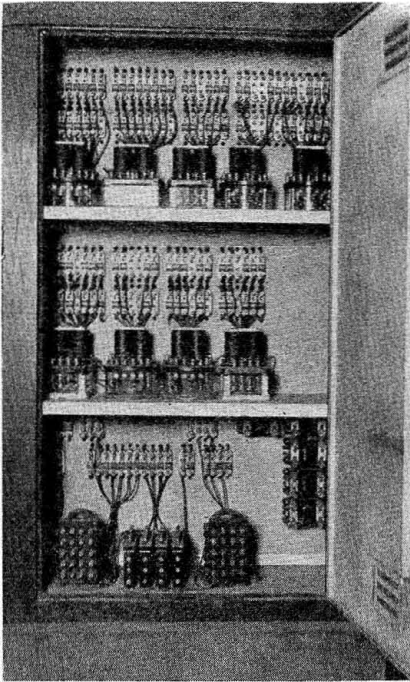
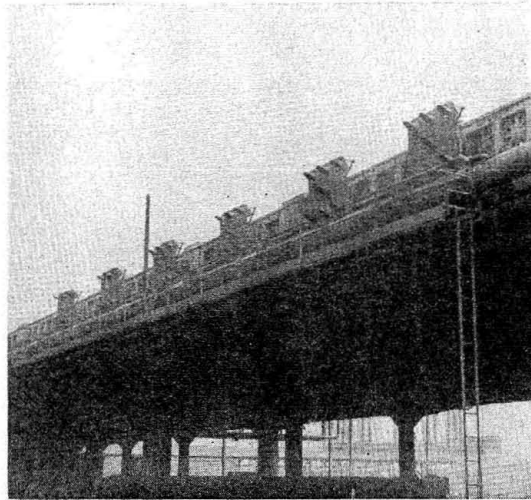


Reconstruction of an Interlocking*



New large-sized sheet-metal cases were used for relays



Track changes on account of building post office over tracks of Chicago Union Station result in extensive reconstruction of interlocking facilities

Left—As a part of the changes a large pipe line for steam supply was mounted on one of the viaducts, the result being that the signals had to be mounted on a new bracket arrangement including a walkway

THE new Chicago post office is being constructed over the station tracks of the Chicago Union Station Company in the block extending from Van Buren street south to Harrison street and from Canal street east to the river. There are 13 stub-end tracks starting at the station and one through track to the north end of the station. These tracks converge through various switches to a four-track throat just south of Harrison street, so that a large percentage of these double-slips, single switches and crossovers are in the southern one-third of the area to be covered by the post office. Therefore, it was within this area that many complications arose as to changing the track layout so as to permit the proper location of the columns supporting the new building. In brief, two No. 8 double-slip switches were eliminated and one new No. 9 installed. Five turnouts were added and changes were made in various other turnouts, seven signals being added. Turnout switches off the ladder were so located as to provide fouling clearance on the ladder. This arrangement permitted the utilization of the maximum length of trackage in the station. For example, a train can be pulled into station track No. 10 so as to clear signal RB 14 to the fouling point of the turnout, and then another train can be placed on track No. 8 with the rear end hanging out of the fouling point of the ladder at signal R16. Seven additional signals were required on account of these changes.

As a part of the change, a separate lever is used for each switch in the three crossovers in this area, whereas in the remainder of the plant one lever handles both ends of a crossover. This method of using two separate levers facilitates train movements because the towerman can throw the one switch as soon as the passing train

clears the detector circuit for that switch, thus permitting him to line up some other route at once without waiting until the second switch in the crossover is cleared.

Schedule of Changes

As the track changes were being made, the switch machines were moved to the new location and connected up. However, on account of the nature of the track changes, it was not practicable to control these switches from the interlocking until all changes were completed. Electro-pneumatic operation was continued but each switch was controlled locally by means of an enclosed switch of the two-pole, double-throw type, operated by an external handle. The mechanism of the switch is so arranged that the blades cannot stop in a mid-position but snap from one position to the other quickly under spring action. Each enclosed switch was located on the ties near the switch in such a position that it would be impossible to operate it when a train was passing. Therefore, it was out of the question for a switchman to make a mistake by throwing a switch under a train.

In addition, a color-light switch-target signal, such as used in retarder yards, was provided at each switch to show green when the switch was in the normal position and yellow when reversed. These lights were controlled through the regular indication circuit controller. Therefore, the lamp would not be lighted unless the switch was over and locked in the corresponding position. These lights showed in both directions and were for the benefit of the ground switchmen and the assistant train director in charge of the operation of this special section under construction.

In order to protect this area against inbound train movements from the south, a signal was located temporarily at the right of each track leading into the sec-

*The installation of the Union Switch & Signal Company's electro-pneumatic interlocking at the Chicago Union Station was described in an article in *Railway Signaling* for March, 1925.

