

line poles being 30 ft. and the lamp-posts 35 ft. in length.

On the upper circuit 6 wires of No. 6 B. & S. soft round copper are used, and on the lower 3 No. 4 wires and 3 No. 2. The line is protected by 91 Wurts lightning arresters, placed wherever junctions are made with underground cables

trance piers are lighted along both sides. Navigation is thus as easy by night as by day.

MOTORS.—At every lock four gate and four valve motors are provided, and one at each highway bridge. There is also a 15-HP. motor for the canal repair shops. The high-tension wires enter a switch cabin at each lock, where two transform-



FIG. 20. VIEW OF SOUTH FRONT OF POWER HOUSE.

at locks or bridges. Six miles of armored cable are employed.

There are 220 long-burning, alternating-enclosed arc lamps of 2,000 c. p. each. Every light is equipped with a transformer of 1,000 Watts capacity. Besides the lights, placed at 480 ft. intervals along the canal bank, all the locks and en-

ers of 7,500 Watts capacity each reduce the pressure from 2,500 to 220 volts. This current is led direct to the gate and valve motors by underground cables controlled by the operating switch-board in each cabin. To facilitate the operation of the canal a bridging Bell telephone system connects all the locks, bridges and offices.