F. W. SCHNEIDER.

INCLOSED CARTRIDGE FUSE.

APPLICATION FILED MAR. 6, 1914.

1,122,427.

Patented Dec. 29, 1914.

Fig. 1.

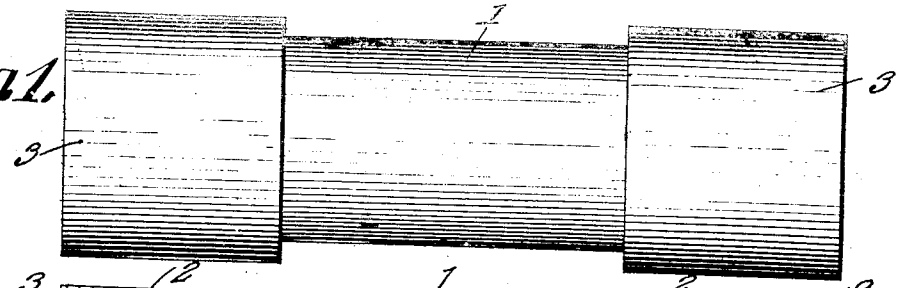


Fig. 2.

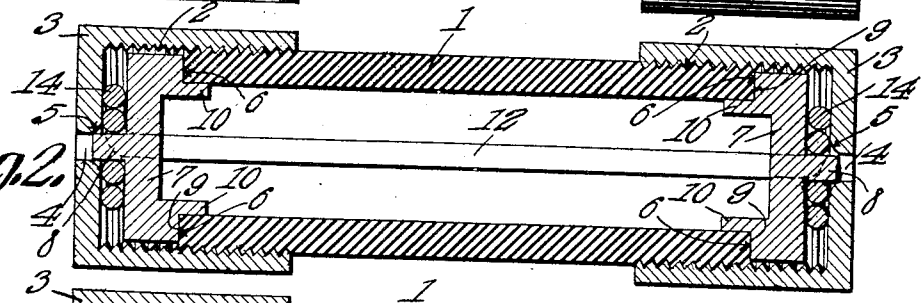
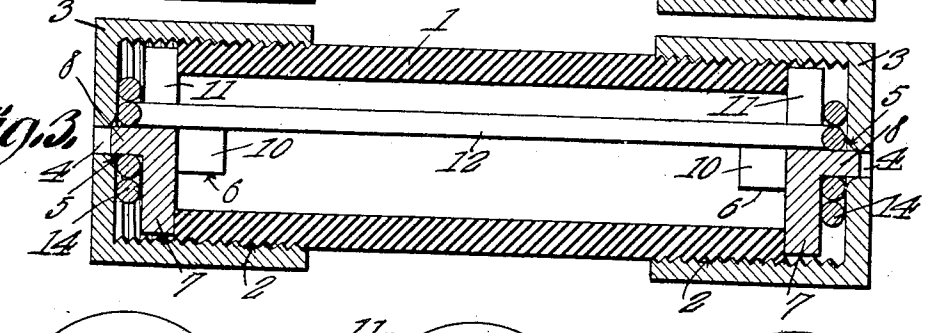


Fig. 3.



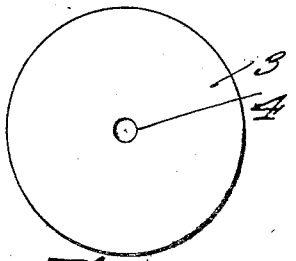


Fig. 4.

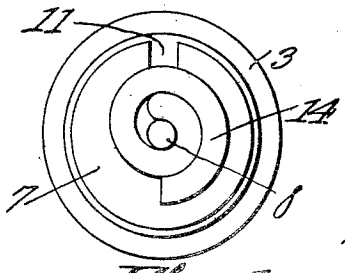


Fig. 5.

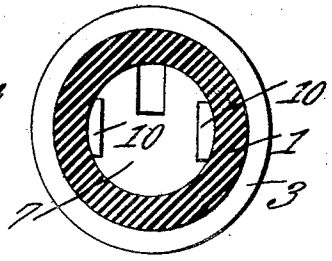


Fig. 6.

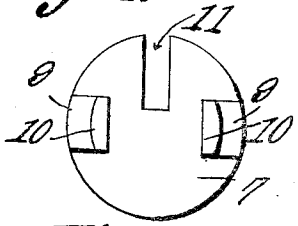


Fig. 7.

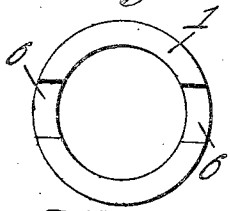


Fig. 9.

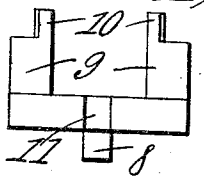


Fig. 8.

