

speed Johnson type. The belts going from the pulleys on each machine and the steam engine are connected to the line shaft on the ceiling. As will be seen, the dynamos are directly connected to the shafts of the water-wheels by means of flexible couplers.

Under ordinary conditions it is necessary to run only

steady. As the load is very near a constant one, the amount of regulation necessary is practically nil. Great pains were taken to make as nearly perfect an installation as was possible, and only the best of apparatus was used throughout, including Weston instruments and T. H. watt-meter.

The circuits are so arranged that should a main fuse blew on any one of them, the fuse terminals may be bridged immediately till the fuse is replaced, unless it is that the mains themselves become short-circuited, which event is highly improbable on account of the substantial character of the outside construction.

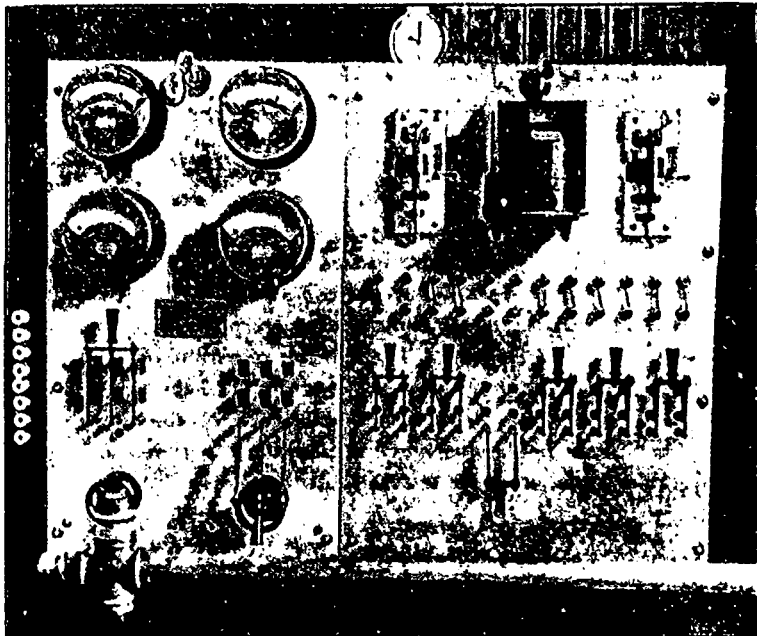
The wiring throughout all the buildings is cleat and knob work, with the exception of the main portion of the women's building, which is done in moulding. The whole wiring system is most elaborately laid out as regards the distribution of switches. Each ward is so arranged that one or more lights may be turned on from either end. The completeness of this switch system may be imagined when it is stated that the total number is equal to one switch to every two lamps installed. Leaving out the workshops, stables and laundries, the proportion of switches is equal to every one and one-third lamps.

The arrangement of the electric irons in the ironing room of the laundry is shown in the third illustration. In the laundry department there is an equipment of sixteen eight-pound domestic irons of the American Heating Corporation's make, and it is claimed that about twice as much work is ac-

one machine, but very often it happens that both of them are required. For this purpose, the machines were arranged with equalizer connections brought back onto the middle poles of three-pole main switches, which may be seen on the machine panel of the switchboard, just above the rheostat wheels. The second illustration is of the marble switchboard.

At all times when the two dynamos are running together, they are belted to the line shaft, which serves as a very simple and reliable regulator as regards the equalizing effect between the two machines. This is the case whether one machine is being run by water and the other by steam, or whether both are being run by water. In the latter case, of course, the engine belt is free. The engine is always ready to run, summer and winter, as the boilers are used to generate the steam for cooking, heating and laundry work.

One water-wheel is provided with a governor, which was also designed and built by the engineer; but this governor is used only during the day when the water pressure is unsteady, on account of the varying loads on other wheels on the premises. At night, when other wheels are not in use, the water pressure is absolutely constant, and once the gate is adjusted for the normal load, it is very little trouble for the attendant to keep the voltage



ELECTRIC PLANT AT BEAUPORT INSANE ASYLUM.—SWITCHBOARD.



ELECTRIC PLANT AT BEAUPORT INSANE ASYLUM—IRONING ROOM IN LAUNDRY.

complished daily since the adoption of this system.

The chapel after illumination is an exceedingly pretty and artistic feature of this installation. For this purpose 13 volt miniature series lamps are used in many colors, and the rich effect they give when lighted is one not easily forgotten.

In the spring this plant is to be made even more com-