

Niagara



Frederic Edwin Church: Niagara Falls
IN THE COLLECTION OF THE CORCORAN GALLERY OF ART.

The escarpment wiggles southeastward down the map like a black snake from Georgian Bay to Niagara Falls, separating the four larger Great Lakes from the one at the bottom. Along the way creeks and riverlets pour over the edge.

The most spectacular plunge is at the bottom of the peninsula, between Lake Erie and Lake Ontario on the Niagara River, where up to 120 million gallons flow over the crests of Horseshoe and American Falls in a minute, drop 160 feet and fill the air with rainbows, mist and thunder.

The Falls and the long, long cliff have made the Niagara country a land of water and wine, power and beauty.

In this issue of CANADA TODAY/D'AUJOURD'HUI we examine its people, history and economy, its grandeur and its grapes.

Power

The churning waters of Niagara produce almost two million kilowatts of electricity.

The waters are diverted upstream on the Canadian side, rush, unseen by tourists, through rocky tunnels to turn the turbines of Adam Beck Power Stations Nos. 1 and 2 and then return to the river below.

The process began in 1881 when Joseph Schoellkopf formed the Niagara Falls Hydro and Manufacturing Company, built a small generating station and installed sixteen arc lights in Niagara Falls, N.Y., to the wonderment of all.

Schoellkopf's generator produced direct current and could furnish power only to factories within a mile or two; and the Province of Ontario and the State of New York, wishing to preserve the natural beauty of the river banks, drastically

limited the available factory sites. This posed a problem.

The solution came in two parts. Thomas Evershed designed a subterranean tunnel which would serve as a tailrace for turbines sunk in vertical pits, and the International Niagara Commission recommended that an experimental alternate current system be used which could transmit power to distant factories.

A subsidiary of the Niagara Falls Power Company, an American group, built a subterranean tunnel in 1892, and a month later it began construction of a generating plant in Queen Victoria Park on the Canadian side.

The Ontario Power Company, also American, then built a plant near the foot of Horseshoe Falls, and the Canadian-owned Toronto Power Company built one a mile above the Falls, between the other two. The most spectacular, it diverted water by a wing dam, and had a tunnel 2,000 feet long and 33 feet broad.