to ledge rock were placed under the foundation at all columns.

A filtered water supply is provided by two direct connected motor-driven pumps, each having a capacity of 2,500 gallons per minute, and eight pressure filters. The latter are located in a building adjoining the power house.

A complete hydrant system is installed with two underwriters' duplex fire pumps each having a capacity of 1,000 gallons, the storage consisting of a 150,000-gallon steel tank.

All buildings are provided with a sprinkler system.

Construction Plant

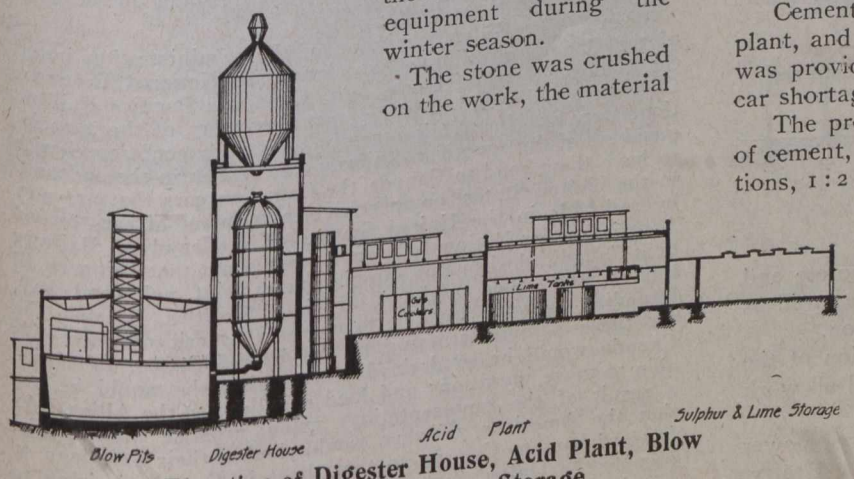
The layout of the construction plant is shown on page 487. The concrete mixing and handling section was laid out with the idea of distributing the concrete from a central mixing plant to the various parts of the work with the least possible handling. Two No. 2½ Smith mixers were installed under the charging floor, the charging hoppers being connected by chutes to the sand and stone bins above. The cement shed was at the same level as the charging floor.

Twin hoisting towers, 125 feet in height, were erected with two main concrete chutes radiating from them, one to the mill and the other to the power house and dam. These were supported on light timber trestle construction and had a fall of 1 in 4.

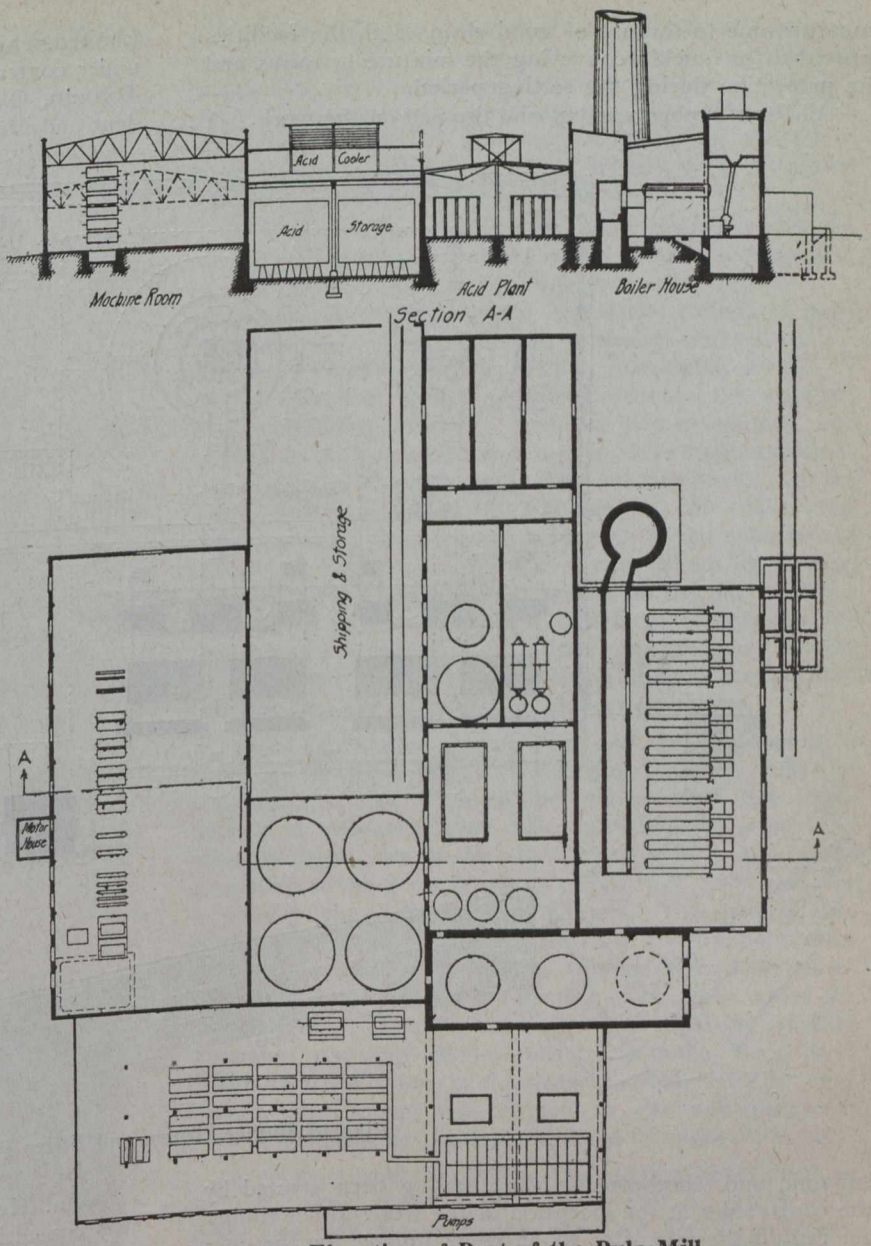
This arrangement, with the addition of branch chutes and sub-hoisting towers, facilitated the placing of concrete shortly after mixing. Outside the radius of the chutes the mixture was handled in buggies, the distance wheeled in all cases having been reduced to a minimum.

As no suitable gravel was to be had in the vicinity, sand and crushed stone were used for aggregates. The sand was delivered at the site in cars and unloaded into a storage bin. This was fitted with steam pipes to keep the material hot during the cold weather. From there it was transferred to the bins above the mixing plant only as required, thus doing away with the necessity of providing these bins with a heating equipment during the winter season.

The stone was crushed on the work, the material being taken from the power house and tailrace excavation spoil bank.



Elevation of Digester House, Acid Plant, Blow Pits and Sulphur Storage



Plan and Elevation of Part of the Pulp Mill

Two Climax jaw crushers were installed over bins adjoining the rock supply. The stone was conveyed to the mixing plant in cars hauled by cable operated by a hoist at that point.

Cement was delivered on cars very close to the mixing plant, and in addition to the shed adjoining it, a building was provided for storage of a reserve supply in case of car shortage, etc.

The proportions used in the concrete mixture were 1 of cement, 3 of sand and 6 of crushed stone for all foundations, 1 : 2 : 4 respectively being used in the superstructure of all buildings, also headworks of power house and piers of the dam.

As the bulk of the concrete was placed during very severe winter weather, the sand and water used in it were heated to a temperature which would insure the mixture reaching the forms in good condition. The concrete in the completed structures shows no indication of having been affected by frost, the results obtained being in a great