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A. E. RITTENHOUSE

2,060,426

ELECTRICAL TERMINAL

Filed May 23, 1935

Fig. 1

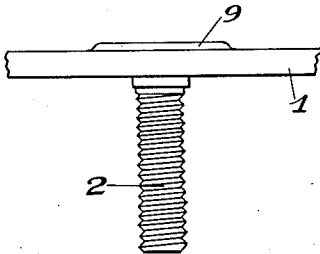


Fig. 2

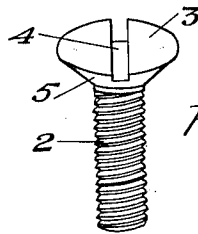
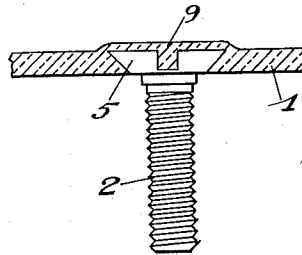


Fig. 3

Fig. 4

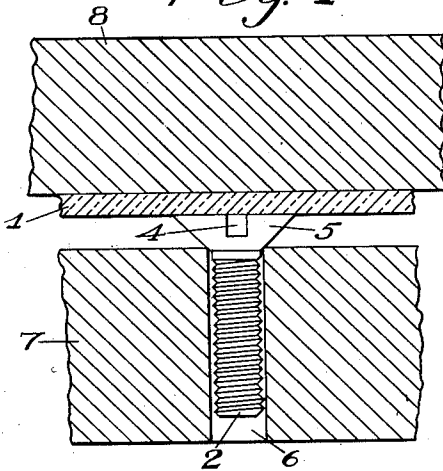
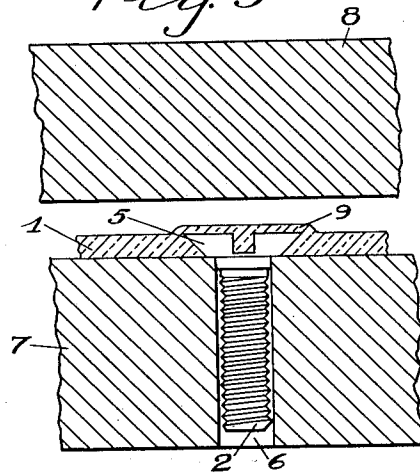


Fig. 5



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ELECTRICAL TERMINAL

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Application May 23, 1935, Serial No. 23,052

2 Claims. (Cl. 29—84)

This invention relates to an insulating support for an electrical terminal, and a method of securing the terminal to its insulating support, and has for its object to afford an inexpensive and efficient construction, and a practical and economical method of producing the device.

More particularly, the invention consists in securing a binding post or electrical terminal to a sheet or body of hard fiber or other similar insulating material in such a way that the terminal is permanently attached to its fiber support and interlocked therewith so that relative turning of the two parts is effectually prevented.

A further object of the invention is to afford a procedure that enables utilizing a conventional, standard type of screw, thus simplifying the manufacture, reducing to a minimum the cost of making the product.

To these and other ends, the invention consists in the construction and method that will appear from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claims at the end of the specification.

In the drawing:

Fig. 1 is a side elevation of a device constructed in accordance with a preferred form of the invention;

Fig. 2 is a vertical sectional view taken centrally of Fig. 1;

Fig. 3 is a perspective view of the preferred form of terminal to be employed;

Fig. 4 is a sectional view illustrating the preliminary positioning of the terminal and fiber support before securing them together, and illustrating their relative positions in the mechanism used for this purpose and

Fig. 5 is a similar view showing the position of the terminal and support after they have been secured together, the operating plunger being elevated away from engagement therewith.

Referring more particularly to the drawing in which like reference characters refer to the same parts throughout the several views, 1 designates a support of hard fiber or other similar insulating material, to which is attached a terminal or binding post comprising a threaded post or stem 2, and a head having a flat top 3, a transverse slot 4, and tapering side wall 5.

The binding post or terminal preferably embodies a conventional, standard type of screw, as shown in Fig. 3, and when this is completely assembled in the hard fiber support, the body of the fiber enters the slot 4, as shown in Figs. 2 and 5, and surrounds the top of the head and its

tapered side wall 5, affording an effectual bond which retains the terminal tightly in the support and prevents relative turning, so that considerable force is required to dislodge the terminal.

Other instrumentalities than that disclosed might be utilized for effecting the desired interlocking relation between the terminal and the fiber support, but the arrangement disclosed being that of a standard screw, lends itself to an economical procedure.

In carrying out the invention, the screw or terminal is positioned in an opening 6 of a stationary metal support 7, the head of the terminal resting upon the top of the support 7, as shown in Fig. 4. The sheet or body of hard fiber 1 is then positioned upon the top of the head of the terminal and a plunger 8 of a suitable stamping machine, or press, is moved downwardly under power against the top of the hard fiber body 1 to press the same into contact with the head.

The body of hard fiber is unheated and in its normal hard, cold state when the post is assembled. When the plunger is forced downwardly against the hard fiber support, it results in pressing the fiber body sufficiently to cause it to flow, while cold and unheated, around the head, as shown in Fig. 5, causing it to enter the slot 4 and to surround the tapered side wall 5, leaving a thin portion of the fiber body, indicated at 9, overlying the top of the head and connected to the main body of the fiber. This change in the shape of the fiber is due to the quick action and amount of pressure from the plunger.

The contour of the head of the terminal is changed somewhat during this stamping operation, being flattened out somewhat, as indicated in Fig. 5, and when the pressure of the plunger 8 is removed by lifting the latter, the central portion of the fiber body immediately above the head expands slightly, reacting away from the main fiber body, leaving the portion 9 which covers the head of the terminal slightly raised above the remaining surface of the fiber support.

While the invention has been described with reference to a particular construction and method of operation, it is not confined to the details disclosed, and this application is intended to cover such other changes or modifications as may come within the spirit of the improvements or the scope of the following claims.

I claim:

1. The method which consists of positioning the post of an electrical terminal in an opening of a

metal support with the bottom of the head of the terminal resting on said support, positioning a body of insulating material such as hard fiber above and resting upon the head of the terminal, and forcing a plunger against the fiber body under such pressure as to cause the head of the terminal to become somewhat wider and thinner and the fiber body to surround and interlock with the head while the body of fiber adjacent to the end of the head is compressed and distorted somewhat from the plane of the main body of fiber.

2. The method which consists of positioning the post of an electrical terminal in an opening of a metal support, the head of said terminal having a flat transversely slotted outer end and a

tapering side wall the bottom of which rests initially upon said support positioning a body of insulating material such as hard fiber upon said flat end of the head, and forcing a plunger against the fiber body with such pressure as to cause the head to become somewhat wider and thinner and the fiber body to surround the top and tapering side wall of the head and to enter said transverse slot and effect an interlocking connection between the terminal and the fiber body and to cause the fiber body adjacent the outer end of the head to be compressed and distorted somewhat away from the plane of the main body of the fiber.

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