

931,476.

Patented Aug. 17, 1909.

Fig. 1.

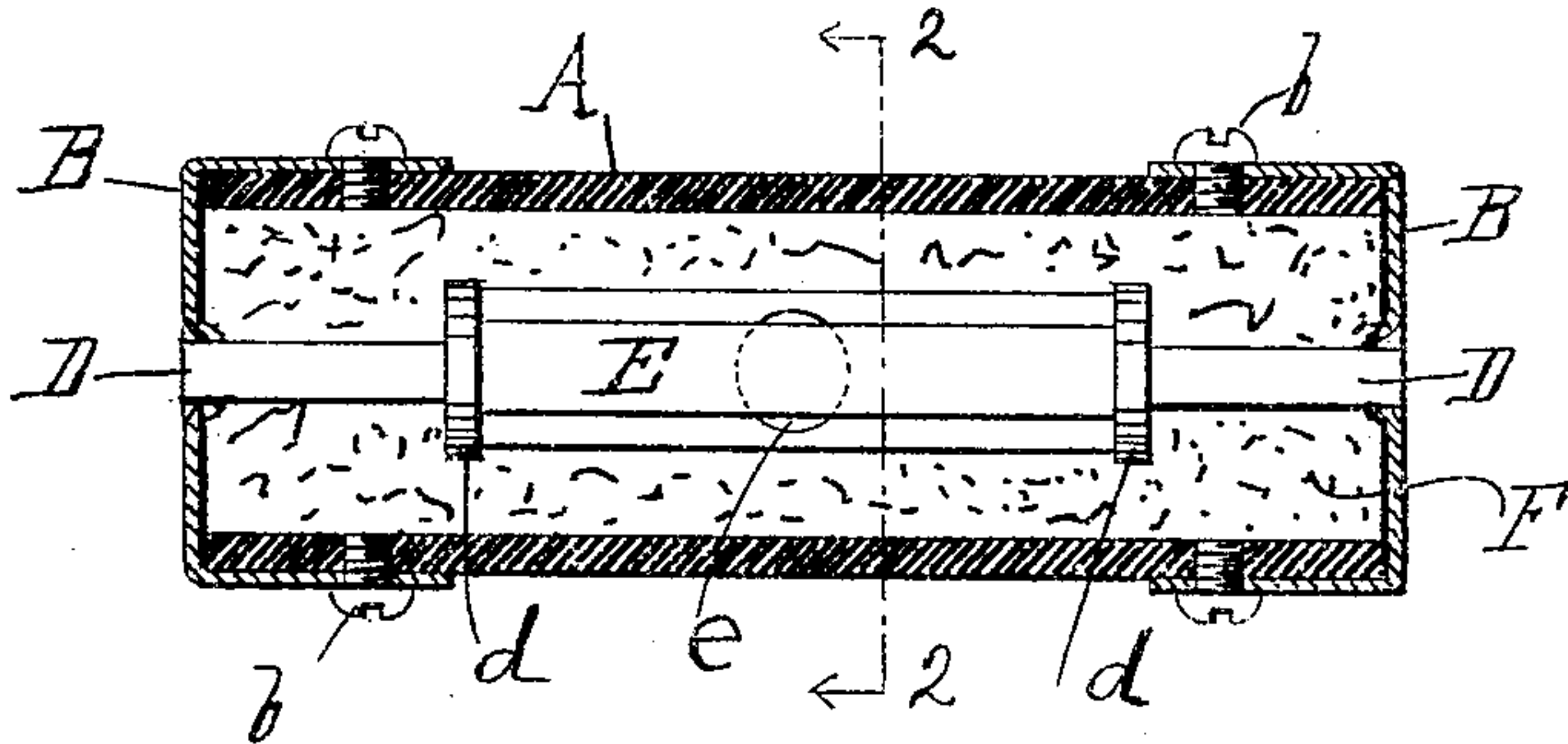


Fig. 2.

