R. H. CONWAY & H. E. BISBING.

FUSED TERMINAL.

APPLICATION FILED MAY 12, 1909.

959,719. Patented May 31, 1910.

Fig. 1.

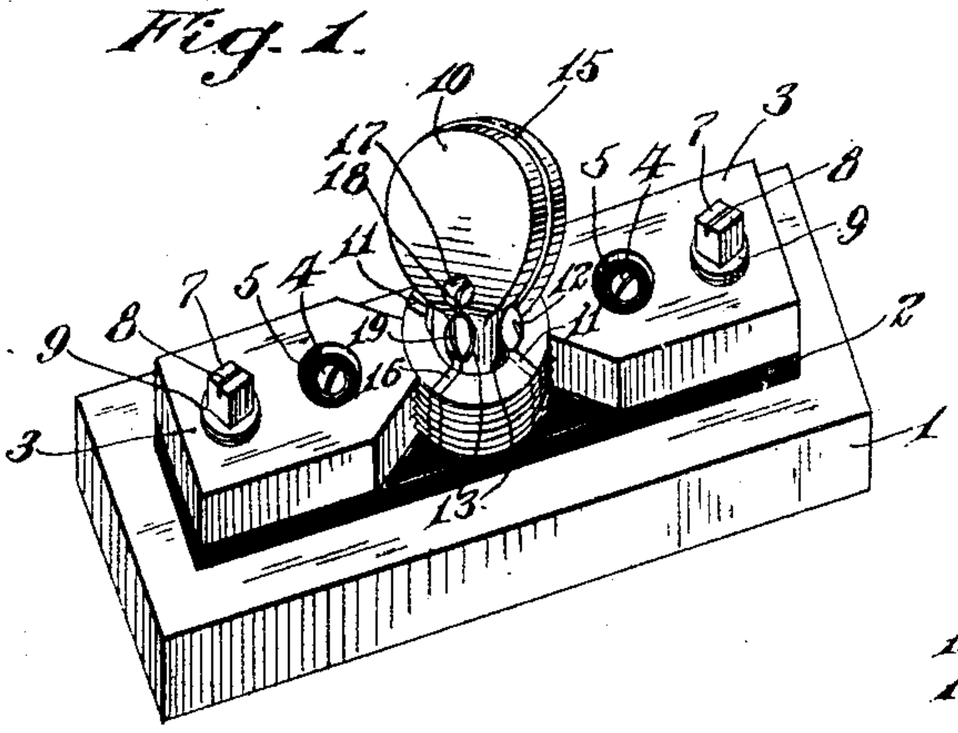


Fig. 2.

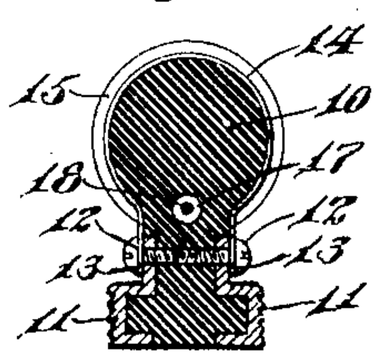


Fig. 3.

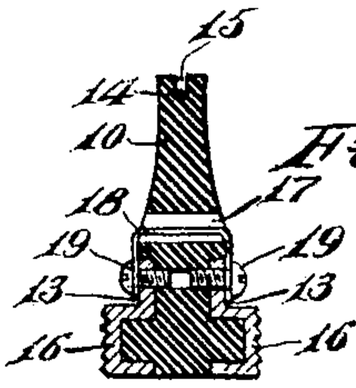


Fig. 4.

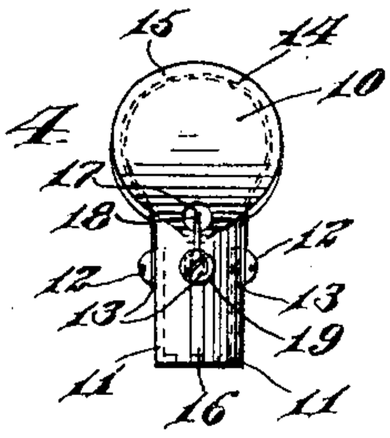


Fig. 5.

