

Dec. 26, 1933.

W. F. CASSEDY, JR

1,940,844

RELAY MOUNTING

Filed May 9, 1931

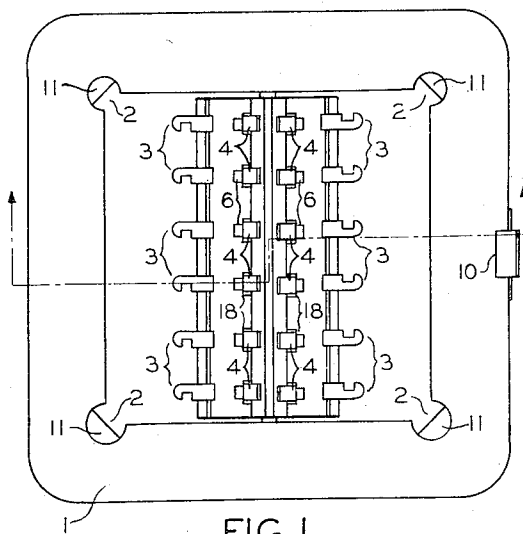


FIG. 1

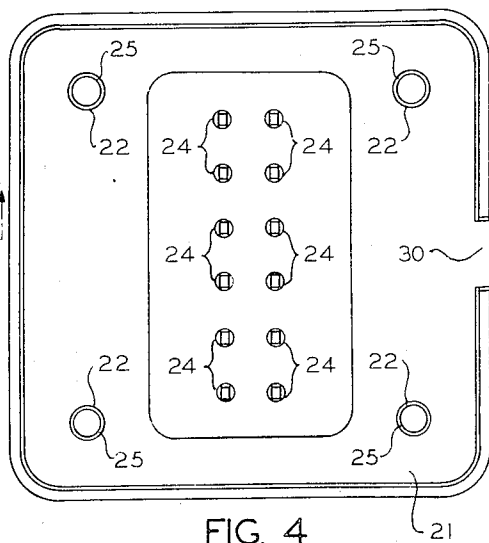


FIG. 4

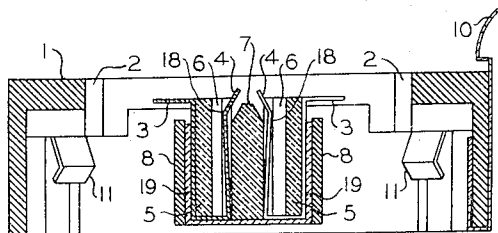


FIG. 2

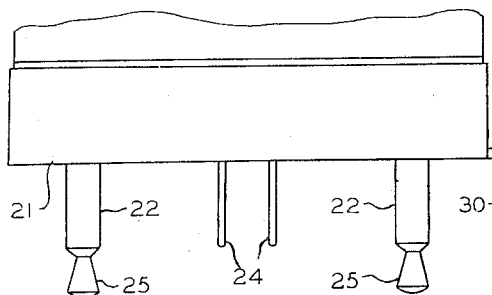


FIG. 5

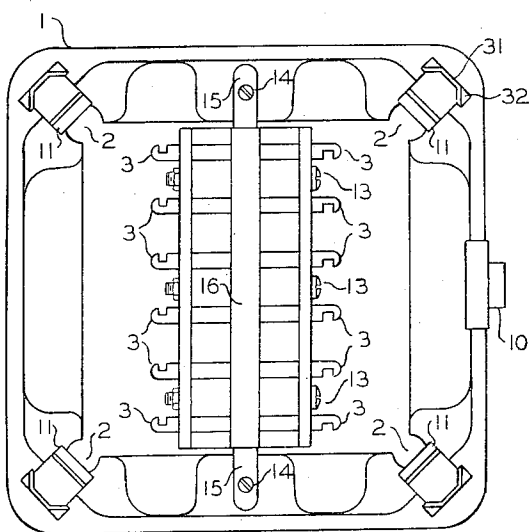


FIG. 3

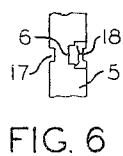


FIG. 6

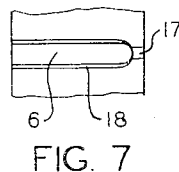


FIG. 7

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RELAY MOUNTING

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Application May 9, 1931. Serial No. 536,162

1 Claim. (Cl. 173-332)

My invention relates to relay mountings and especially to the manner in which the relay terminals engage terminals of a sub-base upon which the relay is positioned.

The object of my invention is the design of a sub-base and terminals to insure positive engagement between the relay terminals and the sub-base terminals. The sub-base is so designed that it may be mounted on a desk or table without the necessity of gouging out the desk for effecting connections with wires or cables. Holes may be bored in the table of sufficient size to admit the necessary wires or cable, and connections from these are made to one end of the clips or terminals located at the top of the sub-base.

These terminals are U shaped and the opposite ends are so shaped and mounted to form a flexible spring-jack connection with the terminals of the relay.

The terminals for the sub-base are mounted on an insulating support which is provided with slots in which the terminals fit.

