ATLAS
OF THE
PROVINCES OF CANADA

Showing
PHYSICAL FEATURES AND PLACE NAMES

WITH AN INTRODUCTION ON
GEOGRAPHY AND NATION PLANNING

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Canada
In the world of today, where global relationships and the interdependence of all nations become increasingly evident, the study of geography is a main concern of every student. The distribution of crops in Canada, and the months are those which control the equal development of the land surface originated. We find that Canada shows three main elements of structure, which are well worth understanding, since all other great land-areas reveal much the same types. Nearly every student at school has heard of the Canadian Shield, which covers about half of Canada. It lies to the east of a line which runs close to lakes of the north and southeast. (Fig. 1.) The Shield is a vast undulating area of hard rock called granite. It is covered with a layer of sand, clay, and gravel, which was dumped on the Shield by the great masses of ice in the Ice Age, about 20,000 years ago according to the estimates of geologists. Thousands of lakes lie in hollows in this irregular layer of glacial deposit, and almost all of it carries a cover of spruce trees. Anos, where the spruce trees are small and there is much moss covering the swampy ground, we call muskeg. The Shield is an extremely ancient part of the earth's crust, which has perhaps not altered in appearance much during the last 500 million years.

The second important element in the structure is the wide area of Young Mountains in the west of the Dominion. (Fig. 1.) These are called 'young' because for the most part they developed in the last 30 million years, during a period when the crust all over the world was undergoing 'mountain building'. Very early in this period the earth buckled into ridges in British Columbia, and produced the Coastal Ranges and the Selkirks. Considerably later the main ranges of the Rockies arose more to the east, all these ranges therefore may be called 'Young Mountains.'

The third important feature in the structure is the Downfold or wide depression in the crust lying between the Young Mountains and the Shield. This was formed about the same time as the mountains, and it includes the main rivers of the west, such as the Mackenzie, Athabasca, and much of the western part of the Saskatchewan River. Covering much less area than these three main portions of the Structure is a series of flat-topped ridges in the extreme southeast. They are found in Quebec and on the borders of New Brunswick, and form part of the Appalachians of the United States. These were Young Mountains some 150 million years ago, but were worn down to stumps long since. However, in the last period of mountain-building, though they were folded violently to form high ranges, they were lifted up as a whole. Such areas of moderate elevation are called Old Mountains. (Fig. 1.)

THE CLIMATE OF CANADA

The next feature of the Dominion to be briefly considered is the climate. There are two aspects of this, temperature and rainfall, of which we should know something. The lines of equal temperature for the summer months are those which control the distribution of crops in Canada, and they appear in Fig. 2. It will be noticed that they slope to the northwest up the Downfold shown on Fig. 1, and include a warm 'triangle'. Hence in the valley of the Mackenzie the summer conditions are far superior to the growth of crops to those in similar latitudes in the north of Quebec and Ontario.

The annual rainfall of Canada appears in Fig. 3. We see that most of the Dominion has enough rain, except in three areas. These are the extreme northern areas near the Arctic Ocean, where the rain is too little for trees or crops, but sufficient to enable plenty of herbage to grow for caribou. Parts of Southern Saskatchewan are too dry for regular crops, and so are many of the deep, narrow valleys in the interior of British Columbia. The grain crops of the Dominion are to be found where the rainfall is over 14 or 15 inches, (Fig. 4) and where the summer temperature is over about 62 degrees. North of this area we shall doubtless some day see hay and potatoes grown in large quantities, but not until all the land suitable for grain growing is occupied.

THE MINERALS OF CANADA

Lastly, we may say a few words about mineral possibilities. Coal is the chief of these, and we have three good coal areas in Canada. The largest is in or near Southern Alberta, where the amount of coal is said to equal that of the famous Donetz field in south Russia. There in Europe a dense industrial population has developed, and we may expect eventually a similar development near Lethbridge and Drumheller in Alberta. Another good field occurs in the extreme east of the Dominion, near Sydney in Nova Scotia. The third main field is at the other side of Canada on Vancouver Island. (Fig. 5.) Metal mines add greatly to the resources of Canada. They occur mainly in the famous mines of Kimberley, (Fig. 5) there is not much likelihood of metal mines being found in the Downfold or in the Rocky Mountains proper.

PROBABLE TREND OF POPULATION DISTRIBUTION

In conclusion, we can make some sort of guess as to the way in which the population of Canada will be distributed, say a hundred years hence. (Fig. 6.) It will be determined partly by the opening up of new farm lands in the region north of Edmonton. Here we saw that the summer temperatures are much more favourable than in other unpopulated parts of the Dominion. Oat crops can spread far north of wheat, while potatoes and hay can replace the crops growing is occupied. Many prairie farms can make a living on farms of one-quarter size. The probable future industrial development of southern Alberta due to the coal deposits has led to population increase greatly the population density in the coal area far beyond the present 5 per square mile. In Bohemia and South Russia the presence of similar deposits has led to population densities of more than 60 per sq. mi. With this background, the student should now be able to appreciate the importance of geography as taught along modern lines; and to realize the necessity of consulting an atlas very thoroughly if he wishes to understand how Canada, and by analogy all other lands in the world, are likely to progress in the future.
Place Names in this Atlas are uniform with those in the ATLAS OF THE DOMINION OF CANADA, published by The Book Society of Canada Limited. A complete index of these Place Names, with population figures, is given in the ATLAS OF THE DOMINION OF CANADA, which shows railway routes, and also contains additional information on population, climate, commerce, industries and resources.