

CHAPTER XXVIII.

ELECTRICAL PRODUCTS—CALCIUM CARBIDE.

Another important use to which electricity is put at Niagara Falls is the manufacture of a new product, called calcium carbide. Like carborundum and aluminum, this product could not have been produced in commercial quantities in advance of a means for producing electricity in enormous volume.

Calcium carbide is a compound of calcium and carbon. Calcium is a white metal not found in the natural state, but exists chiefly as a carbonate of lime, which is ordinary limestone, including the various forms of marble. As a pure metal it is hard to obtain and very hard to maintain, as it readily oxidizes when in contact with the air. The symbol for calcium carbide is CaC_2 , which means that a molecule of this carbide is compounded of one atom of calcium and two atoms of carbon. Ca stands for calcium and C for carbon. When the symbol has no figure following it, it means that one atom only enters into the compound; but if a figure follows, it means that as many atoms enter in as the figure represents.