



The control panel at Leeds West tower

Relay Interlocking at Leeds*

THE power signaling recently completed at Leeds New station on the London & North Eastern is an indication of a trend which has been growing of recent years in England, the important first step towards which was taken in 1929, when the Southern installed at North Kent East Junction the first locking frame in Great Britain to have no mechanical locking. A stage further was reached in the centralized traffic control installed in 1932 on the Stanmore branch of the London Passenger Transport Board by the operation of switches and signals from a control panel instead of a locking frame, and this was followed in 1933 by a much larger panel, with relay interlocking, in the northeastern area of the L. & N. E. at Thirsk. At Leeds the principle of relay interlocking was applied to a large city station, where the traffic necessitates a considerable amount of switching.

The first part of the resignaling of Leeds New station was recently placed in service. The existing inter-

locking frame of 75 levers in the east signal tower was disconnected, and all the existing switches connected to a new 25-lever mechanical frame. For the control of the signals, a combined control panel and illuminated diagram, with small thumb switches, has been installed over the locking frame. Interlocking between switches and signals is accomplished electrically, and no mechanical interlocking of any kind has been provided. A combined lever lock and circuit closer is fitted to the mechanical levers, and the thumb switches control the appropriate normal and reverse interlocking relays.

Types of Signals

All running signals are of the d-c. searchlight color-light type. Where a fourth aspect is required, a supplementary multi-lens unit is provided on the top of the searchlight signal. All subsidiary signals, whether for "backing," "shunt ahead" or "call on" movements, are the position-light type. Where these are fixed under the color-light running signals, only an

"off" indication is given, no light being shown for the "on" position, as the red of the color-light signal provides for it. In the case of other position-light shunt signals, the stop indication is given by two horizontal white lights, and the proceed indication by two white lights at 45 deg. to the horizontal in the upper left-hand quadrant.

Color-light signals governing over more than one route are provided with route indicators of the "theatre number" type, having an amber colored glass fixed in front of the lamps. The indications are always given when the color-light signal displays a proceed aspect, and are also shown with the subsidiary signal when this is "calling on" into an occupied platform. In all other cases, the subsidiary signal is given without the route indicator.

The new mechanical frame and signal control panel economize space to such an extent that they can be accommodated in one end of the existing tower, the portion now no longer required having been demolished. The original length of the tower was 53 ft

*Information abstracted from the Railway Gazette, London.

