Jan. 17, 1939. F. E. JOHNSTON 2,144,261

MOUNTING DEVICE

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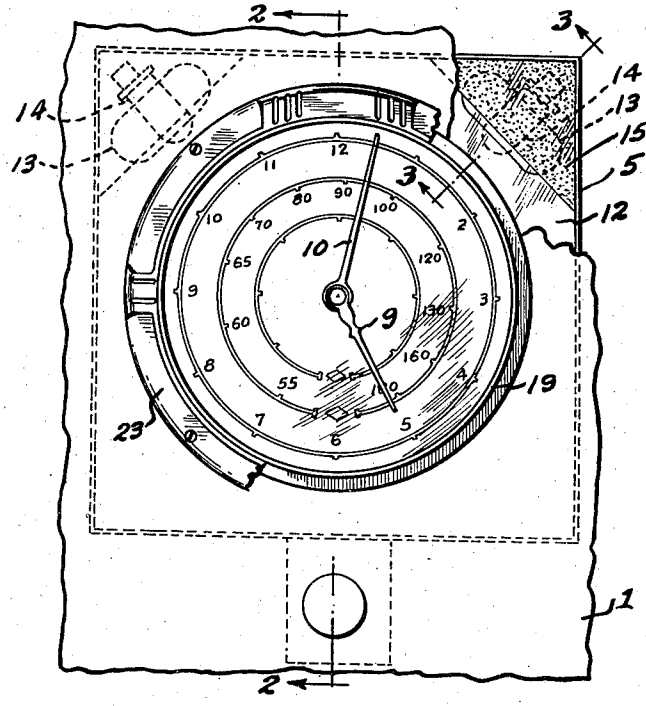


FIG. 1.

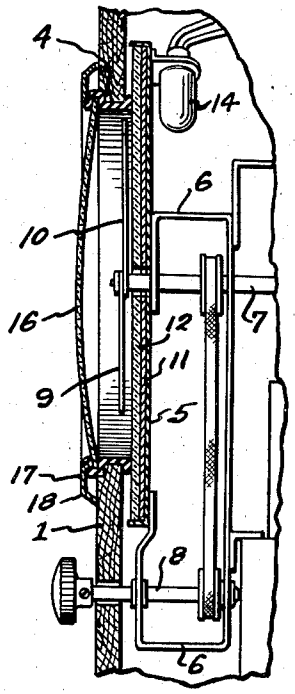


FIG. 2.

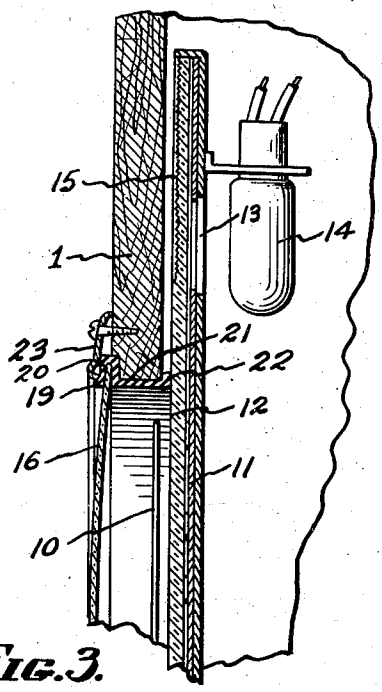


FIG. 3.

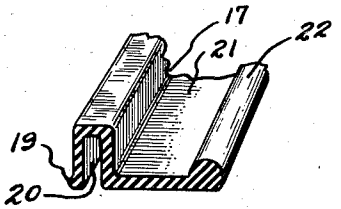


FIG. 4.

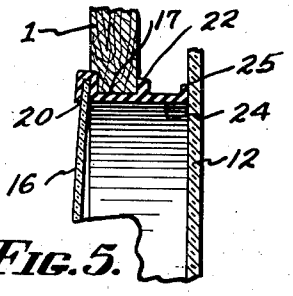


FIG. 5.

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MOUNTING DEVICE

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5 Claims. (Cl. 116—129)

My invention has primarily to do with the mounting of the dials of radio sets and the fittings therefor, in connection with radio cabinets and the like. I will describe my invention in this connection; although it will be understood that its utility is not confined thereto and that the teachings herein contained may be applied by the skilled worker in the art to other situations which embody like problems, of which there are many.

