

Through technical improvements, greatly increased production has been possible with a relatively small amount of equipment. Conservation and substitutions in materials, redesigns of components and reductions in machining operations have contributed to the saving of many tons of material, and many thousands of dollars in operating costs.

The following figures show the unit production of ammunition, containers, etc. up to the end of June, 1944:—

	No.		No.	
Shells, empty.....	67,245,864	}	Steel service packaging.....	13,882,231
Shells, filled.....	49,080,000		Wooden service boxes.....	3,236,274
Cartridge cases, empty....	116,491,866		Cylinders and containers....	52,058,857
Cartridge cases, filled.....	52,712,665		Small-arms ammunition	
Fuses, primers.....	170,014,382		boxes.....	8,315,060
Bombs and other projectiles, empty.....	37,546,506		Small-arms ammunition....	3,800,000,000
Bombs and other projectiles, filled.....	24,739,851		Shipping containers.....	6,801,729

Two-thirds of the 100,000,000 projectiles produced were standard shells including armour-piercing shot, and practice and proof shells. The other one-third comprised bombs and other projectiles such as grenades, several types of depth charges, piat projectiles, and other rocket-like missiles. Canada had, by 1944, produced more than 7,500,000 anti-tank mines and smoke generators, which come within the heavy-ammunition program but are not considered projectiles.

In addition to the production of heavy ammunition, Canada had made, to the end of August, 1944, a total of 4,000,000,000 rounds of small-arms ammunition in several types, of which the most important is the .303-inch rifle and machine-gun bullet, but including more than 30,000,000 complete rounds of 20 mm. ammunition. This 20 mm. ammunition is classified in the United States as heavy ammunition, and in Germany as heavy small-arms ammunition.

More than 116,000,000 cartridge cases have been produced since the beginning of the War.

**Automobiles and Equipment.**—The Canadian automobile industry has played a great part in equipping the Armed Forces of the Empire. During the period September, 1939, to the end of 1940, nearly 80,000 army-type vehicles were produced. This period was, in essence, the first step in the tooling-up process. The lessons learned after the Battle of France were applied with considerable energy and Canada was well on its way to developing full productive capacity for the manufacture of such vehicles. By the end of 1943, close to 600,000 units of military transport and fighting vehicles had been produced in addition to large numbers of bicycles, buses, tires, replacement parts and other items.

The Canadian automobile industry has now upwards of 30,000 employees, and is producing more than 100 types of military vehicles, including universal carriers, service workshops, wireless trucks, ambulances, fire trucks, scout cars, reconnaissance cars, armoured cars, troop and ammunition transports, artillery tractors and trailers. These various types of motorized military equipment were leaving Canadian assembly lines during 1943 at the rate of approximately 3,500 units of mechanized transport and 300 combat vehicles per week—in point of value, more than \$400,000,000 for mechanized transport and \$125,000,000 for combat vehicles, or a total of over \$525,000,000 for the year. This output far outranks any other production job in the nation's history.