

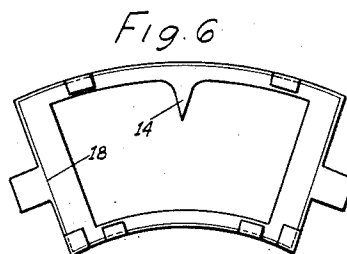
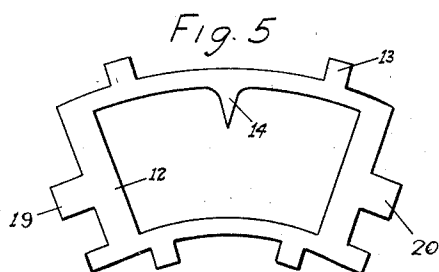
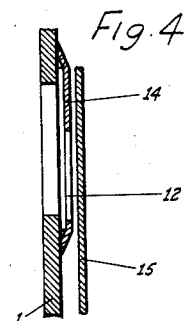
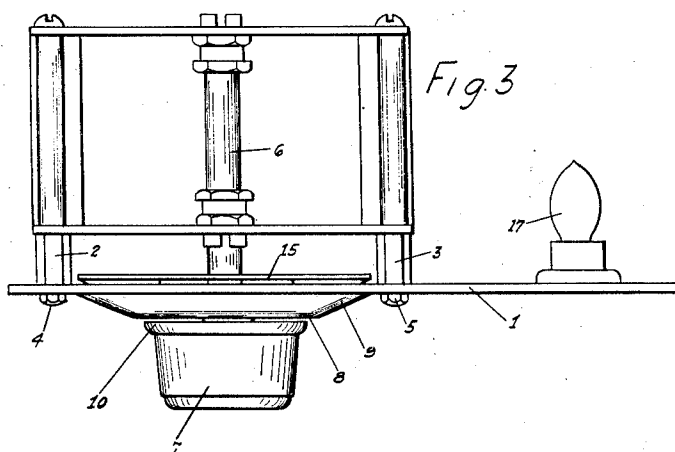
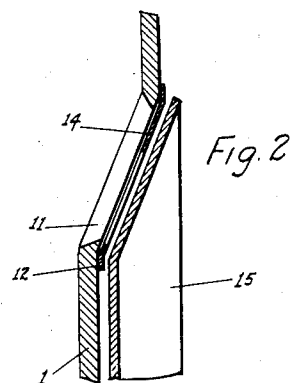
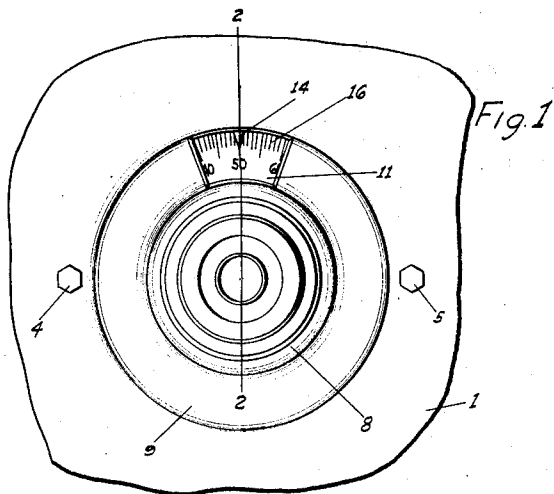
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INDICATING MEANS FOR RADIO APPARATUS

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## UNITED STATES PATENT OFFICE.

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## INDICATING MEANS FOR RADIO APPARATUS.

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In radio apparatus which is mounted on a panel board, it has been the practise to mount, on the front of the panel, dial knobs for operating the various devices that are mounted on the back of the panel board. These dial knobs are usually provided with certain markings to indicate the relative position of the piece of apparatus being controlled by the control handle or dial. My invention, therefore, relates to indicating means used in connection with such radio apparatus.

It is one of the objects of my invention to provide an improved and novel arrangement for indicating the position of the apparatus mounted on back of the panel.

My improvement will be clearly understood by a reading of the attached specification taken in connection with the drawings, wherein:

Figure 1 is a fragmentary view of the front part of a panel showing a part of the indicating means.

Figure 2 is an enlarged sectional view on the line 2—2 of Fig. 1.

