traverses on its way to Lake Winnipeg and the sea. Without the waters of this great river, the rich plains, extending about eleven hundred miles from the base of the Rocky Mountains to Lake Winnipeg, and which afford pasture to immense herds of buffalo, would, in all probability, be nothing better than an arid wilderness. It is certain, at least, that the average fall of rain is very inconsiderable, so that the abundance and variety of the grasses by which so much animal life is sustained, can only be accounted for by the fertilizing influences of the great Saskatchewan. These, together with the genial sunshine which is unbroken throughout the summer months, save by a few passing showers, give to the whole country the appearance of an immense park, finely diversified with lakes and streams, slightly elevated hills, undulating plains, green meadows of vast extent, interrupted here and there by clumps of trees, copses, and along many of the streams, overhanging woods, which afford shade and coolness during the parching heats of summer.

The two branches of the Saskatchewan have their sources almost close together in a glacier region, towards the northern end of the Rocky Mountain range, in 51° 40' north latitude, and 112° west longitude. These arms of the great river diverge widely in their separate courses of 800 miles (S. branch, 810 miles, N. branch, 772½ miles) and then meeting, pursue their way by a common channel to the Atlantic Ocean. They diverge so widely, the north branch in a northerly direction, and the south one towards the south, till it comes within forty-five miles of the United States boundary line, that, at the distance of 250 miles due east from their source, they are not less than 200 miles apart. From the junction of its forks to Lake Winnipeg, the Saskatchewan flows 282 miles. 423 miles farther, having passed through the north end of Lake Winnipeg, it discharges its waters into the sea at Hudson's Bay. Its whole length, from its glacier source to the ocean, is, thus, 1515 miles. The countries which it traverses are more extensive than the vast regions of British India, which border on the Ganges. Their total area, according to the calculation of Mr. Alex. Russell, of Ottawa, is 500,000 square miles.

These countries are now thrown open to colonization. They have been, until our time, among the waste places of the earth. Do they belong to those portions of the earth's surface, as yet untenanted save by the denizens of the forest and the wild prairie, which mankind, in obedience to a high command, are destined to fill?

To this question we reply in the affirmative; and the weight of authority is in our favour. With the exception of some tracts on the south fork of the Saskatchewan, which, by reason of the poverty of the soil, must ever continue to be, as they are at present, inhospitable deserts, the whole territory, from Lake Winnipeg westward to the Rocky Mountains, and along the eastern declivity of these mountains for 350 miles, form the United States boundary line as far north as the headwaters of the Athabaska, can be made available, and without any extraordinary difficulty, for the uses and the wants of civilized man.

What although, according to the conjectures of travellers whose evidence has been given on oath before a select committee of the British House of Commons, there are many parts of this territory where, on account of the shortness of the summer, it would be difficult to raise wheat crops, there is no portion of the countries bordering on the Saskatchewan and its tributaries, where the more hardy cereals could not be produced. It is generally agreed, also, that all the more useful garden vegetables can be successfully cultivated. Much farther north, even, Sir Alexander McKenzie testifies to having seen a garden as richly stocked with choice vegetables "as any in the world."

It has been shewn already, however, that in regions far to the north of the North Saskatchewan, wheat easily grows. It is not difficult to understand that the sunshine and warmth, so necessary for this kind of grain, are not wanting in those northern latitudes, where, during the comparatively short summer, the soil thaws to a depth of eleven feet. This is no slight effort for the rays of the returning summer sun, especially when it is considered that the winter's frost penetrates as far as seventeen feet, and during the whole period of the cold season holds the earth as if rock-bound. We have all heard of Siberian wheat. And who is there, that is at all conversant with agriculture, who does not know that it is an excellent kind of grain, and admirably adapted to our Canadian soil and climate? As its name shews, it is the produce of Siberia, where the soil is never wholly unfrozen, and where the winter is more severe and the summer shorter than in the countries of the Saskatchewan. The day may yet come when the Canadian people will be glad to import the wheat of these countries, in order to vary and renew their crops, thus deriving new resources and new vigour to their agricultural life from lands which they can call their own, and which are within travelling distances that are comparatively easy. How preferable would not this be to going all the way to remote Siberia, or to rest satisfied with *Siberian wheat*, which may boast, indeed, Siberian ancestry, but which, for many successive years, must have derived its vitality from Canadian soil?

