

C12. QUICK WAVE CHANGE CONDENSER DIALS.

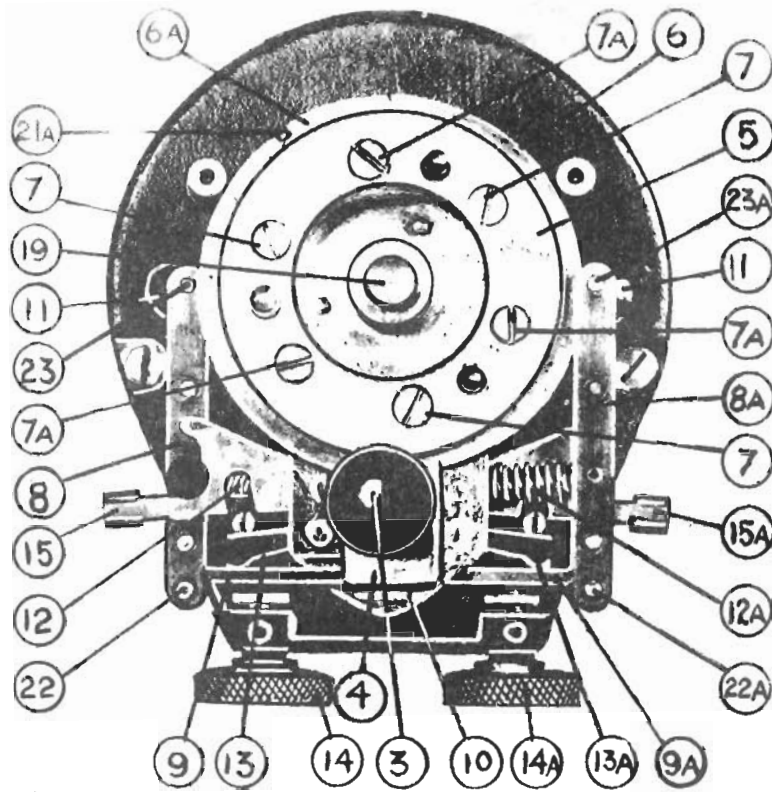


FIG. a

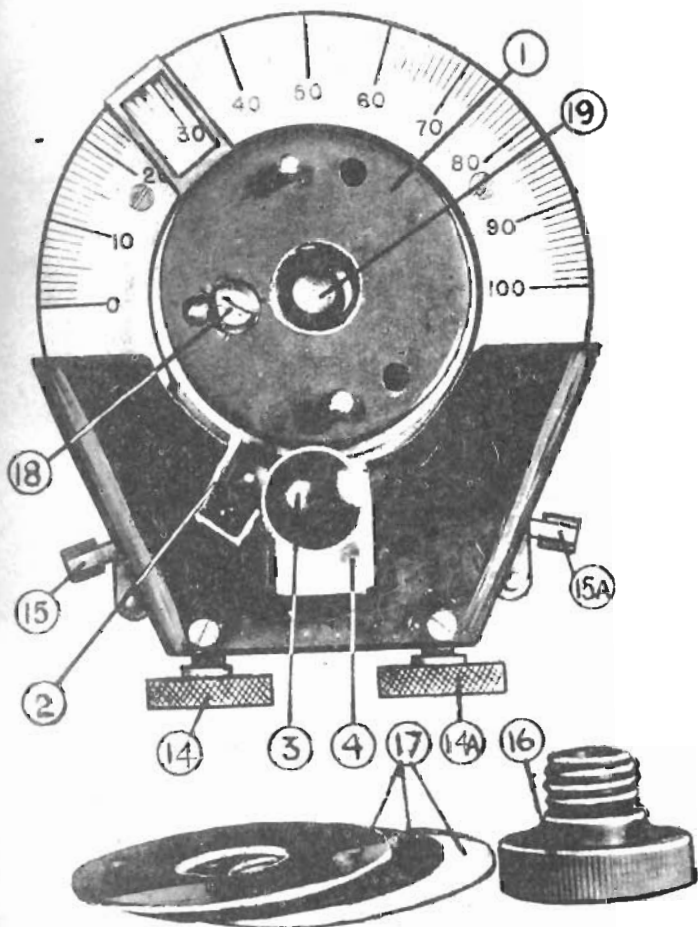


FIG. b

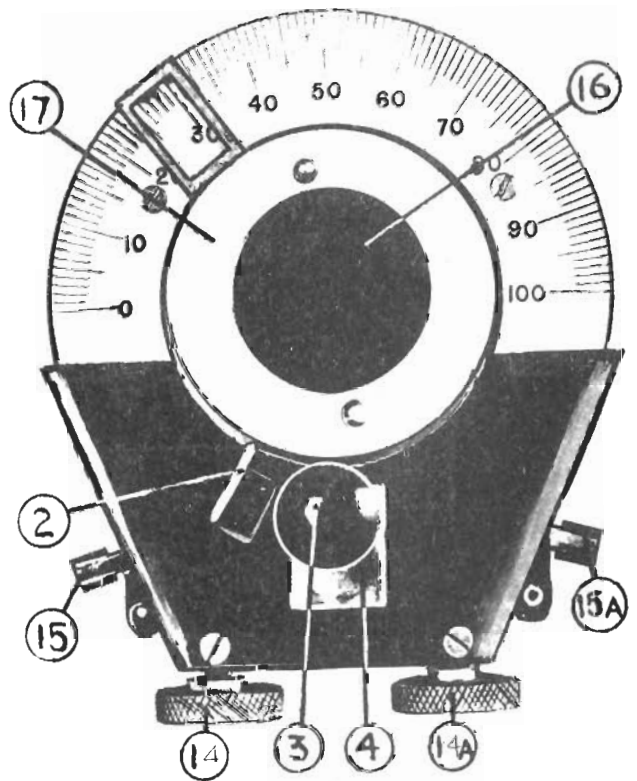


FIG. c

Quick wave change condenser dials are fitted in B11, B12 and modern receiving gear. These may be used in a number of different ways:-

(a) For quick search over the whole scale.

The main handle (1) is rigidly connected to the condenser spindle (19) and this consequently enables quick search to be carried out provided that the knob (3) is pulled out and the slow motion device so disengaged (see paragraph (b)). The gear for setting to determined readings can be disengaged by depressing the catch plates (15)(15a). It is not of great importance to do this, but if it is not done a catch will be felt every time the predetermined readings are passed.

The main handle (1) carries a pack of coloured and reversible discs (17) (which can be marked) and are read off against the pointer (2).

(b) For slow motion search or fine tuning.

A knob (3) is fitted below the main handle (1) and is attached to a secondary spindle which carries a scroll at its inner end. The condenser spindle (19) carries a crown wheel. By pushing up on the detent plate (4) the knob (3) is allowed to spring in, thus engaging the scroll with the crown wheel (11). The knob (3) thus turns the condenser at a reduced rate according to the ratio of scroll to crown wheel (100/1). The scroll is disengaged from the crown wheel (11) by pulling out the knob (3) held there by the detent plate (4) which is pushed down by a spring and engages a shoulder on the secondary spindle.

(c) For quick wave change to either of two predetermined readings.

A plate (5) keyed to the condenser spindle (19) carries two steel rings (6) (6a) one above the other, which can be rotated and clamped independently at any position by the screws (7)(7a). A notch (21) (21a) is cut in each ring.

