giving an average of 6·44 per cent. of copper and 2·38 per cent. of nickel.

Besides its occurrence in large bodies as nickeliferous pyrrhotite, nickel is also found in the district of Sudbury as millerite (sulphide of nickel), of which the composition and formula have been given in Chap. I. These ores are more or less associated with other minerals, such as cobalt, silver, gold, and platinum, but are generally free from arsenic.

Platinum was found in 1888 at the Vermillion Mine, twenty-two miles west of Sudbury, by Mr. F. L. Sperry, who sent a small quantity of the metal-carrying material to Professor H. L. Wells, of Yale University, who upon examination proved the platinum to exist there as a new mineral, arsenide of platinum, and named it Sperrylite, after Mr. F. L. Sperry.

The composition of this rare and remarkable mineral has been given by Professor Horace L. Wells, and is represented by the formula $PtAs_2$.

The following table shows the results of chemical analysis of Sperrylite:

	I.	II.	Mean.	Ratio.
Arsenic ...	40·91	41·05	40·98 ÷ 75 = ·546	·550 = 2
Antimony ...	0·42	0·52	0·47 ÷ 122 = ·004	
Platinum ...	52·53	52·60	52·57 ÷ 197 = ·267	·274 = 1
Rhodium ...	0·75	0·68	0·72 ÷ 104 = ·007	
Palladium ...	trace	trace	trace	
Iron	0·08	0·07	0·07	
Stannic Oxide	4·69	4·54	4·62	
	99·38	99·53	99·46	