

The establishment of the last-named station was the first step in a research program for studying rockbursts in Lake Shore Mines. These bursts are in reality small earthquakes, in which the unbalance of forces is brought about by mining operations. The larger ones record on the seismographs at Ottawa, a distance of 279 miles, and several have recorded as far away as Boston, Mass. A study of wave velocities from these precisely located and timed shocks is yielding valuable scientific data and other seismological equipment in the mine is now successfully locating critical bursting conditions and gives promise of ultimate ability to predict.

A modified form of seismograph is used for seismic prospecting. Dynamite is detonated in specially drilled holes and recorded on seismographs at measured distances. A study made of the records obtained yields information which leads to the location of subsurface structures including those likely to contain oil. Such work is not done regularly in Canada as yet but private companies have been employed in Canada for survey work. On three of these surveys the Dominion Observatory had an observer attached to the group. The officers of that institution endeavour to keep themselves posted as to developments in Canada of this important application of seismology.

The Seismological Service of Canada, as now organized, has its central station at Ottawa. The records are developed at the auxiliary stations and sent to Ottawa for reading and the publication of reports. Seismological research is carried on at the Dominion Observatory and international co-operation in seismological work is arranged there.

PART IV.—THE FLORA OF CANADA

See list at the front of this edition for special material, under this heading, published in previous editions of the Year Book.

PART V.—FAUNAS OF CANADA

See list at the front of this edition for special material, under this heading, published in previous editions of the Year Book.

PART VI.—LANDS, PARKS, SCENIC AND GAME RESOURCES OF CANADA

Canada is distinctly a new country and her resources are, for the most part, in the early stages of development. The fur, fishery and forest resources have, it is true, been the basis of trade for two or three hundred years, but exploitation on the present commercial scale is of relatively recent growth. A notable feature, especially in so young a country, has been the effort directed to conservation and, in the cases of those resources that admit of such methods, the actual replenishment or augmentation of the sources of supply by the practice of reforestation, silviculture, fur farming or the establishment of fish hatcheries.

Numerous surveys and investigations of the extent and value of the resources have been made from time to time and the results have been reviewed in special publications. Detailed information regarding individual natural resources will be found in the later chapters.