

# The Canadian Engineer

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## WATER POWERS OF NEW BRUNSWICK AND PRINCE EDWARD ISLAND

AN INTERESTING ACCOUNT OF THE WATER POWER POSSIBILITIES OF THE TWO PROVINCES, TOGETHER WITH FACTS CONCERNING ACTUAL DEVELOPMENT WORK DONE.

By K. H. SMITH, A.M.Can.Soc.C.E.  
Resident Engineer, Dominion Water Power Branch.

THE province of New Brunswick is roughly rectangular in outline, with its longest dimension lying north and south. Its south and east sides are bounded by the Bay of Fundy and Northumberland Strait, with the exception of a neck of land about 15 miles wide joining it on its southeast corner to the province of Nova Scotia. It adjoins the State of Maine on its west side, and the province of Quebec on the north.

It is, roughly, 210 miles long by 140 miles wide and lies within north latitude 45 degrees and 48 degrees and longitudes 64 degrees and 68 degrees west from Greenwich. Its total area is 27,985 square miles, of which 181 square miles is water surface. The total population is about 360,000.

**Topography.**—The country is generally undulating, with the exception of the east coast, which for some distance inland is relatively flat. The Bay of Fundy shore is bold and rocky, and not far inland a prominent ridge, generally from 500 to 1,000 feet high, parallels this shore. With the exception of this ridge, the southeast half of the province lies at an elevation from 100 to 500 feet above sea level, with a number of broad, flat valleys. The northwest part of the province is generally from 500 to 1,000 feet above sea level, with some areas from 1,000 to 2,000 feet. The highest elevation in the province, about 2,600 feet, is in the extreme northwest corner.

On the whole, the topography of the province may be considered as quite mature, giving evidence in the undulating surface and broad flat valleys of long subjection to the various eroding elements. In those areas underlain by rocks of the harder varieties as noted below, the topography is naturally more rugged.

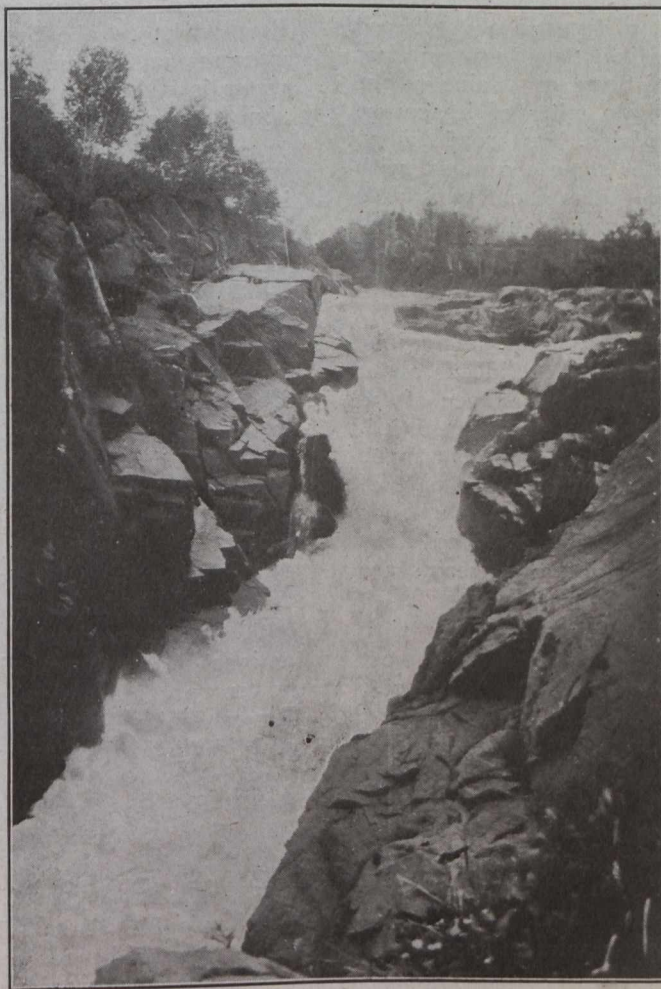
**Geology.**—The greater part of the geological structure of New Brunswick consists of sedimentary rocks of the Palaeozoic age, though considerable areas of granite are also in evidence.

The geological formation underlying the plateau extending along the southern part of New Brunswick and parallel to the Bay of Fundy is composed of a variety of rocks, chiefly granites and granite-gneisses. There are also three relatively large areas of granite in the central part of the province, lying in a general southwest and northeast direction. Between this granite area and the igneous plateau extending along the Bay of Fundy is a large triangular area composed mostly of the Pennsylvania series of the carboniferous or upper Palaeozoic period, with some areas of the Mississippian series immediately adjoining the igneous plateau. By far the greater part of the northwest half of the province consists of unclassified rocks of the Devonian, Silurian and Ordovician periods of the Palaeozoic age.

The mineral resources of the province are probably not large. Gypsum, petroleum, natural gas, coal and antimony are being produced in commercial quantities, while iron, copper, manganese and graphite, have been mined at various times.

### Lumbering and Fisheries.

—The province of New Brunswick is well timbered and lumbering in all its branches is an outstanding industry. Practically all the logs are driven to their destination by way of the existing rivers, and this fact, as well as consideration for the vested interests, must be given due weight in all power investigations and estimates, and particularly



Grand Falls, N.B.