Oct. 8, 1929. D. E. KEENEY 1,731,199

BRACKET FOR MOUNTING INSTRUMENTS ON PANELS

Filed May 5, 1928

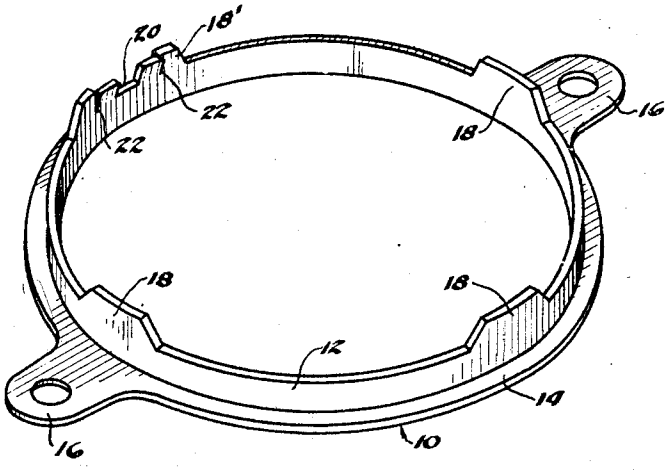


Fig. 1

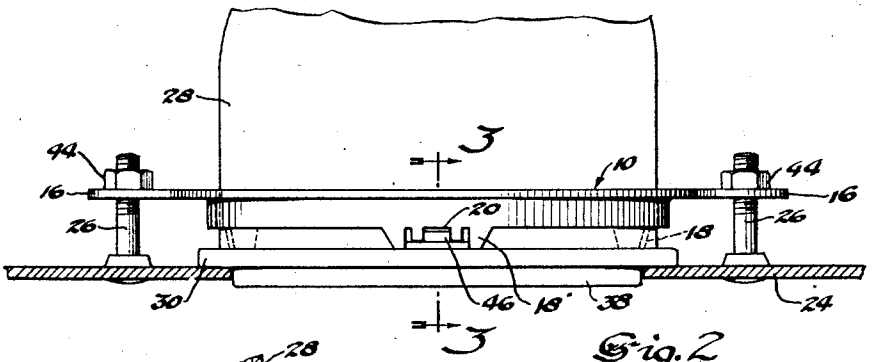


Fig. 2

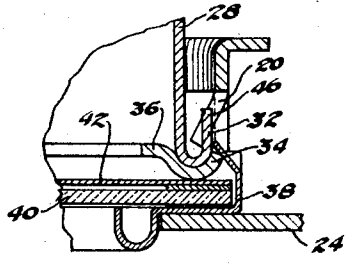


Fig. 3

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UNITED STATES PATENT OFFICE

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BRACKET FOR MOUNTING INSTRUMENTS ON PANELS

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This invention relates to brackets for mounting instruments on panels and instrument boards.

Heretofore mounting brackets for instruments have been applied to the backs of the cases thus necessitating the use of legs or extensions to reach to the instrument board, or else requiring the use of extra long bolts or mounting screws. In the first case a large amount of metal must be used and in the second, an unnecessary expense for bolts is incurred. In both cases it is difficult to secure a rigid mounting without using heavy gage stock.

My improved mounting bracket is in the form of a ring adapted to be slipped over the instrument housing and abut against an enlargement at the forward end thereof, this enlargement preferably being constituted by the flange to which the bezel is ordinarily secured. The bracket is provided with means for connection with clamping devices so that it may be drawn forwardly to clamp the instrument between it and the rear face of the instrument panel. If desired the bracket and the instrument housing may be provided with interfitting parts to hold the instrument against rotation. The bracket securely holds the instrument in place, and, since it is located immediately to the rear of the panel, requires but short clamping bolts or screws. Its design is also such that it may be cheaply and easily made out of light stock.

In the drawing:

Figure 1 is a perspective view of my improved clamping member.

Figure 2 illustrates the member in use in clamping an instrument to the instrument board, and

Figure 3 is a section on line 3—3 of Figure 2.

The numeral 10 indicates my clamping member which comprises an axially extending portion 12 and a radially extending portion 14. The portion 14 is provided at opposite points with apertured ears 16. The free edge of the axial portion 12 is scalloped to provide clamping portions 18 and 18′. The clamping portion 18′ is notched as shown at 20 and slotted at spaced points as shown at 22. The portion between slots is pressed inwardly forming a bifurcated tongue.

In Figure 2 I have shown how my clamping ring is employed in practice. 24 indicates a portion of an instrument panel, or instrument board. Projecting from the rear of the panel are the threaded bolts or studs 26. 28 indicates an instrument, in this case a speedometer. The housing of the instrument is provided at its forward end with a radial enlargement which, as shown in Figure 3, is constituted by an outwardly turned flange 32 formed on the housing of the instrument, an overlapping flange 34 formed on plate 36 which serves to spport parts of the mechanism not shown, and a bezel 38 which serves to clamp the glass 40 and the face plate 42 to the projecting flanges 32 and 34. So far as this invention is concerned the parts just described function simply as a radial enlargement or protuberance projecting from the instrument housing. In Figure 2 I have shown my clamping member 10 applied to the instrument with the clamping members 18 and 18′ engaging the rear face of the enlargement 30, and with the studs 26 projecting through the apertures in the ears 16 and equipped with nuts 44 which, when drawn up, clamp the instrument between the member 10 and the rear face of the panel 24. Again referring to Figure 2, it will be noted that the flange 32 is provided with a tongue 46 adapted to engage in the notch 20 as shown to prevent rotation of the instrument in its mounting.

The above described arrangement permits the use of securing studs 26 of minimum length. It also permits the manufacture of the rings 10 out of light stock, since the flanged form of the member 10 gives it the necessary stiffness. The clamping portions 18 of the ring engage the enlargement 30 at spaced points, permitting the instrument and the clamping ring to adjust themselves to each other and to the instrument panel as necessitated by inaccuracies in manufacture.

I claim:

1. The combination of an instrument panel having an opening therein for the display of the instrument, an instrument provid-

ed with a radially extending enlargement at its forward end, the forward face of said enlargement engaging the rear face of the panel, a clamping member encircling the instrument and engaging said enlargement, and means for drawing the member toward the rear face of the panel to clamp the instrument between it and the panel.

2. The combination of an instrument panel having an opening therein for the display of the instrument, an instrument including a casing having an outwardly projecting flange at its forward end arranged to engage the rear face of the panel, an annular clamping member encircling the instrument, said member being provided with an axial portion engaging the rear of said flange and with a radial portion, and clamping means engaging the panel and the radial portion of the clamping member for drawing the ring forwardly to clamp the instrument to the rear of the panel.

3. The combination of an instrument panel having an opening therein for the display of the instrument, an instrument provided with a radially extending enlargement at its forward end, a clamping member encircling the instrument and engaging said enlargement, and means for drawing the member toward the rear face of the panel to clamp the instrument between it and the panel, said clamping member and instrument being provided with interfitting parts to prevent rotation of the latter.

4. The combination of an instrument panel having an opening therein for the display of the instrument, an instrument including a casing having an outwardly projecting flange at its forward end, an annular clamping member encircling the instrument, said member being provided with an axial portion engaging the rear of said flange and with a radial portion, and clamping means engaging the panel and the radial portion of the clamping member for drawing the ring forwardly to clamp the instrument to the rear of the panel, the axial portion of said clamping ring being scalloped so as to apply pressure to the instrument flange at spaced points only.

In testimony whereof I affix my signature.

DON E. KEENEY.