

[54] **MEANS FOR MOUNTING AN INSTRUMENT ON A PANEL**

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[58] Field of Search.....248/27, DIG. 6; 220/3.3, 3.4, 220/3.5, 3.6; 180/90; 73/273; 339/132 R, 133 R

[56]

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[57]

ABSTRACT

An instrument, which has a connecting socket with a polygonal portion and an axially adjacent neck portion, is mounted in an aperture of a panel by means of a stirrup which has a like polygonal bore capable of receiving the polygonal socket portion. The stirrup bore engages the neck portion and is angularly displaced in respect of the socket portion. Clamping bolts fix the stirrup to the instrument panel.

8 Claims, 3 Drawing Figures

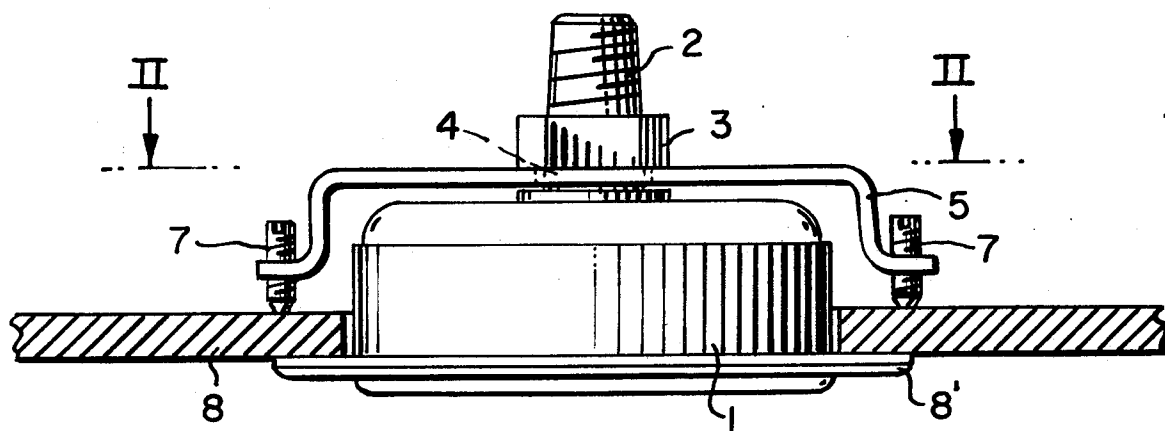


FIG. 1

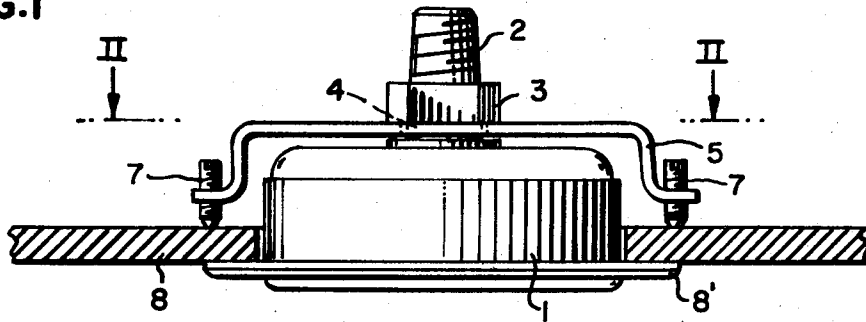


FIG. 2

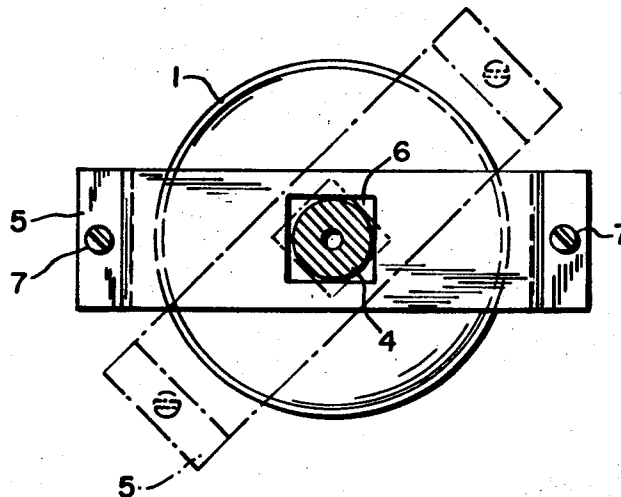
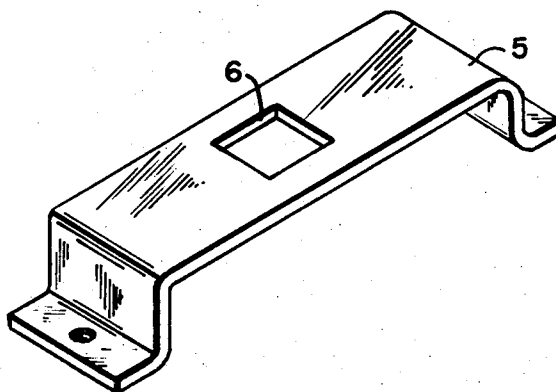


FIG. 3



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MEANS FOR MOUNTING AN INSTRUMENT ON A PANEL

The present invention relates to improvements in means for mounting an instrument, such as a manometer, thermometer or the like, on an instrument panel.

