CARBONATES OF LIME AND MAGNESIA.

Those minerals consisting of the carbonates of lime and magnesia constitute a class of the greatest industrial importance. They are used for a multitude of purposes and in large quantities.

Calcite.

Calcite, or *calc spar*, in composition, calcium carbonate (carbonate of lime) is represented by the chemical formula $CaCO_3$. It is a very common mineral in veins and is one of the most widespread rock-forming minerals.

Magnesite.

Magnesite is composed of magnesium carbonate, $MgCO_3$. It occurs generally as a decomposition product of magnesian rocks.

Dolomite.

Dolomite is calcium-magnesium carbonate, $CaMg(CO_3)_2$, being intermediate between calcite and magnesite. Its occurrence is similar to that of calcite, which it closely resembles.

Limestone.

Limestone is a sedimentary rock, consisting, when pure, of calcium carbonate. When rendered crystalline by metamorphism, it is called *crystalline limestone*, or if of fine texture, *marble*.

Part of the lime is nearly always replaced by magnesia. When the percentage of magnesia reaches 21·7, the rock is then analogous in composition to the mineral dolomite, and the name *dolomite* is applied to it. Rock containing intermediate proportions of magnesia is known as *magnesian*, or *dolomitic limestone*, or *calcareous dolomite*, depending on whether the percentage of magnesia is low or high. When the percentage of magnesia is above the theoretical composition of dolomite, it is termed *high magnesia dolomite*. When the replacement is complete or approaching completeness we have the rock *magnesite*.