

TYPOGRAPHY AND CLIMATE OF WESTERN CANADA.

The whole country, spreading from the forest regions of the east to the Rocky Mountains on the west, is thus very concisely described in "Climates of Canada," by Dr. P. H. Bryce, M.A., M.D., secretary of the Provincial Board of Health of Ontario:

"The lowest area of the plains is that of Manitoba, the Red river front, the south, the Saskatchewan from the west, and their tributaries, all trending towards Lake Winnipeg and thence to Hudson's Bay. All this great area, extending for some distance to the height of land in Dakota, U.S., shows evidence of once having been an immense inland sea, with its several beaches, marking more or less distinctly the successive levels of the waters of what geologists have chosen to call the great post-glacial Lake Agassiz. A black alluvium of the richest nature covers practically the whole of this country, and makes the great wheat-fields of the Canadian North-West, yielding their 'Manitoba No. 1 hard.' The lowest area of this region is limited westward by the Pembina Mountain, Riding Mountain, and the Porcupine Hills, having a general level of 800 feet. Westward, the next area reaches a height of some 1,500 feet, and runs westward some 250 miles, when the next elevation of 2,000 feet is reached. This country—the Grand Coteau—rises till a height of 4,000 feet is reached in the foothills of the Rockies, in the region about Calgary. This upland shows more evidences of deep erosion of the valleys of its streams, and has here and there bluffs, with high hills and plateaus, notably the Cypress Hills, north of the American desert, with climatic peculiarities quite its own. This whole higher region, marked notably by a greater dryness, is essentially a grazing or ranching country. While cold, owing to the altitude and the exposure of its plains to the winds from the mountains, its dry plains are, nevertheless, covered with the peculiar bunch grass of the country, which has served to make the foothills of the Rockies the greatest stock-raising areas of the continent. The climate of the whole great prairie country of the Canadian North-West is marked by seasonal rather than daily extremes, except in the higher foothills of the mountains to the west, where the daily range is notable."

"The bright, clear cold of the ordinary winter day in Manitoba is most enjoyable. With little or no thawing, and no sea of uncongealed great fresh-water lakes to supply dampness, the air is crisp and dry; and where in England, or on the sea coast, with a few degrees of frost, the air is chill and raw, many more degrees of cold in the Canadian North-West is only enjoyable and stimulating."

"The winter goes, as it comes, almost in a day. The crescent sun pours his powerful rays through the transparent atmosphere, and, when the thaw has begun, the great atmospheric disturbances, caused by the heated centres, cause the north-west wind to blow and lick up the water, which covers the plains, seemingly all in a day. One has not infrequently seen the water on the low ground a foot deep in the morning, and gone in the evening; while in another day or two the black alluvium, which, like the blackened plate of glass, absorbs heat in seemingly enormous quantities, is dry and powdery on the fields plowed in the autumn. Seeding proceeds when the frost is not more than four inches out of the ground. Then in a few days the prairie is dotted with spring flowers. Seldom is the spring long, damp or cold. Spring comes; growth is phenomenal, and the harvest of spring wheat is ripened in the middle of August. With such a soil, marvellous in the

amount of its plant foods, and with the long, bright, even occasionally hot summer day, the metabolism of the plant cells is so rapid as only to be likened to the growth of plants under glass. To the plodding, laboring, waiting husbandman of England or Scotland, it seems so unreal as to be incredible, that four, or at most five, short months should yield, for an area of 1,500,000 acres, some 30,000,000 bushels of wheat, and as much more of other grains, to feed the toiling millions of continental cities."—"Government Book of Views in Western Canada."

WORLD'S PRODUCTION IN GOLD AND COPPER.

Well considered advance estimates of the world's probable gold output for the year value it at \$340,000,000. Referring to the proportion of this vast aggregate, which is or may be furnished by Canada, the British Columbia Mining Record says that allowing for the expected considerable advance of British Columbia's gold output of 1899, over that of last year, and estimating the probable return as in the neighborhood of \$4,000,000, Canada's contributions of the world's gold yield will amount approximately to 1 2-5 per cent. Our day of greater things in gold output is, however, yet to come, while our advance is steady, and things considered eminently satisfactory. A considerable gold yield, however, from Atlin or further successful development of the hydraulic gravels of Cariboo would of course raise the province's gold output for the year to a sum far beyond four million dollars.

