March 3, 1931. B. F. FULLER 1,794,952

DISTRIBUTING PANEL BLOCK

Filed April 12, 1927

Fig.1.

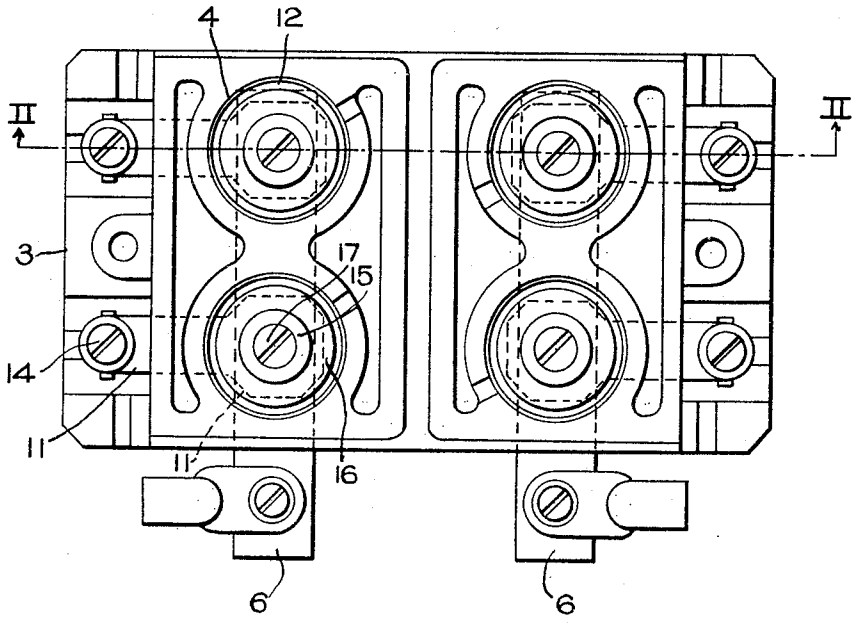
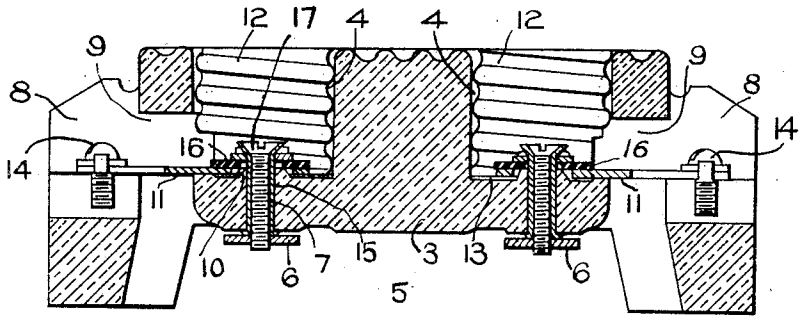


Fig.2.



WITNESSES:

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UNITED STATES PATENT OFFICE

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DISTRIBUTING-PANEL BLOCK

Application filed April 13, 1927. Serial No. 183,131.

My invention relates to distributing-panel blocks and particularly to insulating blocks for supporting fuse receptacles, bus bars and terminals used in distributing panels.

An object of my invention is to provide a fuse block wherein the threaded fuse receptacles are secured thereto by an eyelet rivet through which a fastening screw extends for connecting the receptacle terminal to a bus bar on the opposite side of the block and wherein the eyelet rivet engages the bus bar and serves as a conductor for conducting current from the bar to the receptacle terminal, thus relieving the screw of the function of conducting current. It has been found that, where the screw alone is used as a conductor, the contact between the screw and the bus bar is uncertain and its conductivity materially reduced by reason of corrosion or oxidation of the threaded joint between the bus bar and the screw.

A further object of my invention is to provide a distributing-panel block having the above noted characteristics wherein the eyelet rivet serves to permanently attach the fuse receptacle to the block.

Heretofore, it has been the practice to attach the fuse receptacle to the block by means of the screw which secured the bus bar to the base. In such instances, the receptacle was assembled on the block at the time of installation thereof in the housing for the panel. This arrangement was found to be very inconvenient.

