## THE MINERAL INDICATOR.

## TABLE II.

## [Lustre metallic. Hardness sufficient to scratch glass distinctly. Colour, tin-white or silver-white.]

## Cobaltine (CoFe 35, As 45, S 20); Smaltine (CoNi 28, As 72). Arsenical Pyrites or Mispickel (Fe 34, As 46, S 20).

These minerals fuse on charcoal with emission of copious arsenical fumes, easily recognized by their garlic-like odour. The resulting dark globule is magnetic. Ignited gently in a piece of open tubing, they yield a crystalline sublimate of  $As^2O^3$ .

Cobaltine and Smaltine, after roasting, colour borax BB deep-blue; but only the smallest particle must be used, otherwise the glass will be so intensely coloured as to appear black and opaque. Both occur commonly in small crystals of the Regular or Isopolar System : Cobaltine chiefly in combinations of cube and pentagonal dodecahedron; Smaltine chiefly in octahedrons. Both, also, occur massive, dendritic, &c. Cobaltine is bright silver-white in colour; Smaltine. grevish tin-white, and the latter (if quite pure) yields no sulphur-reaction BB with carb. soda. In both, the sp. gr. exceeds 6.2. Mispickel or Arsenical Pyrites is silver white in colour, but rapidly tarnishes dull-grey. It occurs massive, and in rhombic prisms, mostly terminated by two flat summit-planes, transversely striated. Sp. gr. 6 to 6.3. Some varieties are cobaltiferous, and most examples contain small but workable amounts of gold.

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