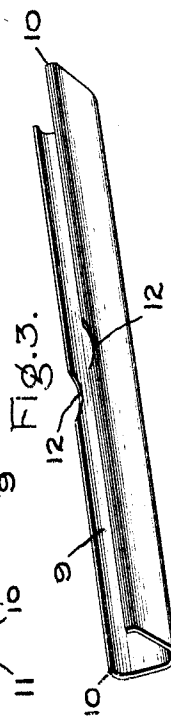
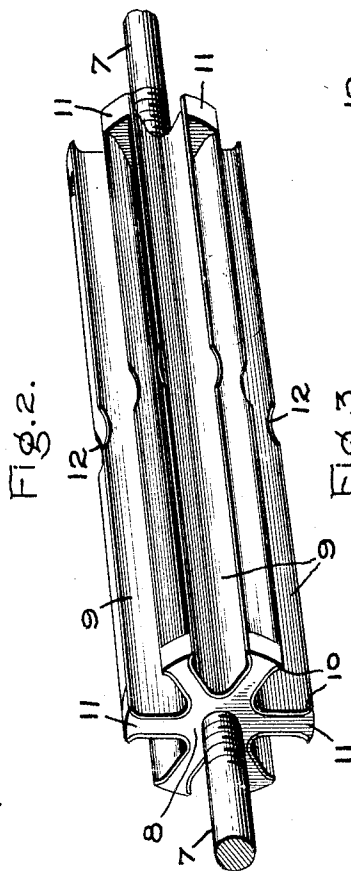
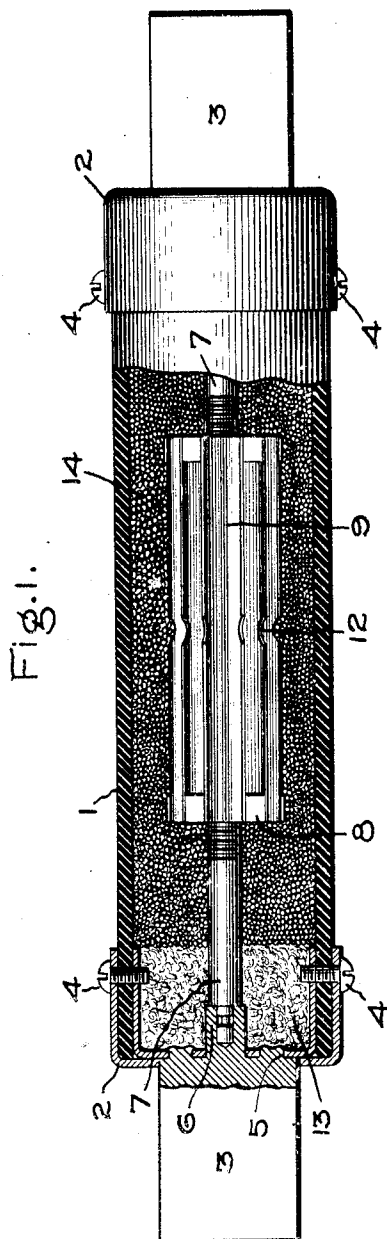


G. WRIGHT.
INCLOSED FUSE.
APPLICATION FILED AUG. 26, 1909.

1,037,397.

Patented Sept. 3, 1912.



Witnesses:
Marcus L. Byng.
Arthur H. Hall.

Inventor:
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by *Alfred B. Davis*
Att'y.

UNITED STATES PATENT OFFICE.

GILBERT WRIGHT, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

INCLOSED FUSE.

1,037,397.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed August 26, 1909. Serial No. 514,683.

To all whom it may concern:

Be it known that I, GILBERT WRIGHT, a citizen of the United States, residing at Schenectady, 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 thermal cutouts, and especially to those known as inclosed fuses, wherein the fusible element is housed in a barrel or shell, which is filled with granular material and is armed at each end with metallic contact pieces affording means for making an electrical connection between the fusible element and the adjacent terminal of the circuit in which it is interpolated.

The object of the invention is to provide a fuse in which the fusible element comprises a plurality of parallel conductors, in order to distribute the current and minimize the disruptive effects by preventing the concentration of the explosion at any one point.

The novel feature of the invention resides mainly in the form of fusible element employed, which comprises a plurality of parallel strips of thin fuse-metal soldered at each end to a slotted head. The strips are preferably trough-shaped to give them stiffness. To insure the initial disruption of the element at or near its middle each trough-like strip has one or more notches, all of which lie in a common transverse plane about midway between the ends of the troughs.

In the accompanying drawing, Figure 1 is a longitudinal section (partly in elevation) of an inclosed fuse embodying the preferred form of my invention; Fig. 2 is a perspective view, on a larger scale, of the fusible element; and Fig. 3 is a perspective view of a single trough shaped section of said element.

The inclosing shell consists of a cylindrical tube 1 of fiber or other suitable insulating material. Its ends are closed by metallic caps 2 each having a central slot through which the contact blade 3 passes. The flange of each cap is provided with holes for screws 4 which extend through the walls of the tube 1 and engage screw-threaded holes in the ends of a U shaped yoke 5

riveted to the inner end of the blade and serving as a support for the latter and as a reinforcement of the cap.

The fusible member consists of two heads connected by fusible strips and provided with rods which have their outer ends reduced and soldered to projections 6 on the blades 3. The rods 7 are preferably screwed into tapped holes in the centers of the heads 8, which are preferably circular and have deep notches or slots in their peripheries to receive the ends of the open trough-shaped fusible strips or sections 9. The edges 10 of the troughs are preferably somewhat rounded over and the slots in the heads are shaped to correspond, so that the ends of the arms 11 between said slots have lips which overlap the troughs and assist in retaining them. The strips 9 are made of thin fusible metal, and they are soldered at each end to the heads 8. The object of giving them a trough-like shape is to stiffen them and enable thinner material to be used. This effect is assisted by the turned-over edges 10. In order to concentrate the initial disruptive action at the middle of the strips, they are preferably cut away or notched at that point, as shown at 12.

The fusible element extends through the shell 1 from one blade to the other, and the remaining space in the shell is filled with material adapted to absorb and scatter the gases and globules of metal thrown off when the fuse blows. This material is preferably asbestos wool 13 at the ends of the shell and pellets 14 of hydrated lime and plaster of Paris immediately surrounding the strips 9.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only illustrative, and that the invention can be carried out by other means.

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

1. In an electric fuse, a fusible element comprising a plurality of parallel trough-shaped strips.

2. In an electric fuse, the combination

with suitable supporting heads, of a plurality of trough-shaped strips attached at their ends to said head.

3. In an electric fuse, the combination
5 with heads having slots in their peripheries, of a plurality of fusible strips received in said slots.

4. In an electric fuse, the combination
10 with suitable supporting heads having slots in their peripheries, of a plurality of trough-shaped strips of fusible metal received in said slots.

5. In an electric fuse, the combination with supporting heads having slots in their peripheries and lips on the arms between
15 said slots, of trough-shaped strips received in said slots and having turned-over edges overlapped by said lips.

In witness whereof, I have hereunto set my hand this 24th day of August, 1909.

GILBERT WRIGHT.

Witnesses:

BENJAMIN B. HULL,
MARGARET E. WOOLLEY

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."