Jan. 8, 1929.

1,698,190

M. O. FREDRICKSON

CONDENSER

Filed Oct. 7, 1927

Fig. 1.

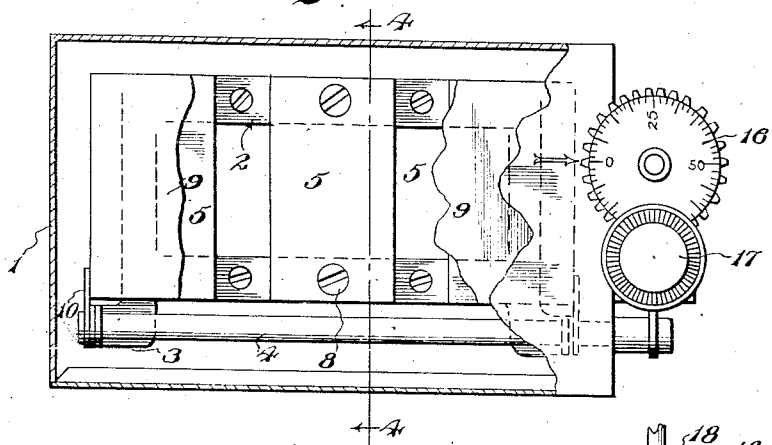


Fig. 2.

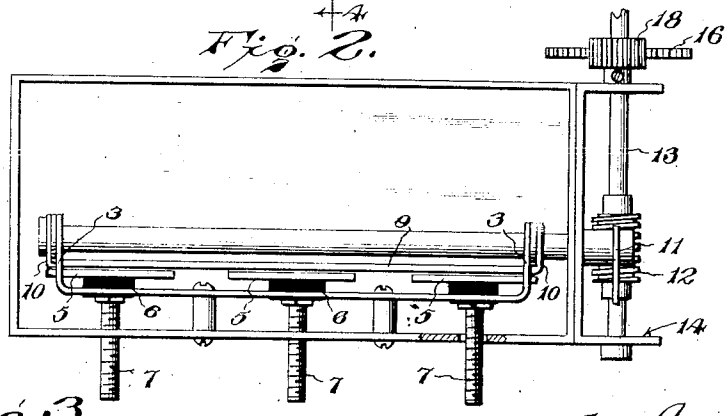


Fig. 3.

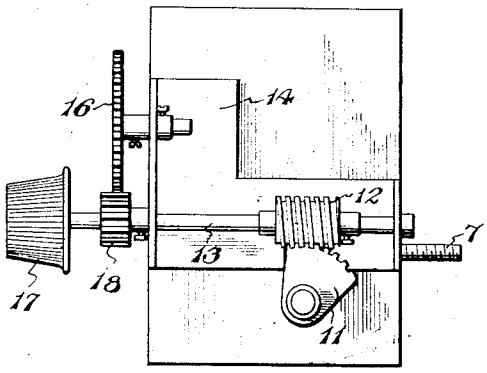
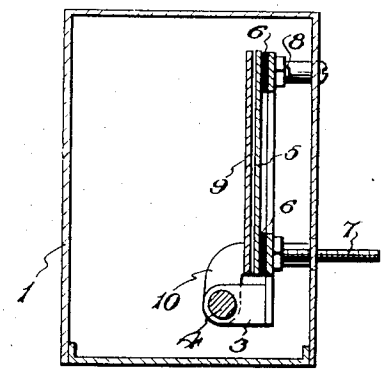


Fig. 4.



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UNITED STATES PATENT OFFICE.

MILTON O. FREDRICKSON, OF OAKLAND, CALIFORNIA.

CONDENSER.

Application filed October 7, 1927. Serial No. 224,680.

The present invention is directed to improvements in condensers used in connection with radio sets.

The primary object of the invention is to provide a device of this character so constructed that the capacities thereof can be readily varied in a simple and uniform manner.

Another object of the invention is to provide a device of this kind which is extremely simple in construction, efficient in operation, and one which can be manufactured at a very small cost.

In the accompanying drawing:

Figure 1 is a front view of the condenser showing it in a protective casing, parts of the casing being broken away.

Figure 2 is a bottom plan view.

Figure 3 is an end view.

Figure 4 is a sectional view on line 4—4 of Figure 1.

Referring to the drawing, 1 designates a metallic casing which is capable of being mounted in a cabinet, not shown, and not only prevents entrance of dust to the condenser, but also serves as a shield against electrical static.

Supported within the casing 1 is a frame 2, the lower corners thereof being provided with offset ears 3 in which are journaled the ends of the shaft 4, the purpose of which will be later explained.

A plurality of plates 5, three being shown, but it will be of course understood that the number may be varied as desired, are supported in spaced relation upon the frame 2 and separated therefrom by disks 6 of suitable insulating material which are engaged on the screws 7 and 8, and may be formed from suitable metal such as copper, brass or aluminum. In this manner the plates 5 are fully insulated from the frame 2. The screws 7 pass through holes in the metal casing to facilitate connection to the plates 5, the holes being of sufficient size to allow a clearance between the screw and casing.

The movable plate 9, also formed from copper or other suitable metal, has its lower corners provided with brackets 10 which are fixed to the shaft 4 in order that when the shaft is turned the plates will be swung toward or away from the plates 5, as desired.

One end of the shaft 4 is extended through the end of the casing and upon the extended end is fixed a toothed segment 11 which meshes with a worm 12 fixed to the tuning shaft 13, said shaft being journaled in a bracket 14 fixed to said casing. This shaft also carried a pinion 15 which meshes with a gear 16 rotatably supported by the bracket 14, said gear constituting a logging dial and being of any suitable size. The shaft 13 is further provided with an operating knob 17.

It will be obvious that upon rotating the knob 17 rotary movement will be imparted to the shaft 13 and worm gear 12, whereupon the segment 11 will be actuated to rotate the shaft 4 in order that the plate 9 can be swung toward or away from the plates 5, as desired.

Having thus described the invention, what I claim is:

1. A condenser comprising a frame, a plurality of plates carried by the frame and insulated therefrom, said frame having ears carried thereby, a shaft journaled in the ears, and having a plate fixed thereto, a segment carried by one end of the shaft, a worm engaged with the segment, and means for rotating the worm and thus operating the segment to rotate the shaft to move the plate toward or away from the plates.

2. A condenser comprising a frame, plates electrically insulated therefrom, said frame having ears carried thereby, a shaft journaled in the ears, a plate having brackets carried thereby for fixed engagement with the shaft, said shaft having a toothed segment carried thereby, a tuning shaft having a worm carried thereby and adapted to mesh with the segment, said shaft having a pinion carried thereby, a dial in mesh with the pinion, and a knob carried by the tuning shaft for actuating the same to transmit movement to the first-named shaft to swing the plate toward or away from said plates.

In testimony whereof I affix my signature.

MILTON O. FREDRICKSON.