

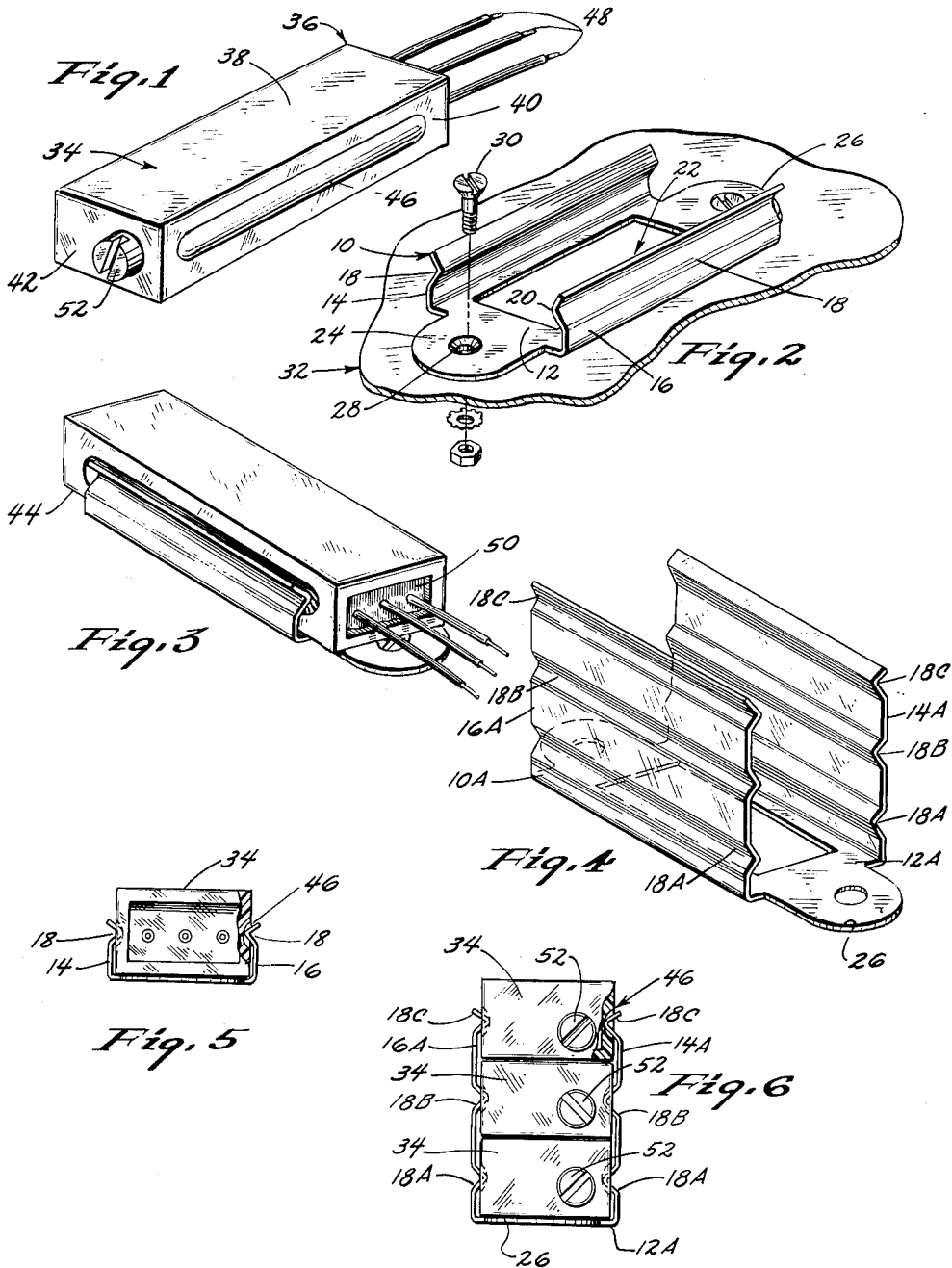
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MOUNTING BRACKET FOR TRIMMER POTENTIOMETERS

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MOUNTING BRACKET FOR TRIMMER POTENTIOMETERS

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Trimmer potentiometers are commonly mounted on chassis decks of various equipment, and this invention relates to a means for facilitating this mounting operation.

