No. 894,783. PATENTED JULY 28, 1908.

H. R. SARGENT.

BRANCH BLOCK.

APPLICATION FILED JULY 13, 1906.

Fig. 2.

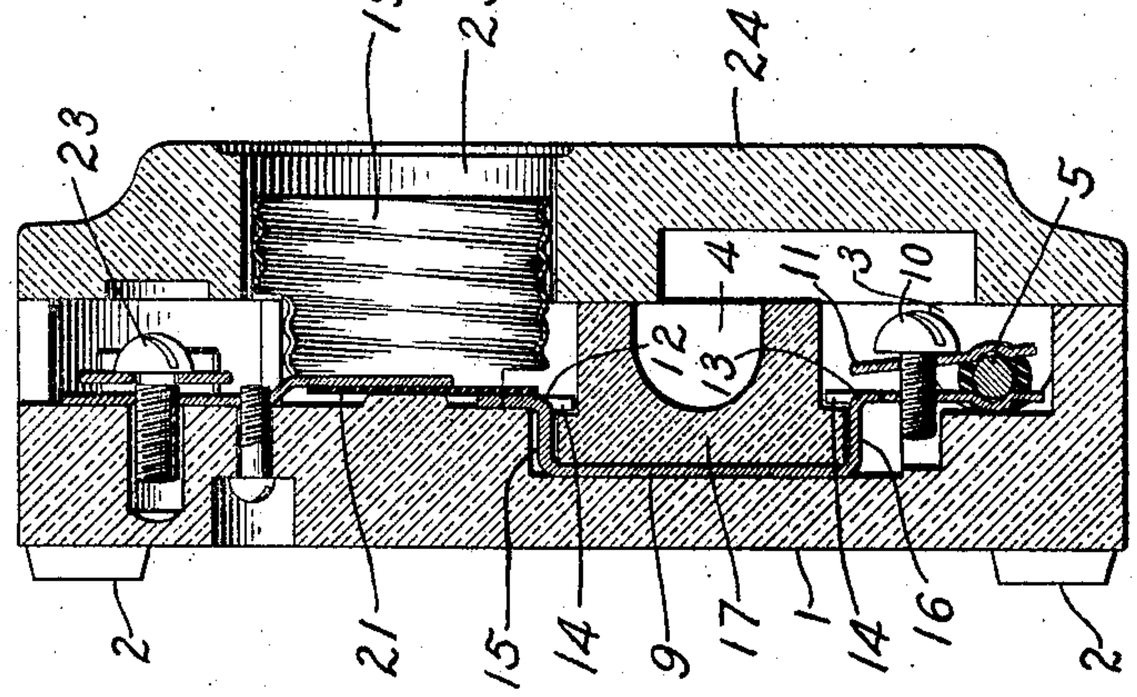
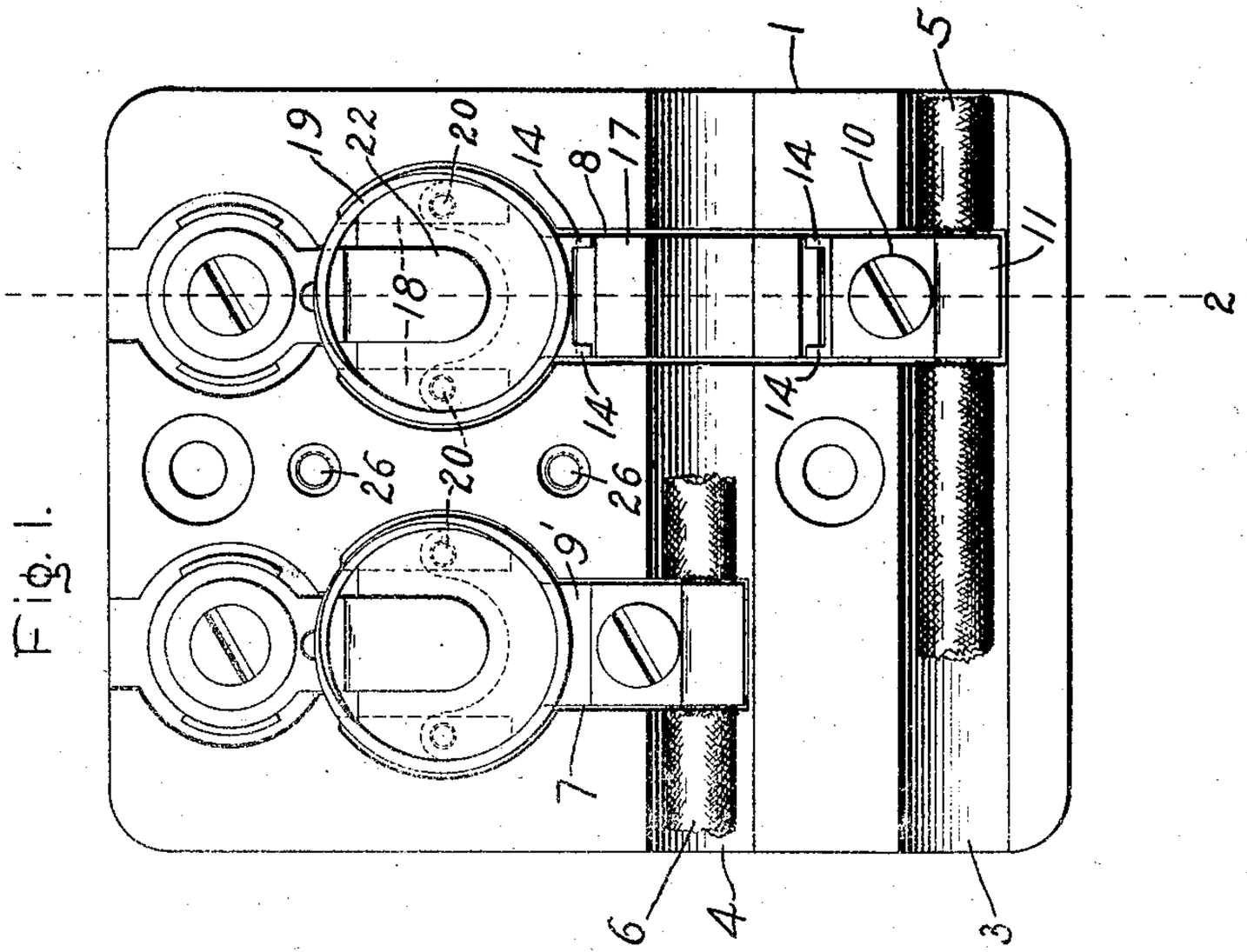


