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E. E. FRANZ

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TERMINAL FOR ELECTRICAL DEVICES

Filed Jan. 25, 1930

FIG. 1.

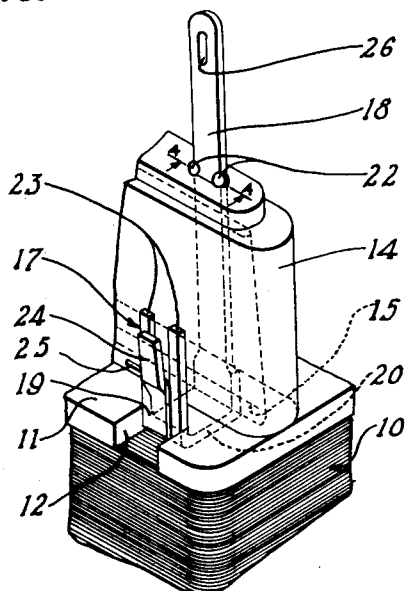


FIG. 4.

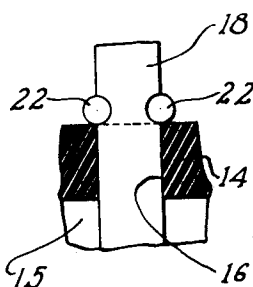


FIG. 2.

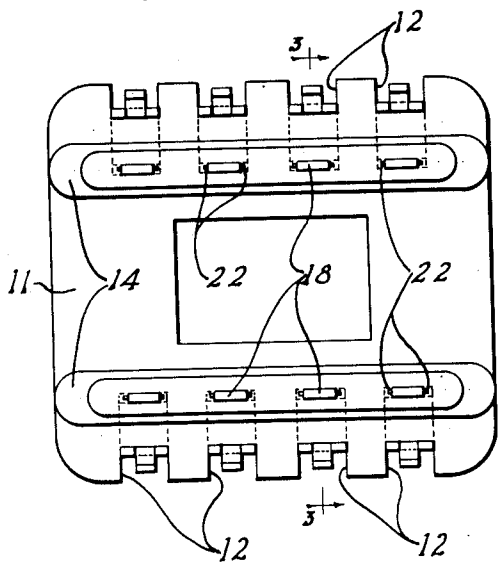
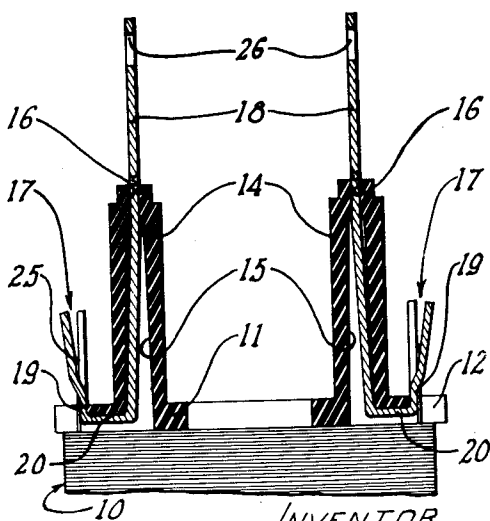


FIG. 3.



INVENTOR
E. E. FRANZ
BY E. R. Nowlan
ATTORNEY

UNITED STATES PATENT OFFICE

ERWIN E. FRANZ, OF CRANFORD, NEW JERSEY, ASSIGNOR TO WESTERN ELECTRIC COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

TERMINAL FOR ELECTRICAL DEVICES

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This invention relates to terminals for electrical devices and more particularly to electrical terminals and a mounting therefor for use with electrical coils.

An object of the invention is to provide electrical terminals and mountings for electrical devices which are of simple and inexpensive construction and which may be readily and conveniently assembled with a minimum amount of skill and manual labor.

