...al Details of ...ER SIX"

...nical Editor

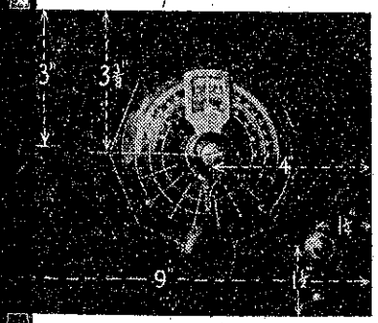
...iable condenser, and because of the ...volts grid bias on the oscillator valve ...is at this difference of potential ...n the baseboard. This point should ...carefully watched.

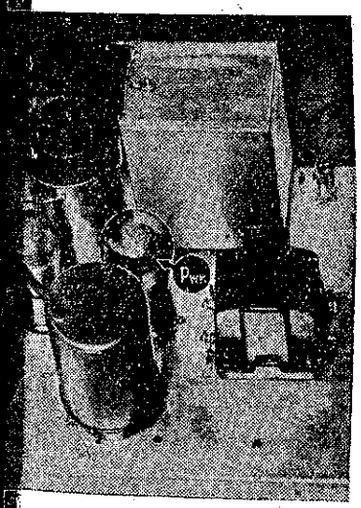
...otice also that the three screening ...s of the intermediate frequency ...nsformers, which are earthed in...nally, should not be earthed extern...y, nor should they be allowed to ...uch.

The Wiring.

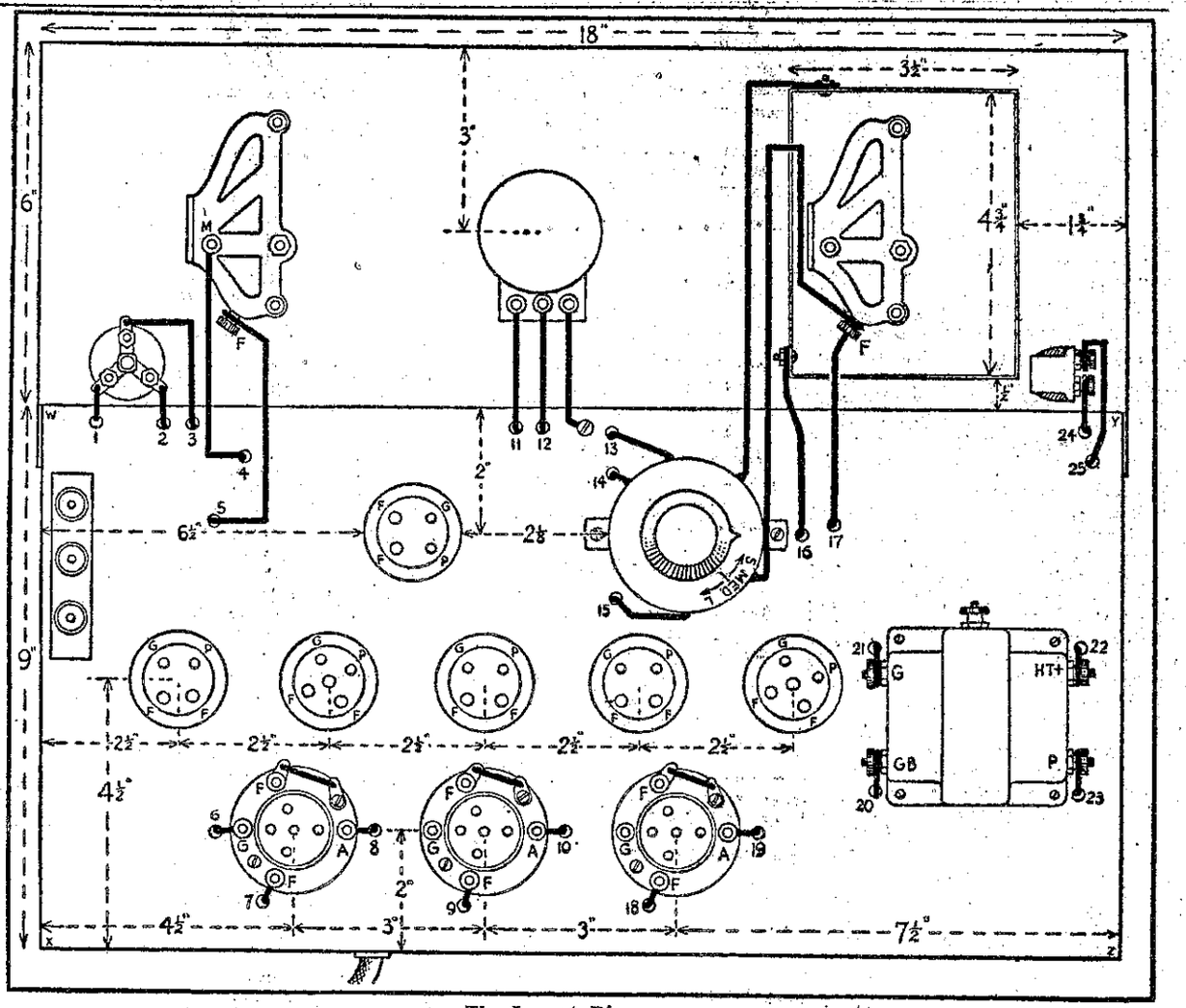
WHEN the front panel has been mounted on the baseboard by means of three screws, the receiver is ready to wire. Notice that the three filament terminals nearest the panel on the valve holders used for mounting the coils are earthed by taking a short wire from each to one of the screws which hold the valve holders to the baseboard. This is clearly shown in the layout sketch. The various wires running to the distribution board should be tagged as shown in the photograph to avoid mistakes, and similar tags attached to the other end of the wires where they emerge from the battery cable.

