

use instead of glass in the doors of stoves. Fig. 46 represents a crystal of Muscovite. Chemically it is a double silicate of

Fig. 46.

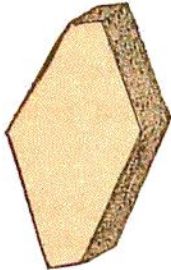
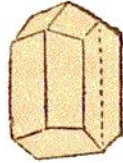
*Crystal of Muscovite.*

Fig. 47.

*Crystal of Hornblende.*

alumina and potassa, in which a part of the alumina is usually replaced by iron. *Phlogopite* is a double silicate of alumina magnesia and potassa; and *Biotite* is a double silicate of alumina, iron, magnesia and potassa. *Hornblende* is usually a tough, black or dark colored mineral, crystalizing as in Fig. 47, and being a double silicate of alumina or iron and lime.

There are many varieties of hornblende, the most common being the *Tremolite*, *Asbestos*, and *Actynolite*; the second of which is often of a soft texture, and can be woven like cotton.

*Pyroxene*, including *Augite*, *Sahlite* and *Diopside*, is a simple silicate of either lime, magnesia, protoxide of iron or manganese, or soda, and differing externally from the hornblendes, principally in the form of its crystal, (Fig. 48). *Hypersthene* is an important variety of pyroxene, occurring chiefly in the Laurentian Series.

*Calcite*, or the simple carbonate of lime, is very widely diffused as crystalline or sedimentary limestone. Its primary crystalline form is rhombohedral, Fig. 49, but it is often modified into the

Fig. 48.

*Crystal of Pyroxene.*

Fig. 49.

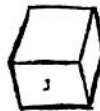
*Crystal of Calcite.*

Fig. 50.

*Crystal of Calcite.*

shape of Fig. 50. The species dolomite, a double carbonate of lime and magnesia, is also rhombohedral, but it more nearly approaches a square prism in its form. Carbonate of lime may always be known by its effervescence with acids.

*Talc* is a soft, green or whitish hydrous silicate of magnesia. It has a very greasy or soapy feel. An impure form called *steatite*, or soapstone, is well known from its power of retaining heat, and as a non-conductor. *Chlorite* is of a dull emerald-green color, and is a double hydrated silicate of alumina and magnesia.