

F. P. POOLE & H. U. BADEAU.

FUSE.

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945,594.

Patented Jan. 4, 1910.

Fig. 1.

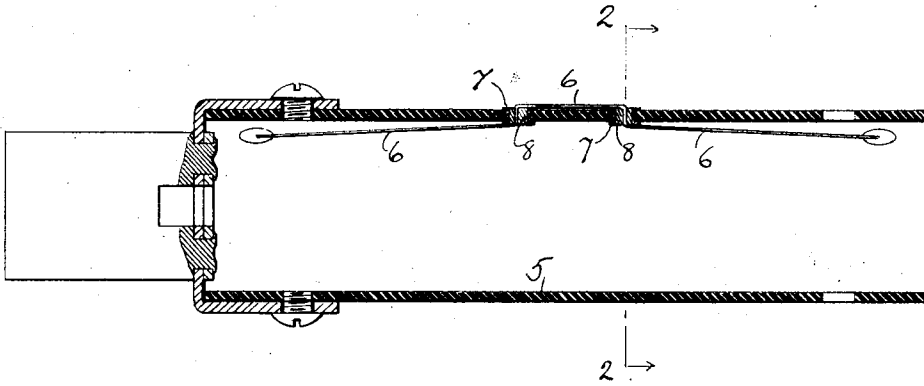
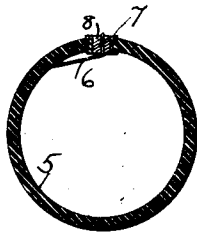


Fig. 2.



WITNESSES

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FREDERICK P. POOLE AND HARRY U. BADEAU, OF BRIDGEPORT, CONNECTICUT, ASSIGNORS TO THE BRYANT ELECTRIC COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

FUSE.

945,594.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, FREDERICK P. POOLE and HARRY U. BADEAU, both citizens of the United States of America, and residing at 5 Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and useful Improvement in Fuses, of which the following is a specification.

Our invention relates to fuses and particularly to fuses of the inclosed or cartridge type, the object of our invention being to improve the latter in a detail hereinafter described.

In the accompanying drawing, Figure 1 is a longitudinal section through a fuse sheath of the character mentioned in which our invention is embodied; Fig. 2 is a transverse section thereof on the line 2-2, Fig. 1.

It is now customary to place in all inclosed fuses of the general type illustrated, an indicator wire which is connected with the caps at the opposite ends of the fuse and led beneath the inclosing sheath to a point generally midway between the caps where it is threaded through perforations in the sheath so as to be visible for a short distance. The perforations through which the indicator wire passes however, although made as small as possible, afford a dangerous outlet for flame and hot gases when the fuse is blown, and it is consequently necessary to close them. Heretofore this has been done by lining the entire sheath or a large portion thereof with a sheet of asbestos paper or other suitable material. In addition to the expense incident to this method of protection, the internal diameter of the sheath is lessened, thereby decreasing the quantity of absorbent powders which may be introduced around the fuse. These disadvantages are overcome according to the present invention, by closing the perforations with any suitable sealing material 8 in which the indicator wire 6 is embedded. If the sealing material used be molten metal solder it is advisable though not necessary, where the sheath 5 is of paper or composition as is customary, to provide a metal lining 7 for the perforations to avoid injury to the sheath. The most suitable lining in this case is an eyelet or hollow rivet, the ends of which are spread both inside and outside the sheath to secure the same in place. Of

course this eyelet may be used with any sealing material, molten metal or not. This construction secures all the advantages of the asbestos paper lining, while at the same time it is more economical and neater in appearance and affords increased facility for threading through the fuse wire, since the perforations may be made larger than is deemed advisable where the asbestos lining is employed. Added rigidity for fastening the wire is also secured since the latter is embedded in the solder. Furthermore it is actually safer, since the perforations in the sheath are positively closed by the solder, whereas with the asbestos lining they are merely covered and moreover there is a possibility that the asbestos lining, where less than a complete cylinder is inserted, will work around so as to present the space between its adjacent edges to the perforations in the sheath, with the result that the protection which it was designed to give on the blowing of the fuse, is entirely lost.

The invention is not limited to the particular style of fuse illustrated, but may be applied to any sheathed fuse employing an indicator wire.

We claim as our invention:

1. A perforated fuse sheath and an indicator wire passing therethrough, together with sealing material filling the perforations through which said indicator wire passes and a lining for said perforations.

2. A perforated fuse sheath and an indicator wire passing therethrough, together with solder sealing the perforations through which said indicator wire passes and a heat resisting lining for said perforations.

3. A perforated fuse sheath and an indicator wire passing therethrough, together with solder sealing the perforations through which said indicator wire passes and metal eyelets lining said perforations, substantially as described.

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

FREDERICK P. POOLE.
HARRY U. BADEAU.

Witnesses:

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