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### **ENGINEERING HISTORY PAPER #73**

## **“Several Canadian Engineering Companies”**

**By Andrew H. Wilson**

(produced as Cedargrove Series #48/2018 – Feb 2018)

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## **Abstract**

The research for this paper was done to provide background information for a sesquicentennial project on *150 Years of Canadian Engineering*, and is one of several intended for this purpose.

The histories that are included fall into a single category: the companies no longer exist. But, while they did, they made significant contributions to Canadian engineering. And they failed to survive for different reasons. They therefore serve as illustrations rather than models or in some definitive way.

## **About the Series**

Principally, the Cedargrove Series is intended to preserve some of the research, writings and oral presentations that the author has completed over the past half-century or so but has not yet published. It is, therefore, the modern-day variant of the privately-published books and pamphlets written by his forebears, such as his paternal grandfather and grandmother and his grandfather's brother John.

## **About the Author**

He is a graduate in mechanical engineering and the liberal arts and has held technical, administrative, research and management positions in industry in the United Kingdom and the public service of Canada, from which he retired over 30 years ago.

He became actively interested in the history of engineering on his appointment in 1975 to chair the first history committee of the Canadian Society for Mechanical Engineering and served both CSME and the Engineering Institute of Canada in this capacity for varying periods until 2003. He has researched, written and edited historical material for both organizations and for the Canadian Society of Senior Engineers. He is also a past president of CSME and EIC.

## **Introduction**

During 2016 and 2017, I undertook a sesquicentennial research project that examined aspects of the history of engineering in Canada from Confederation in 1867 (and earlier) up until the present time. The material collected and analysed has been voluminous and has led to the preparation of a number of background papers, including this present one.

Brief histories of nine companies that employed engineers in the research, design, construction and manufacture of their products have been included, some briefer than others. Since these companies operated in all three time periods used for the sesquicentennial research, they have been considered in the order in which they were first formed. None is currently in business. With such a miniscule sample, no general conclusions can be drawn.

## **The Companies...**

### **The Canadian Locomotive Company...**

was one of only a few Canadian companies, independent of the railways, that have built locomotives in Canada, the others being the Montreal Locomotive Works, the General Motors Diesel Division at London, Ontario, Bombardier Transportation in Montréal, and Railpower Technologies in Vancouver. Initially, Canada imported its locomotives from Britain and the United States. James Good built the first Canadian one, a 4-4-0, in Toronto, in 1853.

The Canadian Locomotive Company began - and lived - its life on the waterfront at Kingston, Ontario. Founded in 1848 as the Ontario Foundry, its first products were steam engines and boilers. By the time it had built its first steam locomotive in 1854 - one of four being sold to the Grand Trunk Railway - it was the Kingston Locomotive Works. However, after building 30-odd 4-4-0 locomotives, the company went bankrupt in 1860. Its successor company, founded in 1865, was the Canadian Engine & Machinery Company. Around ten years later, having built well over 100 locomotives, it too went bankrupt and had to be re-organized, as the Canadian Locomotive & Engine Company Limited (CL&EC). Meanwhile, during the 1850s, 1860s and 1870s, the provincial railway networks had grown rapidly. But there was still a tendency among some railways to buy locomotives from the U.S. and the U.K.. And it was not until 1870 that the Dominion Parliament legislated the use of standard gauge tracks.

Another re-organization took place in 1881, led by William Harty. New shops were built, and the company's headquarters was moved from Montréal to Kingston. Encouragingly, the tariff on imported locomotives also rose significantly under the Macdonald National Policy. The new owners were Canadian Pacific investors who later sold their shares to the experienced Dübs Company of Glasgow, Scotland, who had already built some locomotives for the CPR there. The Dübs people gained full control in 1888.

Between 1878 and 1887, the CL&EC built some 140 locomotives, many for the CPR, but also for the Grand Trunk and the Intercolonial. There was also some diversification into non-railway products. Under





























