The spring-jack portion of the terminals rest under tension on flanges at both sides of the slots and the relay terminals enter the slots and engage the spring-jack portion of the sub-base terminals to form a positive connection therewith. That portion of the relay terminal which engages the sub-base terminal does not rub over any portion of the insulating support but only rubs over the spring-jack portion of the sub-base terminal and so avoids accumulating any insulating material through friction.

Other features of my invention will be pointed out in the description to follow:

My invention is illustrated in the accompanying drawing wherein:

Fig. 1 shows a top view of the sub-base;

Fig. 2 shows a sectional view of Fig. 1 on the line 31-31;

Fig. 3 shows a bottom view of Fig. 1;

Fig. 4 shows a bottom view of the relay mounting;

Fig. 5 shows a side view of Fig. 4;

Fig. 6 shows a top view of a portion of the insulator for supporting the sub-base terminals;

Fig. 7 shows a side view of Fig. 6.

Referring to Figs. 1, 2 and 3, the sub-base 1 made of any suitable material, but preferably of metal, contains the mounting for the terminals and supports the relay in proper relation to the terminals.

The terminals, as shown in Fig. 2, are U shaped. One end of each terminal is bent angu-

larly at 4 and the opposite end 3 is bent practically at right angles to the body portion.

Two rows of these terminals are provided as shown and are mounted upon the two slotted strips of insulating material 5.

The slots 6 on one side of the strip are provided with the shoulders or flanges 18 upon which the spring-jack portion of the U shaped terminals rest. The other portion of the terminals provided with the off-set parts 3 rest in the slots 17. These slots 17 and slots 6 with the flanges 18 are clearly shown in Figs. 2, 6 and 7. A center insulating strip or bar 16 with the bevelled edge portion 7 is shown in Figs. 1, 2 and 3.

Slotted strips are placed on each side of the bar 16 and are held clamped together by means of the two metal strips 8 and the bolts 13. The center bar 16 is provided with the two end projections 15 which engages slots in the sub-base 1 and held therein by means of the screws 14.

Figs. 1 and 2 show clearly the positions of the U shaped terminals when assembled. It will be noted that both ends 3 and 4 of the terminals are located at the top of the sub-base 1 and that the bottom of the sub-base is practically open and flat so it may rest upon the surface of a desk or table. The wires or cable may be passed through the surface of the desk and to the upper portion of the sub-base for connection with the terminal ends 3.

Fig. 2 shows a thin sheet of insulating material 19 which is placed between the plates 8 and the terminals and which overlaps the bottom of the terminal support. This strip is not shown in Fig. 3 as it would serve to hide the bottom portions of the terminals and the center bar 16.

The sub-base 1 is provided with the four holes 2 and the four springs 11 for positioning and locking the relay to the sub-base.

A relay mounting or support is shown at 21 provided with two rows of terminals 24 which co-operate with the two rows of sub-base terminals. The four studs 22 are provided with the recessed portions 25 for engagement with the springs 11 of the sub-base 1.

The details of the relay are not shown or described as a relay of this type is shown in U. S. Patent No. 1,579,887 to E. J. Pratt, granted April 6, 1926.

In order to fit the relay base 21 to the sub-base 1, the two large studs 22 are placed in position over the two large openings 2 of the sub-base and the two small studs 22 are placed in position over the two small openings 2 after

which the relay is pressed downward so the portions 25 of studs 22 engage the springs 11. The angular portions of 11 will engage the recessed portions 25 and hold the relay and sub-base in position. An off-set portion 30 of the relay will also at this time engage the latch spring 10 of the sub-base and serve to hold the relay in position when the sub-base is mounted on a vertical support. When the sub-base is mounted in this manner it will be positioned so the latch 10 will be at the top.

When the studs 22 of the relay are positioned with the openings 2, the terminals 24 are aligned with the inclined portions 4 of the U shaped sub-base terminals. As clearly shown in Fig. 2 the terminals at portions 4 normally rest under tension against the shoulders 18.

When the relay is pressed downward the terminals 24 enter the slots or openings 6 and force the terminal ends 4 inward toward the center of the mounting and away from the shoulders 18.

From the foregoing description it will be noted that the sub-base may be mounted on a table or any flat surface through which the necessary

conductors pass and the connections made to the terminals at 3 which are located at the top of the sub-base where they are readily accessible.

It will be noted that the latch spring 10 is not permanently attached to its sub-base, but is clamped thereto as shown in Fig. 2. 80

Likewise the springs 11 are not permanently attached to the sub-base, but are provided with a flange 31 which fits snugly into the channel 32. 85

What is claimed is:

A device comprising a relay mounting and terminals therefor, a sub-base provided with U-shaped terminals each having reduced body portions and an enlarged end portion, an insulating support having a slot for each body portion of said terminals and a flange for the enlarged end portion, each of said U-shaped terminals being under tension to hold the body portion in the slot and the enlarged portion against said flange, means to position said relay mounting with said sub-base so its terminals will enter said slots and engage said enlarged ends of said U-shaped terminals. 90 95

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