

Canadian science has contributed notably to the development of chemicals and explosives. Canadian chemists discovered the most effective method of manufacturing RDX, the new super explosive. They have devised improved and important changes in the manufacture of TNT and developed a process for large-scale manufacture of fuse powders.

Shipbuilding.—During 1942 Canadian shipyards produced 81 cargo vessels, or 838,000 deadweight tons, and during 1943 the yards produced 137 cargo vessels, or 1,478,000 deadweight tons. In 1942, 117 naval vessels were produced and in 1943, 100 naval vessels; the naval vessel program in 1943 called for more difficult and more costly types.

To Dec. 31, 1943, Canadian yards delivered 332 escort and patrol vessels, including 26 frigates, 104 single-screw corvettes, 91 steel minesweepers, 34 wooden minesweepers, and 77 Fairmile patrol-boats. In addition to these deliveries, 68 vessels of these types had been launched and were being fitted out at the end of 1943. The naval vessel program also included delivery of 3 types of landing craft in the amount of 623 units to Dec. 31, 1943, as well as deliveries of tugs and auxiliary tankers. In the field of small craft, 3,500 were delivered to the end of 1943.

During 1943 the largest naval vessel ever built in Canada was launched—a Tribal Class destroyer. Three more destroyers were either approaching the launching stage or were planned as of Dec. 31, 1943.

Late in 1943 requirements for certain types of escort vessels were reduced. Plans were made to transfer some of the capacity thus released to production of a new type of landing vessel. At the end of 1943 there were 10 shipyards and 3 outfitting-yards engaged on the naval program and 5 small yards building other steel vessels such as tugs, lighters and auxiliary tankers, while 62 smaller yards were engaged on the small-boat program.

At the end of the year there were 7 shipyards engaged on the production of 10,000-ton cargo vessels and 3 smaller yards on production of 4,700-ton cargo ships. The types of 10,000-ton ships built in Canada include the coal-burning North Sands type for which the original design came from England, the oil-burning Victory type, and the Canadian type, which can burn either coal or oil, and the Victory tanker which is a converted Victory freighter. The 4,700-ton ships are all of the William Gray class.

In addition to production of new ships, Canadian facilities for ship repairs have increased tremendously. From January, 1940, to December, 1943, there were repaired in Canada 25,000 vessels, naval and merchant, and of these 5,000 were drydocked for major overhaul or examination.

Housing.—Early in the War it became apparent that emergency housing was necessary in areas where there was a heavy congestion of new war industry or where new munitions plants were established in locations somewhat remote from centres of population. This war emergency housing program was placed under a Crown company, Wartime Housing Limited. Under the program the company constructed, to the end of 1943, 17,700 houses, 13 hostels, 69 staff houses, 15 bunk houses, 19 dining halls, 30 schools and 22 community buildings.

Miscellaneous Equipment.—Total purchases by the Department of Munitions and Supply of personal equipment and service stores such as food, fuel, medical supplies, hardware, etc., amounted to \$2,988,000,000 to the end of 1943. In the case of medical supplies, facilities were established in Canada in 1943 for the production of penicillin.