

During 1943 production of armoured cars and reconnaissance cars was discontinued and the production of scout cars was discontinued temporarily pending design changes. In 1943 all orders for tanks were completed and the capacity was shifted to the production of self-propelled gun-mounts, tank turrets and railway equipment. At the end of 1943, self-propelled gun-mounts, which operate on a tank chassis, were being produced at a rate of 150 per month, and locomotives for shipment overseas at a rate of 24 per month. The universal carrier has continued in production at a rate of 900 per month; more than 23,000 have been delivered.

Communications and Signals.—The value of Canadian production of this equipment in 1940 was \$1,000,000, in 1942 production was \$60,000,000 and in 1943 \$136,000,000. At the end of 1943 the radio and communications industry was operating at a level approximately 18 times greater than in 1939. This program included approximately 4,500 different items in production by some 50 prime contractors and several hundred sub-contractors.

A major factor in the production of communications equipment has been Research Enterprises Limited, a Crown company, which in 1943 produced communications equipment in the amount of \$60,000,000. In addition, Research Enterprises Limited produced, in 1943, optical equipment and instruments to the value of \$10,000,000; total 1943 production of instruments was \$44,000,000.

Guns and Small Arms.—Production of gun barrels, carriages and mountings, considered as separate units, totalled 45,000 in 1943, as compared with 31,000 in 1942. Output of machine guns, rifles and other small arms jumped from 325,000 in 1942 to 580,000 in 1943.

Inasmuch as current and prospective needs of the Armed Services for certain types of guns had been supplied, production of Army guns was cut back during the latter part of 1943 and where possible the capacity thus released was converted to other uses or was maintained in working condition for stand-by purposes.

During 1943 production of 4 types of small arms was discontinued, the Boys anti-tank rifle, 2 types of machine guns and the 3-inch mortar. Offsetting these curtailments was new production of the 9 m.m. pistol, the 20 m.m. universal mounting, and the Polsten 20 m.m. automatic gun, a most modern and effective weapon. A new version of the Bren gun also was brought into production.

Small Arms Limited, a Crown company, produced rifles in 1943 at a rate of 35,000 per month and this plant reached a peak production of 8,500 Sten guns per month in 1943.

Ammunition.—In 1942 there were produced 28,000,000 rounds of gun ammunition and in 1943 30,000,000 rounds. Production of small-arms ammunition increased from 1,200,000,000 rounds in 1942 to 1,500,000,000 rounds in 1943. At the end of 1943 there were 130 plants engaged in manufacturing gun ammunition and components for a program involving the production of 154 varieties of shell or other ammunition components. Production of small-arms ammunition included more than 30 different types ranging in calibre from .22 inch to 1 inch, the major part of the production taking place in two Government arsenals.

Chemicals and Explosives.—Total net production of chemicals and explosives was 860,000,000 lb. in 1942 and 1,000,000,000 lb. in 1943 when peak production was reached. Rifle cordite production was discontinued at two plants late in 1943 and TNT production and other explosives production at Nobel, Ont., were also discontinued because of reduced requirements.