

March 9, 1937.

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2,072,952

MOUNTING FOR ELECTRICAL DEVICES

Filed Aug. 1, 1935

2 Sheets-Sheet 1

FIG. 1

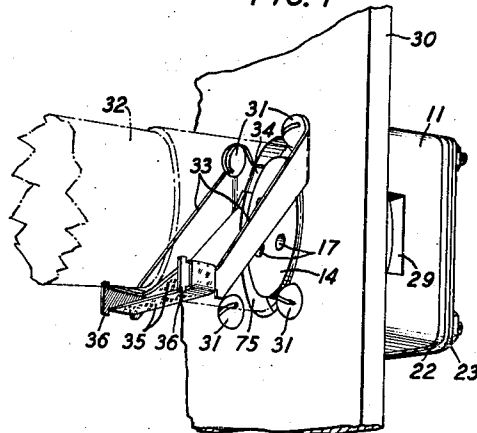


FIG. 3

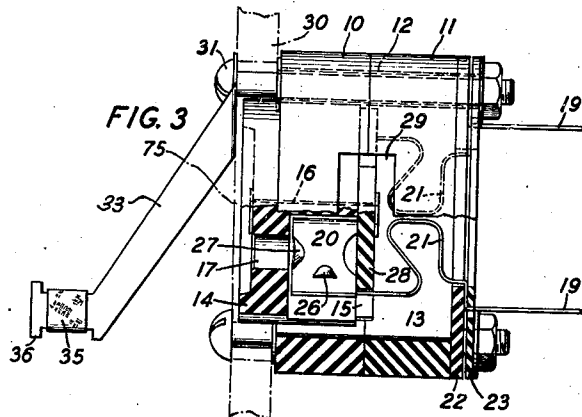
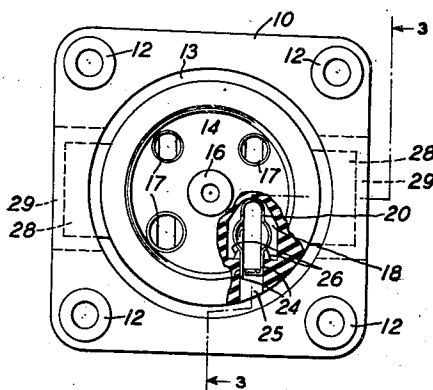


FIG. 2



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FIG. 4

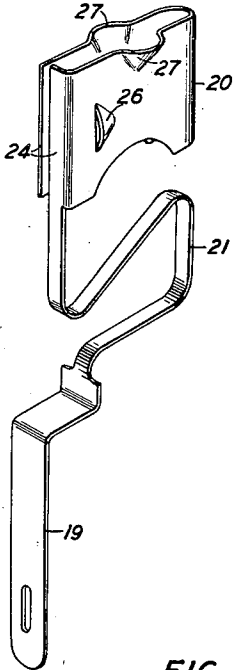


FIG. 5

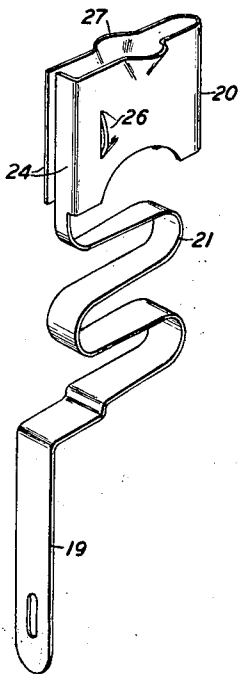


FIG. 6

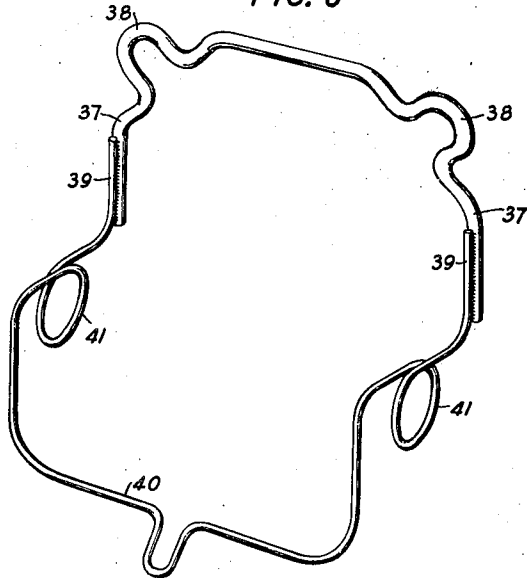
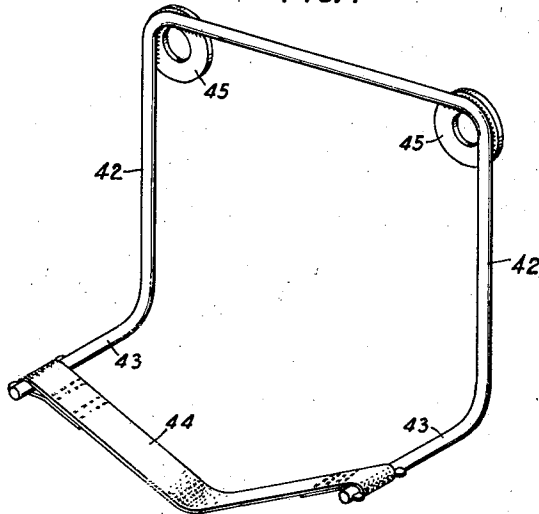


