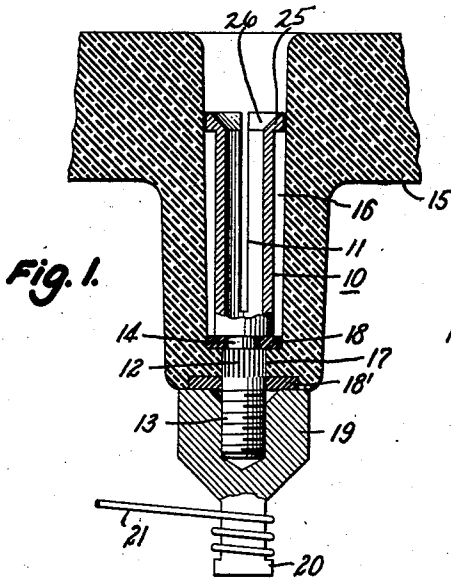
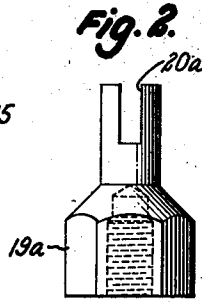
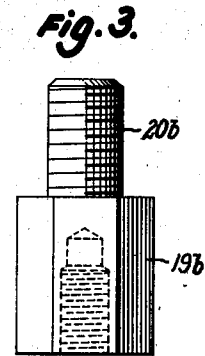
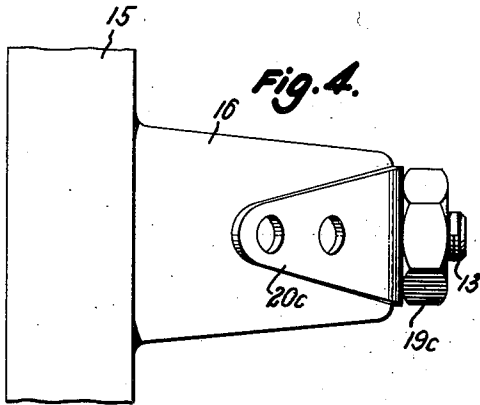
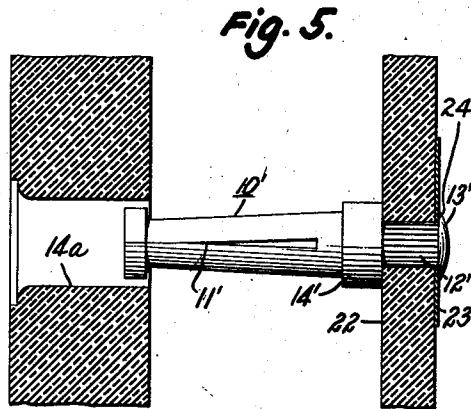


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PIN JACK ASSEMBLY
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2,820,213



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2,820,213

PIN JACK ASSEMBLY

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1 Claim. (Cl. 339—275)

This invention relates to pin jacks such as employed in radio, telephone and other electrical equipment and more particularly to a one-piece pin jack to be arranged within a recess or socket of the insulating base upon which the jack is mounted.

The conventional pin jack assemblies consist of a number of parts and frequently are so mounted as to project beyond their supporting base or panel. With such arrangements, it is usual to provide an insulating housing for the projecting portion, and this insulating housing may be a part of the pin jack assembly or a separate element or elements secured to the base by the same bolted connection which secures the pin jack assembly in place upon the base. The prior constructions have been further complicated by additional parts when the mounting of the pin jack assembly on a panel was to include a water-tight seal.

An object of this present invention is to provide a pin jack of simple construction for water-tight mounting on an insulating base or panel. More specifically, an object of the invention is to provide a pin jack comprising a unitary member of spring metal having a longitudinally split outer portion for receiving a pin or plug, an intermediate knurled or splined portion for anchoring the pin jack against rotation with respect to the panel upon which it is mounted, and an inner end portion for securing the jack to a panel, the inner end portion being threaded to receive a clamp nut or being deformable to be spun or riveted to the panel.

