Mayo district of Yukon. In 1935 production of silver-lead-zinc concentrates was resumed at the Sterling mine, Richmond County, Nova Scotia, but operations ceased in 1939. Production by provinces in 1942 is shown in Table 6, p. 297.

Subsection 5.—Magnesium

No magnesium was being produced in Canada at the outbreak of the War, the first commercial production since 1918 being reported in 1941. This metal, the lightest that is stable under atmospheric conditions, is in great demand for war purposes. It is used for the construction of aeroplanes and parts of aeroplane engines and, in addition, has wide uses in powdered form for flares and incendiaries. Magnesium-containing minerals are widely distributed and, in addition, the sea forms an enormous source. In Canada the most abundant source is dolomite which occurs in many locations.

Magnesium produced in 1941 amounted to 10,905 lb. valued at $2,944 and was in the form of magnesium powder produced from magnesite obtained from deposits located at Marysville in the Fort Steel Mining District of British Columbia. Production in 1942, which amounted to 808,718 lb. valued at $355,836, included the metal produced at Trail, B.C., in the form of ingots and powder, and in magnesium chloride and alloys together with the metal produced in Ontario by Dominion Magnesium Limited, a Government-owned plant. This company employs the ferrosilicon process and utilizes dolomite as the source of the metal; the rock is quarried in the immediate vicinity of the plant. Calcined brucite rock shipped from Wakefield, Que., was employed at the commencement of operations.

Subsection 6.—Nickel

The Canadian production of nickel has been derived almost entirely from the well-known nickel-copper deposits of the Sudbury district, Ontario. The ore is mined principally for its nickel and copper content but gold, silver, selenium, tellurium and metals of the platinum group, though present in relatively small quantities, are profitably recovered in the metallurgical processes. The proved reserves of nickel ore in Canada are estimated to be sufficient to provide for world requirements for many years, while in addition there are large indicated deposits as yet undeveloped.

After the War of 1914-18 the producing companies instituted varied researches to discover and encourage new peace-time uses for the metal. The success attending their efforts has accounted very largely for the marked increase in production made possible by extensive additions to their plants and facilities. The automobile industry, electrical machinery, cooking utensils, submarine cables and various nickel alloys have all helped to absorb this increased production. However, nickel requirements for armament production in the present war are on an ever-increasing scale with the result that the peace-time market which took years to develop has had to give place to the war-time demands of Allied countries.

Nickel is very important in war both because of its strictly military uses such as armour plate, gun forgings, gun recoil springs and bullet jackets, and for its use in industrial nickel steels for the production of war equipment.