When the wiring is completed it should be completely enclosed with an aluminium base of the dimensions





...mensions. Below: A general view of ...et.



The Layout Diagram.

of the chassis, and with a small turnover all round to enable it to be bolted into position. This additional screening, like that surrounding the oscillator condenser, is vitally necessary to prevent radiation from the receiver and resulting serious interference with other nearby sets of the same type. Failure to comply with these instructions constitutes a serious breach of the P. and T. Regulations, and confiscation of the receiver would sooner or later result.

The Frame Aerial.

AFTER the wiring has been carefully re-checked, the set is ready for operation. The frame aerial should now be wound according to the dimensions given in the sketch. These are not critical, and as long as about 75 feet of wire is employed, with turns spaced about 3-16in., the given design may within limits be altered to suit individual requirements.

For best possible results Litz wire should be used, but we have found that ordinary silk-covered 23/36 frame aerial wire answers the purpose excellently.

One end of the wire is attached to either outside terminal on the frame, and the winding commenced. Seven turns are put on, spaced 3-16in. by means of small saw-cuts made with a hacksaw in the supports. The wire is then anchored round the lowest support, bared for about ¼in., and a turn taken round the centre terminal. Seven more turns in the same direction are then put on on the other side of the frame, and the end attached to the remaining terminal. Three lengths of flex with banana sockets at the ends should then be attached to the three terminals. The frame is now complete and ready to connect to the set.

The Valves.

THE "Super Six" works equally well with valves of the following types: Oscillator, L210; 1st detector, H210; 2nd detector, L210; power, P215; and two screen-grid valves of the type S215. "B" voltages are also not critical. "HT 1" should be about 90-100 volts, and "HT 2," 120 volts. As mentioned before, the other necessary voltages are obtained by the three spaghetti type resistances and the 50,000 ohm potentiometer.

Operating the Set.

AFTER the set has been wired and the wiring checked, paying particular attention to the filament and plate circuits, the frame aerial, batteries, and speaker may be connected and the valves plugged in.

If the constructor is not certain that his wiring is correct, a preliminary test

(Concluded on page 30.)