World Production.—The world production of lead in 1929 was about 1,935,101[1] short tons. The principal producers were the United States with 35·5 p.c., Mexico 14·2 p.c., Australia 10 p.c., Canada 8·2 p.c., Spain 7·6 p.c. and Germany 5·6 p.c.

Subsection 5.—Nickel.

With the exception of the nickel in the ores shipped from the Cobalt district the Canadian production of nickel is derived entirely from the well-known nickel-copper deposits of the Sudbury district, Ontario. A brief description of the history and development of the nickel-copper mining industry would be found under copper in Subsection 3 of this section. From 830,477 lb. in 1889 the production of nickel increased continually to a war time peak of 92,500,000 lb. in 1918. After a slump to 19,293,000 lb. and 17,597,000 lb. in 1921 and 1922 respectively there was an increase to 73,857,114 lb. in 1925, followed by a drop to 65,714,294 lb. in 1926. In 1928 production at 96,755,578 lb. exceeded that of the war year 1918, while 1929 showed a further increase to 110,275,912 lb. Preliminary figures for production in 1930 are 103,768,857 lb.

In recent years the producing companies have instituted extensive researches to discover and encourage new peace-time uses for the metal. The success attending their efforts in that direction accounts very largely for the marked increase in production during the past few years. The automobile industry, electrical machinery, cooking utensils, new submarine cables and various nickel alloys are all helping to absorb this increased production.

Sudbury.—The nickel-bearing rocks of the Sudbury district, with a width of about two and one-half miles, form a wide ellipse 36 miles long and 13 miles broad. The ores consist mainly of a mixture of pyrrhotite and chalcopyrite associated with norite, a basic intrusive rock. The nickel occurs in the pyrrhotite as pentlandite and varies somewhat in amount. The ore mined in the district varies considerably in richness, the average metal content being about 2 to 4 p.c. of nickel, 1 to 3 p.c. of copper and 45 p.c. iron, although portions of the new Frood deposit are much richer than this especially in copper. Cobalt, gold, silver, platinum and palladium are nearly always present in very small quantities.

World Production.—The world production of nickel was about 63,800 short tons in 1929, of which output 87 p.c.[2] was Canadian in origin, while the remainder was derived from New Caledonia, India and Norway. The proved deposits of nickel ore in Canada are estimated to be sufficient to provide for the world's requirements for many years, while there are still large reserves undeveloped.

[1] From the Year Book of the American Bureau of Metal Statistics. [2] These figures, taken from the Imperial Institute's Statistical Summary, include some nickel produced in the U.S. as a by-product from the electrolytic refining of Canadian copper; such nickel is not included in Table 16.