It is a primary object of this invention to make such mounting means simple and reliable, particularly in use with instruments which have conically tapering connecting sockets.

This and other objects are accomplished in accordance with the invention with an instrument having a connecting socket projecting therefrom, a polygonal portion fixed on the connecting socket and having a plurality of circumferentially extending flats, and a neck portion axially adjacent the polygonal portion and extending between the polygonal socket portion and the instrument, wherein the diameter of the neck portion does not exceed the width between diametrically opposed flats of the polygonal socket portion. A stirrup having a like polygonal bore is capable of receiving the polygonal socket portion. The stirrup engages the neck portion, and the stirrup bore is angularly displaced in respect to the polygonal socket portion. Clamping bolts fix the stirrup to the instrument panel whereby the instrument is held between the stirrup and the panel on the panel.

The above and other objects and features of the present invention will become more apparent from the following detailed description of a now preferred embodiment thereof, taken in conjunction with the accompanying drawing wherein

FIG. 1 is a side view of a manometer mounted on an instrument panel according to this invention, the panel being shown in cross section;

FIG. 2 is a cross sectional view along line II—II of FIG. 1, showing a rear view of the stirrup mounting and the manometer; and

FIG. 3 is a perspective view of the stirrup.

Referring now to the drawing, the manometer 1 is shown to have a projecting conically tapered connecting socket 2 to which there is fixed a polygonal nut portion 3 having a plurality of circumferentially extending flats. The illustrated polygonal portion defines a square although it will be obvious that other polygonal shapes, particularly regular polygons, such as hexagons, may be used with equivalent effect.

A neck portion 4 is axially adjacent the polygonal portion 3 and extends between the polygonal socket portion 3 and the monometer 1. The illustrated socket and neck portions are coaxial, and the neck portion 3 has a circular circumference in the illustrated embodiment. The diameter of the neck portion 4 does not exceed the width between diametrically opposed flats of the polygonal socket portion 3. This diameter may be equal to the width or slightly smaller.

For mounting the manometer on the panel 8 there is provided a stirrup 5 having a like polygonal, i.e. square, bore 6 capable of receiving the polygonal socket portion when the same are in registry, as indicated in chain-dotted lines in FIG. 2. In this position, the stirrup may be moved over the connecting socket 2 and its polygonal portion 3. After the stirrup has been thus moved over the connecting socket and the stirrup bore 6 is coplanar with the neck portion 4, the stirrup and its

bore are angularly displaced in respect to the polygonal socket portion, the displacement illustrated in full lines in FIG. 2 being 45°.

As shown in FIG. 1, the manometer comprises a mounting flange 8 engaging the panel around a mounting aperture 9 so as to center the instrument in the mounting aperture and hold it clamped therein when the stirrup on the opposite side of the panel is clamped into position by clamping bolts 7 to fix the stirrup to the panel.

As will be appreciated, the instrument panel may have varying thicknesses because heavier panel gages may be readily accommodated by simply reversing the position of the stirrup, with its flanges being farther removed from the flange 8 of the instrument. Also, the mounting means is totally independent of the length of the connecting socket 2.

I claim:

1. Means for mounting an instrument on an instrument panel, comprising
 1. a connecting socket projecting from the instrument,
 2. a polygonal portion fixed on the connecting socket and having a plurality of circumferentially extending flats,
 3. a neck portion axially adjacent the polygonal portion and extending between the polygonal socket portion and the instrument,
 - a. the diameter of the neck portion not exceeding the width between diametrically opposed flats of the polygonal socket portion,
 4. a stirrup having a like polygonal bore capable of receiving the polygonal socket portion,
 - a. the stirrup bore being coplanar with the neck portion, and
 - b. the stirrup bore being angularly displaced in respect to the polygonal socket portion, and
 5. clamping bolt means fixing the stirrup to the instrument panel whereby the instrument is held between the stirrup and the panel on the panel.
2. The instrument mounting means of claim 1, wherein the instrument is a manometer.
3. The instrument mounting means of claim 1, wherein the panel has an aperture receiving the instrument in the panel, with the stirrup extending over the instrument and the panel aperture.
4. The instrument mounting means of claim 3, wherein the instrument comprises a flange, and the instrument flange engages the panel around said aperture opposite to the stirrup whereby the instrument is mounted on the panel aperture between the stirrup and the flange.
5. The instrument mounting means of claim 1, wherein the connecting socket is conically tapered
6. The instrument mounting means of claim 1, wherein the polygonal socket portion and the polygonal stirrup bore define regular polygons.
7. The instrument mounting means of claim 6, wherein the polygons are squares and the stirrup bore is displaced in respect to the socket portion by an angle of 45°.
8. The instrument mounting means of claim 1, wherein the socket and neck portions of the socket are coaxial and the neck portion has a circular circumference.

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