

W. E. HILL.
CORD CONNECTOR AND RACK.
APPLICATION FILED JAN. 12, 1907.

914,045.

Patented Mar. 2, 1909.

Fig. 2.

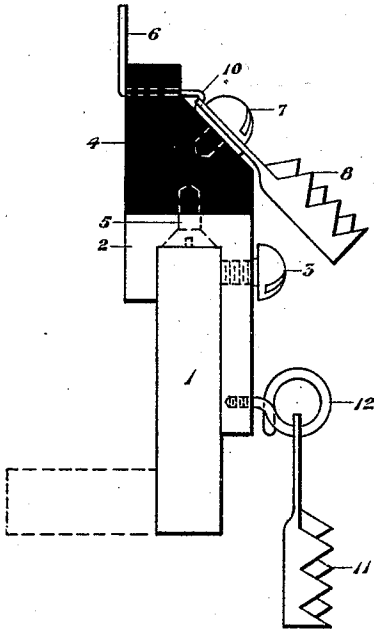


Fig. 1.

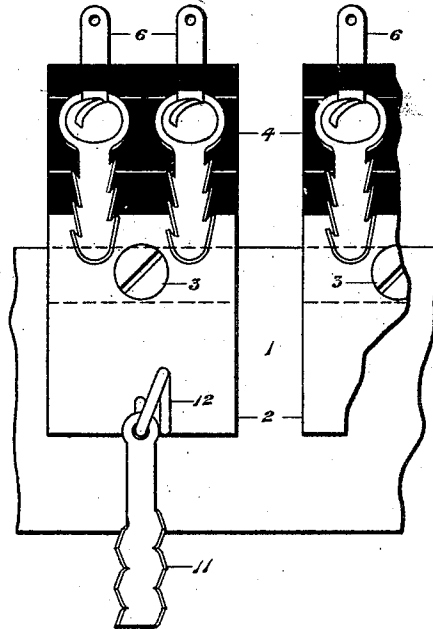


Fig. 3.

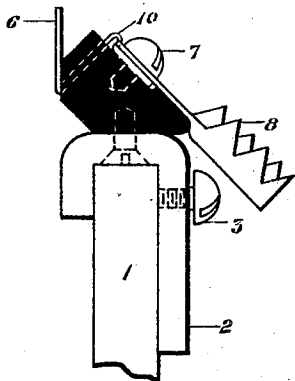


Fig. 4.

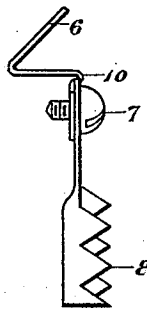
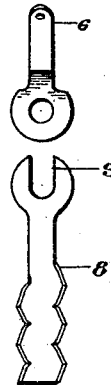


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM E. HILL, OF LA GRANGE, ILLINOIS, ASSIGNOR TO KELLOGG SWITCHBOARD AND SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CORD CONNECTOR AND RACK.

No. 914,045.

Specification of Letters Patent.

Patented March 2, 1909.

Application filed January 12, 1907. Serial No. 351,988.

To all whom it may concern:

Be it known that I, WILLIAM E. HILL, a citizen of the United States, residing in La Grange, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Cord Connectors and Racks, of which the following is a specification.

My invention relates to cord connectors and racks for making the electrical connection with and supporting the cords of a telephone switchboard.

Telephone switchboards are supplied with a different number of connecting cords in accordance with the class of subscribers and frequency and duration of calls on the lines terminating in that particular switchboard. It is often desirable, therefore, to add to or take from the number of cords with which a switchboard was originally equipped, and one object of my invention is to provide means for re-distributing the cords and the connections therefor with less inconvenience and expense than has heretofore been experienced.

Another object of my invention is to provide a standard form of cord rack for all switchboards such that different equipment of the different boards will require no special drilling or special design to meet the conditions of any switchboard. Heretofore wooden racks or supporting strips have been used and it has been necessary to make special jigs for drilling the special racks and no re-distribution of the cords could be made without inserting an entirely new rack drilled in accordance with the new conditions.

Other objects of my invention refer to certain details in the construction of the foregoing device as will be hereinafter described and claimed.

