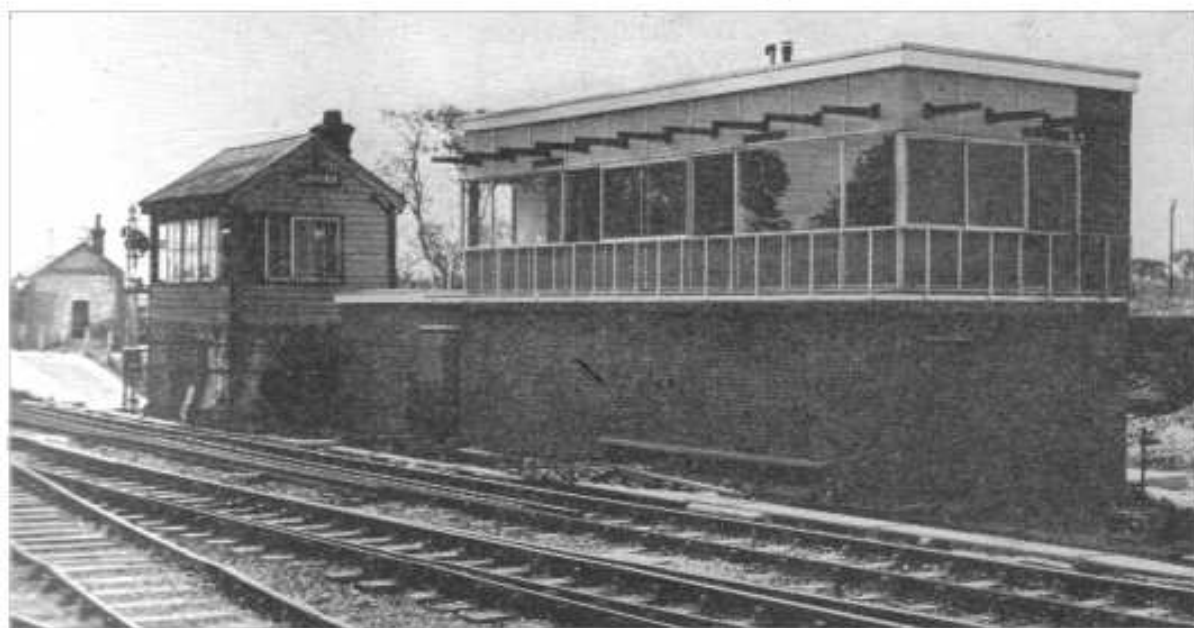


Resignalling at Lenham, Southern Region



The new signalbox at Lenham, between Maidstone East and Ashford, alongside the old structure, which has now been demolished

THE electrification of the main line to Folkestone and Dover via Tonbridge and Ashford in June was followed in October by that of the Maidstone East-Ashford, and Ashford-Master lines. The Swanley-Maidstone East-Ashford line is used as an alternative route for boat trains. To increase the line capacity and provide paths for these and other through trains, passenger loops are being provided at Otford (up), Wrotham down and Lenham (up and down), while at Maidstone East the existing middle siding is being converted to a reversible line.

At Otford and Wrotham, the additional signalling can be operated from the existing signalboxes, but at Lenham it was necessary to build a new signalbox which came into operation on July 23. It is of the modern type of signalbox architecture, and includes the latest amenities for the signalman. Externally, a row of "sun-breaker" screens above the windows guard against dazzle from the sun, while the exterior panelling below the windows is light blue in colour. Internal fluorescent strip lighting in the ceiling is controlled by a rotary switch to give two different degrees of lighting.

The signalbox houses a new electro-mechanical lever frame. All points are

mechanically operated, with the exception of those leading to the new down loop which are operated by 120-volt d.c. point machines (rectifier fed). Electrical detection and indication is provided as necessary. The distant signals and section signals are two-aspect colour-light. The remaining running and shunt signals are semaphore, mechanically operated.

Track-circuiting is of the 50-cycle a.c. conventional capacitor-fed type, single-rail through points and crossings, or double-rail using impedance bonds, to enable traction cross bonding to be provided on the average at every 440 yd. The track circuits are indicated on the miniature illuminated diagram. Complete track circuiting extends from the berth track circuit in the rear of the home signal to 100 yd. beyond the section signal. The track circuit and other electrical controls are effected by equipping the relevant point and signal levers with 110-volt a.c. combined lever lock and circuit controllers.

Sequential locking is provided, and block working with adjacent signalboxes is by one-wire two-position lock and block instruments. The occupation and clearance of the relevant track circuits are necessary before the plunger locks and associated backlocks of the home signal

levers can be released ; home and distant signal proving is also included.

Signal post telephones are connected on separate circuits to a telephone concentrator in such a way that the signalman can identify from which signal the call originates. Other telephones communicating with the adjacent signal-boxes, traffic and electric traction control rooms are provided.

The relay room, which forms part of the under portion of the signalbox, houses all the relays, racking, power equipment and cable terminations. Plug-in type signalling relays with removable connections have been used. Power supply for signalling is taken from the Lenham traction substation.