In the modern radio set, particularly of the more expensive variety, there is an ornamental wooden cabinet which houses the chassis of the radio set. This chassis, of course, embodies the condensers which must be adjusted in the operation of tuning; and it is quite usual to mount the tuning dial which indicates the tuning, on and as a part of the chassis. Therefore, a hole is cut in the front of the radio cabinet with relation to this dial, so that when the chassis is in position in the cabinet the dial will be visible through the hole. It is then customary to cover the hole in the cabinet with a suitable piece of glass, held in place by an ornamental rim or bezel. At this point certain problems arise. Since the cabinet is subjected to vibration from the one or more loud speakers employed in connection with the radio set, it is necessary first to mount the glass in such a way that it will not rattle. In the second place, it is necessary to make some sort of connection between the dial mechanism and the radio cabinet such that rattling cannot occur at this point. In the third place, where the dial is to be illuminated and is not of the translucent type where the illumination is effective through the body of the dial, it is desirable to provide for what is known as indirect illumination. Such illumination theoretically constitutes a passage of light through the body of the glass which illuminates the figures on the dial in a sidewise manner. However, such illumination is not very effective if mixed with direct illumination and it is highly advisable to confine the light to light which does pass through the body of the glass of the dial. This premises therefore a light tight connection between the cover glass and the glass of the dial, which connection not only must be effective to the end described, but must also be anti-rattling and capable of giving long and adequate service.

The fundamental objects of my invention are realized, in the solution of the problems hereinabove set forth, by simple, inexpensive but accurate and effective means. These and other objects of my invention, which will be set forth hereinafter or will be apparent to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe an exemplary embodiment. Reference is made to the drawing wherein:

Figure 1 is an elevational view of an exemplary installation with parts in section.

Fig. 2 is a sectional view taken along the lines 2—2 of Fig. 1.

Fig. 3 is an enlarged fragmentary section taken along the lines 3—3 of Fig. 1, and showing a type of illumination.

Fig. 4 is a perspective view including an end section of a mounting strip member employed by me.

Fig. 5 is a sectional view showing a slightly different form of strip with other parts in relation thereto.

Referring first to Figs. 1 and 2, I have indicated at 1, the body of a radio cabinet. This body is cut out as at 4 so as to display a radio dial. It will be understood that the particular form of the dial is not a limitation upon my invention. I will, however, describe an exemplary form of dial, shown most clearly in Fig. 2. This dial consists of a metal backing plate 5 suitably mounted by brackets 6 with respect to the chassis of a radio set. 7 represents the driven shaft of a condenser system. The usual operating handle 8 is provided together with a suitable transmission, and although not shown in detail, the particular device herein illustrated has a plurality of pointers 9 and 10, there being a suitable gearing therebetween so that these pointers move at different speeds relative to the drive shaft of the condensers. The position of the more rapid pointer thus gives a sort of vernier indication of the position of the smaller moving pointer. The particular form of indicator in connection with the dial has no bearing, however, on the present invention.

The dial face, in the exemplary embodiment, comprises a card, panel or the like indicated at 11, and bearing the various indicia which go to make up the face of the dial. Covering this panel is a piece of glass 12 through which the panel is visible. The metal piece 5 in this particular embodiment is of rectangular shape and the glass member 12 is preferably of the same shape. The panel 11, which is opaque, is preferably cut out well beyond the face of the dial portion as shown at 13, in Fig. 1; and suitable electric lamps 14 are located behind the cut-out portions and are supported on suitable brackets. The purpose of these lamps is to give illumination to the dial. It is a frequent practice to treat the face of the glass 12 overlying the cut out portions 13 to give it a reflective character. This may be done by frosting the surface of the glass as at 15. This is effective in directing a large percentage of the light passing through the perforations 13 into and through the glass body 12, giving the effect of indirect illumination. As has been indicated, however, it is desirable to have some sort of connection between an external

cover glass, lying over the pointers 9 and 10, and the face of the glass panel 12 so as to confine the illumination to the indirect type, as hereinabove described. Otherwise reflections onto the face of the glass 12 will destroy to a considerable extent the effectiveness of the indirect illumination.

I now come to a description of the construction of the means which I employ to gain the effects of my invention. Still referring to Fig. 2, I have indicated at 16 a cover glass, generally of non-planiform shape so as to do away with external reflections, although this again is not a limitation on my invention. The glass is held in a strip member 17 hereinafter to be more fully described; and an ornamental bezel 18 is employed, coming up to the edge of the glass and preferably displaying a narrow fillet or edge portion 19 of the strip.

