

plates, and even into regular rhombic figures. It is often found filling cracks in limestone and other rocks.

11.—DOLOMITE, OR MAGNESIAN CARBONATE OF LIME,

Somewhat resembles carbonate of lime in appearance. They can, however, be distinguished by the fact that the latter effervesces rapidly in acids, whilst the magnesian carbonate effervesces very slowly.

The composition of pure dolomite is as follows:

Lime	30.3
Magnesia,	22.4
Carbonic acid,	47.3

12.—OXIDE OF IRON.

Iron does not occur in nature in the metallic state except in meteoric stones, but is always combined with other substances.

The protoxide of iron containing $22\frac{1}{4}$ per ct. of oxygen, and $77\frac{3}{4}$ of iron does not constitute a distinct mineral, but is always in chemical union with silica or other acid. Thus, in mica, chlorite, hornblende, epidote and other minerals, we find silica combined with alumina, lime, magnesia, alcalies and oxides of iron, and small proportions of manganese. The iron in most minerals and rocks is in the state of protoxide, but it has a strong affinity for a larger proportion of oxygen. The absorption of this from air and water, alters the character of the minerals and assists in disintegrating rocks.

The magnetic oxide of iron contains 72.42 of metal, and is an important ore of iron. It is found in large masses in veins and seams in rocks; and sometimes disseminated in the form of crystals and grains in hornblende and augitic rocks, in steatite and in chlorite.

The peroxide to which the name of sesquioxide of iron has been applied, contains 70 per cent. of metal and exists in large masses, beds, seams and in veins. It also occurs disseminated in some of the shales and slates. The enormous masses in which it occurs, in the island of Elba and in Missouri, have induced some writers to class it among the rocks.

The color of some varieties is red, but it has usually a brilliant metallic lustre and a dark grey color. Its powder is always a dark red, which distinguishes it from the magnetic oxide; whose powder is black.

Another form of oxide, the peroxide (chemically united