The three newest plants in the county, the Sandts Eddy plant of the Lehigh Portland Cement Co., the Keystone and National plants, use the wet process of cement manufacture. This eliminates the drying of the stone but calls for the erection of slurry tanks where the pulverized product is stored. The slurry is agitated by compressed air to prevent the deposition of the rock particles at the base of the tanks. It is pumped from the pulverizers to the tanks and in turn to the kilns.

**DIFFERENT KINDS OF PORTLAND CEMENT**

At one time the term portland cement had a different significance than now. There was only one kind and only one set of specifications to meet, but within the past few years there have been many changes, and practically every company operating in the district is making several different kinds, each of which is adapted for some particular use or uses. These require different composition in the raw mix; grinding to a definite size, which is generally finer than formerly; and particular kind of burning. These demands have already affected adversely some of the companies of the district that have difficulty in obtaining the necessary ingredients from their properties. This is especially the case when the requirement is for higher lime content in the mix.

So rapidly have these changes come about that it is difficult for one to keep informed concerning them. One cement chemist made the remark a few days ago that his company was now experimenting with fourteen different kinds of raw mixtures. It is beyond the scope of this volume to describe these new types of portland cement. Some require white clay, others bauxite, iron ore, quartz sand and other minerals. Practically all of these call for importations from other regions.

**CEMENT ROCK**

The description of the Jacksonburg limestone by Ralph L. Miller in a previous chapter contains most of the material necessary for an understanding of the economic phases of the cement rock.

**DESCRIPTION OF INDIVIDUAL PLANTS**

**Lawrence Portland Cement Company.**—The plant of the Lawrence Portland Cement Co. is located along the Lehigh River just north of Northampton, apparently at the place where the first natural cement in the county was manufactured in 1830. The company, which began operations in New York State, was reorganized in 1898 and built its plant at its present site. It has been in continuous operation since 1899.

For many years the stone was obtained from a long, narrow and