

occur at convenient intervals to assist in breaking out the stone. The quartz diorites have such jointing at many places. The basalts, however, are at many places too minutely jointed to yield large blocks. Moreover, basalt is generally very tough and difficult to work.

Last of all, the location of quarries is determined largely by accessibility either to the locality where the stone is to be used or to transportation facilities. The Quaternary limestone of Môle St.-Nicolas is well located for transportation by water. Similar stone probably could be obtained near the railway on the terraces of coralliferous limestone on Cap-St.-Marc. The quartz diorites of the north could be obtained near the railway between Grande-Rivière du Nord and Bahon, although they are not so handsome there as farther east. At present there is little demand for stone of this kind.

ROCK FOR CONCRETE.

Rock for concrete should be reasonably hard and should consist of material so graded in size that the smaller pieces will fill the open spaces between the larger ones. A rough surface probably increases the binding power, and for this reason crushed stone has been preferred by many engineers to rounded gravel, some even prescribing that gravel, if used at all, should be crushed. Experience in the Republic of Haiti has shown that this is generally unnecessary and that the natural gravel makes excellent concrete. The gravel is composed mainly of pebbles of hard limestone or of igneous rock, either of which are satisfactory. Crushed stone from these same rocks would of course be equally satisfactory. However, machinery for crushing has not been available up to this time, and breaking by hand is so expensive that gravel has been used almost entirely.

LIME.

A great deal of lime is made in the Republic for domestic use. Most of it is used for mortar or for whitewash. All the pure limestones are burned to make lime, and occasionally coral heads from the living reefs are used. Small quantities of lime are made by mixing wood and stone and burning in heaps in the open air. For larger quantities crude kilns are made, preferably on chalky hillsides. A pit is dug like a well, and an entrance is made at the base by a tunnel if necessary. The fuel is placed below and the rock above. By neither method can the rock be burned completely and evenly, and the product is inferior to that of carefully operated commercial plants.

Much of the limestone of the Republic is remarkably pure, as is shown by the two analyses in the following table. Rock of this kind makes a quick setting high-calcium lime.