Rock Island Completes 33-Lever Electric Interlocker

Plant in Chicago terminal relieves five switchtenders—Storage battery used for track circuits—Special circuits for dwarf signals

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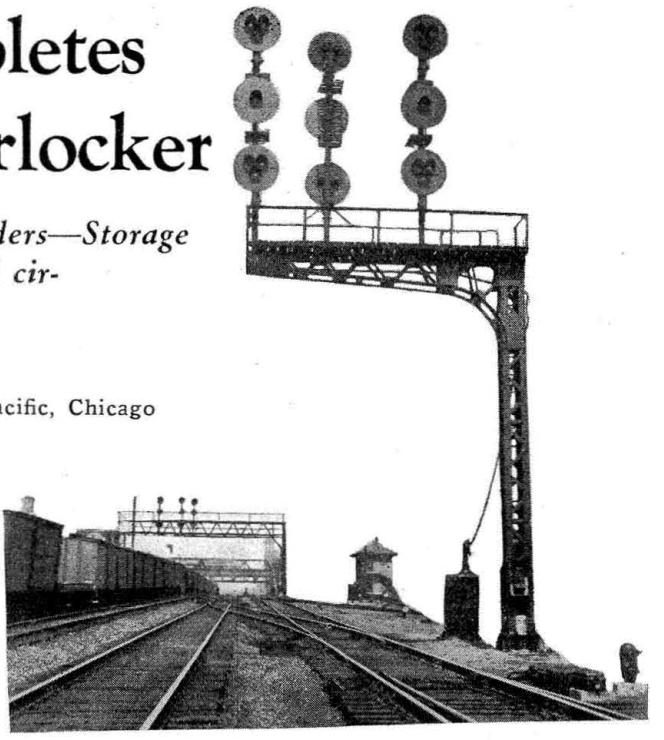


Root street plant from south
Northbound home signals

TO facilitate the handling of traffic in the busy Rock Island-New York Central joint terminal zone in Chicago (LaSalle street station to 63rd street), the Chicago, Rock Island & Pacific has installed a 33-lever Union Type-F electric interlocker at Root street (41st street). The construction of this interlocking is a part of the program already authorized for additional signaling on the joint terminal zone. In this jointly used zone, tracks three and four are signaled for one way operation and tracks two and five, normally freight mains, are signaled for either-direction operation, providing additional main tracks on which parallel inbound moves may be made during the morning rush suburban period; outbound during the evening period or at any other time that passenger traffic congestion warrants their use.

This multiple-track operation increased the importance of each hand-operated switch or crossover in this highly congested zone, and in the interest of proper control of operation, it became necessary to place all movements to or from the mains under the control of the levermen at the several interlocking plants in this terminal zone.

Because of this method of operation, several infrequently used crossovers were removed and the two main line crossovers, located near the entrance to the Rock Island coach yards, were relocated to a point where they could be operated by the 45th street interlocking. Remote-controlled electric locks were installed at the remaining switches, operated from the nearest interlocking plant.

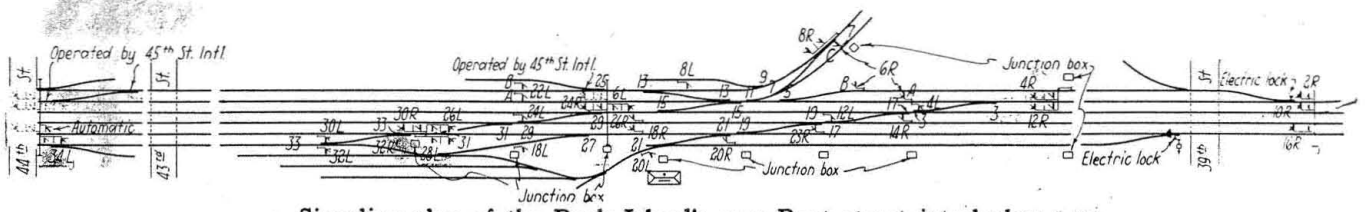
The Root street interlocking operates 10 crossovers and 5 switches formerly handled by two sets of switch tenders. Besides the through moves, traffic at this point comprises the movement of New York Central coach and equipment trains in and out of the coach yards, and all movements of stock trains to and from the double track connection with the Chicago Junction line to the Chicago stockyards. The installation of this interlocking released five switch tenders and provided safer and quicker operation for the heavy movement of trains across the four main tracks.

The interlocking tower is 15 ft. by 34 ft. in size and two stories high, with an English basement, making it the equivalent of a three-story building. The building is constructed of brick, with a tile roof, concrete being used for the floors of the first story, basement and basement walls. An exterior stairway, located at one end of the tower, is built entirely of steel, the treads and platforms being constructed of safety treads. The interlocking machine, power board, telephones and loud speaker phones are located in the upper story, while the relay cabinets, storage battery, rectifiers and maintainers' office are on the first floor. The English basement provides a large space for storage of stock material, maintainers' work shop, and the hot water heating plant.

Type of Machine and Control

A Union Switch & Signal Company interlocking machine Type-F was installed, having 33 working levers and two spare spaces for the operation of the 10 crossovers, 5 single switches and 43 signals. Each switch lever is equipped with two separate indication magnets, that is, normal and reverse, one electric detector lock magnet and a lever light operating in multiple with the detector lock through a latch contact.

Signal levers are also equipped with lever lights in multiple with the indication time locking circuit, controlled by latch contacts. Circuits are arranged in such a way that when the signal lever is reversed the lamp will light up and immediately go out again if the signal operates to the clear position. In case



Signaling plan of the Rock Island's new Root street interlocker