These and other objects and advantages of the invention will be apparent from the following specification when taken with the accompanying drawings in which:

Figure 1 is a transverse section through a pin jack embodying the invention, the pin jack being shown in mounted position on a panel;

Figures 2 and 3 are elevational views of other forms of clamping nuts;

Figure 4 is fragmentary elevational views of a pin jack mounted on a panel and provided with a separate soldering terminal; and

Figure 5 is a fragmentary sectional view showing another embodiment of the invention.

In the drawing, the reference numeral 10 identifies generally a unitary member of spring metal having an outer longitudinally split sleeve portion 11, the free ends of said split portion being reinforced by an outer peripheral bead or flange 25 and a countersunk as indicated at 26, a knurled or finely splined intermediate portion 12, and a threaded stud 13 at its inner end, and preferably with a circumferential groove 14 between the outer sleeve 11 and the intermediate portion 12. The pin jack is mounted on an insulating panel 15 with the outer sleeve portion 11 within a recess or socket 16 of the panel, predetermined in size so that undesired spreading of the parts of its sleeve portion 11, as by an associated plug, is pre-

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vented, and the splined portion 12 extending through a cylindrical bore 17 in the base of the socket 16. The splines are of slightly larger diameter than the bore 17 to cut into the insulating material and anchor the pin jack from rotation.

A resilient washer 18 is fitted upon the reduced diameter section 14 and a second resilient washer or gasket 18' is disposed within a suitable bore in the panel 15 and clamped to provide a water-tight seal when the terminal nut 19 is turned down on the threaded end 13 of the pin jack. While two sealing washers or gaskets are preferably employed, as shown, it is possible to omit one of them when maximum security against leakage at this point is not necessary. As shown, the nut 19 has a headed tip 20 to which a lead 21 may be soldered.

Other forms of clamping nuts may be provided, for example a nut 19a with a slotted extension 20a for receiving a connection, as shown in Figure 2, or a nut 19b with an internal thread for engagement upon the threaded end 13 of the pin jack and an externally threaded extension 20b upon which a resistance spool or sub-panel may be mounted, as shown in Figure 3. As shown in Figure 4, a separate soldering terminal 20c may be secured to the pin jack by a conventional nut 19c.

As shown in Figure 5, a pin jack 10' having an outer split sleeve portion 11' with an enlarged base 14', and a splined section 12' is mounted upon a sub-panel or deck 22 which may carry a so-called "printed circuit" including a conductive member 23 through which the inner end 13' of the pin jack extends. In this form of invention, the end 13' is riveted, spun or staked over the conductive member 23, and may be connected to member 23 by solder 24 to insure a good electrical connection. The outer end of the split sleeve portion 11' extends into or may be located within an opening 14a in an outer panel of the case which houses the apparatus that includes the printed circuit, and thereby prevented from undue spreading, as in the first embodiment.

Although the intermediate portion 12 or 12' may be knurled when the pin jack is secured to the supporting base or panel during the moulding of the latter, it is presently preferred to provide this portion with fine splines or ribs which permit the pin jack to be force fitted into a bore drilled through the mounting base or panel.

Having now described my invention in detail in accordance with the patent statutes, what I desire to protect by Letters Patent of the United States, is set forth in the following claim.

I claim:

A pin jack for mounting in the bore of an insulating panel comprising an outer longitudinally-split sleeve, an intermediate roughened portion for interlocking mechanically with the wall of the bore of the insulating panel, and inner end means for securing the pin jack to the panel, said inner end means comprising a threaded stud portion and a nut with an integral soldering terminal threaded on said stud portion.

References Cited in the file of this patent

UNITED STATES PATENTS

1,902,236	Heintz	Mar. 21, 1933
2,136,057	Olshansky	Nov. 8, 1938
2,307,972	Strunk	Jan. 12, 1943
2,387,630	Weakley	Oct. 23, 1945
2,532,538	Burt	Dec. 5, 1950
2,558,851	Jacobi	July 3, 1951
2,701,871	Rauch	Feb. 8, 1955
2,753,534	Sprigg	July 3, 1956