THE MINERAL INDICATOR.

Bastite or Schillerspar (MgO, FeO, Al²O³, SiO², H²O). Chlorite (MgO, Al²O³, Fe²O³, SiO², H²O). Brucite (MgO, H²O).

n

b

h

r

S

g

C

n

Alunite, Aluminite, Wavellite, and Gibbsite, are more or less readily soluble (in fine powder) in a hot solution of caustic potash.

Alunite and Aluminite are sulphates, and, as such, they form by fusion on charcoal with carb. soda a so-called "hepar" or reddish slag, which imparts when moistened a dark stain to the surface of a silver coin. Alunite scratches calcite, and yields on ignition 13 p. c. water. Commonly in granular masses of a white or pale-reddish or yellowish colour, more rarely in small rhombohedral crystals. Aluminite yields to the finger-nail, and gives off on ignition about 47 p. c. water. Occurs commonly in white or greyish, porous, earthy masses which adhere to the tongue. Both give off SO² by strong ignition ; the evolved water thus reddens litmus paper.

Wavellite is readily recognized by its almost constant occurrence in green, greenish-white, or pale-yellowish, radiofibrous and botryoidal examples on clay-slate or sandstone. H 3.5 to 4; sp. gr. 2.3 to 2.5. BB, tinges the flame palegreen, and separates into fibres which become opaque-white but do not fuse. The solution in nitric acid (or in caustic potash acidified with nitric acid) yields a canary-yellow precipitate on warming with amm. molybdate. In the bulb-tube gives off 25 to 26 p. c. water. Various related species of closely similar character, but differing more or less in their water percentage, are named *Peganite*, *Fischerite*, &c.

104