A principal object of this invention is to provide a mounting bracket for trimmer potentiometers that will easily permit either the independent mounting of the bracket on a chassis, and thence the mounting of the potentiometer in the bracket; or the simultaneous mounting of the bracket and the potentiometer on the chassis member.

A further object of this invention is to provide a mounting bracket for trimmer potentiometers that will not interfere with the terminals of a potentiometer mounted therein.

A still further object of this invention is to provide a mounting bracket for trimmer potentiometers that will accommodate potentiometers with terminal leads of different design.

A still further object of this invention is to provide a mounting bracket for trimmer potentiometers that will accommodate more than one potentiometer.

A still further object of this invention is to provide a mounting bracket for trimmer potentiometers that requires no movable parts to effect the mounting of a potentiometer therein.

A still further object of this invention is to provide a mounting bracket for trimmer potentiometers that is comprised of one unitary piece of material.

A still further object of this invention is to provide a mounting bracket for trimmer potentiometers that is economical of manufacture and durable in use.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangements, and combination, of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in my claims, and illustrated in the accompanying drawing, in which:

FIGURE 1 is a perspective view of a trimmer potentiometer used in the device of this invention;

FIGURE 2 is a perspective view of the mounting bracket positioned on a deck means;

FIGURE 3 is a perspective view of the trimmer potentiometer of FIGURE 1 mounted in the mounting bracket of FIGURE 2;

FIGURE 4 is a perspective view of an alternate form of the mounting bracket herein contemplated;

FIGURE 5 is an end elevational view of the construction shown in FIGURE 3 with a portion of the potentiometer housing being cut away to more fully illustrate its construction; and

FIGURE 6 is an end view of the mounting bracket of FIGURE 4 with a plurality of the potentiometers of FIGURE 1 mounted therein.

The numeral 10 generally designates the mounting bracket herein involved which includes a horizontal sheet portion 12 which has walls 14 and 16 extending upwardly in a parallel direction from the side edges thereof. The sheet portion 12 and the walls 14 and 16 are preferably of unitary construction and can be comprised of plastic or any suitable metal. The walls 14 and 16 should have spring like characteristics which causes them to yieldingly assume the positions shown in FIGURE 2. The upper

end of each wall 14 and 16 terminates in an elongated corrugation 18 which is V-shaped in cross section. As will be noted in FIGURE 2, the apex 20 of the corrugations 18 extend inwardly towards each other. The corrugations 18 on each of the walls 14 and 16 dwell in substantially the same horizontal plane.

An elongated rectangular opening 22 appears in sheet 12 and is adapted to receive the terminals from printed circuit-type potentiometers. Such potentiometers are not shown in the drawings but are commonly known in the trade and characteristically have three terminals extending downwardly from the bottom of the potentiometer housing. Tabs 24 and 26 extend outwardly from the ends of sheet portion 12 and center apertures 28 are located in each of the tabs. Nut and screw assemblies 30 are adapted to be used in conventional fashion with apertures 28 to affix the mounting bracket 10 to the chassis deck 32.

A trimmer potentiometer 34 is shown in FIGURE 1. The trimmer potentiometer includes a housing 36 having a top 38, sides 40, ends 42, and bottom 44. Elongated slots 46 are located in the sides 40 of housing 36 and these slots are preferably arcuate in cross section. As shown in FIGURES 3 and 5, the elongated slots 46 in the potentiometer housing are adapted to receive the corrugations 18 of the mounting bracket 10. The length of the potentiometer 34 with respect to the length of the walls 14 and 16 of the mounting bracket can be varied. In FIGURE 3, the potentiometer 34 is shown to be longer than the walls 14 and 16. However, it is sometimes desirable to increase the length of the mounting bracket so that the apertures 28 in the tabs 24 and 26 are not covered by the potentiometer housing. The potentiometer 36 includes flexible leads 48 which extend through an opening 50 in one end of the housing. The numeral 52 designates the conventional leadscrew which is used to selectively adjust the trimmer potentiometer.