One embodiment of the invention contemplates the provision of an electrical terminal and mounting for electrical coils wherein a head of the coil spool which comprises the terminal mounting of the coil is preferably composed of a molded insulating material, such as molded bakelite. A terminal conducting member having a U-shaped end portion terminating in an offset portion for receiving an end of the coil wire is fitted within a slot in the terminal mounting while the remaining portion of the terminal member extends through a vertical slot in a projecting portion of the terminal mounting and terminates in an apertured portion for the attachment of a conductor thereto. The terminal member is staked at its point of exit from the projecting portion of the mounting so as to securely attach it in place therein.

A clear and complete understanding of the invention may be had from the following detailed description of the preferred embodiment thereof illustrated in the accompanying drawings, wherein

Fig. 1 is a fragmentary perspective view of an electrical coil provided with terminal members and a mounting therefor embodying the features of the invention;

Fig. 2 is an end view thereof;

Fig. 3 is a fragmentary vertical section on line 3—3 of Fig. 2, the coil winding being shown in elevation; and

Fig. 4 is an enlarged fragmentary detailed section on line 4—4 of Fig. 1.

Referring now to the drawings in which like reference numerals designate corresponding parts in the several views, it will be observed that an electrical coil, indicated generally by the numeral 10, is provided with

a head or terminal mounting 11 of insulating material, such as molded bakelite. Spaced marginal slots 12, 12 are provided on opposite sides of the mounting 11, and spaced from the slotted sides of the mounting are a pair of vertically projecting terminal supporting portions 14—14, which are preferably formed integral with the base portion of the mounting and extend across the full length thereof as shown in Figs. 2 and 3.

The projecting portions 14 of the mounting are each formed with a tapered vertical slot 15 which extends through the base portion and communicates with spaced slots 16, 16 provided in the upper end of projecting portion opposite the marginal slots 12. Each of the slots 16 cooperates with an oppositely disposed marginal slot 12 to accommodate a terminal conducting member 17. The terminal member 17 is of substantially U-shaped construction, having spaced long and short vertical portions 18 and 19, respectively, interconnected at one end by a base portion 20.

It will be understood that the terminal members are attached to the head or mounting 11 before assembling the head with the core of the coil spool. The longer side 18 of the terminal member is inserted from the under side of the base portion 11 through the vertical slot 15 in the projecting portion 14, the shorter portion 19 of the terminal member entering the associated marginal slot 12. The base portion 11 is recessed on the under side thereof between the vertical slots 15 and the marginal slots 12 to accommodate the base portion 20 of the terminal member (Fig. 3). After the terminal member has been properly positioned the portion 18 thereof is staked, upset or otherwise formed at its point of exit from the projecting portion 14 of the mounting, as indicated by 22, in order to securely attach it in place. It will be obvious that the projecting portions 14 of the terminal mounting cooperate with the base portion 11 thereof to provide a rigid support for the terminal members. The shorter side 19 of the terminal member terminates in spaced portions 23—23 and an intermediate offset portion 24 which cooperates to form a pocket for receiving a tapered end

portion 25 of a coil wire which may be soldered or otherwise secured therein. The conductor engaging portions 23 and 24 of the terminal member are suitably spaced from the projecting portion 14 of the mounting so as to facilitate the tinning or other treatment of the terminals preliminary to the attachment of the coil wires thereto. The longer side 18 of the terminal member may be provided near its outer end with an aperture 26 for the attachment of another terminal or conductor thereto.

From the above description, it will be understood that the invention provides a simple and inexpensive terminal and mounting therefor which may be readily and conveniently attached to electrical devices with a minimum amount of skill and manual labor. It is obvious, of course, that the invention is not limited to the specific embodiment thereof herein illustrated and described, except in so far as is defined by the appended claims.

