high-level paging wires on one end of an arm, and the low-level talking wires on the other end of the arm, thus providing maximum separation. Leads from open wires to speakers are brought down in shielded microphone cable. The speakers are University MM2F rated at 8 watts.

Thus, Spokane yard is one of the points on the UP where the size of the yard and the number of people employed did not justify an elaborate control-tower type communications and paging system, and therefore the "round robin" system, as explained above, is well adapted. A similar round robin system, installed at a UP yard in Marysville, Kan., is likewise proving to be a success. Design and installation of these systems was by company forces under the supervision of G. R. Van Eaton, superintendent of telegraph.

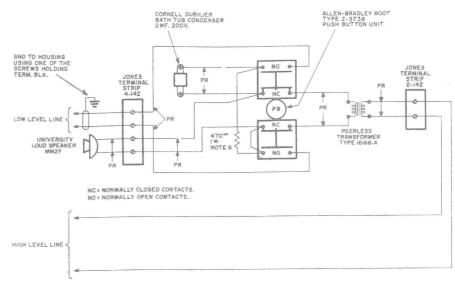
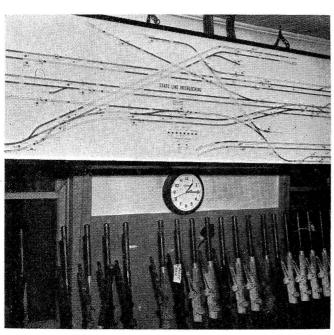


DIAGRAM SHOWING CIRCUITRY at paging-talk-back speaker location

Plastic Track Model Is...

Big Picture for Leverman

Illuminated board 12 ft. long and 3 ft. high installed at 224-lever mechanical interlocking on the C&WI



TRACK MODEL on hooks can be swung out for maintenance

AT STATE LINE INTERLOCKING (Illinois-Indiana), the Chicago & Western Indiana's mechanical interlocking plant includes 11 single switches, 7 crossovers, 3 movable-point frogs, 26 derails and 37 controlled signals, at crossings with nine other railroads. An average of 281 train and engine movements through this interlocking each 24 hours require prompt changes in lineups. To provide the operator with a clear picture of the track layout and the interlocked functions in their nor-

mal position, the C&WI installed a new illuminated board with each interlocking track circuit and each approach circuit designated by various colors. An amber track light for each track circuit, is illuminated when that circuit is occupied. At the location of each controlled signal on the model, a green light is illuminated when the signal is cleared. A red light, located at each interlocked switch, derail and movable-point frog, is illuminated when their function fails to energize the switch-repeating relays. Blue lamps become illuminated if trap circuits at crossings fail to restore after the passage of a train. White indication lamps show the positions of crossing levers.

The track diagram, which consists of the print of the track layout and interlocked functions in the normal position, is sealed between a fiber backing panel and a sheet of transparent plastic. The sealing, which involves the use of the plastic sheeting, together with a liquid adhesive plastic, is performed by means of a heat and pressure process. This results in a complete and permanent seal between the plastic face, the print and the backing panel. The plastic face protects the entire diagram from dirt or blemishes, and its smooth surface can be easily cleaned by wiping with a damp cloth.

Another feature of the panel is that it is made up in six 2-ft. sections so that if any track or interlocking changes are made, only the section involved would be replaced. Each section has its own terminal board. The panel is mounted on the front of a cabinet which contains the indicator lamps, terminals and wiring used with the chart.

H. W. Dunn, signal and electrical engineer, Chicago & Western Indiana, conceived the idea of the plastic sealed construction of the track model, which was built and furnished by the Griswold Signal Company.