Witnesses

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F. W. Schneider,
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Attorneys

UNITED STATES PATENT OFFICE.

FRED W. SCHNEIDER, OF CLAY CENTER, OHIO.

INCLOSED CARTRIDGE-FUSE.

1,122,427. Specification of Letters Patent. Patented Dec. 29, 1914.

Application filed March 6, 1914. Serial No. 822,971.

To all whom it may concern:

Be it known that I, FRED W. SCHNEIDER, a citizen of the United States, residing at Clay Center, in the county of Ottawa and State of Ohio, have invented a new and useful Inclosed Cartridge-Fuse, of which the following is a specification.

The device forming the subject matter of this application is a fuse plug and one object of the present invention is to provide a device of this character into which a new fuse may be inserted readily.

Another object of the invention is to provide novel means whereby the head will be prevented from rotating on the shell and from moving transversely of the shell when the end of the fuse is wrapped around a projection on the head, or when a cap which is located on the end of the shell is rotated to bind the end of the fuse between the cap and the head.

It is within the scope of the invention to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawing:—Figure 1 shows the invention in elevation: Fig. 2 is a longitudinal section: Fig. 3 is a longitudinal section taken at right angles to the cutting plane in Fig. 2: Fig. 4 is an end elevation: Fig. 5 is an end elevation, one cap being removed: Fig. 6 is a transverse section: Fig. 7 is a plan of the head: Fig. 8 is a side elevation of the head; Fig. 9 is an end elevation of the shell.

In carrying out the present invention there is provided a tubular shell 1, ordinarily made of fiber or other insulating material. Threaded as indicated at 2 upon the ends of the shell 1 are caps 3 which preferably are made of metal. Each cap 3 is provided with an axial opening 4, counter sunk at its inner end as indicated at 5. In each end of the shell 1 opposed notches 6 are formed.

Applied to each end of the shell 1 is a metallic head 7, each head being provided with an exterior projection 8 which is axially alined with the opening 4. Each head 7 is provided with opposed lugs 9 and each lug 9 terminates in a finger 10. In each head 7 there is formed a notch 11 which intersects the periphery of the head.

The fuse wire is shown at 12 and is lodged in the notches 11, the ends of the fuse 12 being formed into convolutions 14 which engage around the projection 8.

In practical operation, the fuse wire 12 is inserted into the shell 1 and the heads 7 are mounted on the ends of the shell, the lugs 9 registering in the notches 6, and the fingers 10 engaging the interior of the shell 1. It is to be noted that, without a threading action, the fuse 12 may be engaged in the notches 11 of the heads 7.

The ends of the fuse 12 are wrapped around the projections 8 to form the convolutions 14, and it is to be observed that owing to the fact that lugs 9 are engaged in the notches 6 of the shell, the heads 7 will not rotate and twist the fuse while the fuse is being wrapped around the projections 8. Further, the heads 7 cannot move transversely of the shell 1, during the operation above mentioned, by reason of the fact that the finger 10 engages the interior of the shell.

After the fuse wire 12 has been connected with the heads 7 in the manner hereinbefore described, the caps 3 are rotated to a firm seat and the convolutions 14 of the fuse wire 12 are bound between the caps and the heads. It is to be observed that during the rotation of the caps 3 to a firm seat, the heads 7 cannot rotate and twist the fuse because the lugs 9 are engaged in the notches 6. The fingers 10 serve to center the heads 7, so that when the caps 3 are rotated to a seat, the projections 8 on the heads 7 may be received in the openings 4 of the caps 3.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a shell having notches in its ends: a head on the shell and provided with lugs which engage in the notches, the lugs terminating in fingers which engage the inner wall of the shell, the head having a projection upon its exterior face and being provided in its edge with an opening; and a fuse extended through the opening and wound about the

projection; the lugs and the fingers coöperating with the shell to form a positive lock preventing the head from rotating on the shell and moving transversely of the shell when the fuse is wound about the projection.

2. In a device of the class described, a shell having notches in its ends; a head on the shell and provided with lugs which engage in the notches, the lugs terminating in fingers which engage the inner wall of the shell, the lugs and the fingers coöperating with the shell to form a positive lock preventing the head from rotating on the shell and from moving transversely of the shell, the head having a projection upon its exterior face and being provided with an opening; and a fuse extended through the opening, the fuse being formed into two convolutions, the inner convolution lying against the projection, the outer convolution engaging the inner convolution to hold the latter against the projection, the inner wall of the opening being alined with the periphery of the projection, thereby permitting the inner convolution to be formed closely around the projection, and permitting the outer convolution to be formed within the contour of the head.

In testimony that I claim the foregoing as my own, I have hereunto affixed my signature in the presence of two witnesses.

FRED W. SCHNEIDER.

Witnesses:

GEORGIA A. YENZER,

M. A. CLARK.