The world's copper production grew from 412,088 metric tons in 1897, to 441,288 tons last year, the United States supplying 55.1 per cent., or more than half the total. Spain, thanks to British capital and mining skill, making good use of its rich ore deposits, put out last year 54,077 metric tons, or less than a fourth of the yield of the United States, to which, nevertheless it came second, with a percentage of a little over 12. No other country supplied as much as 6 per cent. of the world's copper output, Japan and Chili each furnishing rather over 5 per cent. Canada's output of 8,040 metric tons, to which British Columbia contributed most, meanwhile represented about one and four-fifths per cent. of the world's copper yield, a proportion destined, however, to grow enormously in the early future. The copper yield of the Dominion last year showed a gain of no less than 109 per cent. on that of 1894, and is further increasing with each succeeding month.

The high price which copper now commands has had the rather curious effect of tending to send copper coinage, which has consequently a greater value as metal, out of circulation in several countries where it is a principal medium of exchange. Thus, both China and India are exporting copper coins to America, the latter country only recently having consigned some two hundred and fifty tons of small copper change to the Orford Copper Company, of New Jersey and Canada, there to be paid for as scrap copper, and remelted in bars.

TIMBER.

No other province of Canada, no country in Europe, and no State in North America, compares with British Columbia in respect to its timber.

There are prairies here and there, valleys free from wood, and many openings in the thickest country, which in the aggregate make many hundred thousand acres of land on which no clearing is required, but near each open spot is a luxuriant growth of wood.

The finest growth is on the coast, and

in the Gold and Selkirk ranges. Millions on millions of feet of lumber, locked for centuries past, have now become available for commerce. The trees of British Columbia include: Douglas spruce (otherwise called "Douglas fir," "Douglas pine," and commercially, "Oregon pine"), A well-known tree. It is straight, though coarse-grained, exceedingly tough, rigid, and bears great transverse strain. For lumber of all sizes and planks it is in great demand. Few woods equal it for frames, bridges, ties, and strong work generally, and for ship-building. Its length, straightness and strength specially fit it for masts and spars. The white pine, resembling the white pine of the Eastern provinces, making the most valuable lumber in their markets; the black pine, the bull pine, the yellow cypress (commonly called the yellow cedar), the Western larch (sometimes called tamarack), Englemann's spruce, Menzie's spruce, the great silver fir, balsam spruce, besides oak, elm, maple, aspen, and other deciduous trees. These several growths are found more or less throughout the province, both on the mainland and the adjacent islands. The Douglas spruce, the largest and most valuable, attains its greatest size in the neighborhood of the coast, but is found elsewhere. Owing to the variety of climates in British Columbia, the several classes of trees named are to some extent localized.—"Government Book of Views in Western Canada."

ELEVATORS AND EXPERIMENTAL FARMS.

The elevator system throughout Western Canada is perfect, the facilities now existing being sufficient to handle, if necessary, 100,000,000 bushels of grain in less than six months' time. The magnificent system affords a ready market at all seasons of the year, the farmer being enabled to have his grain unloaded from his wagon, elevated, cleaned and loaded on the cars in an incredibly short space of time at very moderate charges. It is within the right of anybody or company to erect an elevator anywhere in Manitoba and the Territories under exactly the same terms and conditions as those already built, the markets being open to anyone who chooses to engage in the business. There is no monopoly, and the insistence of the railway companies upon the present system is of incalculable benefit to the producer. The following table shows the storage capacity of the elevators in Western Canada:

	Bushels.
C.P.R., main line, Port Arthur to Winnipeg	7,330,500
C.P.R., west of Winnipeg	8,775,000
N.P.R.	1,050,000
M. & N.W.	1,028,000
G.N.W. Central Railway	326,000
Dauphin R.R.	115,000
Grand total	18,624,500

In 1891 the grand total was 7,628,000 bushels; in 1892, 10,366,700 bushels; in 1894, 11,467,000 bushels; in 1895, 13,075,200 bushels, and in 1896, 15,203,500 bushels.—"Government Book of Views in Western Canada."

—Holders of Cuban bonds stand to be among the heaviest losers by the war, which took the island from under Spain's control. The Spanish Government has decided that it is not responsible for the obligations they imply, and the United States authorities, who now speak for Cuba, say they will not recognize the issues as a proper charge on Cuba's resources. Thus investments of a face value of some 331,000,000 Cuban dollars, become as valueless as memories. The Cuban taxpayer will make money out of the revolution.