(No Model.)

W. H. FRAZER.

CAP FOR FUSES.

No. 408,096. Patented July 30, 1889.

Fig. 1.

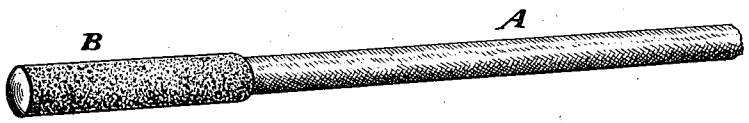
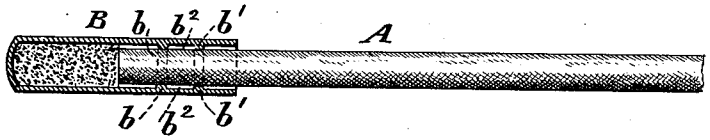


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. FRAZER, OF MULLAN, IDAHO TERRITORY, ASSIGNOR OF ONE-HALF TO JOHN MULLAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

CAP FOR FUSES.

SPECIFICATION forming part of Letters Patent No. 408,096, dated July 30, 1889.

Application filed April 1, 1889. Serial No. 305,549. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FRAZER, of Mullan, in the county of Shoshone and Territory of Idaho, have invented certain new and useful Improvements in Caps for Fuses, of which the following is a specification, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The object of my invention is to provide a cap made of rubber that can be readily attached to a fuse without danger to the operator; and it consists in the details of construction and arrangement hereinafter specified.

It has been a common practice to fasten a metal cap to the fuse by compressing the body of the cap with pinchers, the point of a knife, or the teeth of the operator, which has often been the means of causing the shell to explode and injure the person handling it. My invention is designed to obviate this danger.

In the accompanying drawings, Figure 1 is a perspective view of the cap attached to a fuse, and Fig. 2 is a longitudinal section of Fig. 1.

Like letters of reference indicate like parts in both figures.

A is the fuse, and B the cap. The cap is made of rubber, its wall being about one-sixteenth of an inch thick and its interior diameter slightly greater than the diameter of the fuse to which it is intended to be applied. The outer surface of the cap is unbroken; but on the inner surface of the wall, near the open end of the cap, two raised rings *b b'* are formed. These rings project about one thirty-second of an inch from the main interior surface, and when the fuse is inserted a dead-air chamber b^2 will be formed. This dead-air chamber serves effectually to prevent any water reaching the explosive material, which will occupy nearly one-half of the interior of the cap.

In manufacturing the cap will be molded and vulcanized to give it a sufficient degree of hardness without destroying its flexibility. To apply the cap to the fuse, it is simply necessary to push it on, when the interior rings will bind upon the fuse and retain the cap securely in position.

Having described my invention, I claim—

1. A flexible fuse-cap made of rubber and provided on its interior surface with raised annular portions, substantially as specified.

2. A flexible fuse-cap made of rubber and having its outer surface unbroken or straight, and being provided on its interior surface with raised annular portions, substantially as specified.

3. The combination, with a fuse, of a flexible cap fitting over said fuse, the cap being made of rubber and provided on its interior surface with raised annular portions, whereby a dead-air chamber is formed in the interior of the cap between the raised annular portions, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand and seal.

WILLIAM H. FRAZER. [L. S.]

Witnesses:
G. F. GREEN,
L. W. GAY.