Figure 3 is a plan view of Fig. 1 showing a piece of apparatus in skeleton form mounted on the back of the panel together with the indicating means.

Figure 4 is a view similar to Fig. 2, but in modified form.

Figure 5 is a plan view of the holder constituting the part of the indicating means.

Figure 6 is a view of the holder with the cooperating transparent member assembled in position ready to be mounted on the panel board.

In the drawings, 1 is a portion of a panel board on the back of which radio control apparatus is to be mounted. As shown in Fig. 3, the skeleton form of a variable condenser is illustrated, this being held to the panel 1 by spacing studs 2 and 3 and screws or nuts 4 and 5. A shaft 6 is adapted to pass through the panel and to have fastened on the outer end on the face side of the panel, a control knob 7. I preferably construct the panel 1 out of metal giving the same suitable finish. On various portions of the panel, there is pressed outwardly, a portion having a flat surface 8 which is substantially parallel with the face of the panel and which slopes off toward the panel as indicated at 9. The annular sloping portion 9 is so formed as to simulate the flange portion of the dial

knob which is ordinarily mounted on the front of the panel. The base portion 10 of the knob 7 is preferably somewhat smaller in diameter than the flat portion 8. The sloping portion 9 has an opening 11 punched or formed therein, this opening being preferably positioned as indicated in Fig. 1.

On the back of the panel there is a holder 12 which has an opening to register with the opening 11 in the panel 1. The holder 12 is provided with a suitable number of clips 13 which are bent over as indicated at Fig. 6 to hold in position a transparent member 18 such as a piece of celluloid. The holder 12 is provided with an indicating finger 14 so that when the holder is attached to the back of the plate 1, by means of the clips 19 and 20 in any satisfactory manner as by soldering, the indicating finger 14 will be substantially in the center of the opening 11 in the panel.

Securely mounted on the shaft 6 is a plate 15 which has thereon suitable indicia 16 shown in Fig. 1. Where the plate 1 is formed, in the manner heretofore described, I prefer to form the dial plate 15 in a similar manner so as to fit in or snugly around the offset portions of the panel board and closely adjacent the holder 12 whereby the indicia 16 can be seen through the opening in the panel 1. The indicating dial 15, in the form shown in Fig. 3, is preferably made of metal, although, this may be of any suitable transparent material and when so constructed I mount a lamp 17 on the back of the panel so that when the radio set is in operation, the lamp 17 will be lighted and will illuminate the transparent dial making the indicia on the dial 15 very readily discernible through the opening in the panel board.

In the form shown in Fig. 4, the panel 1 is not offset and the dial 15 is flat, which construction may be used particularly when the source of illuminant is used behind the indicating dial.

While reference is made only to the panel board and the apparatus mounted thereon, it is to be understood that the panel board is to be mounted in a cabinet such as ordinarily used in radio receiving sets, so that one lamp 17 may be even sufficient for the entire receiving set.

As described it will be apparent that my improved indicating means is particularly

adapted for use in connection with radio receiving sets, and it will be further understood that the details for carrying my invention into practise may be varied without departing from the spirit of the invention or the scope of the appended claims.

Having thus described my invention what I claim is:

1. Indicating means for radio apparatus comprising; a mounting panel having a portion offset from the plane of said panel to simulate the flange of a radio dial, said offset portion having a flat part substantially parallel with the panel and a sloping part, said sloping part having an opening therein, a transparent member attached to the back of the panel over said opening and an indicating dial movably mounted adjacent said transparent member on the back of the panel, said dial being formed similarly to said panel offset portion.

2. Indicating means for radio apparatus comprising; a mounting panel having a portion offset from the plane of said panel, said

offset portion having an opening therein, a holder attached to the back of the panel and having an opening registering with the opening in the panel, and an indicating finger, a transparent member carried by said holder and a dial movably mounted on the back of the panel adjacent said transparent member and having indicia adapted to pass by said opening and said indicating finger.

3. Indicating means for radio apparatus comprising; a mounting panel, an opening therein, a holder attached to the back of the panel and having an opening to register with said panel opening, said holder carrying a transparent member over said opening, a plate of transparent material movably mounted back of the panel adjacent said opening and having indicia adapted to pass by said opening and means for illuminating the area around said plate so the indicia thereon will clearly show through said opening.

In testimony whereof I affix my signature.  
GEORGE L. LANG.