

Canada's capacity to-day approaches 1,000,000 lbs. per week of both cordite and nitrocellulose powder.

One of the principal explosives used for bursting shells, known as trinitrotoluol, has been made successfully in Canada for over two years from the by-products of the coke ovens. To-day the production approaches 1,000,000 lbs. per week.

Among the many contributing features of successful production to-day, started by Mr. J. W. Flavelle soon after he became chairman of the Imperial Munitions Board, was the creation of great national factories in Canada. In addition to stimulating and developing companies in Canada, he set in operation several national factories for the loading of fuses, the manufacture of gun cotton, acids, trinitrotoluol, acetone, cordite, nitrocellulose powder, aeroplanes and electric steel. These factories are operated by separate companies, the entire stock of each company being held by the Imperial Munitions Board. In this connection it is interesting to know that aeroplanes are being made in Canada at about the rate of one per day, and when the new factories are completed five per day are expected.

Discussing the value of the munitions business as a permanent asset to Canadian industry, Colonel Carnegie divided it into two parts, the first resulting from the standardization of products, the second from the standardization of skill.

Standardization of Product.

There is no industry in Canada which has been occupied in the manufacture of munitions but has passed through a process of refinement which will leave it in a better condition when it returns to domestic pursuits after the war. If you review the great industries of Canada it will be difficult to find one which has not been actively contributing to the output of munitions.

Industries such as the iron and steel; the metals and metal products; refractory materials and fuels; lumber and timber; leather; textiles; paper; chemicals and other minor industries, have called into being processes and plant which could be adapted for munitions, and have also added new processes, new equipment and new skill where these were required.

In addition to the employment and adaptation of existing industries for munitions manufacture, entirely new industries have been brought into activity. The manu-

facture of munitions has given an abiding impetus to the mining and subsequent operations in the production of coal, iron, copper, nickel, zinc, molybdenum, antimony, aluminum and other metals.

The chemical industries have been accelerated by utilizing the waste products of the coke ovens for the manufacture of high explosives. These waste products, after the war, will be turned, by ingenuity and skill, into valuable domestic products.

The electro-chemical industries, such as the refining of copper, zinc and lead, have been initiated and will remain as a commercial asset. The electro-thermic processes for the production of ferro-alloys, such as ferro-silicon, ferro-manganese, ferro-molybdenum, aluminum, magnesium and other metals, have produced standardized products.

Standardization of Skill.

The widespread knowledge of new processes, involving the scientific study of metals, the flow of materials, and their physical, chemical and metallurgical values, has been such that one can hardly imagine it would have been possible for the universities and technical schools of Canada to have provided such instruction in the course of many years which has been crowded into as many months. Every workshop has been a school of training in standardizing its skill. Every factory in which steel is made and forged is now partly or fully equipped with the means for measuring temperatures and intelligently discovering the value of the materials with which they are working. In every workshop in the different provinces of Canada where shrapnel shells are made, the scientific treatment of steel is known. There is hardly a town of any importance in which the use of precision instruments and gauges for measuring shells and their component parts does not exist.

It is difficult to assess the value of this skill to Canadian industry, in which over 250,000 workers have become skilled in the art of such processes and the manipulation of such tools and gauges. It is more surprising still to know that nearly 12,000 women have become skilled in this work. Never in history, has there been such an incentive to acquire such skill for a purpose the like of which our civilization should be ashamed, but which is nevertheless an asset which will be of great value in the peaceful commercial industries for the expansion of Canada.

MUCH REAL ESTATE; NO LIFE INSURANCE

The late Matthew O'Connor, who died in Toronto on March 24th, left an estate of \$60,430, made up as follows: \$750 personal and household effects, \$17,440 in mortgages, \$13,276 cash, \$8,600 equity in 27 and 39 Howard Street, \$3,600 equity in 35 Howard Street, \$13,500 equity in 106 Maitland Street, and 51 shares in the Home Bank, valued at \$3,264.

The paper plant at Port Mellon, Howe Sound, established some years ago, but which has been idle for a long time, is being altered for the manufacture of kraft paper. The Rainy River Pulp and Paper Company has been organized by a syndicate of New York capitalists, headed by Mr. Robert Sweeny. Kraft paper will also be manufactured by the Pacific Mills Company, Limited, which has nearly completed its plant at Ocean Falls. A second and larger unit is now under construction directly across Link River from the present plant.

COBALT ORE SHIPMENTS

The following are the shipments of ore, in pounds, from Cobalt Station for the week ended May 4th, 1917:—

Trethewey Silver Mine, 66,136; McKinley-Darragh-Savage Mines, 81,503; Dominion Reduction Company, 88,000; O'Brien Mine, 64,260; Beaver Consolidated Mine, 54,695; Penn-Canadian Mine, 120,553; Coniagas Mines, 162,074. Total, 637,221 pounds, or 318.6 tons.

The total shipments since January 1st, 1917, now amount to 8,240,862 pounds, or 4,120.4 tons.

Another request for railway materials to construct roads behind the lines of the armies in France for use in the military operations on that front has been received by the Canadian government from the British authorities. This time enough rails to lay 300 miles of railway are required. These will be secured by dismantling a stretch of about 200 miles of the Grand Trunk Pacific Railway where it parallels the Canadian Northern west of Edmonton.