

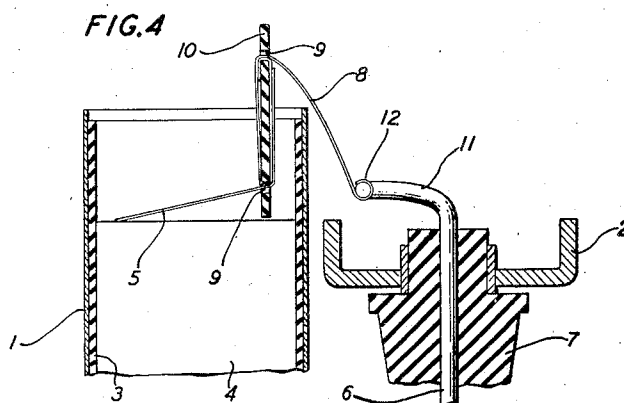
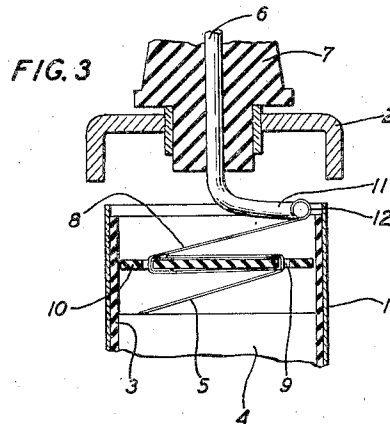
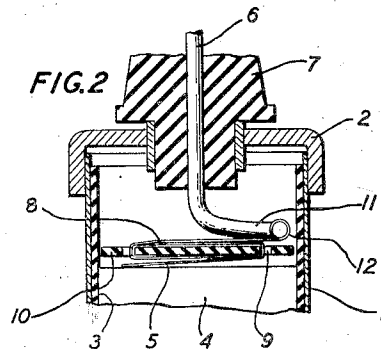
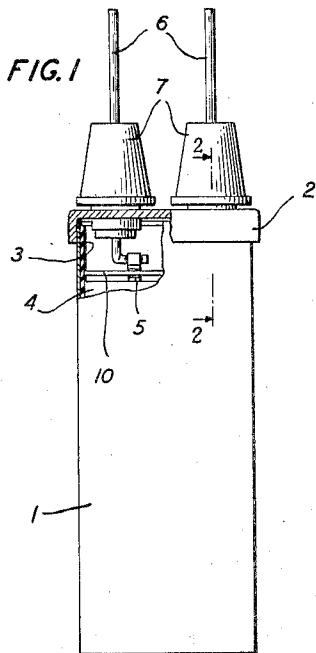
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TERMINAL CONNECTION FOR ELECTRICAL DEVICES

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TERMINAL CONNECTION FOR ELECTRICAL DEVICES

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4 Claims. (Cl. 175-41)

This invention relates to electrical devices, and more particularly, to improvements for attaching terminals thereto.

In certain electrical devices, for example, electrical condensers, the units are assembled in a casing before the connections are made between the inner unit terminals and the exterior terminals. In making connections to the outer terminals which, for example, may be mounted on the cover of the casing, and the unit terminals, it is customary to employ as short connections as possible, so that when the cover is placed on the casing they will not touch each other or the casing and cause the condenser to become short circuited. With this method, the soldering operation involved in connecting the leads to the exterior terminals is conducted so close to the casing that it is difficult to avoid pulling on the unit. It is also difficult to prevent solder from dropping inside the casing.

The object of this invention is to provide a method of and means for making connections between such inner and exterior terminals which will overcome the above objections.

In accordance with the invention these and other objects are attained in an electrical device which is encased in a casing having terminal members mounted on the cover, or other movable section of the casing, by placing a slotted insulating member adjacent the unit and weaving the unit terminals and a suitably attached connecting strap through the spaced apart slots in the insulator. These unit terminals and straps are sufficiently long so that the free ends of the latter extend out of and away from the opening in the casing. The exterior terminals which are mounted on the cover, or other movable portion of the casing, can, therefore, be soldered to the straps without danger of the solder falling inside the casing. To prevent the unit terminals and connecting straps from contacting each other when the cover is placed on the casing, they are folded in accordion-like folds and when compressed by the cover, they fold upon themselves and the insulator. In this way, they do not come in contact with each other or the casing.