My invention is illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation of the connectors as they appear mounted upon the support; Fig. 2 is an end elevation of the device of Fig. 1; Fig. 3 is an end view of a modification, and Figs. 4 and 5 are views of the terminal punchings and connecting means of Fig. 3, showing the method of preventing the cord tips from turning so as to become short-circuited.

The metallic supporting strip or angle 1 shown in Figs. 1, 2 and 3 is adapted to extend horizontally along the rear of the switch-

board sections and carries a number of movable metallic clamps 2 adapted to be secured in any position along the support by means of the screws 3, which extend through the portion of the clamps which face the rear of the switchboard, and engage the surface of the support. A fiber block 4 is secured to the upper outer face of the clamp by a screw 5 which passes through the upper face of the clamp and threads into the block 4. This block may have any desired form and carries metallic terminal punchings 6 which are passed through holes in the upper part thereof and then bent to extend in a plane parallel to the plane of the support. These punchings are supplied in any number equal to the number of strands in the cords which are to be connected thereto. The screws 7 pass through holes in these punchings and thread into block 4 such that the cord terminals 8 may be securely clamped against the punchings 6. These cord terminals have slots 9 formed therein, and when in place the projection 10 upon the punching 6 is adapted to fit within this slot to prevent the cord terminal from being rotated about the screw 7, such that two adjacent cord terminals may not be moved into contact one with the other. Each cord is provided with a supporting clip 11 which is adapted to receive all of the pull from the cord, but which is ordinarily not connected with any of the metallic strands of the cord. The hook 12 is secured to the lower downwardly extending part of the clamp 2 to receive this supporting clip 11, thus applying all of the strain directly upon the clamp and preventing the conducting terminals from being jerked loose or bent out of shape.

Two modifications of my invention are here shown, but it is to be understood that I do not wish to be unduly limited thereto as many others might be made without departing from the spirit or scope of my invention.

What I claim as new and desire to secure by Letters Patent is:

1. A telephone cord rack comprising a longitudinal support, clamps movably mounted on the support in combination with insulated cord connectors carried by the clamp, substantially as described.

2. A telephone cord rack comprising a longitudinal support, clamps movably mounted

on the support, fiber blocks secured to the clamp, and terminals secured to the fiber blocks, substantially as described.

3. The combination of a support, electric terminals secured to the support in groups, and means to readily adjust the position of any group along the support without disturbing the relative position of the terminals of the group, substantially as described.

4. In a telephone switchboard, the combination with a support, of a plurality of clamps adapted to be secured in any position along the support, insulated electric terminals carried by the clamp, and cord supporting means also carried by the clamp for preventing strain from coming upon the conducting terminals, substantially as described.

5. In a cord connector, the combination with an insulating block, of terminal punchings secured to the block, and having a raised portion 10, cord terminals secured to the insulating block in contact with the terminal punchings having a slot therein engaging said raised portion, whereby the cord terminals are prevented from turning, substantially as described.

6. In a cord connector, the combination with an insulating block, of a terminal punching having a widened portion with an opening therein to receive a screw, an integral slender portion extending through an opening in the insulating block, and a

raised portion formed of the integral slender portion adjacent the widened portion, a cord terminal having a widened portion with a slot therein whereby the cord terminal may be placed in surface contact with the widened portion of the punching without the removal of the screw, the slot being also adapted to engage the raised portion of the punching to prevent the cord terminal from turning, substantially as described.

7. In a telephone switchboard, the combination with a support, of a clamp having legs extending on each side of said support, a screw threaded through one of the legs of said clamp and adapted to engage the surface of the support, and an insulating block carried by the clamp and having electric terminals mounted thereon, substantially as described.

8. In a telephone switchboard, the combination with a support, of cord terminals permanently secured together in groups, said groups as a whole being adjustably secured to the support and movable thereon into any desired position, substantially as described.

Signed by me at Chicago, county of Cook, and State of Illinois, in the presence of two witnesses.

WILLIAM E. HILL.

Witnesses:

CLIFFORD C. BRADBURY,
EDITH F. GRIER.