Dec. 15, 1925. 1,565,391

R. T. PIERCE

INSTRUMENT STRUCTURE

Filed May 12, 1923

Fig. 1.

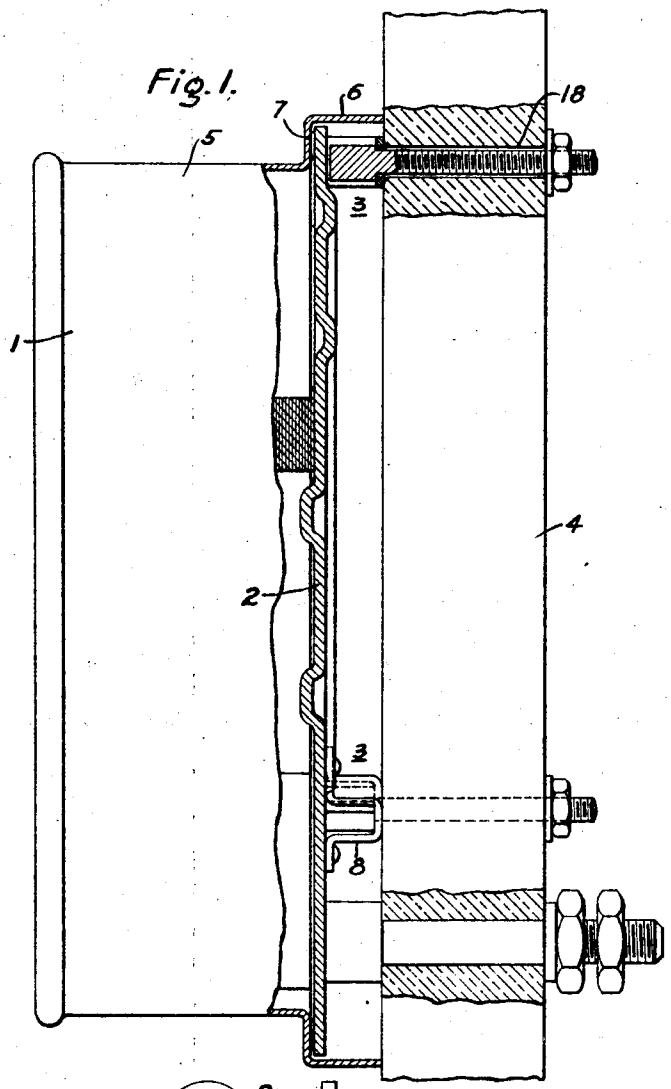


Fig. 2.

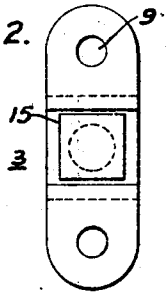
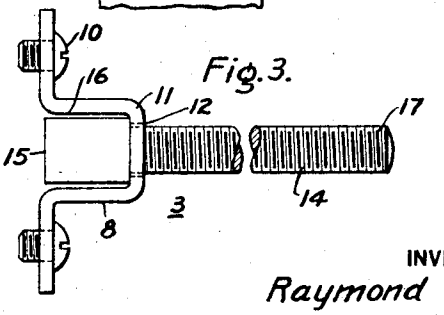


Fig. 3.



WITNESSES:

INVENTOR

Raymond T. Pierce

BY

ATTORNEY

Patented Dec. 15, 1925. 1,565,391

UNITED STATES PATENT OFFICE.

RAYMOND T. PIERCE, OF EAST PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

INSTRUMENT STRUCTURE.

Application filed May 12, 1923. Serial No. 638,627.

To all whom it may concern:

Be it known that I, RAYMOND T. PIERCE, a citizen of the United States, and a resident of East Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Instrument Structures, of which the following is a specification.

My invention relates to instrument structures and particularly to structures for enclosing electrical measuring instruments and for mounting the same on meter panels and similar supports.

One object of my invention is to provide a device of the above indicated character that shall be simple and durable in construction, economical to manufacture and effective in its operation.

Another object of my invention is to provide means for so compensating for slight discrepancies which may occur between cooperating normally registering attaching and receiving means on an instrument casing and an instrument panel, respectively, as to insure and facilitate the ready mounting of the instrument.

