

fications were prepared. Capable contractors were secured, and under the supervision and close inspection of the designing engineers the work progressed rapidly to a successful conclusion. The finished product is a complete success, and speaks for itself.

**Thing of Beauty**

The new plant is a thing of beauty as well as a most efficient machine. Careful thought was given to the outward appearance of the building. Not only must it look well from the elevation of the beach but it must present a pleasing appearance when looked down upon from Central park. Landscaping, which is to be done this coming summer, will add greatly to the result. It is to be made one of the show spots of our beautiful community.

The technical details of the plant have been much admired by visiting experts. It has been declared superior to any previous project of its type for a community of this size. Not only were present needs thoroughly studied, but the possible necessity of enlargement at some future date was given careful consideration. The grouping of the units is such that future extensions can be made without interruption of service and at a minimum of cost. The importance of this feature can not be overestimated. The enlargement of many older plants has proven a serious problem. In some instances where communities have outgrown the capacities of otherwise satisfactory works it has been found cheaper to tear them down and rebuild rather than to attempt to enlarge. Highland Park will never be faced with such a dilemma. It has been estimated that the capacity of our plant could be doubled in one construction season, and this, of course, with no interruption of service.

**Description in Detail**

Describing the various elements of the plant in the sequence of their operation we have as follows: Two intake lines extending some three thousand feet into the lake bring the raw water to an intake well located at the plant. From this well, which holds some fifty-thousand gallons, electrically driven pumps force the water into huge concrete tanks called mixing basins. In these mixing basins the water is "coagulated" by the mixture of very small quantities of a chemical called sulphate of aluminum. The quantity usually employed is less than a teaspoonful to a hundred gallons of water. In these basins the finely divided particles of mud in the water are gathered together into little flakes that are big enough to see. To do this it is necessary to gently stir the water which is done by motor driven paddles. The water takes about an hour to pass through this process, and then it flows out into larger concrete tanks called settling basins.

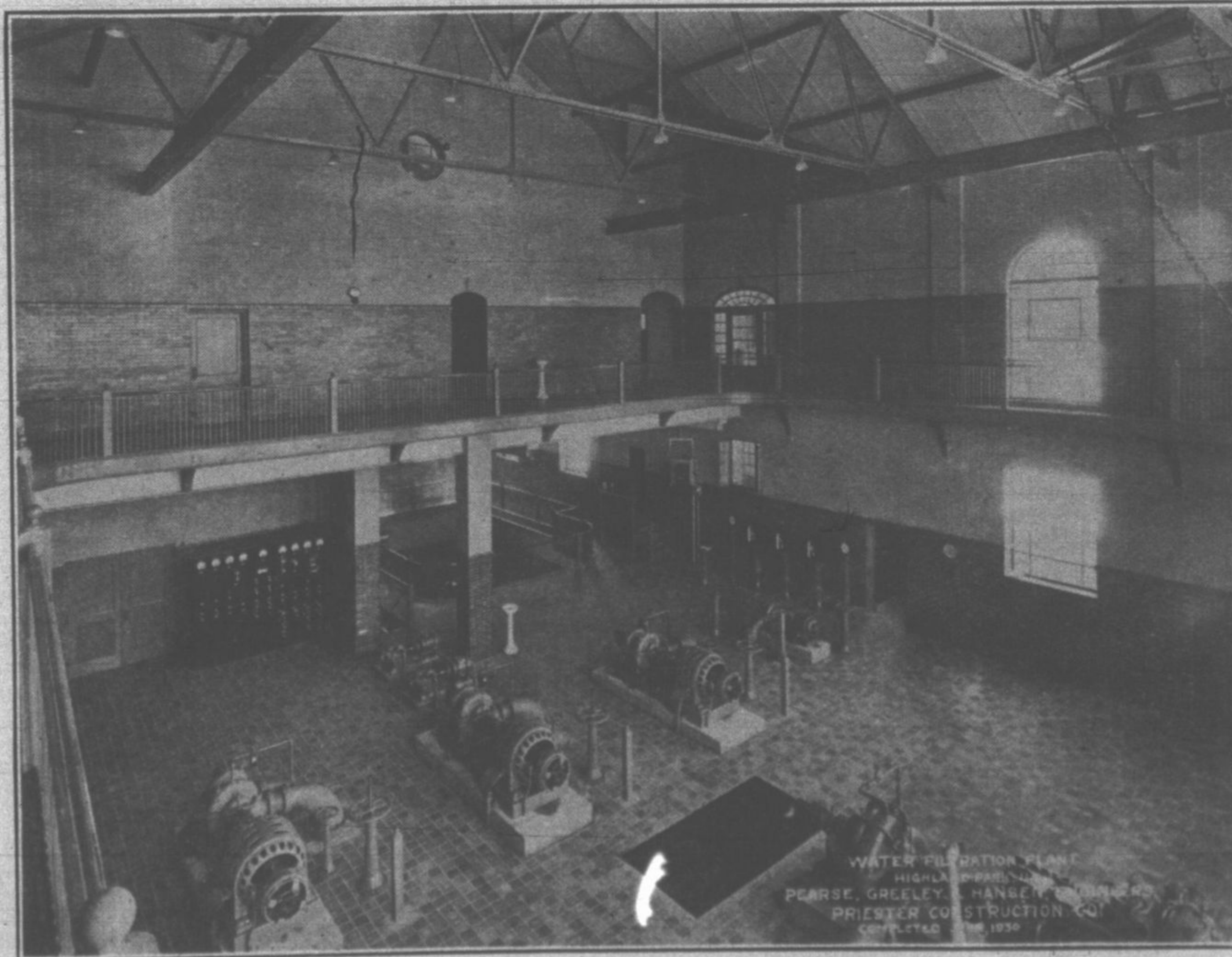
The settling basins which are connected to the building, but outside thereof, hold nearly a million gallons. The water passes very slowly through these units, and while it is doing so, most of the little flakes which were formed in the mixing basin settle to the floor. At the outlet of the settling basins we find the water much clearer, but still not ready to pump to town.

The next process is filtration. The settled water is passed into filtering

(Continued on page 24)



*The Operating Floor of the Filter Room showing the Control Tables. The Mixing Basins are on the right.*



*The High Lift Pump Room showing the machinery which pumps the finished water into the mains.*

WATER FILTRATION PLANT  
HIGHLAND PARK, ILL.  
PEARSE, GREELEY & HANSEN, ENGINEERS  
PRIESTER CONSTRUCTION CO.  
COMPLETED JUNE, 1930

WATER FILTRATION PLANT  
HIGHLAND PARK, ILL.  
PEARSE, GREELEY & HANSEN, ENGINEERS  
PRIESTER CONSTRUCTION CO.  
COMPLETED JUNE, 1930