Another object of my invention is to provide a distributing-panel block that may be assembled, and mounted as a unit, and which is effective in operation and inexpensive to manufacture.

These and other objects, that will be made apparent throughout the further description of my invention, are attained by means of the apparatus hereinafter described, and illustrated in the accompanying drawings, wherein,

Fig. 1 is a top plan view of a distributing-panel block embodying features of my invention, and

Fig. 2 is a transverse section through the block taken on the line II—II of Fig. 1.

Referring to the drawings, the fuse panel block comprises an insulating base or block 3 having recesses 4 in its upper surfaces to receive fuse receptacles. A longitudinally extending recess 5 is provided in the under surface of the block for receiving the bus bar 6. A hole 7 extends from each recess 4 to the recess 5.

Notches 8 are provided at the ends of the block 3 for receiving terminal members 11, and passages 9 connect the recesses 4 with the adjacent notches 8. Projections 10, and the holes 7 are provided for centering the receptacle terminal member 11 which engage the threaded fuse receptacles 12, thus insulating them from contact terminal members to be hereinafter described.

Referring to Fig. 2, each of the fuse receptacles comprises a threaded cylindrical shell 12 having an annular flange 13 surrounding the projection 10 for conductively engaging the terminal member 11 which extends through the passage 9 and is provided with a terminal screw 14 for attaching a load conductor. The outer diameter of the enlarged inner end of the terminal member 11 is approximately equal to the inner diameter of the shell 12, thus ensuring the proper centering of the terminal member 11.

The shells 12 and the terminal members 11 are secured within the recesses 4 by hollow eyelet rivets 15 that are inserted through the holes 7 and are insulated from the terminal members 11 by insulating washers 16. The hollow eyelet rivets 15 provide openings through which attaching screws 17 may be inserted for securing the bus bars 6 in electrical contact with the eyelet rivets 15 and constitute shunt conductors in addition to the screws 17. When assembling the receptacle shells 12 upon the block 3 the terminal members 11 are placed over the flanges 13 of the shells and the insulating washers 16 are placed over the terminal members. The rivets 15 are then inserted and the ends which project into the recess 5 are then peened over, as indicated in Fig. 2, thus permanently attaching the shells to the block.

Heretofore, fuse receptacles have been constructed in such manner that only a screw

corresponding to the screw 17 was depended upon for securing the terminal member 11 and shell 12 within the recess 4 and for securing the bus bar 6, as well as for conducting current from the bus bar 6 to the fuse receptacle 12. This combination was very inconvenient to assemble because of the fact that the screw shell 12, terminal member 11, and insulating washer 16 could not be fastened within the recess 4 until the entire panel unit 3 was assembled and the screw 17 was inserted for connection to the bus bar 6 and other conductors. It was also objectionable to depend entirely upon a screw for conducting the current, as the area of contact between the screw threads and the bus bar may be very small because of inaccurate threading or may be considerably reduced by corrosion and dirt. The hollow eyelet 15 employed in my invention overcomes the foregoing difficulties by permanently securing the screw shell 12 and terminal member 11 within the recess 4 and by providing a relatively large area for making electrical contact with the bus bar 6.

While I have described and illustrated but one embodiment of my invention, it will be apparent to those skilled in the art that various changes, modifications, additions and omissions may be made in the apparatus illustrated without departing from the spirit and scope of the invention as set forth in the appended claim.

I claim as my invention:

An insulating base having a recess for receiving a fuse receptacle and a projection in the bottom of the recess and having, also, a hole extending through it and the projection, a screw receptacle having an opening in the bottom to receive the projection and an opening in the side, a terminal member for insertion through the side opening and having an opening corresponding to the bottom opening for receiving the insulating projection, a hollow rivet extending through the hole in the base and the opening in the receptacle, a terminal member for retaining said members in operative position, and an insulating washer for insulating the rivet from the terminal member.

In testimony whereof, I have hereunto subscribed my name this sixth day of April, 1927.

BERT F. FULLER.