An illustrative form of the invention as applied to a condenser is shown in the accompanying drawing in which:

Fig. 1 is a general view of an encased condenser with part of the case broken away to show the connecting means.

Fig. 2 is a section on line 2-2 of Fig. 1 showing the relation of parts with the cover on.

Fig. 3 is a section similar to that of Fig. 2 with

the cover raised to show how the flat leads fold; and

Fig. 4 is another similar section with the cover in position for soldering.

In Fig. 1 is shown a casing 1 having a cover 2. The casing is lined with insulating material 3 and contains a condenser 4. The condenser has a pair of ribbon-like terminal leads one of which may be seen at 5 and is more clearly shown in the other figures. The main or exterior terminals comprise members 6 encased in insulating bushings 7, mounted in the cover 2. The condenser terminal 5 leading from the condenser and a connecting strap or lead 8 are woven through slots 9 in the insulating plate 10 and suitably connected together. In making the connection between terminal member 6 and lead 8, the parts are drawn out of the case to the position shown in Fig. 4 and the inner portion 11 of the terminal 6 is soldered to lead 8 as at 12. Because of the length of the parts 5 and 8, the joint 12 may be soldered in the convenient position shown in Fig. 4 without dropping solder into the case. Furthermore no undue strain is put on the condenser terminals 5. After completion of the soldering operation the cover 2 is placed on the case. The flat conductors 5 and 8 fold on either side of the insulating plate 10 and do not come in contact with one another nor the case.

This new type of connection expedites the soldering operation and prevents undirected buckling of the connecting leads with its accompanying risk of short circuiting or imposing undue strain on the condenser terminals.

Although the invention has been described with respect to a particular illustrative embodiment, it is understood that it is not limited thereby but only by the scope of the appended claims.

What is claimed is:

1. In an electrical device, an electrical unit, a casing therefor, a completely removable cover for said casing having terminal members mounted thereon, terminal leads associated with said unit and adapted to be soldered to the terminal members mounted on said cover, a slotted insulating plate detached from the casing through which the terminal leads are woven, said leads being relatively long and bent into accordion-like folds on each side of said insulating plate so that they can be extended out of the casing during the soldering operation and folded inside the casing above and below the insulating plate when the cover is placed in its normal position without causing short circuits.

2. In an electrical condenser device, condenser

means having connecting leads, a casing enclosing said condenser means, a completely removable cover for said casing having terminals extending therethrough, a slotted insulating plate
5 detached from said casing, means for connecting the leads to the terminals comprising ribbon-like conductors woven through the slots of the insulating plate and arranged in accordion-like folds on each side thereof, whereby the folded conductor
10 may be drawn out of the case during the soldering of the connections.

3. In an electrical device, a unit having terminals, a casing enclosing said unit, a completely removable cover for said casing, terminal members
15 extending through said cover, a flat insulating plate detached from said casing and having a pair of slots therein for each of said terminals, the slots of each pair being widely spaced apart, flat connector strips woven through said slots and
20 arranged in folds on either side of the insulating plate, for making connections between respective

terminals and terminal members thereby allowing ample length of connector for withdrawal thereof for soldering, but avoiding short circuit when the cover is applied to the casing.

4. In an electrical device, an electrical unit enclosed in a casing, a completely removable cover
5 for the casing, terminal means extending through said cover, a flat, slotted plate of insulating material detached from said casing and adapted to fit in the casing over said unit, means for connecting
10 the unit to the terminal means comprising ribbon-like conductors woven through the slots in said plate and arranged in accordion-like folds on each side thereof, said conductors
15 being positioned so as to prevent undirected buckling when enclosed within said cover, whereby the conductors may be drawn out of the case for ease of soldering and may be refolded upon application
20 of the cover without danger of a short circuit due to intermingling of the conductors.

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