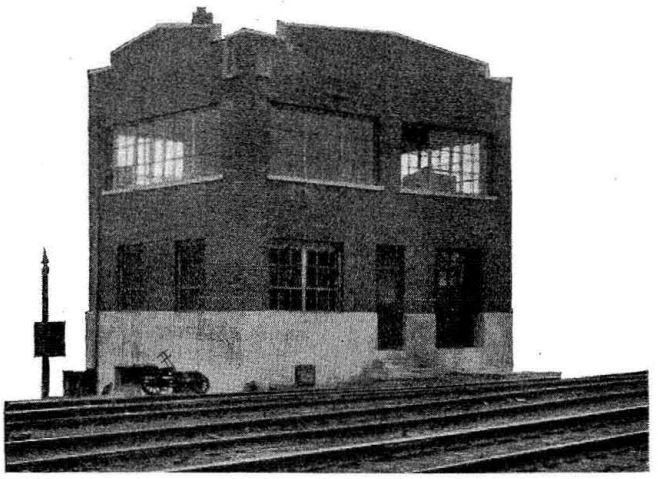
Simplified Electric

Plant at Detroit employs push-button control for color-light signals and desk levers for switches—Decided economy in first cost



Steel window sash provide ample daylighting in tower

AN innovation in the electric control of interlocked color-light signals and power switches is found in the new Belt Line Junction electric plant recently completed by the Michigan Central at Detroit, Mich. The mechanical interlocking formerly in service at this junction was removed and replaced by the present electric plant in the course of a grade separation project in this vicinity. The most noteworthy feature of the new plant is the combination push-button signal control machine and track diagram. The color-light signals are controlled by means of push-buttons on this diagram, located according to the respective locations of the signals in the plant. Adjoining this control panel is a five-lever G-R-S table-lever interlocker for controlling six power-operated switch machines, and for the selection of traffic as between the Michigan Central and the Grand Trunk Western. Another feature of the plant is the absence of derails. The wire distribution outside of the tower is by means of parkway cable, while inside of the tower all wires are distributed in Square Duct conduit.

The six G-R-S Model-5A 110-volt power switch machines are controlled by the desk lever units in the tower. The high signals, of which there are three, are the G-R-S triangular type of color-light signal employing 18-watt, 10-volt lamps. The dwarf signals are the G-R-S Type-S, two-indication (red and yellow) in all cases except for the two Grand Trunk Western main line tracks, in which case the signal aspects displayed are red and green.

The plant handles all Michigan Central freight trains for the Belt Line, which serves most of the industries at Detroit, and also the Michigan Central's passenger and freight traffic between Detroit and Bay City. The Grand Trunk Western has six tracks in this plant, all of which are crossed by the double-track Belt Line connection.

Control Panel and Levers on Same Table

A three-story brick and concrete building has been provided for the control facilities as well as for a branch yard office and switchman's headquarters. A feature of the building is the use of steel window sash on all four sides. The building is heated by an Arco steam plant. The top floor is used jointly by the yardmaster and towerman. The signal control panel, the five table lever controllers and the relay racks for all of the control relays in the tower, are located in this room.

The push-button control machine for the signals resembles an illuminated track diagram such as commonly used at interlocking plants. The blue print of the track layout is glued to a ¼-in. Transite panel and covered with white shellac. The frame of the cabinet is of 1-in. angle-iron; the top, sides and back being $\frac{1}{16}$-in. sheet steel. In addition to the usual indicating lamps, a num-

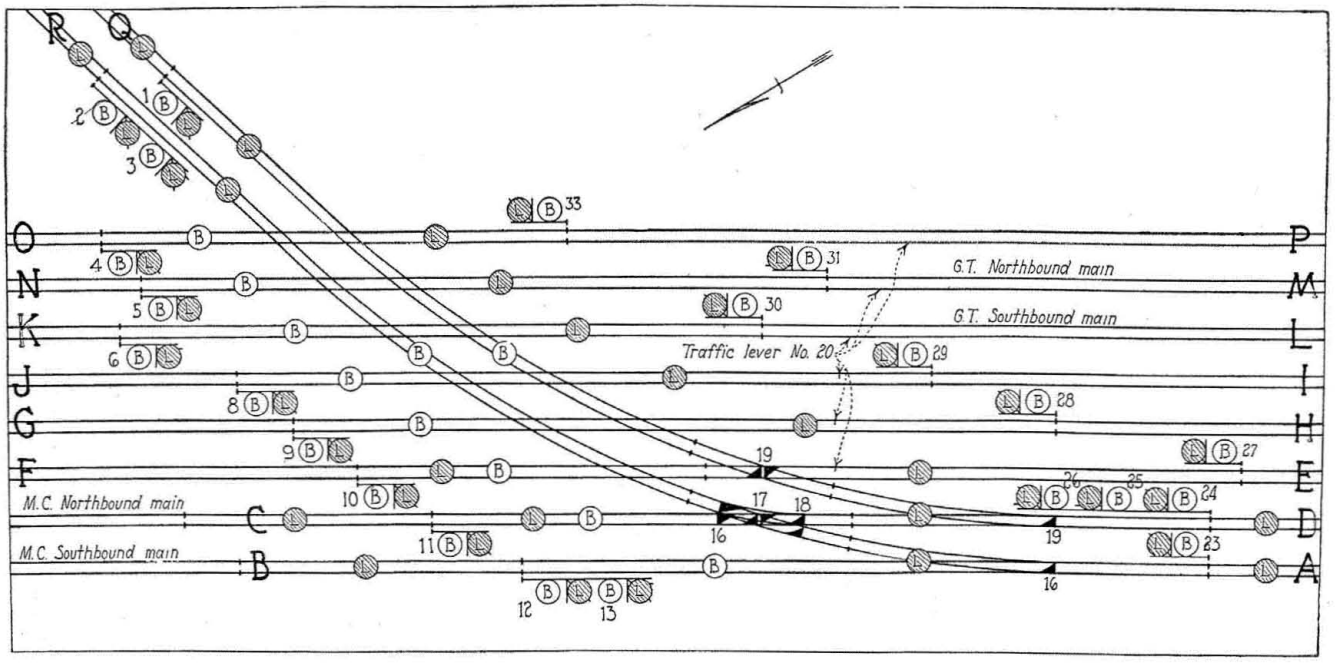


Diagram 1—Track and signaling plan of Belt Line Junction interlocker