

# The Canadian Engineer

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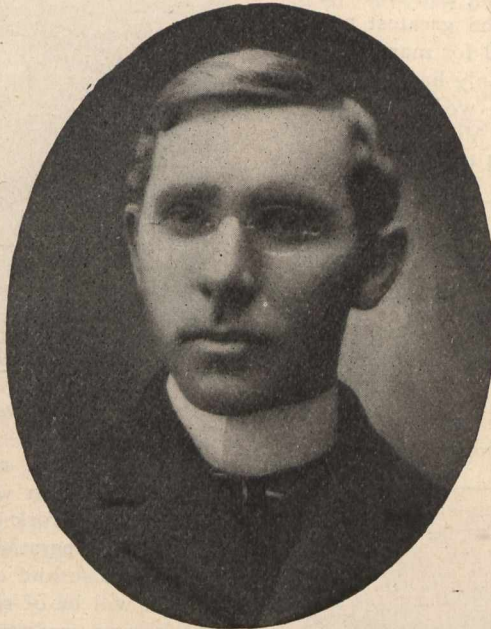
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We judge ourselves by what we feel capable of doing; but the world judges us by what we have already done.

*Longfellow.*



CHARLES HAMILTON MITCHELL, C.E.

Member Canadian Society of Civil Engineers; Member American Society of Civil Engineers; Associate Member Institution of Civil Engineers (London); Associate American Institute of Electrical Engineers.

Industrially, the Dominion of Canada in 1906, has crossed the threshold of her Hydro-Electric age. The three magnificent Hydro-Electric installations on the Canadian side of Niagara Falls, are the admiration of the world.

Almost simultaneous with the demonstration at Sault Ste. Marie, of the successful smelting of the refractory magnetic iron ores of the country in the Electric Furnace, came the equally important announcement, that in close proximity to our ore fields, Nature has provided water-falls and rapids from which "white coal," for generating the electrical energy necessary for operating the furnaces—may be obtained in abundance, and at a figure unapproachable by the best modern Blast Furnace practice. "The harvest is ripe, but the laborers are few." Among the very limited number of thoroughly trained disciples of Leonardo da Vinci,\* in Canada, capable—on their own initiative—of designing modern hydro-electric plants of magnitude, may be counted the Hydraulic Engineer whose portrait appears above.

Charles H. Mitchell was born at Petrolea, Ontario, February 18th, 1872; and is the eldest son of Rev. George A. Mitchell, B.A., Methodist minister. He matriculated to Toronto University in 1888, graduating from the School of Practical Science in 1892. Granted post-graduate degree of B.A.Sc., (Bachelor of Applied Science), 1894; and C.E. (Civil Engineer), 1898. His career began as Assistant City Engineer, Niagara Falls, N.Y., 1892-3; engaged on special work in water-works and water-power construction and trunk sewer tunnels in rock. From 1894 to 1901 he was in private practice at Niagara Falls, Canada, and during this period designed and superintended construction of the following works:—**Municipal**—Sewer System, brick pavements, and water works for Niagara Falls, Ontario; also bridges for County of Welland; **Power Work**—The hydraulic plants at

Bracebridge, Fenelon Falls, Orillia, Merritton, Wahnipitae, and St. Catharines, together with minor works, and improvements to existing plants. Also made reports, plans and estimates of projected hydraulic power plants in Ontario, Quebec, Maritime Provinces and New York State. From 1901 to 1905 was Chief of Mechanical Department of the Ontario Power Company of Niagara Falls, Canada; in charge of detail, design, and construction of Civil, Hydraulic, and Mechanical portions of this famous hydro-electric installation; probably the finest in existence. In December, 1905, sailed for Europe, and during an eight months' tour, inspected critically upwards of forty Hydro-Electric plants in France, Italy, Austria, and Switzerland, also numerous steam electric power installations in Germany and Britain. Has held Captain's Commission in Canadian Militia since 1899—first in Infantry and later in Corps of Guides. And is a member of Toronto University Senate (since 1901) representing graduates in Applied Science and Engineering.

This record from an educational standpoint, seems to us almost ideal: a foundation of theoretical university training, followed by wide practical experience, and all this broadened by travel—inspecting the hydro-electric work of the master minds of Europe. History shows that in Social Evolution there never comes a crisis, but a man fitted to cope with it appears. Canada is now ready for a forward movement in hydro-electric development; the man for the times is here: he whom we have placed in our portrait gallery this month, among the men who have "done things."

We understand that Mr. Mitchell is opening offices in Toronto and Niagara Falls, as Consulting Engineer; making a specialty of hydro-electric power work, and its allied branches. That he will succeed is in the order of things; for he is still young, is full of ideas, possesses unusual executive ability, and above all, has a clean record.

\*The Father of hydraulic engineering.