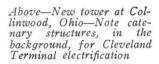
## N.Y.C. Makes Rapid Cut-Over on

## Large Plant at Cleveland

Telephones aid in systematic checking of operation



Right—Close-up of G-R-S control machine — Note acoustic insulation on the ceiling of the operating

N JANUARY 10, the New York Central placed a 166-lever G-R-S electric interlocking machine into service at Collinwood, Ohio, without an operating hitch and with extreme dispatch. The new interlocking plant is located just a stone's throw east of the old electric interlocking tower which it replaces. The old tower had to be removed in order to make way for an additional track as a part of the Cleveland Terminal electrification. The first task on the morning of January 10 was to disconnect the operating wires at each switch machine on the ground and make connections to the wires running to the new interlocking tower. The cut-over from the d-c. to a-c. track circuits was made in advance of this date. The signal gangs started to work at the east end of the plant and maintained constant telephonic communication with the tower by means of a portable Western Electric telephone.

## Telephone Aids in Checking

The signal foreman on the ground in charge of the switch machine cut-over was at the telephone and was able to check the correspondence of the switch machine position with that of the control lever in the interlocking machine. That is, the switch control lever was first operated from normal to reverse and

when the switch machine operated to correspond therewith, the signal foreman notified the general signal inspector, who functioned as leverman during the process of cutting in the plant. The general signal inspector called the switch lever number to the signal inspector located in the relay room of the tower on the floor below and requested him to check the position of the "WP" relay, in order to see that the armature of this switch repeating relay operated from normal to reverse position in correspondence with the switch point movement on the ground. In this way a triple check was obtained of the position of the control lever in the machine, the switch point on the ground and the switch repeating relay or "WP" relay, as it is termed.

The switch control lever was then operated from reverse to normal in order to check the correspondence during the reverse operation. As before, the signal foreman communicated with the general signal inspector as to the operation of the switch, and he in turn called to the signal inspector downstairs to check the position of the "WP" relay.

The operating fuses were installed at the back of the machine, one at a time, at the direction of the general signal inspector. A third signal inspector was stationed underneath the interlocking machine in the