April 6, 1926. 1,579,400

M. M. SAMUELS

TERMINAL BLOCK

Filed June 5, 1923

FIG. I

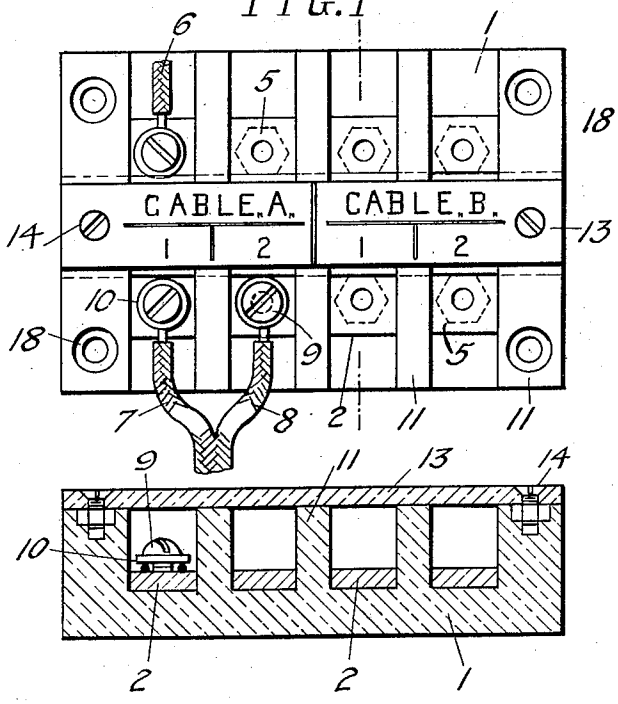



FIG. II

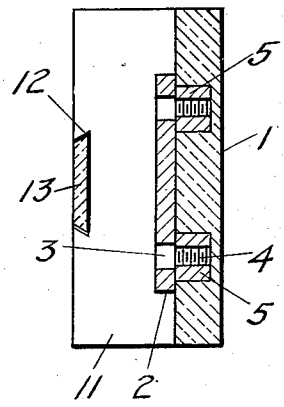



FIG. III

FIG. IV

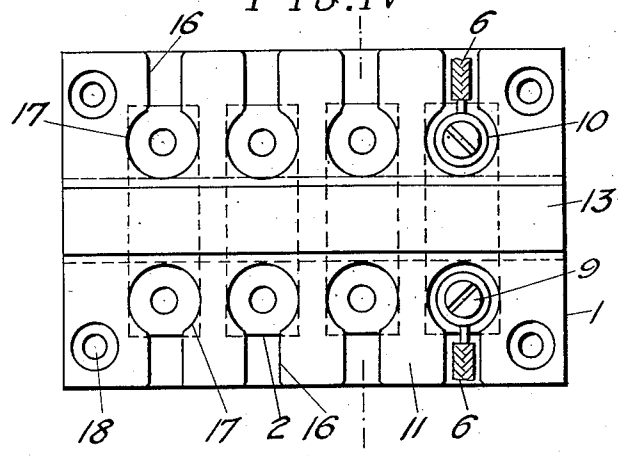
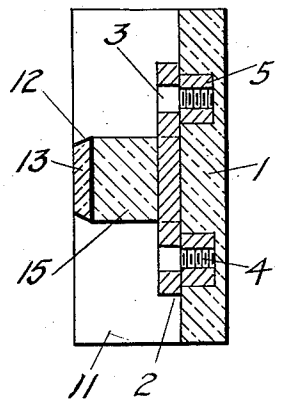



FIG. V




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# UNITED STATES PATENT OFFICE.

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## TERMINAL BLOCK.

Application filed June 5, 1923. Serial No. 643,533.

*To all whom it may concern:*

Be it known that I, MAURICE M. SAMUELS, a citizen of the United States, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Terminal Blocks, of which the following is a specification.

This invention has to do with a new terminal block as used in connection with switchboards, control circuits for switching apparatus and similar electrical circuits.

In the preferred embodiment the new terminal block consists of a base of insulating material into which are moulded individual metal terminal plates. These terminal plates have suitable binding posts for wires, and are separated from each other by barriers running parallel to them and forming with the terminal block one single moulding. Across the terminal block is fastened a labeling plate preferably of insulating material. By suitable inscription on this labeling plate the various wires and cables running to the terminal board may be easily identified, which feature is especially useful for testing and repair work.

In order to simplify the fastening of the labeling plate to the terminal block, there are grooves preferably of dovetail shape provided in the barriers across the terminal base in which the labeling plate may be inserted.

