Nov. 14, 1933. H. M. DRESSEL 1,935,354

RADIO APPARATUS

Filed Jan. 26, 1933

Fig. 3.

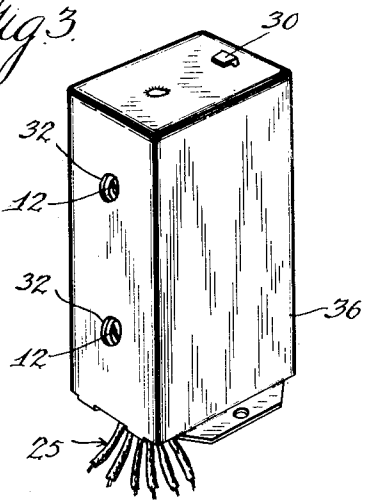


Fig. 1

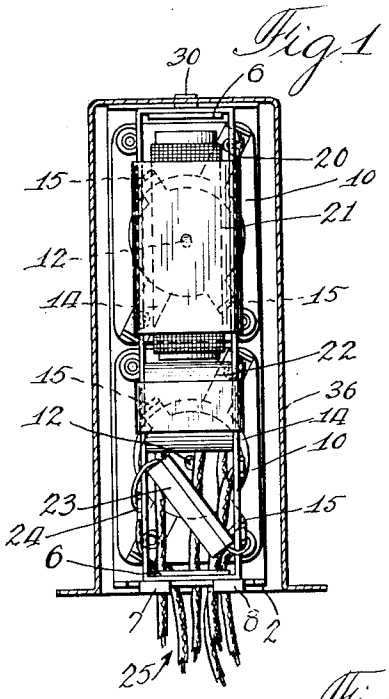


Fig. 4.

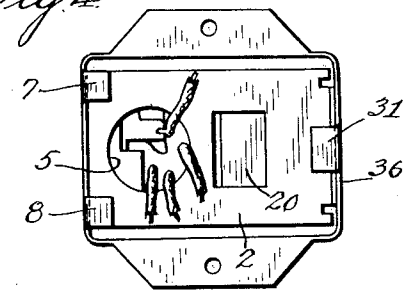


Fig. 2.

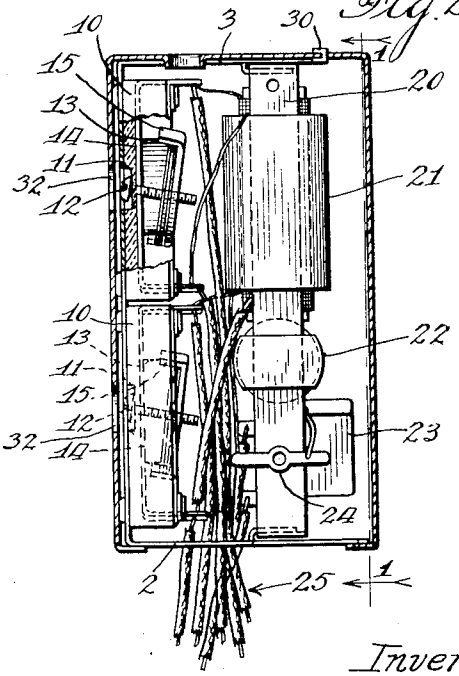
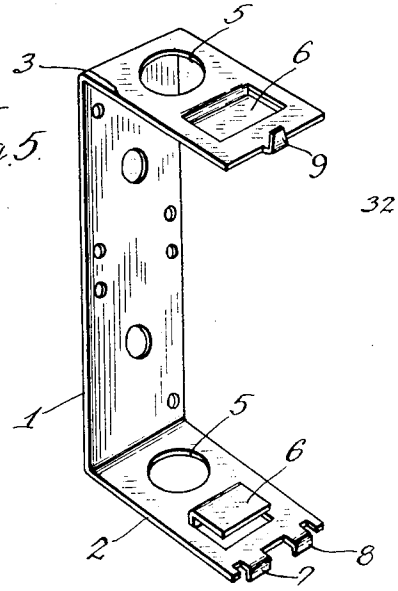


Fig. 5.



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UNITED STATES PATENT OFFICE

1,935,354

RADIO APPARATUS

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Application January 26, 1933. Serial No. 653,571

5 Claims. (Cl. 250—16)

This invention relates to radio apparatus, and particularly to a compact transformer unit. In the manufacture of superheterodyne radio receivers, it has been customary to build the intermediate frequency transformers, including tuning condensers, as a compact unit adapted to be disposed in a shielding can.

An object of this invention is to devise such a structure which will be simple and cheap.

Referring to the drawing,

Figure 1 is a front elevation view of the unit;

Figure 2 is a side elevation view;

Figure 3 shows the unit mounted in a cover;

Figure 4 is a bottom view of Figure 3; and

Figure 5 is a detail.

The structure comprises a U-shaped metallic supporting member 1, having upstanding arms 2 and 3. Each of arms 2 and 3 has a hole 5 punched therethrough and ears 6 formed therein. The ends of arms 2 and 3 are stamped out to form small ears 7 to 9, inclusive. Mounted along portion 1 are a plurality of balancing condensers comprising porcelain base members 10 having apertures 11 therein. Through these apertures screws 12 are adapted to project. The inside of porcelain members 10 has an internal recess 13, in the bottom of which a metallic plate 14 may be mounted. A spring plate 15 is threaded to screw 12 and is adapted to co-operate with plate 13 to form a small condenser therewith.

Supported between ears 6 is a transformer assembly comprising a rectangular loop 20 of fibre or similar material. A transformer 21 is supported between the opposite sides of loop 20 by means of tape wound around as shown. A choke 22 may be disposed between the loops and at right angles to the transformer. A fixed condenser 23 or any other suitable apparatus such as a resistance may be disposed between the opposing sides of the loop. At suitable intervals metallic eyelets 24 may be formed in loop 20 to function as terminals to which the wires may be soldered. As shown, the entire assembly in loop 20 is dropped into the metallic base portion, the ends of the loop being slipped over ears 6. A plurality of wires 25 is threaded through one of the holes 5 in the metallic base member 1 for connection outside.

In order to protect and shield the entire assembly, a cover 36 may be slipped over. As shown, ear 9 is adapted to pass through a suitable perforation 30 in the end of cover 36 and may be bent over. Ears 7 and 8 may be bent over the opening of cover 30, while an additional ear 31 on the cover may be bent over the end of the assembly. After the cover is on, the various connections may be made and the condensers adjusted through apertures 32 in cover 30.

Having thus described my invention, I claim:

1. A radio receiver assembly comprising a metallic base member having a substantially U-shape, ears formed on the arms of said U, a loop of insulating material supported between said ears, and radio elements supported by said loop.

2. An assembly comprising a U-shaped metal base member having ears formed on each arm thereof, an elongated loop of insulating material supported between said ears, and a transformer disposed within said loop and supported thereby.

3. The structure of claim 2, in which a cover comprising an open-ended cup is provided, the arms of said base member having small ears formed therein and adapted to engage portions of said cover to maintain said cover in position.

4. An intermediate frequency superheterodyne assembly comprising an elongated metallic member having its ends bent upwardly to form a U, a plurality of adjustable condensers supported along the bight of said U, ears struck up from the arms of said U, an elongated loop of insulating material supported on said ears, a transformer disposed within said loop and supported thereby, and a cover comprising an open-ended cup adapted to slip over the entire assembly and enclose the same.

5. The structure of claim 4, in which one of said arms has a perforation therethrough through which connecting wires may be led from the outside to within said arms, arms through which the wires are brought, serving to form a closure for the open end of the cup.

HENRY M. DRESSEL.