

## NICKEL.

In 1883 the first discovery of a deposit of nickeliferous pyrrhotite was made while the Canadian Pacific Railway Company was making a cutting through a small hill near Sudbury, in the District of Algoma, Ontario, and since then, though the first discoveries were very much exaggerated, about twenty promising deposits have been discovered in the district, and there is no doubt that this ore is present in large quantities. Operations at present are principally carried on by four companies, viz.: The Canadian Copper Company, H. H. Vivian & Co., the Dominion Mineral Company and the Drury Nickel Company. The ore, which contains on the average about 2.25 per cent of nickel, is roasted and smelted into a copper-nickel matte, the usual composition of which, from average analysis, is about as follows: Copper, 26.91; nickel, 14.14; iron, 31.335; sulphur, 26.95, and cobalt, .935. The matte is also said to contain some ounces of platinum to the ton. The amount of fine nickel in the matte produced at and shipped from the Sudbury mines in 1891 was 4,626,627 pounds; in 1892 the quantity was 2,413,717 pounds; in 1893, 3,982,982 pounds; 1894, 4,907,430, and in 1895, 3,888,525 pounds. The world's annual consumption of nickel has been estimated at about 800 tons, and, previous to these discoveries, the supply came almost entirely from the French colony of New Caledonia.

727. The world's total production of metallic nickel from 1840 to 1860 was about 100 to 250 tons annually; from 1860 to 1870, 600 to 700 tons annually; 1870 to 1889, about 1,500 tons annually; in 1890, 2,000 tons, and a fair estimate for 1894 is about 5,000 tons.

728. The metal sold for \$2.25 per pound in 1860; in 1873 to 1875 for \$6 to \$7 a pound. From that time the price gradually declined, being 65 cents per pound in 1892 and less than 40 cents at the present time. The exceedingly high prices in 1873-1875 were caused by the adoption of a nickel coinage by Germany and some other countries, creating a demand exceeding the supply.\*

## PETROLEUM.

729. Petroleum has been found in Quebec, Nova Scotia and New Brunswick, and particularly in the North-west Territories, where it seems certain there is an immense unexplored oil region, but it is in the County of Lambton, Ontario, whence most of the oil has been and is obtained, Oil Springs and Petrolea being the largest oil-producing districts. The oil is obtained at a depth of from 370 to 500 feet. The first flowing well was struck on the 19th of February, 1862, and before October in the same year there were no less than 35 flowing wells. As there was no accommodation for the storage of this enormous flow there was a great waste, and it is calculated by one authority that between the dates mentioned no less than 5,000,000 barrels of oil floated off upon the water of a neighbouring creek. Means were taken after a time to stop this waste, and, though no exact

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\*Bell's *Mining Manual*.