Fig. 1.



Witnesses-
J. Ellis Glen.
Helen Orford

Inventor:
Howard R. Sargent.
by Albert G. Davis
Att'y

UNITED STATES PATENT OFFICE.

HOWARD R. SARGENT, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

BRANCH BLOCK.

No. 894,783. Specification of Letters Patent. Patented July 28, 1908.

Application filed July 13, 1906. Serial No. 326,058.

To all whom it may concern:

Be it known that I, HOWARD R. SARGENT, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Branch Blocks, of which the following is a specification.

The present invention relates to electrical wiring devices and more particularly to branch blocks and similar devices for effecting and protecting the junction of branch conductors with main conductors.

When one set of conductors are connected to another set of conductors in the same place, it is necessary to divert one or more conductors of one set about certain conductors of the other set, and heretofore it has been customary to effect such diversion by passing the diverted conductors through holes to the rear side of the branch block so that the body of the block may serve as an insulating barrier between such conductors. This arrangement is objectionable on account of the exposure of the diverted conductor or conductors to the wall or other support to which the block is secured. Attempts have been made to overcome this objection by providing a groove or grooves in the back of the block for the reception of the diverted conductors and covering the latter with cement filling, but cement when used in such large volume is liable to work or jar loose and fall out of place.

The object of my invention is to provide a branch block by which the respective conductors are effectually insulated from each other and accidental exposure of any conductor rendered impossible

In carrying out my invention, I provide a branch block having transverse grooves for the reception of the main conductors, with binding clips for the branch conductors disposed transversely in the respective grooves, and in order to divert one of the branch conductors about one of the main conductors, I make a deep channel in the front of the block across the groove carrying the interfering main conductor and dispose the diverted branch conductor in the bottom thereof and then fill the unoccupied portions of the channel with an insulating block which may be conveniently secured in place by directly connecting it with the diverted conductor. In the branch conductors are arranged receptacles for plug cut-outs, and over the whole block is placed a removable cover to protect all live parts of the device and to give it an attractive appearance

For a more complete understanding of the invention, reference may be made to the following detailed description and the accompanying drawing forming a part of this specification, in which

Figure 1 shows in plan a branch block embodying one form of my invention with the cover removed; and Fig. 2 is a transverse section taken on line 2—2 of Fig. 1 and showing the cover in position.

The branch block 1 is made of insulating material, such as porcelain, and is preferably in the form of a rectangular slab with a plane surface at its back side with feet 2 on the corners and having in its front side transverse grooves 3, 4 for the reception of the main conductors 5, 6 and longitudinal channels 7, 8, extending upwardly from the respective grooves. The right hand channel 8 extends across the upper groove 4 and intersects with groove 3 and from about the center of the bottom of the latter groove to a point somewhat above groove 4 is made deeper as shown in Fig. 2 and in this channel is disposed a branch conductor 9 which is made of sheet metal and bent to nearly conform to the bottom of the channel. At the lower end it is provided with a binding screw 10 and a clamp plate 11 for making electrical contact with a bared portion of the lower main conductor 5.

Adjacent the right angle bends 12 and 13 in the branch conductor and on both edges thereof fingers 14 are formed by cutting L-shaped slots in the edges of the conductor just inside the points of bending so that upon bending the conductor these fingers remain in the original plane and protrude over the inner surfaces of the depressed end portions 15, 16 of the conductor to form shoulders for engaging an insulating block 17 designed to fill up the channel 8 at the point of intersection with the upper groove 4.

The upper end of the branch conductor 9 is made in the shape of a horseshoe and is arranged to engage inturned flange sections 18 on a screw shell contact 19, and by means of screws 20 extending through the block into tapped holes in the ends of the conductor 9, it is caused to securely bind the shell flanges

to the block. Overlying the horseshoe-shaped end of the conductor 9 is a disk of mica 21 which is held in place by a center contact 22 extending through the opposite side of the screw shell 19 into the channel 8 where it is provided with an enlarged end in which is a binding screw 23. The other channel 7 has a conductor 9′ which is identical in construction with conductor 9, except that the depressed section is omitted. The screw shell connections for conductor 9′ are also like those heretofore described in connection with conductor 9.

The removable cover 24 is preferably of porcelain and is designed to completely cover the block 1 and parts carried thereby, except that it has circular apertures 25 formed therein through which the plug fuses may be inserted in the screw shells 19. It is secured in place by suitable means such as screws passing therethrough and engaging nuts 26 secured to the block 1.

I do not desire to restrict myself to the particular form or arrangement of parts herein shown and described, since it is apparent that they may be changed and modified without departing from my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. An electrical wiring device comprising an insulating block having in one side grooves for the reception of conductor wires and channels transverse to said grooves, metallic conductors secured in said channels and provided with shoulders, and a block of insulation provided with shoulders to interlock with the shoulders on the metallic conductor.

2. An electrical wiring device comprising an insulating block having in one side grooves for the reception of conductor wires and channels transverse to said grooves, metallic conductors provided with cut-out receptacles located in said channels, a block of insulation secured to one conductor at the point of intersection of its channel with a groove, and an insulating cover secured to said block and inclosing said metal parts.

In witness whereof, I have hereunto set my hand this 12th day of July, 1906.

HOWARD R. SARGENT.

Witnesses:

BENJAMIN B. HULL,

HELEN ORFORD.