FIG. 7



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MOUNTING FOR ELECTRICAL DEVICES

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9 Claims. (Cl. 250—27.5)

This invention relates to mountings for electrical devices and more particularly to cushion type mountings for supporting electron discharge and similar devices in a horizontal position from a vertical support or panel.

Cushion type mountings for electron discharge devices and the like usually comprise, in general, a base or support portion, a socket, and resilient members supporting the socket from the base or support portion. When such mountings are used for supporting an electron discharge device or the like in a horizontal position, the stresses in the resilient members are excessive so that undesirable tilting of the socket member and unsatisfactory cushioning of the device results.

One object of this invention is to prevent excessive stressing of the resilient members in cushion type mountings for supporting electron discharge devices and the like in a horizontal position on a vertical support or panel.

In one embodiment illustrative of this invention, a mounting comprises a base adapted to be secured to a vertical support or panel, a socket having a plurality of horizontal apertures for receiving terminal prongs on the device to be supported, and a plurality of resilient members supporting the socket from the base.

In accordance with a feature of this invention, an auxiliary resilient support is provided on the base member and adapted to engage the device to be supported whereby the stresses in the resilient supporting members are reduced. The auxiliary support may be in the form of a hanger having a supporting portion secured to the base of the mounting, a cradle portion in which the electron discharge or other device may rest, and coiled springs connecting the cradle and supporting portion.

The invention and the various features thereof will be understood more clearly and fully from the following detailed description with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a mounting constructed in accordance with this invention mounted on a vertical panel, with a portion of an electron discharge device supported by the mounting shown in dotted outline;

Fig. 2 is a front view partly in section of the mounting shown in Fig. 1 with the auxiliary support omitted;

Fig. 3 is a side elevational view of the mounting shown in Fig. 1, partly in cross-section along the line 3—3 of Fig. 2;

Fig. 4 is an enlarged detail perspective view of one of the terminal and contact members embodied in the mounting shown in Figs. 1 to 3;

Fig. 5 is another enlarged detail perspective view illustrating a modification of the terminal and contact member shown in Fig. 4; and

Figs. 6 and 7 are perspective views of modifica-

tions of the auxiliary support shown in Figs. 1 and 2.

Referring now to the drawings, the mounting shown in Figs. 1 to 3, inclusive, comprises a base or support portion including two substantially square similar base or support members 10 and 11, which may be of insulating material, such as a phenolic condensation product, secured together by a plurality of eyelets 12 and forming a central recess 13. Disposed within the recess 13 and spaced from the inner walls of the members 10 and 11 is a socket member, which also may be of an insulating material, such as a phenolic condensation product, and which includes a body portion 14 and a base plate 15 secured to the body portion 14 by a central eyelet 16. The body portion 14 is provided with a plurality of apertures 17 for receiving the terminal prongs of an electron discharge device, or the like, and is provided also with a plurality of recesses 18 disposed one below and in communication with each of the apertures 17.

The socket member is resiliently supported within the recess 13 by a plurality of metallic members which may be, for example, of phosphor bronze, each of which, as shown clearly in Fig. 4, comprises a terminal portion 19, a U-shaped contact portion 20, and an intermediate resilient portion 21. Each terminal portion 19 is substantially L-shaped and is held between two plate members 22 and 23, which may be of insulating material, such as a phenolic condensation product, secured to the support member 11 by the eyelets 12. Each of the contact portions 20, as shown clearly in Fig. 2, is disposed in one of the recesses 18, being positioned longitudinally by the top of the body portion 14 and the plate 15, and has parallel arm portions 24 frictionally held in slots or grooves 25 in the body portion 15. Each contact portion 20 is provided also with integral projections 26 which abut against the inner wall of the body portion 15 and with guide lips 27 which are in axial alignment with the corresponding aperture 17.

As shown in Fig. 5, the intermediate portion of the contact and terminal members may be substantially S-shaped to increase the resiliency thereof.

The base plate 15 of the socket may be provided with integral arms 28, as shown in Fig. 2, which extend into apertures 29 in the support members 10 and 11 and serve to prevent excessive movement of the socket and the production of deleterious stresses in the resilient portions 21 of the contact and terminal members.