What is claimed is:

1. In an electrical device, a terminal mounting having spaced cooperating slots, and a terminal member having correspondingly spaced portions engaging the slots and impinging therebetween the portion of the mounting intermediate the slots, one of the terminal portions having a projection formed at its point of exit from the associated slot of the mounting for preventing displacement of the terminal member therefrom.
2. In an electrical device, a terminal mounting having spaced cooperating slots, a substantially U-shaped terminal member having correspondingly spaced interconnected portions engaging the slots and impinging therebetween the portion of the mounting intermediate the slots, the interconnecting portion of the terminal member engaging a side of the mounting, and one of the spaced terminal portions being staked at its point of exit from the mounting for cooperating with the interconnecting portion to prevent displacement of the terminal member.
3. In an electrical device, an insulating terminal mounting, and a terminal conducting member attached thereto, the terminal conducting member having a U-shaped portion partially surrounding a portion of the mounting and terminating in spaced terminal portions, one of said terminal portions having an offset portion for electrically connecting a conducting element of the device to the terminal member.
4. In an electrical device, an insulating terminal mounting comprising a horizontal base portion having a slot therein and an integral vertical portion provided with a slot spaced from the slot in the base portion, a terminal conducting member having a U-shaped portion engaging the slots and partially surrounding the portion of the mount-

ing intermediate the slots and terminating in spaced terminal portions, one of said terminal portions being formed at its point of exit from the mounting so as to prevent displacement of the terminal member therefrom.

5. In an electrical coil, a terminal mounting having spaced parallel slots, and a terminal having spaced parallel portions extending through the slots and interconnected at one end one of said portions terminating in spaced end portions and an offset portion cooperating therewith for clamping a connecting element therebetween.

6. In an electrical coil, a terminal having spaced parallel portions interconnected at one end, one of said portions terminating in spaced end portions and an offset portion cooperating therewith for clamping a portion of the coil wire therebetween, and the other terminal portion having a conductor receiving aperture for making external connections with the coil.

7. In an electrical coil, a combined spool head and terminal mounting comprising a base portion and a portion projecting perpendicular therefrom, and a U-shaped terminal member having a portion extending through the perpendicular portion of the mounting and terminating in an apertured portion for connecting an electrical conductor thereto.

8. In an electrical coil, an insulating terminal mounting comprising a horizontal portion having a marginal slot and an integral vertical portion having a slot spaced from the marginal slot, and a substantially U-shaped terminal conducting member having a portion engaging the marginal slot, a second portion spaced therefrom and extending through the slot in the vertical portion of the mounting, and a third portion interconnecting the first and second portions of the terminal member and engaging the horizontal portion of the mounting.

9. In an electrical coil, an insulating terminal mounting having spaced cooperating slots and a groove interconnecting the slots, and a terminal conducting member attached to the mounting and having a portion engaging the groove and spaced portions extending therefrom through the spaced slots.

10. In an electrical coil, an insulating terminal mounting having spaced cooperating slots and a groove interconnecting the slots, and a terminal conducting member attached to the mounting and having a portion engaging the groove and spaced portions extending therefrom through the spaced slots, one of said spaced portions being staked at its point of exit from the mounting to prevent displacement of the terminal member.

11. In an electrical coil, an insulating terminal mounting having spaced cooperating slots and a groove interconnecting the slots,

and a terminal conducting member attached to the mounting and having a portion engaging the groove and spaced portions extending therefrom through the spaced slots, one of said spaced portions terminating in a slotted offset portion for attaching a lead-in wire of the coil thereto.

12. In an electrical device, a terminal mounting comprising a rectangular horizontal portion having spaced marginal slots on opposite sides thereof and integral spaced vertical portions having vertical slots spaced from and disposed opposite the marginal slots and communicating with a common vertical slot in each of the vertical portions, and a plurality of substantially U-shaped terminal conducting members attached to the mounting, each terminal member having a portion engaging a marginal slot and a portion engaging the associated slot in a vertical portion of the mounting.

In witness whereof, I hereunto subscribe my name this 10th day of January A. D., 1930.

ERWIN E. FRANZ.