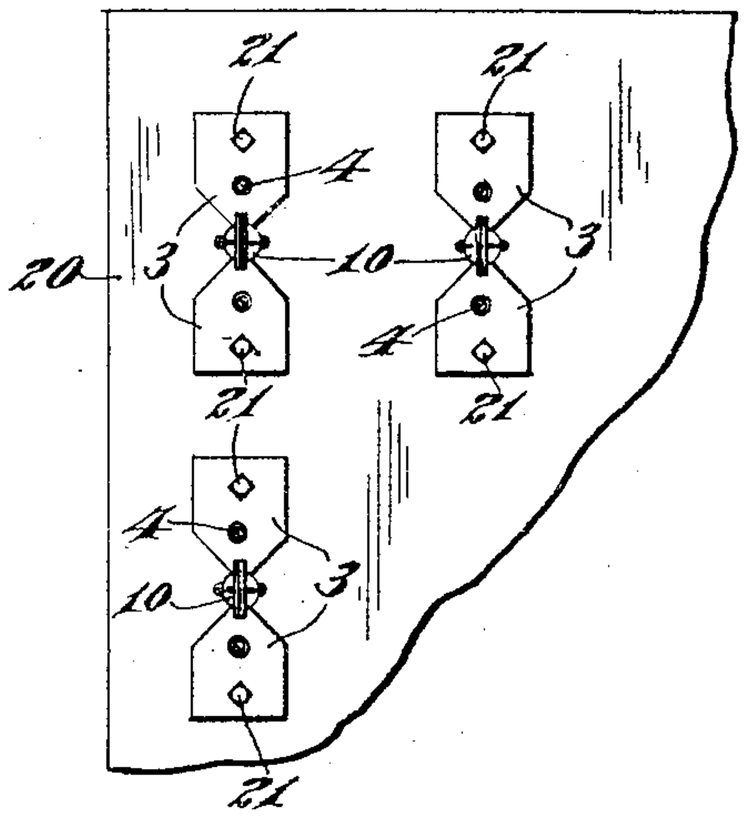
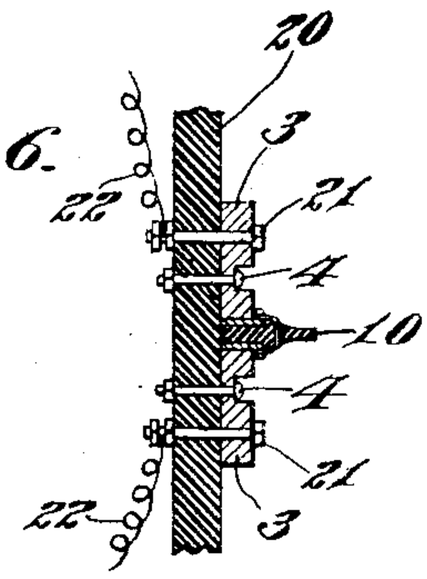


Fig. 6.



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FUSED TERMINAL.

959,719. Specification of Letters Patent. Patented May 31, 1910.

Application filed May 12, 1909. Serial No. 495,485.

To all whom it may concern:

Be it known that we, RICHARD H. CONWAY and HARRY E. BISBING, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Fused Terminals, of which the following is a specification.

Our invention relates to an improved fused terminal adapted for a great many uses in electric circuits, the object of the invention being to provide a turning plug having a normal fuse connection, and an emergency or auxiliary fuse connection, which may be thrown into the circuit, while the main or normal fuse is being repaired or replaced, and also provide a turning plug, which may be moved to a position, so that none of its contacts are in circuit, and hence open the circuit for a test or for any other purpose.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations, and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a perspective view illustrating the preferred form of our invention. Fig. 2, is a view in section of the turning plug. Fig. 3, is a view in section at right angles to Fig. 2. Fig. 4, is a view in side elevation of a modified form of plug. Fig. 5, is a fragmentary view in elevation illustrating the application of our improvement on a switch board, and Fig. 6, is a view in section of Fig. 5.

1 represents a base or support, 2 a strip of insulating material, and 3, 3, metal blocks secured on the insulating material by means of screws 4. The screws 4 are insulated from blocks 3 by means of sleeves 5, and the metal blocks are rigidly secured upon the insulating material and to the base. The blocks 3 are provided with threaded sockets to receive binding posts 7, which latter are made with screw driver receiving grooves 8 to facilitate their manipulation, and washers 9 are provided on the posts 7 between the enlarged upper ends of the posts, and the blocks 3 to clamp electric wires between them. The inner adjacent ends of the blocks 3 are provided with registering screw threads to mesh with screw threads on plug 10. The plug 10 is composed of insulating or nonconducting material, and is provided at opposite sides with metal inserts 11, normally in electric contact with the respective blocks 3, and these inserts preferably extend a short distance inwardly upon the lower face of the plug as, clearly shown. The upper ends of these inserts 11 are preferably enlarged and provided with screw threaded openings to receive screws 12, which serve as binding posts to clamp the hooked ends 13 of a fuse wire 14. This fuse wire 14, which I term the normal fuse, extends around the upper end of the plug, and is located in a groove 15 in the plug, so as to be out of the way, and permit free manipulation of the plug without touching the fuse wire.

