

This group includes only the softer and earthy varieties of *Hematite* and *Limonite*, distinguished respectively by their streak—red in one case, and brownish-yellow in the other. In a reducing flame, these varieties blacken, and become slightly vitrified on their edges, but practically they may be regarded as infusible. After ignition, they readily attract the magnet. *Red Iron Ore* is generally in granular, fibrous, or slaty masses. *Red Ochre* or *Reddle* is merely an earthy variety, sufficiently soft to mark and soil.

Brown Iron Ore occurs in lamellar, granular, and radio-fibrous botryoidal masses of a dark or light-brown colour and ochre-yellow streak. It frequently presents a smooth, glazed surface, and is often iridescent. *Bog Ore* is a sub-earthly variety, commonly containing a certain amount of FeO combined with humic or other organic acid. *Yellow Ochre* is simply the Brown Ore in an earthy condition, soft enough to mark and soil. These varieties give off water in the bulb-tube, and become red when ignited in the free air. Some contain a considerable amount of Mn^2O^3 , in which case the powder after ignition assumes a chocolate-red colour, and gives a greenish-blue turquoise-enamel by fusion with carb. soda mixed with a little borax.

SECOND GROUP: *Not magnetic after ignition. Streak, pale-brown, or yellow.*

Zinc Blende (ZnS ; or $[\text{Zn}, \text{Cd}, \text{Fe}] \text{S}$).

Zincite or *Red Zinc Ore* ($\text{ZnO}, \text{Mn}^2\text{O}^3$).

Greenockite (CdS).

Zinc Blende and *Zincite*, fused with a mixture of carb. soda and borax in a reducing flame on charcoal, give a sub-