March 30, 1954 H. A. MILOCHE ET AL 2,673,970

TERMINAL STRIP

Filed Dec. 31, 1952

FIG. 1

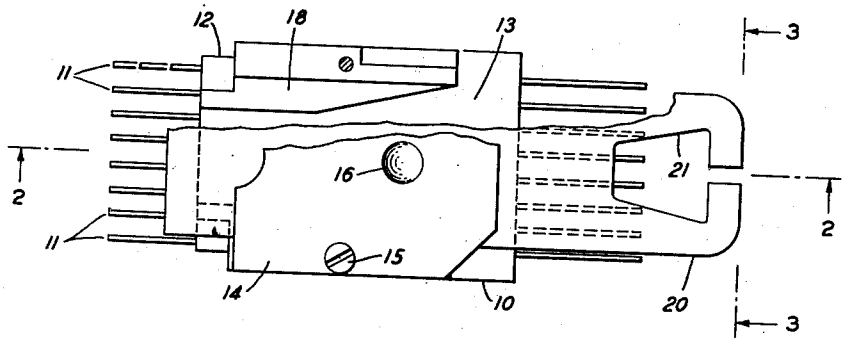


FIG. 2

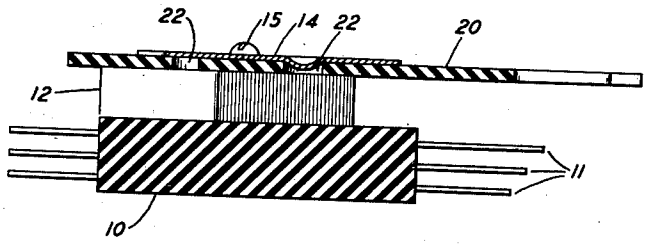
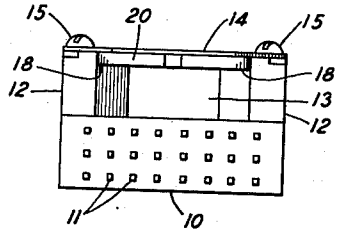


FIG. 3



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TERMINAL STRIP

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6 Claims. (Cl. 339—198)

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This invention relates to connecting means and more particularly to a terminal strip for interconnecting circuit elements on relay racks and the like.

An object of this invention is to facilitate the wiring of relay racks and other apparatus assemblies, generally of the panel type, requiring a multiplicity of connections from front to back to the rack or panel.

One feature of this invention resides in a terminal strip adapted for mounting in a rack or panel opening and having a plurality of terminals projecting from either side of said rack or panel.

Another feature of this invention lies in a terminal strip having a channel for guiding interconnecting wires through the rack or panel upon which it is mounted.

A further feature of this invention involves an adjustable wire guide mounted on the terminal strip and capable of projecting different distances from either side of the rack or panel.

Other and further objects and features of this invention will appear more fully and clearly from the following description of an illustrative embodiment thereof taken in connection with the appended drawings in which:

Fig. 1 is a view in elevation of an illustrative embodiment of the invention with parts broken away to show internal structure;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1; and

Fig. 3 is an end view taken as shown by the line 3—3 in Fig. 1.

The terminal strip comprises a body or block 10 of insulating material having a plurality of terminals comprising elongated conductors 11 mounted therein. In the embodiment illustrated, these terminals are shown as in three rows but obviously more or fewer rows of terminals may be employed. The terminals 11 may be molded into plastic insulation material or otherwise suitably mounted.

Upstanding portions 12 on the block 10 define, with the face of the block, a channel 13 passing from one end to the other of the terminal strip. This channel may, if desired, be flared at one end as illustrated.

Secured to the members 12 is a resilient cover plate 14, preferably of metal. This cover plate is secured in spaced relation to the members 12 by screws 15. The plate is provided with a boss 16 for a purpose to be described.