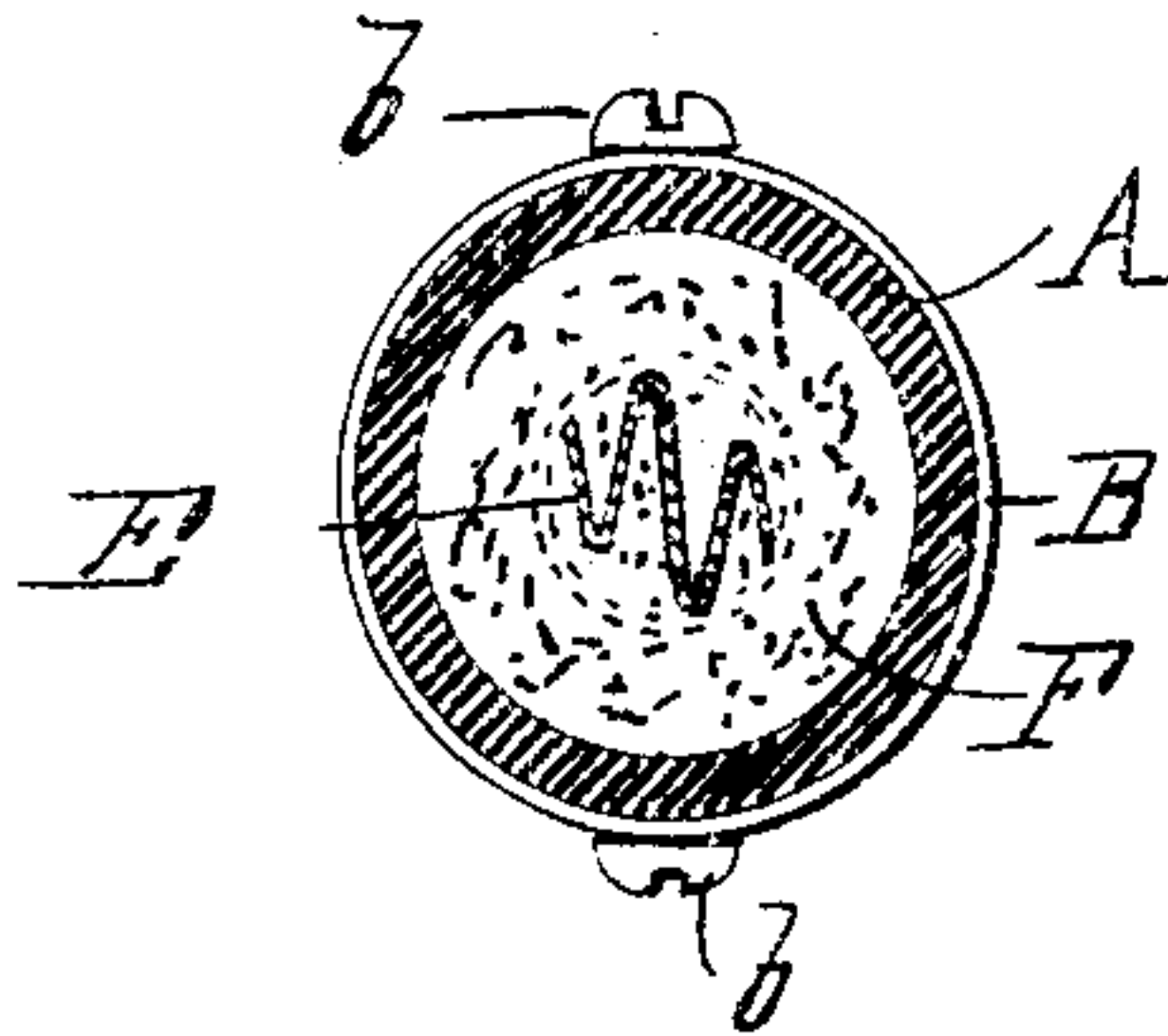
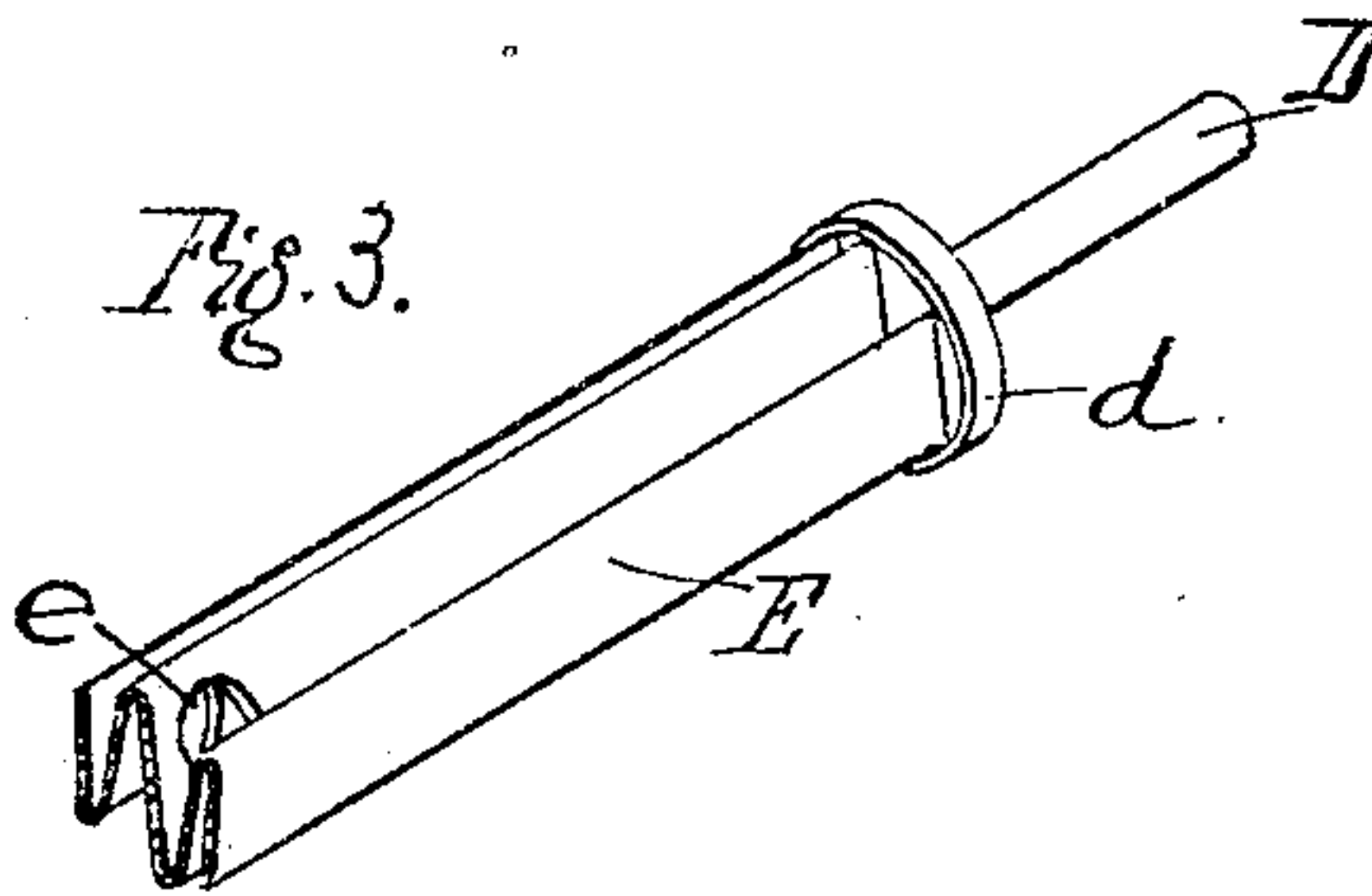


