interstratified beds are however very thick in one locality, certainly more than 10 feet, for they have been cut into to that extent without finding their borders, their average, however, being about five feet. I shall give the details in my notes written in the mine, and therefore now pass to the designation of the nature of the ores. These are, first, yellow copper pyrites, containing 34 per cent. of copper: bell-metal ore, containing 24 per cent.: erubescite, or purple copper ore, containing from 60 to 70 per cent.: copper glance, or vitreous copper ore, containing 78½ per cent.

These ores are mixed with each other in variable proportions, and most of the erubescite is mechanically mixed with the copper glance, and the two ores may be distinguished by the eye, since the erubescite turns of a beautiful purple and blue very soon after exposure to the air, and when cut has a purple color, while the copper glance is of nearly a tin or bright lead bluish white, and preserves this color, and cuts with a tin-white surface. The two ores are much more distinct than they are in the Acton Mine, and the richer ore is more abundant at Harvey Hill. On chemical analysis of a specimen of the pure copper glance, I obtained the following results *per cent.*: —

Metallic copper	78.47
Sulphur	18.54
Iron	1.66
Silica	0.33
	99.00
To which add sulphur lost . . .	1.00
	100.00

I also made a chemical assay of a sample of the mixed erubescite and copper glance, with the following results: —

Metallic copper	71.20
Sulphur	20.00
Iron	8.30
Silica	0.50
	100.00