

II.—CLIMATE AND METEOROLOGY.

Canada presents such great varieties of climate within its widely extended borders that any broad generalisation for the whole country may be misleading. In the Maritime provinces on the eastern seaboard and in British Columbia on the western seaboard the climate is moister and milder than it is in the interior. Over Quebec, the more northerly parts of Ontario and the prairie provinces, deep snows prevail from the beginning of December to the end of March. In Manitoba and Saskatchewan the winters are often intensely cold. A somewhat milder winter is experienced in Alberta, the severe cold being tempered periodically by the Chinook winds which, losing their moisture as they pass over the Rocky Mountains, are warmed by plunging into the plains beneath. In the Ontario peninsula the climate is mild and genial, peaches and other tender fruits flourishing well, whilst in the British Columbian valleys, on the western coasts, and in Vancouver Island the climate approaches in mildness and humidity to that of the southern part of England. Except on the coasts and near the northern and southern limits of the Dominion the spring is usually short, the summers are warm, and there is a long, fine autumn with an "Indian summer" before the final setting in of winter. There are extremes of temperature both in summer and winter; but in summer the nights are cool and in winter the atmosphere is dry, bracing and healthy. Throughout the year there is an abundance of bright sunshine.

The following notes describing more particularly the meteorology of Canada from coast to coast have, with the accompanying tables and graphs, been furnished for the Year Book by Mr. A. J. Connor, M. A., Climatologist of the Meteorological Service of Canada, at Toronto.

The climate of Canada may be classified roughly, if not exactly, according to four main types, viz., (1) the valley type of British Columbia; (2) the prairie type of the three Northwest provinces; (3) the lake region of old Ontario; and (4) the Maritime provinces.

In Table I averages of temperature and precipitation are given for nine widely separated cities of Canada, which may be taken as fairly typical, as regards climate, of the large areas surrounding them. The averages are based upon the varying periods for which the records are available, viz., Victoria, B. C. (20 years), Edmonton, Alta. (25 years), Calgary, Alta. (20 years), Prince Albert, Sask. (20 years), Winnipeg, Man. (70 years), Toronto, Ont. (70 years), Montreal, Que. (49 years), Quebec, Que. (20 years) and St. John, N. B. (50 years).

The valley type is not well shown by the records for Victoria, which are better representative of the averages for Vancouver Island. The same general characteristics are preserved in the valley of the Lower Fraser River; but in the Okanagan and Kootenay valleys the winter temperatures are lower, and there is a much more pronounced