Fig. 3.



WITNESSES

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FREDERICK P. POOLE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRYANT ELECTRIC COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

INCLOSED FUSE.

No. 931,476.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed July 8, 1908. Serial No. 442,503.

To all whom it may concern:

Be it known that I, FREDERICK P. POOLE, a citizen of the United States of America, and residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and Improved Inclosed Fuse, of which the following is a specification.

The object of my invention is to provide an electrical inclosed fuse with a construction of fusible link such that while it will give the desired extended cross-section required for a given voltage and amperage of current it will make the complete fuse cheaper and more easy to manufacture than those with tubular links and cheaper than those with multiple links. This object I attain by making the link of thin sheet metal with accordion-like folds running lengthwise of the fuse link.

In the accompanying drawing, Figure 1 is a longitudinal section through an inclosed fuse provided with my improved link, the latter being shown in side elevation; Fig. 2 is a cross-section on the line 2—2, Fig. 1; and Fig. 3 is a sectional perspective view of the link removed from the inclosing sheath.

A is the usual or any convenient inclosing sheath of a tube of hard fiber or other suitable material provided with any well-known or suitable metallic caps. For illustration I have shown plain caps B, B, secured by screws *b* and having secured to them by solder or otherwise the ends of the conducting rods, D, D, between which lies the link E. As will be seen from the drawings, this link is formed of thin and wide sheet metal folded backward and forward several times like the folds of an accordion lengthwise of the link, the ends of the links being secured by solder or otherwise to the disks *d*, *d*, of the conducting rods D, D. Holes *e* may be punched in the sheet metal of the link before it is folded, to provide a weakened starting point for the blowing of the fuse link. These holes, which are termed calibration holes, I form as shown in the widths of the folds instead of at the edges or bends, so that, on the one hand, the mechanical strength of the link is not lessened

by the presence of these holes, and on the other hand, the edges which are most completely surrounded by the filling will be the first to melt adjacent to these calibration holes.

One advantage of the described construction as compared with multiple link fuses is that my construction is cheaper and easier to manufacture and the link can be made of the desirable extreme thinness. As compared with tubular or spirally wound links, my construction has the advantage that the fuse is easier to make, because all the granular material F may be put into the fuse after the link has been secured between the two conductors D, D, and been put into place in the sheath and one cap secured on the latter, whereas the tubular and spiral links have to be filled with the granular material before the second conductor D is secured to the link.

I claim as my invention:

1. An inclosed fuse having a sheath with conductors and between the conductors a link in accordion-like folds lengthwise of the link.

2. In an inclosed fuse, the combination with the fuse-inclosure containing the filling material and the fuse-link terminals, of a sheet-metal fuse-link formed of a plurality of corrugations extending lengthwise of the fuse and rigidly secured by its ends to the ends of said terminals.

3. In an inclosed fuse, the combination with the fuse-inclosure containing the filling material and the fuse-link terminals, of a sheet-metal fuse-link formed of a plurality of corrugations extending lengthwise of the fuse and rigidly secured by its ends to the ends of said terminals, and having one or more calibration holes within the widths of the folds.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

FREDERICK P. POOLE.

Witnesses:

G. W. GOODRIDGE,
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