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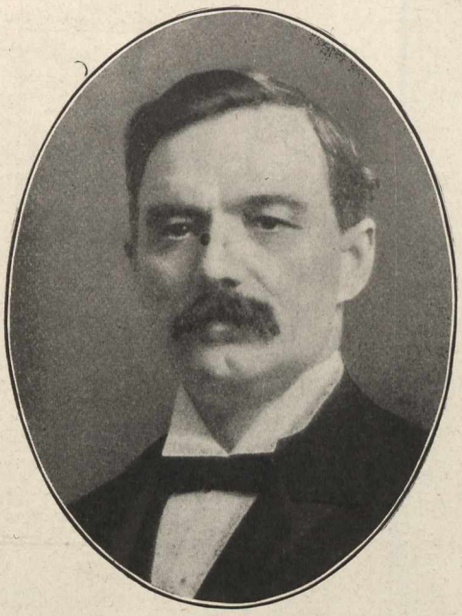
"We judge ourselves by what we feel capable of doing; but the world judges us by what we have already done."

Longfellow.



J. A. JAMIESON, M.E.

Member of American Society Civil Engineers, Member of Canadian Society Civil Engineers, Author of "Grain Pressures in Deep Bins."

Seeing that self-preservation is the first law of nature, and wheat the "Staff of Life," it is not surprising that both history and experience show that agriculture is the foundation of the material prosperity of nations. Witness the wonderful growth of the United States in the last decades of the nineteenth century, and the phenomenal rise of Canada at the dawn of the twentieth: in both cases largely due to the cultivation of immense areas of virgin soil on the broad wheat-growing lands of their Western prairies, which to-day are the granaries of the "Old World." But these natural resources would have been commercially useless had not the Civil and Mechanical Engineers, with their bridges, railways, locomotives and freight cars, come to the rescue of the hosts of inland farmers and myriad consumers across the sea. The magnitude of this traffic, however, has necessitated the invention of a new system of storage in the shape of Grain Elevators and Bins on such a colossal scale, and involving such a high order of skill and resource in design and construction, as to constitute an entirely new line of specialist Engineering.

The inception was American, but, "Engineering News," of New York, being witness, we have in Montreal to-day, a Canadian who is "the leading authority on the American system of 'Silos'"; and it is our pleasure this month to tell, briefly, the life story of this distinguished Engineer.

James Alexander Jamieson was born in Peterboro', Ont., 1860. While he was very young his parents removed to Cobourg, where he received his common and high school education. His technical training was gained, not in the halls of learning, but by hard study in the light of the midnight lamp, and by practical experience gathered in the engineering workshop. In this latter respect Mr. Jamieson is on the muster roll of an august company. As Samuel Smiles has shown in his "Lives of the Engineers":

> One of the remarkable things about engineering is, that its chief achievements have been accomplished not by natural philosophers nor by mathematicians, but by men of humble station—for the most part self-educated.——A wheelwright like Brindley; an attorney's clerk like Smeaton; a mathematical instrument maker like Watt; a millwright like Rennie; a working mason like Telford; a slater like Clement; or an engine brakesman like Stephenson.

His first experience in the practice of Mechanical Engineering was gained in the office of his father, who was a mill designer and builder, and obtained his first knowledge of the line of business in which he has since become a specialist, on the construction of the Elevator at Midland, Ont. In 1882—then twenty-two—he entered the service of the C.P.R. on the Engineering staff in construction of the main line. In 1884, transferred to the T., G. and B. Division, CP.R., on grain elevator construction at Owen Sound. From thence, in 1885, was transferred to engineering department, head office, Montreal, and four years later (1889) given charge of the designing and construction of elevators, followed by appointment as Superintendent of Elevators, and was largely responsible for the designing and building up of the extensive grain elevator system of the company. In 1896 he commenced private practice, and designed and built elevators at Prescott, Owen Sound, Fort William, St. John, N.B., Halifax, and Port Arthur, and is at present designing and superintending the construction of a 2,000,000 bushel fire-proof, transfer elevator for the Canadian Government at Port Colborne, at the entrance to the Welland Canal. This "modern" grain elevator, both as regards structural design and mechanical equipment, will, when completed, be superior to anything of the kind in existence. It will handle grain at a greatly reduced cost in comparison with existing systems, and reduce the time of discharging and loading vessels by nearly one-half. A special feature of this Elevator is, that not only is the structural work original in design, but all the mechanical appliances are the product of Mr. Jamieson's inventive skill, and are being constructed in accordance with his designs. In this respect it may be described as unique. We recently had the pleasure of critically inspecting Mr. Jamieson's office system, and, based upon thirty years' drawing office experience in England, United States and Canada, have no hesitation in saying, that for lucidity of arrangement and completeness of detailing—admirably suited to modern workshop needs—his system of designing and drafting is equal to anything being done on the American continent. One has only to glance at the diagrams, tables, and formulæ embodied in his classic paper on "Grain Pressure in Deep Bins," read before the Can. Soc. C. E., for which he was awarded the Gzowski medal, and which appeared verbatim in the columns of "The Canadian Engineer," April, 1904, to perceive the scientific precision and thoroughness of his work. It reveals the secret of his success.

It is the glory of Canada that among her sons are men like J. A. Jamieson, who, in the domain of Engineering, are making an international reputation; not by bubble advertising and graft, but by honorable dealing and a wise use of their powers, and in this way are aiding mightily the industrial development of their native land.