A further object of my invention is to provide an instrument structure in which an outer casing is so constructed and related to a base member as to facilitate the removal of the casing and to render the instrument neat in appearance.

Figure 1 of the accompanying drawing in a side view, partially in elevation and partially in section, of an instrument structure constructed in accordance with my invention, and

Figs. 2 and 3 are enlarged detail views of a novel attaching means employed therein.

My invention comprises, in general, a casing 1, a base member 2 therefor, and a plurality of attaching means 3 for mounting the member 2 upon a support or panel 4.

The casing 1 is preferably constructed of relatively thin sheet metal and is of cylindrical form having portions 5 and 6 of different diameters to provide an annular shoulder 7 therebetween.

The base member 2 that is preferably constructed of sheet metal plate of discoidal form and of slightly smaller diameter than the inner surface of the larger portion 6 of the casing 1, is adapted to be disposed in parallel relation to the panel 4 and to be slightly spaced therefrom. The base member 2 is adapted to support the main meter mechanism (not shown) on its front surface within the casing 1.

Each of the attaching devices 3, which are preferably three in number equally distributed about the outer perimeter of the base member 2, comprises a yoke member 8 having openings 9 for the reception of screws 10 by which it is secured to the member 2 and a stirrup portion 11 having an opening 12 through which a screw bolt 14, having a rectangular head 15, extends.

The rectangular head 15 co-operates with flat inner surfaces 16 of the stirrup portion 11 to prevent turning of the bolt 14 which, with its head 15, is somewhat loosely related to the stirrup 11, in order that the outer end 17 of the bolt 14 may be moved laterally a relatively slight amount. By this construction, if holes 18 in the panel 4, which are normally adapted to be in alinement with the bolts 14, do not happen to aline exactly with the bolts, the mounting of the base member 2 is greatly facilitated, by reason of the slight movement of the bolts which permits them to be readily placed in the openings.

The stirrup portions 11 of the members 8 are of such length, in the direction of the longitudinal axes of the bolts 14, as to support the base member 2 the proper distance from the panel 4 to permit the cylindrical portion 6 of the casing to rest against the panel and the shoulder 7 to rest against the perimeter of the member 2. This construction permits the casing 1 to be removed for inspection of the meter without removing the base member 2, and by permitting the casing to be of one continuous member from the panel to the front edge thereof, conceals the base member and renders the instrument neat and attractive in appearance.

While I have shown and described a particular form of my invention, changes may be effected therein without departing from the spirit and scope thereof, as set forth in the appended claims.

I claim as my invention:

1. The combination with a support or panel having a plurality of receiving means, of a casing and a plurality of attaching means normally adapted to register with, and to be secured in position by, said receiving means and laterally movably secured to the casing to compensate for discrepancies

between the positions of said receiving means relative to said attaching means.

2. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, and a plurality of bolts normally adapted to register with, and to be placed in, said openings and laterally movably secured to the casing to compensate for discrepancies between the positions of the openings relative to the bolts.

3. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, and a plurality of bolts normally adapted to register with, and to be placed in, said openings and each pivotally secured at one end to the casing to permit lateral movement of the bolts relative to the casing.

4. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, and a plurality of bolts normally adapted to register with, and to be placed in, said openings and each pivotally secured at one end in non-turning relation to the casing.

5. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, a plurality of stirrups secured to the casing, and a plurality of bolts movably mounted in said stirrups for insertion in said openings.

6. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, a plurality of stirrups secured to the casing and a plurality of bolts laterally movably mounted in said stirrups for insertion through said openings, said stirrups and said bolts being operatively constructed and related to prevent the turning of the bolts about the longitudinal axes of the latter.

7. The combination with a support or panel having a plurality of bolt-receiving openings therein, of a meter structure comprising a casing, a plurality of stirrups secured to the casing each having oppositely-spaced inner side surfaces and an apertured laterally-extending end portion, a plurality of bolts for insertion through said openings loosely disposed in said apertured end portions and having side surfaces disposed in slightly-spaced co-operative relation to said inner side surfaces to prevent turning of the bolts about, and to permit lateral movement relative to, the normal longitudinal axes thereof.

In testimony whereof, I have hereunto subscribed my name this 9th day of May, 1923.

RAYMOND T. PIERCE.