But the countries in question do not enjoy a genial cli-

mate or a soil sufficiently rich to produce, except, perhaps, in some favoured spots, crops of any kind, even the more hardy cereals, or the most common garden roots? Let the most learned travellers give the reply to this question. As has been already stated in this paper, the extensive regions of the Saskatchewan abound in rich and nutritious grasses, on which are sustained immense herds of buffalo. Where these natural productions flourish, and the country is sufficiently level and unbroken; there can be no difficulty in raising all the cereals, as well as all the vegetables and root crops, that are considered essential to an agricultural population. Such is the character of the country, according to the best authorities with which we are as yet acquainted, in every portion of the Saskatchewan territory, with the exception of some arid soil bordering on parts of the south branch or Bow River. In this exception must be included, also, the eastern declivity of the Rocky Mountains, where the land is rugged and covered with brushwood, and may be described as being better adapted for grazing and the fattening of cattle than for the labours of the husbandman. On these mountain slopes the climate is moderate, and it is said that, even in winter, herbivorous animals can easily subsist, the low growing wood, which abounds everywhere throughout those regions, preventing the snow from packing, and becoming an obstacle to the animals which seek their food in the inexhaustible supply of grass.

[We are indebted to Dr. Hector for an account of the advantages presented by these less arable lands on the skirts of the mountains, which extend southward from Fort Pitt to Bow Fort. Speaking of the "winter pasturage" afforded there, he says: "This winter pasturage consists of tracts of country partially wooded with poplar and without clumps, and bearing a most luxuriant growth of vetches and nutritious grasses. The clumps of wood afford shelter to animals, while the scrubby bush keeps the snow in such a loose state that they find no difficulty in feeding. The large tracts of swampy country, when frozen, also afford admirable feeding grounds; and it is only towards spring, in very severe winters, that horses and cattle cannot be left to feed in well-chosen localities throughout this region of country."]

It may likewise be stated on the authority of the most eminent travellers and explorers, that over all the Saskatchewan territory, wherever there is grass in abundance, all the cereals, as well as wheat crops, can be raised. Around Cumberland House, which is situated at some distance below the confluence of the two branches, and a good way farther north, "the soil," says one of the exploring parties, "is a stiff clay, but, in general, it consists of a gravelly loam, a few feet in thickness, covering a bed of white limestone." Not over thirty miles farther up, "the general character of the country," says Mr. Fleming, "is excellent, the soil being rich, and the timber of a fair quality." On the following day, the same distinguished traveller proceeded about fifty miles, ascending the course of the river. Of this day's journey he says that "he passed through an excellent tract of country all day, the soil on both sides of the river consisting of a very rich alluvial deposit, ten feet in thickness above the water, well wooded with large poplar, balsam, spruce and birch; some of the poplars measuring two and a half feet in diameter: and, as far as I was enabled to ascertain, the land continues good for a great distance, on either side, but, more especially, on the south side of the river." Next day's journey, over fifty miles, revealed a country "well adapted for agricultural purposes and settlement, the soil being a rich alluvial loam, of considerable depth, well watered and drained by many fine creeks, and clothed with abundance of timber for fuel, fencing, and building." In the neighbourhood of the spot where occurs the confluence of the two forks, there is greater variety of soil. "But," says the same writer, "the general character of the country is highly favourable for agriculture, the soil deep and uniformly rich, rivaling the low prairies of Red River and the Assiniboine."

Such, generally, with the exceptions already alluded to, is as accurate a description of the Saskatchewan territory as it is as yet possible to obtain.

We shall not now enquire whether such lands, as have been described, be capable of producing the more hardy cereals with the more useful vegetables and root crops. It will be more to the purpose to consider to what extent they can be made capable of producing the finer kinds of grain. The summer may be too short for the maturing of maize or Indian corn, which is so easily raised in Canada. But it can be satisfactorily shewn that wheat may be successfully cultivated throughout the arable lands of the Saskatchewan.

Colonel Lefroy on being examined before a Select Committee of the House of Commons, said in reply to the question (No. 172). Do you know what crops arise there?—(The most northerly part of the Saskatchewan territory).—"They grow wheat, barley, potatoes and various vegetables." In answer to another question, Col. Lefroy observed: "Wheat will grow where the mean summer temperature gets up to 59°, and Fort Cumberland (the Northern locality of which there is question) is pretty near the limit of that." Do you mean that it will ripen?—"Yes."

R. King, Esq., M. D., who has written so ably on the North-West, may surely be relied on, when he says, that the traders, generally, informed him that it (the Saskatchewan country) was precisely the same kind of land as that which he had passed through, namely "a rich soil, interspersed with well-wooded country; there being growth of every kind, and the whole vegetable kingdom alive." (Question 5645). On being asked by the chair man of the Committee "what is the nature of the soil?" (5647). Dr. King replied: "It was a black mould which ran through that country, evidently alluvial soil. The whole of that country at Cumberland House, is entirely alluvial. It has been described by nearly all the travellers. Franklin has been very rich in his description; and particularly Ross Cox and many others. They speak of the richness of that part of the country. I have here the quotations. There are a few observations of Ross Cox.