An alternate form of the mounting bracket 10 is shown in FIGURES 4 and 6 in the form of bracket 10A. Bracket 10A includes a sheet portion 12A, walls 14A and 16A, corrugations 18A, 18B, 18C and tabs 26A. Mounting bracket 10A is substantially identical to bracket 10 except that the walls 14A and 16A of bracket 10A are increased in height with respect to the walls 14 and 16 of bracket 10, and the walls 14A and 16A include a plurality of corrugations rather than the single pair of corrugations shown in bracket 10. The purpose for the plurality of corrugations in the walls 14A and 16A is to permit "gang-mounting" of a plurality of potentiometers 34.

The normal use of the devices of this invention is as follows: Either of the mounting brackets 10 or 10A can be secured to the deck 32 by affixing the nut and screw assemblies through the tabs 24 and 26 in the manner described above. If only one potentiometer is to be affixed to the deck 32, the mounting bracket 10 will be used. However, if a plurality of potentiometers are to be affixed to the deck, it is sometimes desirable to utilize the mounting bracket 10A.

After the mounting bracket has been affixed to the deck in the manner described, the walls thereof can be yieldingly pushed outwardly to permit the potentiometer 34 to move downwardly against the sheet portion 12 (or 12A). This is normally done by merely pushing the potentiometer downwardly into the mounting bracket. It will be noted that the V-shaped corrugations in mounting bracket 10A always present a surface on the upper portion of the corrugation which extends upwardly and outwardly. This tends to permit the downwardly moving potentiometer housing to spread the walls of the mounting bracket, but the walls snap back into their original position as soon as the corrugations involved become

aligned with the elongated slots 46 in the sides of the potentiometer housing. Obviously, when the mounting bracket 10A is used, the process of placing a single potentiometer in the bracket 10 is repeated so that a plurality of potentiometers can then be mounted in the bracket 10A.

From the foregoing, it is seen that the mounting brackets described will effectively hold the potentiometers in position without requiring a great deal of manipulation by the operator. If it is desired, the sheet portion 12 or 12A of the respective mounting brackets can be secured to the deck 32 by means of adhesives or the like which would eliminate the necessity of the tabs 24 and 26. The mounting bracket 10 will accommodate potentiometers having leads 48 which extend from the end of the housing or will also accommodate the printed circuit-type potentiometer wherein the leads extend from the bottom of the housing. It is therefore seen that this invention will accomplish at least all of its stated objectives.

Some changes may be made in the construction and arrangement of my mounting bracket for trimmer potentiometers without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a mounting bracket for rectangular in cross-section potentiometers, said potentiometer having an elongated longitudinally extending slot formed in opposite longitudinal vertical side walls,
 a horizontal sheet portion of spring material, said sheet portion having parallel walls extending perpendicularly upwardly therefrom,
 at least one longitudinally disposed corrugation formed in each of said parallel walls,
 said corrugation being V-shaped in cross-section with their apexes extending horizontally inwardly to be yieldably received in said elongated slot in the adjacent vertical side wall of said potentiometer,
 and apertured tab portions extending outwardly from

the ends of said sheet portion and in the plane thereof securing said bracket to a support or the like.

2. The structure of claim 1 wherein said horizontal sheet portion has an elongated opening formed therein between said side walls.

3. The device of claim 1 wherein said walls include a plurality of corrugations with each corrugation being in a horizontal plane with a corresponding corrugation in the opposite wall.

4. In combination,

a mounting bracket having a horizontal sheet portion of spring material, said sheet portion having parallel walls extending perpendicularly upwardly from said sheet portion,

a plurality of vertically spaced apart corrugations in each of said walls, said corrugations extending in parallel horizontal planes and disposed such that each corrugation has an opposing corrugation in the same plane in the other wall facing it, said corrugations being V-shaped in cross-section with their apexes extending inwardly towards the opposite side wall,

a plurality of separate elongated potentiometer housings in stacked vertical relationship disposed between said side walls, said housing being rectangular in cross-section, and

each of said housings having horizontal longitudinally extending grooves formed in each vertical side wall, said grooves adapted to receive said apexes of the adjacent pair of corrugations to yieldably hold said housings between said parallel walls.

References Cited by the Examiner

UNITED STATES PATENTS

2,043,532	6/36	Dubilier	174—52
2,762,597	9/56	Jaworski	248—300
2,840,629	6/58	Roth et al.	174—35.5
3,110,873	11/63	Mittermaier	366—67

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