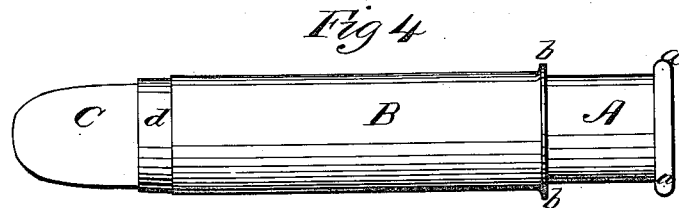
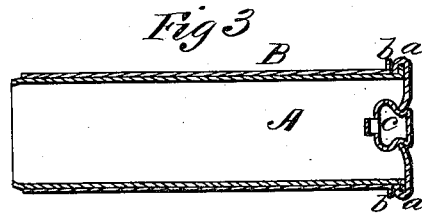
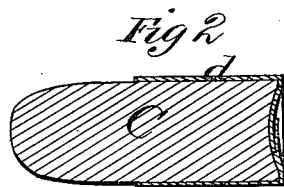
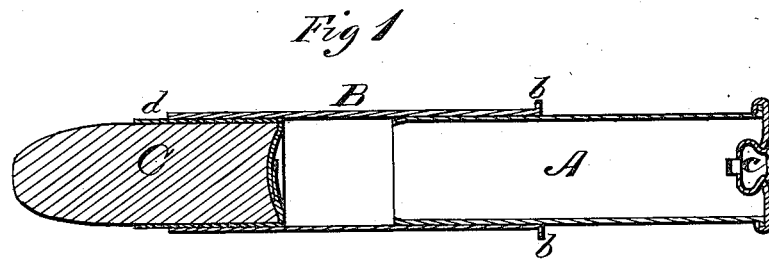


R. F. COOK.
Ball-Cartridge.

No. 163,154.

Patented May 11, 1875.



WITNESSES
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UNITED STATES PATENT OFFICE.

ROSWELL F. COOK, OF POTSDAM, NEW YORK.

IMPROVEMENT IN BALL-CARTRIDGES.

Specification forming part of Letters Patent No. 163,154, dated May 11, 1875; application filed March 20, 1875.

To all whom it may concern:

Be it known that I, ROSWELL F. COOK, of Potsdam, in the county of St. Lawrence and State of New York, have invented a new and valuable Improvement in Cartridge-Shells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1, 2, and 3 of the drawings are representations of longitudinal central sectional views of my shell; and Fig. 4 is an outside view of the same.

This invention has relation to improvements in metallic shells for cartridges.

The object of the invention is to devise a means whereby a patch may be used in breech-loading fire-arms as in muzzle-loaders, and the patch-covered ball deposited upon the grooves of the weapon.

To this end the nature of the invention consists in combining, with a flanged shell for receiving the powder, a second flanged shell for the ball, the latter being adapted to slide over and fit snugly on the latter, whereby a patch wrapped or otherwise secured upon a ball will be deposited upon the grooves of the weapon along with the ball, as will be hereinafter more fully explained.

In the annexed drawings, A designates a metallic cartridge-shell of the usual well-known form, and B is an open-ended tube or shell, having on one end a flange, *b*, in connection with which I propose to illustrate my invention. Shell A has in its closed end a percussion-cap, *c*, of the usual construction, and it is also provided with a flange, *a*, for the purpose of preventing it from penetrating too far into the barrel through tube B. I use these shells in the following manner, to wit: In accomplishing the result above mentioned, an oblong conoidal-ended ball, C, having been covered with a suitable patch, *d*, is inserted in the unflanged open end of tube B, which latter is then inserted in the open end of the

breech of the barrel, and pushed in until its flange *b* rests against the end of the barrel. Shell A is then filled with powder, and is thrust into the rear open end of tube B until its flange *a* is brought in contact with the flange *b* of the latter, as shown in Fig. 3. Shell A, being preferably a little longer than tube B, will thrust the ball along with its patch out of the latter, depositing it upon the grooves of the barrel.

In breech-loading-arms heretofore constructed the ball is deposited in the barrel in rear of the grooves; consequently the butt or rear end of the ball will be upset upon the explosion of the powder before reaching the same, and when it does reach the grooves its rear end will be torn and abraded, thereby considerably lessening the range of the ball, and greatly impairing the accuracy of the firing.

By depositing the ball on the grooves, as above described, this defect is effectually done away with, and the necessity of wiping out the barrel after each discharge in test-firing obviated.

When the cartridge above described is put up as fixed ammunition, ready for use, it will present the appearance shown in Fig. 4, the ball resting upon the front edge of shell A. In this case the entire cartridge will be inserted into the breech of the weapon, with flange *b* resting against its rear. Shell A will then be thrust in, as above described, with a like useful result.

What I claim as new, and desire to secure by Letters Patent, is—

A cartridge for breech-loading fire-arms, consisting of the outer tube B, provided with flange *b*, powder-shell A, having flange *a*, and ball C, covered with a suitable patch, *d*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROSWELL F. COOK.

Witnesses:

A. P. REDWAY,
J. B. PELTON