

The Ontario Power Company of Niagara Falls.



THE grants from the Government of the Dominion of Canada, under which this Company is making its development of 180,000 horse-power, were secured in 1887. These concessions were the first, for the utilization of Niagara River power, granted in Canada, and were contemporary with the first concessions granted in the United States.

The plan of development as at first contemplated is only partially followed in the design of works now under construction, the headworks being situated at the upper end of the Park instead of at Chippawa at the mouth of the Welland River. In general, the present design consists of Headworks located in the smooth water of the upper river above the first line of rapids opposite the Dufferin Islands, the Main Conduits or flumes leading the water through the Park to a point on the cliff below the Falls, thence by Penstocks in tunnels through the cliff to the Generating Station in the gorge, with its water wheels and electric generators, and lastly the Distributing Station situated on the high bluff directly above, to which the electric cables are carried from the Generating Station in inclined tunnels. The Company still retains the right to draw additional water from the Niagara River at Chippawa and to develop power therefrom in the Park in addition to the 180,000 horse-power now under construction.

The details of the present construction are briefly outlined in the following general description :—

HEADWORKS

The Headworks consist of an intake proper, and outer forebay, screens, an inner forebay and control gates.

The intake, 618 feet long, consists of concrete piers supporting a continuous, reinforced concrete curtain wall which extends vertically downward seven feet below the normal surface of the river, to within six feet of the river bed, and upwards five feet above the normal river level, which at this point is about 55 feet above sea level. More than double the quantity of water