

R. H. CONWAY & H. E. BISBING.
 REVERSIBLE FUSED AND SOLID TERMINAL.
 APPLICATION FILED NOV. 20, 1908.

935,838.

Patented Oct. 5, 1909.

Fig. 1.

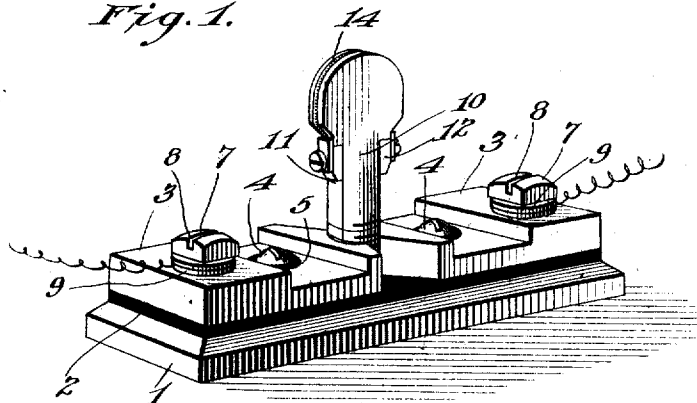


Fig. 2.

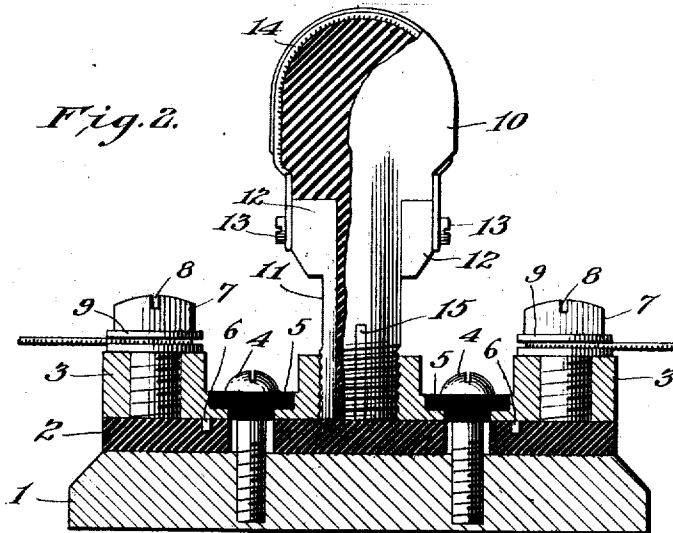


Fig. 4.

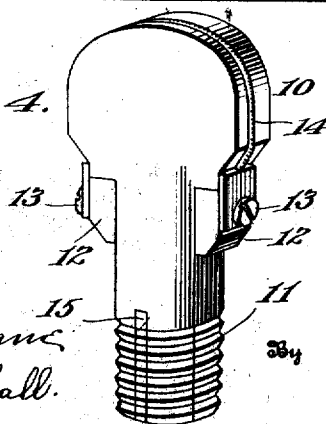
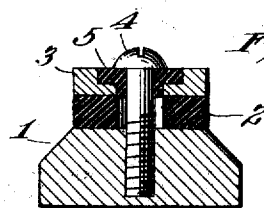


Fig. 3.



Witnesses
 W. C. Lyddane
 J. D. Mulhall.

Inventors
 Richard H. Conway and
 Harry E. Bisbing

J. A. M. Potts.

Attorney

UNITED STATES PATENT OFFICE.

RICHARD H. CONWAY AND HARRY E. BISBING, OF PHILADELPHIA, PENNSYLVANIA,
ASSIGNORS OF ONE-FOURTH TO LEWIS K. MARR, OF PHILADELPHIA, PENNSYLVANIA.

REVERSIBLE FUSED AND SOLID TERMINAL.

935,838.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed November 20, 1908. Serial No. 463,534.

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 Reversible Fused and Solid Terminals, of which the following is a specification.

Our invention relates to an improved reversible fused and solid terminal, adapted for use in almost any electric circuit, the object of the invention being to provide a turning plug which when in one position will constitute a fused circuit closer, and when in another position will constitute a solid circuit closer.

A further object is to provide an improved turning plug of this character having screw threaded connection with metal blocks to insure a perfect electric circuit at all times.

A further object is to provide improvements of this character which permit the ready finding of a burned out fused and permit the continued operation of the mechanism while a new fuse is being inserted.

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 our improvements. Fig. 2, is a view in longitudinal section. Fig. 3, is a view in cross section, and Fig. 4, is a detail perspective view of the plug.

