

# Editorial

1867



1917

## The Jubilee of Confederation

**N**EXT Sunday, July 1st, Canada will celebrate the Jubilee of Confederation—the completion of the first half century of the Dominion's life. "The date," says the parliamentary committee appointed to report upon arrangements for the anniversary, "finds Canada with a record of achievements and resources such as few young countries possess, and it finds her also throwing herself into the world's struggle for liberty in a way that sets the final seal of nationhood upon her brow."

While not essentially an engineering topic, it is only fitting that all Canadian papers should make special reference to this notable date, and at this time pass in brief review some of the more remarkable of the country's achievements and resources.

In 1867 Canada comprised four provinces, embracing a narrow strip along the lower lakes and the St. Lawrence, with a limited frontage on the Atlantic. In 1917 there are nine provinces (besides a large unorganized territory) embracing half a continent, stretching from the Pacific to the Atlantic and from the United States to the North Pole.

From an area of 540,000 square miles and a population of 3,600,000, Canada has grown to 3,729,665 square miles and about 7,600,000 population.

In 1867 immigration was small and sporadic. In 1913 it reached 402,000 and in 1914, 385,000. Canada, since 1900, has taken the place of the United States as the chief magnet for old-world immigration.

The total value of Canadian field crops in fifteen years rose from \$195,000,000 (in 1901) to \$841,000,000 (in 1915). The value of live stock has increased threefold in the past fifteen years, reaching \$800,000,000 in 1916.

The exportable surplus of Canadian agricultural products in 1868-70 was only \$13,000,000; in 1916-17 it was \$480,000,000.

The total value of the fisheries catch in 1910 was \$6,577,391; in 1915, \$31,264,631.

The value of the annual product of the mines has grown from \$10,000,000 to \$137,000,000 within forty years.

The value of log products in 1871 was \$34,156,483; at present it is about \$175,000,000.

There were but few factories in Canada at the time of Confederation; to-day the annual value of manufactures is estimated to be over \$1,300,000,000. Such products as wood pulp, automobiles, electrical apparatus, etc., which were unknown in 1867, now run into many millions of value annually.

In 1871 the manufactures of iron and steel were considerably less than \$3,000,000, while in 1915 they reached

\$50,000,000 and this figure has been greatly increased by the war. Foundry products, which valued a little more than \$7,000,000 in 1871, were worth approximately \$37,000,000 in 1915. The manufacture of railway and other cars in 1871 amounted to half a million dollars; in 1915 this item had increased to \$25,000,000. Just about \$1,000,000 worth of paper was manufactured in 1871, and in 1915 thirty times as much was made.

At the time of Confederation about \$20,000,000 had been expended on the improvement of the waterways of Canada; to date the expenditures on canals alone exceeds \$106,000,000.

There were no roads or streets of permanent construction in Canada at the time of Confederation, while now every province in Canada has a good roads organization and every city has spent thousands—and some of them millions—upon street improvement. Quebec and Ontario have spent many millions of dollars upon road work, yet the good roads movement in Canada is still in its infancy and hundreds of miles of urban streets are still unpaved.

The science of building construction has probably advanced as far during the past half century as has any branch of engineering. The modern steel skyscraper, so familiar a sight in all large Canadian cities to-day, is a far cry from Toronto's famous first "Iron Block," with its cast iron columns and wrought iron floor beams. Thirty-five Canadian cities issued building permits totalling \$38,783,994 in 1916, and \$32,285,721 in 1915. Fifty-two Canadian cities issued building permits totalling \$166,114,508 in 1913, and \$94,807,577 in 1914. Compared with these figures, of course, the annual value of buildings erected about the time of Confederation was insignificant. Steel, cement, asbestos and many other modern materials were practically unknown then. Nearly all construction was of wood, brick or stone; mostly wood.

Bridge building, too, has developed rapidly. The wooden bridges of 1867 have largely been replaced by iron, steel or concrete structures. Nowhere in the world have difficult problems of design and construction of bridges been more successfully solved than in Canada. The Quebec Bridge, the Lethbridge Viaduct, the Victoria Bridge, the C.P.R. St. Lawrence River Bridge, the Outlook Bridge, the bridges at Niagara Falls and those in the Rockies may be mentioned among many Canadian structures known throughout the engineering world.

At Confederation there were 2,278 miles of railway in Canada, with an investment of \$257,000,000. To-day there are 35,582 miles, involving a capital of \$1,876,000,000. The freight handled in 1867 amounted to