Metal inserts 16 corresponding to the inserts 11, are located at opposite sides of the plug, and at points midway between the inserts 11, and an opening 17 is provided in the plug extending transversely through the same for the accommodation of a fuse wire 18, having its ends secured by screws 19 of the inserts 16. This fuse wire 18, I term the auxiliary or emergency fuse, and it will be readily seen that in the event of the normal fuse 14 burning out, the plug can be turned so as to bring the auxiliary fuse into the circuit and close the circuit, while the normal fuse is being replaced.

As shown in Fig. 1, the plug may be so turned that none of the four contacts will engage the blocks 3, thus permitting the circuit to be open for a test or other purpose.

As shown in Fig. 4, the plug may be smooth, and not screw threaded, when of course, the blocks 3 would not be screw threaded either, but would merely hold the plug by frictional contact.

In Figs. 5 and 6, we have illustrated the application of our improvements on a switch board, in which 20 represents a plate of slate, or other insulating material, having a series of our improved terminals thereon. In this modified construction, the plugs are smooth as in Fig. 4, so as to enable them to be quickly removed or inserted, and the binding posts 21 extend through the slate and are adapted to receive the wires 22 on their inner ends.

Various other slight changes might be made in the general form and arrangement of parts described without departing from our invention, and hence we do not restrict

ourselves to the precise details set forth, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the claims.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, the combination with blocks spaced apart, a turning plug contacting with the adjacent faces of said blocks, two pairs of metal inserts forming electric contacts at opposite sides of said plug, and fuse wires connecting said pairs of contacts and insulated from each other.

2. In a device of the character described, the combination with blocks spaced apart, a turning plug contacting with the adjacent faces of said blocks, electric contacts at opposite sides of said plug, a groove around said plug, a fuse wire in said groove and connected at its ends to said contacts, a second pair of contacts at opposite sides of the plug, and located midway between the first mentioned pair of contacts, said plug having an opening extending transversely through the same, and a fuse wire projecting through said opening and secured at its ends to said last mentioned pair of contacts.

3. In a device of the character described, the combination with blocks spaced apart, a turning plug contacting with the adjacent faces of said blocks, electric contacts at opposite sides of said plug, a groove around said plug, a fuse wire in said groove and connected at its ends to said contacts, a second pair of contacts at opposite sides of the plug, and located midway between the first mentioned pair of contacts, said plug having an opening extending transversely through the same, and a fuse wire projecting through said opening and secured at its ends to said last mentioned pair of contacts, all of said contacts spaced an equal distance apart, and the distance between said contacts being greater than the contact ends of the blocks, whereby said plug may be turned to a position where none of its contacts will be in engagement with the blocks.

4. In a device of the character described, the combination with blocks spaced apart, a plug contacting with the adjacent faces of said blocks, two pairs of electric contacts secured in the periphery of the plug, and projecting inwardly at the end of the plug, and all insulated from each other, enlargements at the ends of said contacts, screws in said enlargements, and two pairs of fuse wires connecting the screws of the respective pairs of contacts and insulated from each other.

5. In a device of the character described, the combination with blocks spaced apart, and having registering screw threads in their adjacent ends, a plug having screw threads engaging the screw threads of the blocks, two pairs of electric contacts at opposite sides of said plug, and fuse wires connecting said pairs of contacts and insulated from each other.

6. In a device of the character described, the combination with blocks spaced apart, and having registering screw threads in their adjacent ends, a plug having screw threads engaging the screw threads of the blocks, electric contacts at opposite sides of said plug, a groove around said plug, a fuse wire in said groove and connected at its ends to said contacts, a second pair of contacts at opposite sides of the plug, and located midway between the first mentioned pair of contacts, said plug having an opening extending transversely through the same, and a fuse wire projecting through said opening and secured at its ends to said last mentioned pair of contacts.

7. In a device of the character described, the combination with blocks spaced apart, and having registering screw threads in their adjacent ends, a plug having screw threads engaging the screw threads of the blocks, electric contacts at opposite sides of said plug, a groove around said plug, a fuse wire in said groove and connected at its ends to said contacts, a second pair of contacts at opposite sides of the plug, and located midway between the first mentioned pair of contacts, said plug having an opening extending transversely through said plug and secured at its ends to said last mentioned pair of contacts, all of said contacts spaced an equal distance apart, and the distance between said contacts being greater than the contact ends of the blocks, whereby said plug may be turned to a position where none of its contacts will be in engagement with the blocks.

8. In a device of the character described, the combination with blocks spaced apart, and having registering screw threads in their adjacent ends, a plug having screw threads engaging the screw threads of the blocks, two pairs of electric contacts secured in the periphery of the plug, and projecting inwardly at the end of the plug, and all insulated from each other, enlargements at the ends of said contacts, screws in said enlargements, and two pairs of fuse wires connecting the screws of the respective pairs of contacts and insulated from each other.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

RICHARD H. CONWAY.
HARRY E. BISBING.

Witnesses:
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J. A. L. MULHALL.