

The Canadian Engineer

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THE CANADIAN MACHINE SHOP.

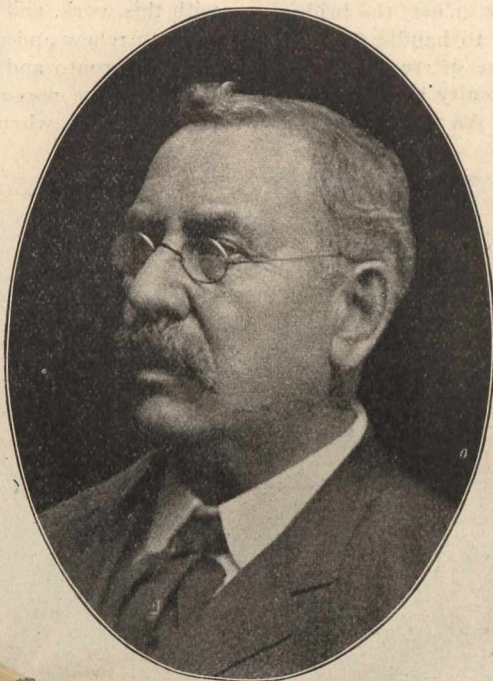
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"We judge ourselves by what we feel capable of doing; but the world judges us by what we have already done."

Longfellow.



GRAHAM FRASER.

Pioneer in Canadian Iron and Steel Development.

Prince Consort is reported to have said, "If we want any work done of an unusual character, and send for an architect, he hesitates, debates, trifles; we send for an Engineer, and he does it." In December, 1903, the Dominion Iron and Steel Company, Sydney, Cape Breton, had reached a critical stage in its existence. Started in 1891 with bright hopes and prospects, the manufacturing career of this far-famed company had been checkmated at every move by serious obstacles—personal, material, financial; and, so far, had not been a paying business. The great railway project of the Grand Trunk Pacific, and proposed extensions of the C. P. R., and other lines in the far North-West, presented an alluring vision of trade in steel rails and rolling stock. The only works on British soil in North America, capable of supplying the demand, even partially, was the immense blast furnace and steel plant at Sydney. But the margin of inability to supply was so large, that it meant either the installation of a costly modern rail mill plant, or letting in the enemy. The former alternative was chosen. To achieve this, however, needed business judgment and Engineering insight of the highest order. With the time came the men. Mr. Frederick Nicholls straightened out the finances (see "The Canadian Engineer," November, 1905, p. 350); and Mr. Graham Fraser was called in (January 1, 1904), as director of works, and superintended the evolution of the splendid rail mill—designed to roll 1,000 tons per day—which was started up successfully in June, 1905, and which will be fully described and illustrated in our February issue. With the completion of this notable work, Mr. Fraser at 59, and after 30 years of strenuous Engineering feels like Longfellow's "Village Blacksmith," that having—

"Something attempted, something done,
He's earned a night's repose."

It is a fitting moment, therefore, to include him in our portrait gallery.

Graham Fraser was born in New Glasgow, Nova Scotia, in 1846. At sixteen he was apprenticed to the forge business in Providence, R.I., United States. After some experience in the shipyard at Maitland, N.S., he commenced business for himself at the age of 23, contracting to supply iron-work and galvanized material for the wooden ships then in vogue. This business flourished, hence five years later, he took into partnership Mr. G. F. McKay, and established the Hope Iron Works at New Glasgow; manufacturing railway spikes, springs, axles, etc., and doing a general forge business. After two steam hammers had been installed to meet increasing demands, the name of the firm was altered to that of Nova Scotia Forge Company. At the end of eleven years of prosperous work, the forge was transferred to Trenton, on the East River, Pictou, and so successful was this enterprise—owing to the enlarged facilities—that in 1882 the company was reorganized and incorporated as The Nova Scotia Steel and Forge Company. But expanding trade necessitated still further extensions, and branch steel works were founded at Ferrona, N.S. Finding that the high price and difficulty of getting raw material, was a serious handicap, Mr. Fraser once more reorganized the company, this time, under the title of The Nova Scotia Steel and Coal Company, and commenced operations on a large scale, opening out works at Sydney Mines, Cape Breton, where they have their own coal mines with a monthly output of 59,000 tons (October, 1905). Ore mines, railways, ships, blast furnace, 235 tons capacity per day; and 3 40-ton O. H. steel furnaces, all in full swing. The success which has crowned his thirty years' work, led to his selection as director of works of the Dominion Iron and Steel Company, with the result that this celebrated plant is now working successfully and on a paying basis. In his 60th year, Mr. Fraser retires for well-earned rest, and carries with him the esteem, goodwill, and high regard of all men who take an interest in the iron and steel development of the Dominion.