

large part of it (depending, of course, on the character of the country), is benefited and made available for grazing purposes. Since the importance of this discovery has been realized by the people of the United States, irrigation has made wonderful strides, and there are now said to be twelve thousand miles of irrigation canals in the West; and the capital invested is enormous, and it is wholly due to private enterprise. But, the National Government, realizing how important it is that their irrigation works and developments should be connected with science and skill, has recently, after much discussion, appropriated a quarter of a million of dollars per annum for preliminary surveys of the country requiring irrigation, with a view of the locating of reservoirs and canals. This work has been placed under the charge of Major J. W. Powell, Director of the United States Geological Survey, who has made the subject a special study. The methods, briefly stated, are to impound or conserve the waters of rivers or streams into reservoirs erected to receive them, from which they are directed by means of canals and ditches, and also by flooding to the districts required to be irrigated. Boring for artesian wells are carried on more or less in nearly all the States and Territories, but mainly for farm and domestic uses.

Practically, the United States has disposed of all the lands of any value within the humid regions, that is, lands where crops can be grown advantageously by means of the natural rainfall. The importance and necessity to that country for the reclamation of lands not so situated is manifest. This is in striking contrast with our North-West as regards the position of our fertile lands. The fertile belt of the North-West was described in the deed of surrender made by the Hudson Bay Company, at the time the country was transferred to Canada, as bounded on the south by the international boundary, on the west by the Rocky Mountains, and on the north by the North Saskatchewan, and on the east by Lake Winnipeg, Lake of the Woods and the waters connecting them, but it is now established beyond a doubt that this fertile belt extends an average of 100 miles north of the North Saskatchewan, along its whole length, and that as we proceed westward along the river the fertile agricultural area extends much farther in a northerly

direction, reaching the Peace River and the Athabasca valleys, as the mountains are approached, an area sufficient to support a farming and pastoral population of more than double the present population of old Canada. It contains within it no less than 270 millions acres of land susceptible of cultivation, and with a propitious climate. In all this vast domain there are no arid lands, and there is but a comparatively small area of sub-humid lands, lying immediately to the east of the Rocky Mountains and the neighborhood of the Cypress Hills and Wood Mountains, and nature seems to have fitted this portion of the country for economical irrigation.

Practically, the greater part of these fertile lands are yet to be disposed of, and in no other country on this continent is there such an inviting field for immigration. The climate is healthy, and it would be difficult to find a country where the soil is so uniformly fertile. The immigrant will find himself settled in a country where the laws enacted by the will of the people are administered with justice and fairness, where there is perfect freedom with security to life and property. The question may be asked, and is frequently asked, why our North-West is not filling up more rapidly. We have been probably too sanguine in our expectations, and have overlooked the fact that it takes time to fill up a country as large as Russia in Europe. Experience teaches that the settlement of all new countries is slow in the beginning and their early years. I might instance Dakota, of which we have heard so much: it contains an area of prairie lands resembling our own, but in extent is a flea-bite compared with ours. In 1870 it had only a population of 14,000, and for many succeeding years settlement was very slow, until the fertility of its soil had been demonstrated by the growth of abundant harvests. It will doubtless be the same in our North-West, where the soil is equally fertile, and the climatic conditions more favorable. I recently made two visits to the North-West. My first visit was during the harvest time, and although the season had been an abnormally dry one, the yield and quality of the crops were surprisingly good. The fertility of the soil largely compensated for the usual moisture, the quality of the