In another preferred form of the invention there is also a common barrier provided which separates all the binding posts and interconnects all the individual barriers between terminal plates. This form is mechanically stronger, and is therefore especially suitable for large and extended terminal boards.

All details in connection with the new terminal block will now be described in detail on reference to the accompanying drawings in which:

Figure I is a plan view,

Figure II is a cross section,

Figure III is a longitudinal section of one form of the terminal block, while

Figure IV is a plan view, and

Figure V is a transverse section of another form of the terminal block.

The terminal block embodying this invention includes a plate or block 1 of insulating material into which are moulded the terminal plates 2 preferably of brass or copper. These terminal plates are provided with holes 3 which coincide with tapped holes 4 in the hexagonal nuts 5 which in turn are soldered to the terminal plates 2 before the moulding into the block 1 takes place. The individual wires 6 or 7 and 8 are fastened to the terminal plates by means of the cap screws 9 and washers 10 which form the binding posts with the nuts 5. Barriers 11 which are moulded together with the block 1 extend over the whole width of the terminal block 1 and run parallel to the terminal plates 2. These barriers 11 are provided with slots 12 preferably of a dovetail form as shown in Figure II. A plate 13 may be inserted in these slots 12 and if necessary more securely fastened to the terminal block by means of screws 14. These screws 14 may be however omitted entirely. This plate 13 serves as a label for the individual wires 6, 7, 8 and in addition as a means to identify the cable to which the single wires belong. (See Fig. I.)

In another form as shown in Figures IV and V the individual barriers 11 are joined together by a solid barrier wall 15, by which all the binding posts on one side of the terminal board are separated from those on the opposite side. This barrier 15 forms also with terminal block 1 and barriers 11 one single moulding and improves the mechanical strength of the whole moulding and is therefore preferred with an increasing number of terminal plates.

With this form additional fastening screws 14 for the labeling plate 13 are not shown since the single slot in barrier 15 is considered sufficient to hold the labeling plate in place. The spaces between individual barriers with the form as per Figure IV are narrower at the wire entrance 16 and larger at the fastening points for the wires at the points 17. This form not only improves the method of fastening the wire to the binding posts but secures a better hold for the terminal plates 2. In order to fasten the terminal board 1 to a surface, countersunk holes 18 are moulded in the block, in which screws may be inserted. The number of terminal plates as shown in the drawings is four, but this number could be increased eventually to 24 or more, especially with the form as shown in Figure IV.

Having thus described the invention, what I claim is:

1. A terminal block comprising a solid body of molded insulation, having supporting means, a longitudinal ridge member having means for carrying a marking strip, a series of transverse partitions, and a series of terminal strips embedded in said insulation between said partitions and beneath said ridge member, said terminal strips having exposed ends in the inner portions of the recesses between said partitions.

2. A terminal block comprising a solid body of molded insulation, having a longitudinal ridge member having means for carrying a marking strip, a series of transverse partitions and a series of terminal strips embedded in said insulation between said partitions and beneath said ridge member, said terminal strips having exposed ends in the inner portions of the recesses between said partitions, and binding means for fastening terminals to the exposed ends of said strips.

3. A terminal block comprising a solid body of molded insulation of generally rectangular shape having a series of transverse partitions extending in the direction of the short dimension of the rectangle, a central longitudinal marking strip extending across the upper surfaces of said partitions, a series of terminal strips between said partitions and fastened in place between said partitions by the molding of the solid block of insulation, and binding means for fastening terminals to the exposed ends of said strips.

4. A terminal block comprising a solid body of molded insulation having end supporting means, a longitudinal ridge member having means for carrying a marking strip, a series of transverse partitions, and a series of terminal strips embedded in said insulation between said partitions and beneath said ridge member, said terminal strips having exposed ends in the inner portions of the recesses between said partitions.

5. A terminal block comprising a solid body of molded insulation having end supporting means, a longitudinal ridge member having means for carrying a marking strip, a series of transverse partitions, and a series of terminal strips embedded in said insulation between said partitions and beneath said ridge member, said terminal strips having exposed ends in the inner portions of the recesses between said partitions, and binding means for fastening terminals to the exposed ends of said strips.

6. A terminal block comprising a solid body of molded insulation of generally rectangular shape having upwardly extending ends serving as supports, a series of transverse partitions extending in the direction of the short dimension of the rectangle, a central longitudinal marking strip extending across the upper surfaces of said partitions, a series of terminal strips between said partitions and fastened in place between said partitions by the molding of the solid block of insulation, and binding means for fastening terminals to the exposed ends of said strips.

Signed at New York, in the county of New York, and State of New York, this 13th day of June, A. D. 1923.

MAURICE M. SAMUELS.