(No Model.)

G. W. JACKSON.

CARTRIDGE SHELL.

No. 390,082. Patented Sept. 25, 1888.

Fig. 1.

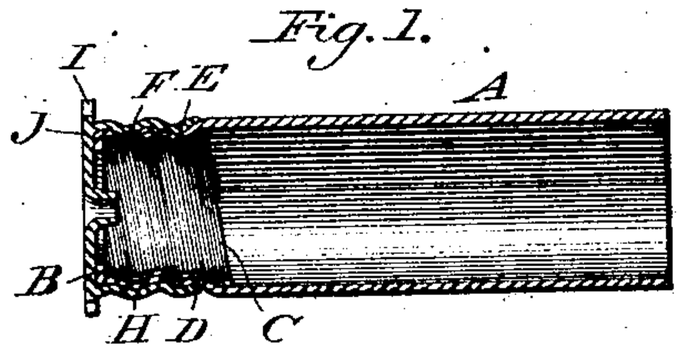


Fig. 2.

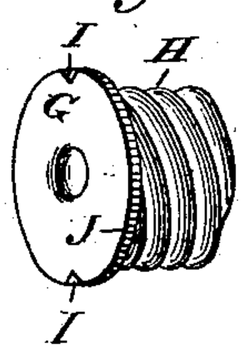


Fig. 3

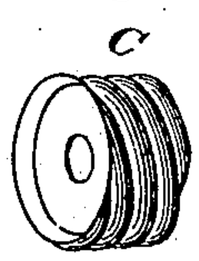
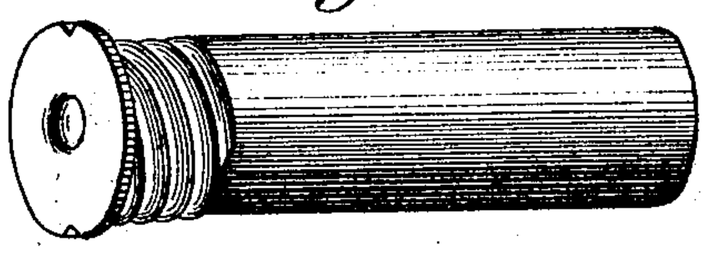


Fig. 4.



Witnesses:
Eugene J. Lindsay
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UNITED STATES PATENT OFFICE.

GEORGE W. JACKSON, OF PHILADELPHIA, PENNSYLVANIA.

CARTRIDGE-SHELL.

SPECIFICATION forming part of Letters Patent No. 390,082, dated September 25, 1888.

Application filed April 9, 1888. Serial No. 270,231. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. JACKSON, a citizen of the United States, residing at 614 Federal street, Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Cartridge-Shells; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention consists of a non-metallic cartridge-shell having a detachable metal breech.

The object of my invention is that the metal cap which forms the breech can be retained and used any number of times, as well as to improve the shooting qualities of non-metallic shells, all of which I will now proceed to describe.

Of the accompanying drawings, forming part of this specification, Figure 1 represents a sectional side view of my improved shell. Fig. 2 represents a flanged metal cap. Fig. 3 represents a light metal ring corrugated to form a thread. Fig. 4 represents a complete shell.

In carrying out my invention I take the tube A, made of paper or like material, crimping the end B. Then I insert the threaded ring C into tube A against the crimped end B. Then, with a creaser made for the purpose, turned over the end D of tube A, containing the threaded ring C, it is forced into the grooves E of the ring C, forming the thread F on the end of tube A. I then take the cap G, the collar H of which is corrugated to form a thread to correspond with thread on the end D of tube A, and screw it on over the threaded end D of tube A, forcing the tube tightly into the grooves of the collar H and ring C and drawing the crimped end B and cap G together, thereby forming a non-metallic shell with a perfectly-tight metal breech. The ring C, being made of light metal—such as tin or brass—will expand somewhat when the explosion takes place, thereby making it impossible for the gases to escape through the breech.

The notches I in the flange of cap G are for inserting a key or wrench, when necessary, for tightening or loosening the cap. The flanged edge J, being milled also, enables the cap to be turned on and off without a key or wrench, if properly made. The collar H of the cap G and the ring C, having a corrugated thread, allows them to be made of lighter metal and have the required strength, and also prevents the collar H of the cap G from sticking in the breech of gun-barrel if dirty.

I am aware that I can use a solid breech made of any suitable material threaded on the side; but I prefer the ring, as it would be necessary to have the solid breech and cap drawn tightly together, while with the ring it is only necessary that the cap should catch several threads of the ring.

I claim—

A non-metallic tube with one end crimped over a corrugated metal ring inserted into said end of the tube, the end of the tube forced into the grooves of the ring, which forms a thread on the end of the tube, a solid flanged cap notched and milled on the edge of the flange, the collar of said cap being corrugated to form a thread to correspond with the thread on the end of the tube, so that it can be screwed on over said threaded end of the tube, forcing it into the grooves of the metal ring, thereby forming a non-metallic shell with a perfectly-tight metal breech, which can be detached when the tube becomes useless and reused any number of times, as set forth.

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

GEORGE W. JACKSON.

Witnesses:
F. A. SMITH,
JAS. B. WEBB.