

No. 805,270.

PATENTED NOV. 21, 1905.

L. L. DRIGGS.
SHELL FUSE.

APPLICATION FILED MAY 16, 1904.

Fig. 1.



Fig. 2.

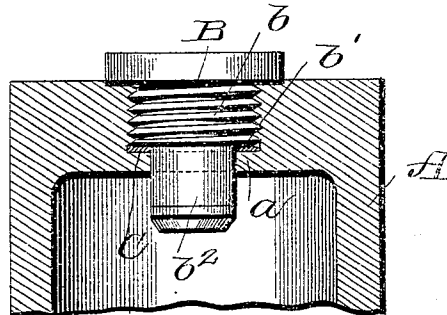
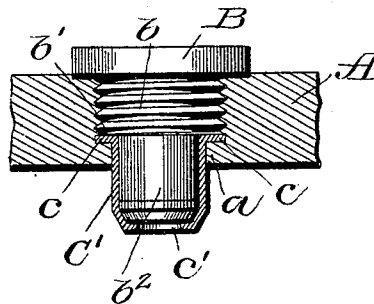


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS L. DRIGGS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO THE DRIGGS-SEABURY ORDNANCE CORPORATION, OF SHARON,
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SHELL-FUSE.

No. 805,270.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS L. DRIGGS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Shell-Fuses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in shell-fuses and in means for attaching the fuse to the shell; and it consists in certain improved means whereby the fuse may be readily attached to and removed from the shell when the latter is loaded without danger of accidental ignition of the bursting charge of the shell.

From time to time accidents have happened in removing the bursting charges from the shell, and in most of such instances the attendants, who alone might be able to completely explain the cause of the explosion, have been blown to pieces. Consequently the causes of such explosions are mainly deducible by theory only. It is generally supposed, however, that these explosions are caused by the sifting of fine powder-grains into the screw-threads between the fuse-stock and its bouching or the screw-threads in the shell-body when no bouching is used, and that when the force requisite to unscrew the fuse is applied the friction on the fine powder-grains causes ignition, which is transmitted to the powder charge in the shell.

My present invention is intended to provide means whereby such accidents may be avoided.

Reference is had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the shell fitted with a base-fuse. Fig. 2 shows a section through the base of the shell with the fuse in elevation, the parts being on a larger scale than in Fig. 1; and Fig. 3 is a similar view to Fig. 2 and shows a modification.

In Figs. 2 and 3 the fuse-stock B is screw-threaded, as at *b*, and there is a shoulder *b'* at the base of the screw-threads which rest above a shoulder *a* in the shell-body A. Between

the shoulder *b'* and the shoulder *a* a washer, 50 of leather or the like, C, is inserted, which fits snugly against the cylindrical portion *b*² of the fuse-stock and prevents any fine powder from sifting into the screw-threads.

In the form of device shown in Fig. 3 instead of a simple washer, as shown in Fig. 2, 55 a pouch C', like the finger of a glove, is slipped over the cylindrical portion *b*² of the fuse-stock and is flared out, as at *c*, to engage between the shoulders *a* and *b'*, like the washer C of 60 Fig. 2. This pouch is preferably open at the bottom, as shown at *c'*, to permit the free passage of the flame from the primer when the fuse is detonated. This pouch C' forms a dust-proof packing between the fuse-stock and the 65 shell-body, which prevents any powder-dust from getting into the screw-threads. The soft material used in this pouch will prevent any excessive grinding or rubbing action which would generate heat enough to cause ignition, 70 and the fuse-stock may be readily unscrewed and the contents of the shell poured out and the shell refilled as may be desired.

In filling or refilling the shell a funnel should be used which would project down into the 75 chamber of the shell below the screw-threads, and thus the powder-dust would not foul the screw-threads. These should be carefully cleaned out before refilling a shell that has once been emptied. 80

While I have shown a base-fuse, it will be obvious that the invention is equally applicable to point-fuses.

Having thus described my invention, what I claim, and desire to secure by Letters Patent 85 of the United States, is—

1. The combination with a shell-body provided with a screw-threaded opening for the fuse and a shoulder beneath said opening, of a fuse-stock provided with screw-threads, a 90 shoulder beneath said screw-threads, and a layer of leather or other like material mounted between the said shoulder on the fuse-stock and the said shoulder on the shell, substantially as described.

2. The combination of a shell-body provided with a screw-threaded aperture for the 95 fuse, and a shoulder below said aperture, of

a fuse-stock having screw-threads adapted to engage those in the shell-body, and provided with a shoulder below said screw-threads, and a cylindrical portion below said shoulder, of
5 a pouch or nipple of leather or other like material mounted over said cylindrical portion and having a flange adapted to be compressed between said shoulders and provided with an

opening for the passage of the flame from the primer, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS L. DRIGGS.

Witnesses:

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