G. WRIGHT & F. H. WESTON.

INCLOSED FUSE.

APPLICATION FILED JUNE 21, 1911.

1,009,614. Patented Nov. 21, 1911.

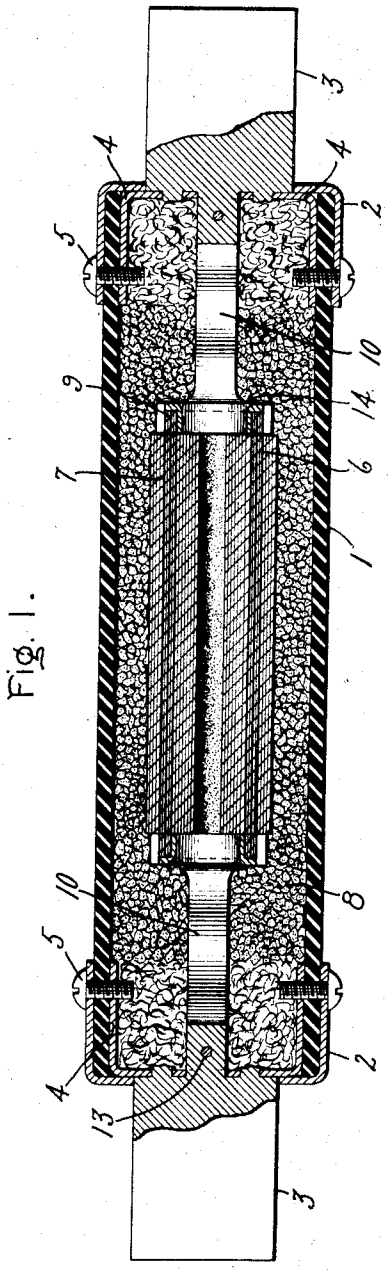

Fig. 1.

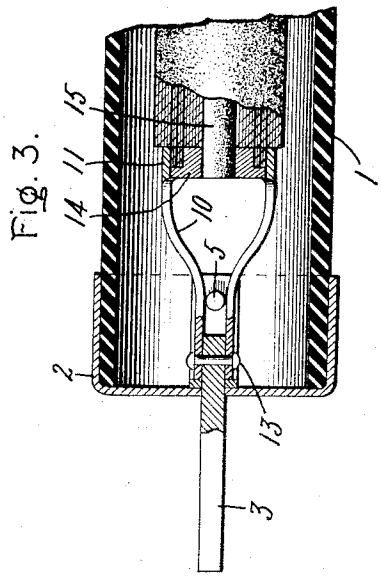

Fig. 3.

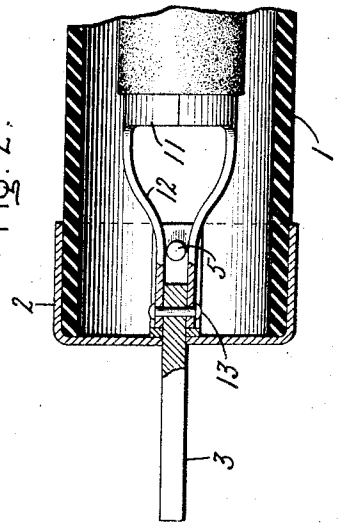

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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INCLOSED FUSE.

1,009,614. Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed June 21, 1911. Serial No. 634,625.

To all whom it may concern:

Be it known that we, GILBERT WRIGHT and FREDERICK H. WESTON, citizens of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Inclosed Fuses, of which the following is a specification.

This invention relates to electric protective devices, and more especially to inclosed fuses.

The object of the invention is to provide an inclosed fuse with a connecting member between the end of the fusible element and the terminal contact which may be applied with facility and will permit an unobstructed view of the soldered joint made between the connector and the fusible element.

One form of the invention is shown in the accompanying drawing, in which—

Figure 1 is a longitudinal section of an inclosed fuse of the cigarette type embodying our invention; Fig. 2 is a fragmentary longitudinal section taken at right angles to the view shown in Fig. 1; and Fig. 3 is a similar view showing a slight modification.

The inclosed fuse shown in the drawing comprises a casing made up of a tube 1 of insulating material having metallic thimbles 2 inclosing the ends and contact terminals 3 in the form of knife blades extending through the thimbles 2 and secured to yoke pieces 4 having their ends bent over so as to receive the screws 5 projecting through thimble flanges and the walls of the tube whereby the thimbles and terminals are secured together and to the insulating tube 1. The fusible element comprises a sheet of zinc or other readily fusible material 6 rolled up with interposed sheets of insulating material 7, such as asbestos paper, so as to leave portions of the fusible element projecting beyond the ends of the roll of asbestos paper 7. The fusible element, in addition to being protected by the asbestos paper 7, is surrounded by a granular substance 8 which absorbs or condenses the volatile gases given off on blowing of the fusible element.

The projecting ends 9 of the fusible element are connected to the terminal contacts 3 by metallic connectors 10, each made of two T-shaped pieces of sheet metal shaped so as to have a semicircular flange 11 at one end and a bent arm 12 projecting therefrom. These pairs of connectors are joined by rivets 13 to opposite sides of a contact terminal 3 and also soldered to insure an electrically conducting joint, while the two semicircular flanges 11 form a complete ring about the projecting end 9 of the fusible element and at the same time leave the outer end of the element accessible to the workman so that he may apply solder 14 thereabout and to the inner surface of the ring portion of the connector. In the construction shown in Fig. 1, the solder is applied by the use of an ordinary soldering iron. In the construction shown in Fig. 3, the solder is applied by placing a stopper or plug in the bore 15 of the roll of asbestos paper 7 and pouring the solder 14 into the space between the plug and connector ring 11 with the parts held in vertical position. The construction is such that the two members of an end connector may be readily spread by the insertion of a finger between them so as to be readily disposed about the end 9 of the fusible member and allowed to contract thereupon; it also enables the workman to inspect the soldered joint and thereby make sure that the solder is properly applied, and also affords a rigid support for the fusible element whereby it is held centered with relation to the inclosing casing.

We do not desire to restrict ourselves 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 our invention.

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

1. In an inclosed fuse, the combination of a tubular fusible member, and connectors each comprising an open ring surrounding the end of the fusible member and connected by solder thereto.

2. In an inclosed fuse, the combination of a tubular fusible member, and connectors each comprising two sheet metal parts each having a semicircular flange connected by solder to the end of the fusible member, and an arm projecting from said flange.

3. In an inclosed fuse, the combination of a tubular fusible member, contact terminals, and connectors each consisting of a pair of sheet metal T-shaped parts bent to form a ring about the end of the fusible element with the arms disposed on opposite sides of the terminal.

In witness whereof, we have hereunto set our hands this 19th day of June, 1911.

GILBERT WRIGHT.
FREDERICK H. WESTON.

Witnesses:
BENJAMIN B. HULL,
MARGARET E. WOOLLEY.