

Electrical Products—Calcium Carbide. 231

oxygen or common air it becomes one of the most brilliant of illuminants. Acetylene, like most other gases, becomes explosive when mixed with air in certain proportions. Whether it is more dangerous to handle than ordinary illuminating gases the writer is not prepared to say, as he has not had the opportunity to make a thorough comparison between it and other gases from an experimental standpoint.

Experiment, after all, is the only sure road to absolute knowledge. Theories are beautiful in books and lectures, but they often fail in the laboratory.

Acetylene is now being introduced as an illuminating gas for domestic and other purposes. Several methods of handling it have been proposed. One is to condense it into strong metal cylinders and deliver it in that form; another is to erect generators at convenient places and generate the gas as it is used. A very ingenious contrivance has been invented for regulating the generation of the gas. A certain amount of the calcium carbide is placed in a gas-tight vessel containing water. As soon as the water comes in contact with the carbide the evolution of the gas begins. When the pressure on the inside of the vessel has reached a certain degree it is made, through mechanical contrivances, to lift the carbide out of the water and thus stop the evolution of the gas. When the pressure is