

A view of one of the masts at Burnham showing the leads in from the loops.

for the staff. The instrument room is at the back of the building and overlooks the open site on three sides, thus allowing free access for leads from the aerials. Between the instrument room and the land line room is a communication hatch, through which messages received and written by the wireless operator can be passed for re-transmission by another operator over land lines to London, or through which messages received from London by land line can be passed to the wireless operator for transmission via Devizes to ships. The scheme is illustrated in Fig. 2.

**Instrument Room**

The receivers and other apparatus controlled by the operators are placed on benches which run round three sides of the instrument room, and are so arranged that the tuning, direction finding and filament controls of the receiver, the switch by which the transmitter at Devizes is started up and shut down, and the hand key which operates this transmitter are all within easy reach of the operator's chair.

A few feet away is the telegraph sounder by which land line signals from the engineer at Devizes are made audible. Power boards are fitted at intervals round the wall, and from these current at 52 volts for radio high tension circuits, 26 volts and 78 volts for land line circuits and 4 volts for radio low tension

circuits is taken through fuses. These boards are also fitted with terminal connections to the radio and telegraph earths. A low tension switchboard for connecting to the three low tension batteries for charge or discharge is also fitted in this room.

The receiving equipment originally supplied by the Marconi Co. at Devizes is in use at Burnham. Directional reception is employed to minimise interference from the East, the majority of the reception being from West and South-West.

Facilities are provided whereby traffic may be received from ships at high speed and relayed direct to the Central Telegraph Office in London, where it is recorded telegraphically.

**Power Supply**

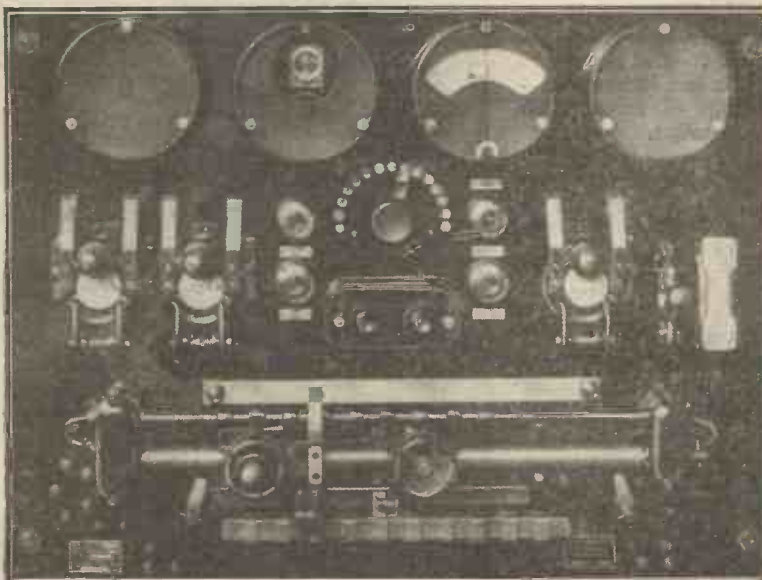
No power supply is available in the immediate vicinity of the station and an independent power supply is

installed, comprising two similar engine generator sets, one of which can be seen in the foreground of the photograph of the power room. The prime movers are single cylinder petrol-paraffin four-stroke engines, driving 3 kW generators for charging the main 50-volt lighting batteries. The land line and H.T. voltages are also provided from small accumulators. They are of 8 amp-hour capacity and are the small cells seen in the photograph of the battery room. Part of the 50 volt lighting battery which consists of 27 cells of 200 amp-hour capacity can also be seen in this photograph. The battery room also contains six other cells forming the three 4-volt low tension batteries for lighting the filaments of the receivers. These cells are of the same capacity as those of the lighting battery and are connected in series with the main battery for charging.

An automatic switchboard is provided, which keeps the voltage on the mains constant between 52 and 55 volts. This is effected by means of an automatic switch, which cuts in or out certain cells at the end of the battery, so varying the total voltage within the limits specified.

**Control Arrangements**

It was stated earlier that the transmitters at Devizes were remote controlled from the receiving point at Burnham. This remote control apparatus at the receiving station consists essentially of a hand



A closer view of an automatic switchboard similar to that used at Burnham. The switch is operated by a motor at the back of the panel.