

structed at a cost of \$80,000,000, so that a 2,200 ton boat can sail from the Atlantic 2,200 miles into the heart of our Continent. This great enlargement of the actual river has, of course, improved the freedom of its flow and therefore tends to somewhat lower the general water surface from Superior to Quebec. With the increasing size and draught of boats upon the Great lakes, this lowering of the surface is making itself felt, especially in lake Erie. To maintain a navigable depth it is proposed to build a dam across the Niagara river above the Black Rock bridge. The proposition is fraught with difficulties. Storms from the south-west "pile" the water of lake Erie toward the Niagara outlet, and this "pile" upon the already raised surface will flood valuable property. Again, as part of the natural flow is arrested and held upon lake Erie, lake Ontario does not receive as great a supply, and its surface would tend to fall, unless, in turn, its outlet were also dammed; and so on down the river through lake St. Francis to the head of Montreal harbour, where the loss of every inch in height necessitates expensive dredging to ensure, in the autumn, sufficient depth for ocean-going vessels. It is hoped, however, that a general system of raised levels throughout the St. Lawrence will yet be secured.

POWER—The St. Lawrence system, having the most densely settled communities along its banks, has been called upon to furnish power for manufacturing and municipal needs. Fort William and Port Arthur on lake Superior derive power from the Kaministiquia river at the Kakabeka falls, 19 miles distant, where a head of 175 feet generates 7,000 H.P. Sault Ste. Marie depends upon water-power for its existence. The head is only 18 feet, but the discharge is 60,000 c.f.s. and very constant. Pulp mills, a steel plant and municipal utilities are the chief users of the power. Nipigon river just below Fort William, offers great power, which will be developed when a market presents itself. Sudbury is the centre of a mining district which has received power from the Spanish river at Turbine since 1904. The head is 85 feet. Vermilion river is now furnishing power to other mines in this district. The French river has not been developed, but, as the western link of the Ottawa navigation, it may yet furnish considerable power at the proposed dam sites.

The Severn and other rivers in western Ontario have small local powers, but the great Niagara developments completely overshadow anything else in the district. Unfortunately, only half the descent between lakes Erie and Ontario has, so far, been utilized, except in the case of the Cataract Power Company, where the head is 270 feet. The