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 dowels 6 are provided on the bottom face of blocks 3, and are located in recesses in the insulating strip 2. It will thus be seen that when these dowels are in position and the screws 4 are screwed home, the blocks are rigidly fixed and prevented from any turning movement. 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 operation, and washers 9 are provided on the posts 7 between the enlarged upper ends of the posts,

and the blocks 3 to clamp the 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 non-conducting material, and is provided at opposite sides with metal inserts 11, normally in electric contact with the respective blocks 3. Metal blocks 12 are secured to the sides of the plug and are made integral with inserts 11, and screws 13 screwed into said blocks 12, constitute binding posts for the ends of a fuse wire 14. The fuse wire 14 passes around the plug 10 and is located within a peripheral groove, as clearly shown. The lower end of plug 10 is also provided with a metal plate 15 which extends entirely through the plug and constitutes an electric circuit closer between the blocks, when the plug is properly turned, as will more fully hereinafter appear. The plate 15 and the inserts 11 are insulated from each other, and are so positioned that they can never be in electric contact at the same time.

The operation of my improvement is as follows: The normal position of the parts is shown in Fig. 1, in which the electric circuit is closed through the inserts 11 and fuse wire 14. If the fuse wire 14 burns out, as it often does in practice, the plug 10 can be given a quarter turn to bring the edges of plate 15 into electric contact with blocks 3 and close the electric circuit while a new fuse wire is being applied, when the block can be returned to its former position.

The advantages of a construction of this kind are many. It permits the continued operation of an apparatus while a fuse wire is being inserted; it enables the fuse wire to be inserted without danger of electric shock to the operator; it permits the easy location of a burned out fuse, and it insures a perfect electric contact between the plug and the blocks, as the screw threaded connection insures a wiping of the surfaces every time the plug is turned.

Our improvements are adapted for a great many uses, such for instance, as in connection with electric signals on railroads, where it would be of inestimable value, as it would prevent the ordinary delays which now so often occur, due to burned out fuses in the circuit.

A great many slight changes might be

made in the general form and arrangements 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, fused electric contacts at opposite sides of said plug, a solid contact plate extending through the plug and insulated from the fused contacts, and said plug adapted to be turned to move either the solid or fused contacts into electric contact with the blocks.

2. In a device of the character described, the combination with two blocks spaced apart having screw threads at their adjacent ends, a screw threaded plug meshing with the threads of the blocks, and fused electric contacts at opposite sides of said plug.

3. In a device of the character described, the combination with blocks spaced apart, a turning plug having screw threaded engagement with the adjacent faces of said blocks, metal inserts at opposite sides of said plug contacting with the blocks, binding posts at the outer ends of said inserts, and a fuse wire located in a groove around the plug and secured at its ends to said binding posts.

4. In a device of the character described, the combination with blocks spaced apart and having screw threads at their adjacent ends, a screw threaded plug having its threads meshing with the threads of said blocks, metal inserts at opposite sides of said plug, a fuse wire connecting said metal inserts, a metal plate extending through the plug between and insulated from the metal inserts, and said plug constructed to be turned to move either the inserts or the plate into contact with the blocks to close an electric circuit.

5. In a device of the character described, the combination with a strip of insulating material, metal blocks having dowels projected into said insulating material, screws passed through the blocks, insulated therefrom, and screwed into the insulating strip, binding posts on said blocks, a turning plug connecting said blocks, and fused and solid electric circuit closing devices carried by said plug.

6. In a device of the character described, the combination with two blocks spaced apart, having screw threads at their adjacent ends, a screw threaded plug meshing with the threads of the blocks, and electric contacts at the opposite sides of said plug.

7. In a device of the character described, the combination with two blocks spaced apart, a turning plug between said blocks, and fused and solid contacts carried by said plug, whereby the plug may be moved to position either the fused or the solid contacts into contact with the blocks.

8. In a device of the character described, the combination with two blocks spaced apart, having screw threads at their adjacent ends, a screw threaded plug meshing with the threads of said blocks, and fused and solid contacts carried by said plug whereby the plug may be moved to position either the solid or fused contacts into contact with the blocks.

9. In a device of the character described, the combination with a base or support, a strip of insulating material thereon, and blocks secured to said insulating strip and to the support and insulated from the latter, a turning plug contacting with the adjacent ends of said blocks, and fused and solid contacts carried by said plug.

10. In a device of the character described, the combination with a base or support, a strip of insulating material thereon, metal blocks on said insulating material having openings therein, insulating washers in said openings, screws in said washers projecting through the blocks and insulating material and into the base or support, a turning plug between the adjacent ends of said blocks, and metal contacts carried by said plug.

11. In a device of the character described, the combination with a base or support, an insulating strip on said base, blocks secured on said insulating material and spaced apart, a turning plug having screw threaded engagement with said blocks, and fused and solid contacts carried by said plug, whereby either said fused or solid contacts may be moved into contact with the blocks.

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:

R. H. KRENKEL,
J. A. L. MULHALL.