

of its various functions, it is to some extent a League of Nations for the particular benefit of Canada and the United States.

The Commission, during the sixteen years it has been in existence, has disposed of a large number of cases under Articles III and VIII; and also carried out several investigations under Article IX. Some of these were only of minor importance, but others involved enormous natural resources and investments on both sides of the boundary, and affected the health or material welfare of millions of people. In this class were the power cases at Sault Ste Marie, the settlement of which involved the levels of lake Superior and the material interests of cities on its shores; the Pollution of Boundary Waters Investigation; the St. Lawrence Navigation and Power Investigation; the Lake of the Woods Investigation; and several others. No questions have as yet been brought before the Commission under the terms of Article X.

Under Article VI the Commission is also charged with the measurement and division for irrigation purposes of the waters of the St. Mary and Milk rivers, in Alberta and Montana. Owing to certain ambiguities in the language of the Article difficulties were found in bringing this problem to a satisfactory conclusion, but finally the Commission, by bringing together on the spot those directly interested, worked out a practicable compromise that proved generally acceptable.

The Treaty, and with it the Commission, may be terminated by either country on twelve months' notice; but it is safe to say that, as they have proved themselves most effective measures for peace and good-will between Canada and the United States, they are not likely to be discontinued.

9.—The Geodetic Survey of Canada.

For a long time prior to 1905 efforts had been made towards commencing a Geodetic Survey in Canada; finally in 1905 these efforts were successful and the late Dr. W. F. King was authorized to start triangulation and precise levelling operations in the vicinity of Ottawa. In 1909 the Geodetic Survey of Canada was organized by Order in Council and Dr. King was made its Superintendent. After his death Mr. Noel J. Ogilvie was appointed Director.

The principal functions of the Geodetic Survey of Canada are:—*first*, the obtaining of precise geodetic latitudes and longitudes of points throughout the Dominion of Canada, together with its coast-lines and large waterways; *secondly*, the determination of elevations of points above mean sea-level; *thirdly*, to serve as a horizontal and vertical control for all kinds of engineering work; *fourthly*, to assist in the determination of the size and shape of the earth; *fifthly*, to investigate such scientific problems as may arise, *e.g.*, the theory of isostasy.

The Geodetic Survey provides an accurate basis for all surveys in Canada, federal, provincial, municipal and private, so that any accumulative errors of various surveys will be localized and thus will not cause serious discrepancies in the production of maps and charts.

Before the Geodetic Survey of Canada was commenced various surveys employed methods suitable to their particular requirements. Such surveys, being for different purposes, were of various degrees of accuracy, and when fitted together to make composite maps confusion was the natural result. Also, when surveys