The strip is more clearly illustrated in Fig. 4. It is preferably made of rubber or similar resilient material and is molded so as to provide a narrow channel 20 to receive the edge of the glass, and a wider channel 21 to receive the edge of the perforation in the radio cabinet. The outer leg of the channel 21 will preferably take the form of an enlarged or thickened bead or fillet 22 as shown; and the narrow fillet 19 hereinabove referred to is formed on the outer edge of the outer leg of the channel 20.

The strip shown in Fig. 4, may be made as a plain strip of indefinite length from which pieces of requisite length may be cut and bent into circular shape for accepting cover glasses of different sizes. However, I am not restricted to such a construction. As will be clear, the mounting for my cover glass, having a cross section such as that shown in Fig. 4, may be molded in the shape of a continuous ring, designed, of course, for the acceptance of a certain size of cover glass and for fitting into a perforation of a certain size in the radio cabinet.

In use the relationship of the strip of Fig. 4 to the other parts is most clearly shown in Fig. 3. The edge of the cover glass 16 is shown embraced in the channel; and the channel 21 is shown engaging the edge of the radio cabinet 1. A bezel 23 is shown engaging the outer leg of the channel 20 and displaying the narrow fillet 19. The bead 22 is shown lying inside the radio cabinet 1, engaging and holding the edge of the perforation therein, and also engaging the face of the glass dial member 12. Here it makes a light tight contact with the member 12 and also provides an anti-rattling positioning means for the dial. It will be clear that light from the bulb 14 in order to illuminate the panel 11 must pass through the body of the glass 12 and that extraneous light is cut off by the bead 22. It will also be apparent that the cover glass 16 is tightly but resiliently mounted in such a way that it cannot rattle. It will further be apparent that in the construction shown the space inside the cover glass 16 is substantially a sealed space protected from the accumulation of dust and dirt, not only from the outside of the radio cabinet, but also from within. It will finally be apparent that the construction while solving the problems to which my invention is addressed, is nevertheless, extremely simple and very economical.

Where there must of necessity be considerable space between the glass panel 12 and the body of the cabinet 1, it is within the scope of my invention, as shown in Fig. 5, to carry the strip out beyond the bead or fillet 22 for as great a distance as may be desired. This is indicated at 24. Preferably the wall extension 24 will terminate in an additional fillet 25 for the purpose of making a perfect sealing contact with the face of the glass panel 12.

Modifications may be made in my invention without departing from the spirit of it.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. Means for mounting a cover glass in connection with a perforation in a panel, comprising resilient means which in cross section presents two oppositely facing channels, one of said channels being of a size and shape to accept the edges of said cover glass, the other of said channels being of a size and shape to grip the edges of said perforation in said panel, and an extension on the edge of said last mentioned channel extending beyond a face of said panel and adapted to come into sealing contact with a panel positioned beyond said face.

2. Resilient means for mounting a cover glass in connection with an aperture in a panel, said means comprising means for resiliently gripping an edge of said glass essentially on one side of said panel and means extending through the aperture in said panel and beyond the opposite face thereof to grip said opposite face, in combination with a bezel attachel to said panel and adapted to exert pressure against the portion of said resilient means which grips said glass, and to display an edge of said resilient means, said edge being provided with an upstanding fillet in the part so displayed, forming in appearance a finishing member for the inner edge of said bezel.

3. In combination, an apertured panel, a cover glass located essentially on one side of said panel, a dial located essentially on the other side of said panel, and mounting means for said glass comprising resilient means engaging the edges of said glass, extending through said aperture, and having means for sealing against said dial.

4. In combination, an apertured panel, a cover glass located essentially on one side of said panel, a dial located essentially on the other side of said panel, and mounting means for said glass comprising resilient means engaging the edges of said glass, extending through said aperture and having means for sealing against said dial, said dial being of glass, said mounting member forming a sealed space on said glass, and illuminating means located outside said sealed space and acting on said glass, said mounting and sealing member serving to confine the light from said illuminating means to light passing essentially through the body of said glass.

5. In combination, resilient means for mounting a cover glass in connection with an aperture in a panel, said means comprising means for resiliently gripping an edge portion of said glass essentially on one side of said panel and means extending through the aperture in said panel and beyond the opposite face thereof to grip said opposite face, a bezel attached to said panel and adapted to exert pressure against the portion of said resilient means which grips said glass, and to display an edge of said resilient means, said edge being provided with an upstanding fillet in the part so displayed, forming in appearauce a finishing member for the inner edge of said bezel, and a dial member adjacent said opposite face of said panel and in substantial sealing contact with the portion of said resilient means which grips said opposite face of said channel.

FRED E. JOHNSTON.