

hand, and easy of access. "Joe" was delegated by the manager to show us everything, and Joe started from the very first. Having donned dusters, we followed the leader to the east end of the mill, where the blue clay is brought to the driers, by means of scoops. These scoops move along cables and are propelled by a 75 h. p. motor. In passing, I may say, that the rock is conveyed to the mill in the same manner, from the west end. The clay is carried into two immense two-hundred foot driers by means of a belt—it enters soft and moist—and drops into a screw conveyer in the form of balls, almost as hard as marbles. The screw conveyer leads to a sixty-foot drier where the clay again is subject to great heat—so great in fact is the heat that the small balls explode with the same sound as that of popping corn. It is now ready to be ground in the ball-mills. These mills are immense revolving cylinders containing steel balls of varying weight—for they are continually wearing away—and in order to pass out of the mills, the clay must pass through screens so fine that the openings are invisible to the naked eye. The noise is deafening—and the air "saturated" with dust—but Joe moved on before we experienced any ill effects.

We will now leave the clay, and consider the rock, for a moment. It goes through almost the same process as its fellow. After the crusher has finished its work, the rock is dried, and ground to fine powder. Eight tube mills requiring the work of a 100 h. p. motor do the grinding. The powdered clay and rock are now thoroughly mixed and the chemist makes his first test. If lime is lacking, sufficient gypsum is added to make up the required percentage.

To an "outsider" the cement is ready for bagging. Such was our thought and we commenced to express our thanks to "Joe," but he immediately informed us that the process was just commencing. The mixture of rock and clay is transferred into blast furnaces. It must be burned, otherwise cement would not set. These furnaces burn pulverized coal and the temperature is so high, 2,800° F. that no ash is left. We were given a pair of spectacles with which to gaze into the furnaces—the specs were similar to Sully's gold-rimmed ones—with the exception that the lenses were blue—and for the first time a faint idea of Hades was formed in our minds. Assuredly it would not be a very comfortable place in which to reside.

The clinkers must undergo the same treatment that the rock and clay were submitted to. When they have again been reduced to powder, the chemist makes another test—in fact fourteen tests