The grooves or rabbets 18 on the facing sides of members 12 provide guide ways for a strip 20

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of insulating material. This strip is provided at one end with a wire guiding opening 21 and intermediate its ends with detent orifices 22. The strip 20 may be secured to the terminal strip with the wire guide opening at either side by means of the boss 16 in a selected detent orifice 22. The strip may be mounted in various positions due to the spacing of the detent orifices 22. The plate 14 is sufficiently resilient to allow the insertion of the strip 20 without removal of the screws 15.

The terminal strip embodying this invention, because of its unique structural features, provides for making connections between instrumentalities on opposite sides of a rack or panel either by way of the rows of terminals 11 or through the channel 13. Flexible conductors that are connected to the terminals or which pass through the channel may be conveniently and neatly supported in the wire guiding opening 21 of the strip 20. As previously noted, the strip 20 may be mounted with the opening 21 at whichever side of the panel or rack it is desired.

What is claimed is:

1. A terminal strip comprising a block of insulating material, a plurality of rows of terminals comprising conductors embedded in said block and protruding from opposite ends thereof, a wire channel defined by a face of said block parallel to said conductors, and two spaced projections of the block extending substantially at right angles to said face, a wire guide slidable in grooves in said projections, said guide comprising a flat strip of insulation having a wire retaining opening at one end and a plurality of detent orifices intermediate its ends, and a cover for said wire channel comprising a resilient plate secured to said projections over said guide for retaining the guide in said grooves, and having a projecting boss for cooperating with a detent orifice of the guide to retain said guide in one of several predetermined positions.

2. A terminal strip comprising a body of insulating material, a plurality of rows of terminals mounted in said body and protruding from opposite ends thereof, a wire channel in said body parallel to said conductors, a wire guide slidable in grooves in said body, said guide comprising a strip of insulation having a wire retaining opening at one end and detent orifices intermediate its ends, and a cover for said wire channel comprising a resilient plate secured to said body for retaining the guide in said grooves, and having a projecting boss for cooperating with a detent orifice of the guide to retain said guide in one of several predetermined positions.

3. A terminal strip comprising a block of insulating material, a plurality of rows of terminals embedded in said block and protruding from opposite ends thereof, a wire channel defined by a face of said block and two spaced projections of the block extending substantially at right angles to said face, a wire guide slidable in grooves in said projections, said guide comprising a flat strip of insulation having a wire retaining opening at one end, and a cover for said wire channel comprising a resilient plate secured to said projections over said guide for retaining the guide in said grooves, and having means cooperating with the guide to retain said guide in a predetermined position.

4. A terminal strip comprising a block of insulating material, a plurality of rows of conductors embedded in said block and protruding from opposite ends thereof, a wire channel defined by a face of said block and two spaced projections of the block, a wire guide slidable in grooves in said projections, said guide comprising a strip of insulation having a wire retaining opening at one end and detent means intermediate its ends, and a cover for said wire channel comprising a plate secured to said projections over said guide for retaining the guide in said grooves, and having means for cooperating with the detent means of the guide to retain said guide in a predetermined position.

5. A terminal strip comprising a body of insulating material, a plurality of rows of terminals protruding from opposite ends of said body, a wire channel defined by a face of said body and two spaced projections of the body extending

substantially at right angles to said face, a wire guide slidable in grooves in said body, said guide comprising a strip of insulation having a wire retaining opening at one end and detent means thereon, and a cover for said wire channel secured to said projections over said guide for retaining the guide in said grooves, and having means for cooperating with a detent means of the guide to retain said guide in one of several predetermined positions.

6. A terminal strip comprising a block of insulating material, a plurality of rows of terminals comprising conductors embedded in said block and protruding from opposite ends thereof, a wire channel defined by a face of said block parallel to said conductors, and two spaced projections of the block extending substantially at right angles to said face, a wire guide slidable on said block, said guide comprising a flat strip of insulation having a wire retaining opening at one end and a plurality of detent orifices intermediate its ends, and a cover for said wire channel comprising a resilient plate secured to said projections over said guide for retaining the guide on the block and having projections for cooperating with a detent orifice of the guide to retain said guide in one of several predetermined positions.

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