Pivoted at the centre (10) are two links (9) (9a) which carry at their ends frames (8)(8a) which are free to rotate about the points (22)(22a). At the top ends of the frames rollers (23) (23a) are fitted which snap into the notches (21)(21a) on the rings (6)(6a). Springs (12)(12a) are provided which pull the frames inwards and so keep the rollers (23)(23a) pressed up against the edges of the rings (6)(6a). Two catch plates (15)(15a) are fitted which, when pressed down, hold the frames (8)(8a) out and so free the rollers (23)(23a) from the rings (6)(6a) when it is desired to put the quick change device out of action. Further springs (13)(13a) hold the links (9)(9a) down on to the points of the screws (14)(14a). Turning these screws thus moves the links (9) (9a) and hence the frames (8) (8a) which push round the rings (6) (6a) and turn the condenser spindle, thus providing fine adjustment for the settings of the quick change device. Care should be taken that, before setting the predetermined readings, the screws (14)(14a) are about half way along their travel.

In order to use the quick change device it is therefore necessary to -

- (a) Lift the catch plates (15)(15a) to allow the rollers (23)(23a) to bear on the rings (6)(6a).
- (b) Pull out the knob (3) to disengage the slow motion device.

To set the predetermined readings.

- (a) Remove the ebonite screw (16) and the coloured discs (17).
- (b) Turn the latch screw (18) and draw off the main handle (1).
- (c) Push up on the catch plates (15)(15a).
- (d) Turn and engage the left hand roller (23) in its notch (21).
- (e) Slack the screws (7). Rotation of the dial should now leave the lower ring (6) engaged with the roller (23).
- (f) Replace the main handle (1).
- (g) Set the condenser to the required reading. (This can be obtained by tuning the instrument.)
- (h) Remove the handle (1) and tighten the screws (7).
- (i) Repeat the operation with the right hand roller (23a) and the screws (7a) to set for the second predetermined reading.
- (j) Replace the handle (1). Tighten the latch screw (18).
- (k) Replace the coloured discs (17) and ebonite screw (16).