The mounting may be secured to a vertical wall or panel 30 with the body portion 15 positioned in an aperture 31 in the wall or panel by bolts 31 which extend through the eyelets 13. If a device, such as an electron discharge device

32, is carried by the socket 14, 15, because of the weight of the device, the socket may contact with the support members 10 and 11 so that the device will not be supported resiliently and the electrodes thereof will not be protected against shocks and jars. Furthermore, the resilient portions 21 may be subjected to excessive stresses so that they may acquire a permanent set and the resiliency thereof may be materially decreased.

10 In accordance with this invention, the aforementioned difficulties are overcome by providing an auxiliary resilient support which carries a large part of the weight of the device 32 and holds it in such position that the socket member is maintained out of contact with the support members 10 and 11.

In one illustrative embodiment shown in Figs. 1 and 3, the auxiliary support comprises a pair of resilient arms 33 which may be of sheet metal, each secured to the wall or panel 30 by one of the bolts 31 and having an integral bent bracket portion 34 extending into the aperture 75 and engaging the wall or panel to firmly position the arms 33. A flexible strip 35 of fabric or similar material passes around extensions 36 on the arms 33 and is adapted to be engaged by the device 32. Preferably, the arms 33 and strip 35 are so formed that when the device 32 is in position, the longitudinal axis of the device 32 is at right angles to the plane of the panel or wall 30. It will be apparent, then, that the device 32 is floatingly supported by the auxiliary support and the resilient portions 21 without excessive stressing of the resilient portions 21.

In another illustrative embodiment shown in Fig. 6, the auxiliary support comprises a U-shaped frame member 37 which may be formed of a wire rod, provided with arcuate portions 38 adapted to be engaged by the heads of securing members such as the bolts 31 for mounting the auxiliary support on the vertical wall or panel 30. The auxiliary support shown in Fig. 6 includes also another frame member which also may be formed of a wire rod, having arms 39 secured to the frame member 37 as by welding, a hanger portion 40 adapted to engage the device 32, and resilient loop portions 41.

In still another embodiment shown in Fig. 7, the auxiliary support comprises a U-shaped member 42 which may be formed of a wire rod, having parallel forwardly extending arms 43 to which a strip 44 of fabric or the like is suitably secured, the strip 44 being adapted to engage the device 32. The U-shaped member has secured thereto, as by welding, metallic washers 45 for receiving the bolts 31 or the like for securing the auxiliary support to the vertical wall or panel 30.

Although specific embodiments of this invention have been shown and described, it will be understood, of course, that modifications may be made therein without departing from the scope and spirit of this invention as defined in the appended claims.

What is claimed is:

1. A mounting for an electrical device, comprising a support member, a socket member for receiving the device, a plurality of metallic members each having a terminal portion secured to said support member, a contact portion secured to said socket member and a resilient portion intermediate said terminal and contact portions,

and a resilient support having a portion secured to said support member and having a U-shaped cradle portion for receiving said device carried by said first portion.

2. A mounting for supporting an electrical device in a horizontal position on a vertical panel, comprising a support member adapted to be mounted on said panel, a socket member for holding said device in a horizontal position relative to said panel, means resiliently supporting said socket member from said support member, auxiliary supporting means including arms adapted to be secured to said panel and a flexible member extending between said arms and adapted to engage said device, and means engaging both said support member and said arms affixing said support member and said auxiliary means to said panel.

3. A mounting for an electrical device, comprising resiliently supported means for holding said device, and means for supporting said device at points remote from said first means including arms adapted to be fixed to a support and a strip of flexible material extending between said arms for engaging said device at said points.

4. A mounting for an electrical device, comprising a socket member for holding said device in a horizontal position, means resiliently supporting said socket member, and means for resiliently supporting said device at points remote from said socket member including a substantially U-shaped cradle member for receiving said device.

5. In combination, a vertical panel having an aperture therein, a mounting for an electrical device comprising a base secured to said panel and having a recess in alignment with said aperture, a socket member within said aperture and recess for receiving the device, means resiliently supporting said socket member from said base, and a resilient support including a frame secured to said panel, arms extending outwardly from said frame and a strip of fabric extending between said arms for engaging said device.

6. A mounting for an electrical device, comprising a support, a socket for receiving the device resiliently mounted in said support, and an auxiliary support including a frame attached to said first support, a cradle portion for receiving said device, and resilient loop portions connecting said frame and said cradle portion.

7. In a mounting for an electrical device, a supporting member comprising a portion adapted to be secured to a support, spaced resilient arms extending outwardly from said portion, and a cradle member for receiving said device, carried by said arms.

8. In a mounting for an electron discharge device, a support comprising a hanger adapted to be secured to a vertical panel, a cradle for accommodating said device and holding it with its longitudinal axis horizontal, and coiled spring members connecting said hanger and said cradle.

9. In a mounting for an electrical device, a support comprising a wire frame having a U-shaped portion adapted to be secured to a vertical panel and arms extending horizontally from said portion, and a cradle member for accommodating said device resiliently supported by said arms.

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