J. P. WHITE.

SHOT-CARTRIDGE.

No. 186,391. Patented Jan. 16, 1877.

Fig. 1.

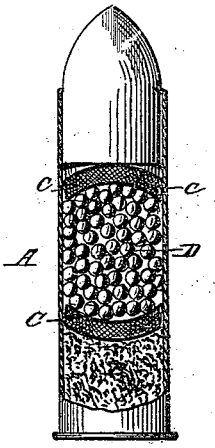


Fig. 2.

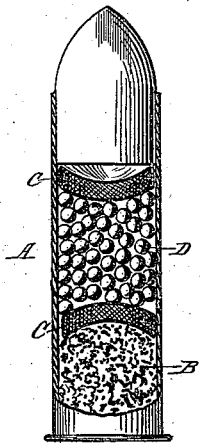


Fig. 3.

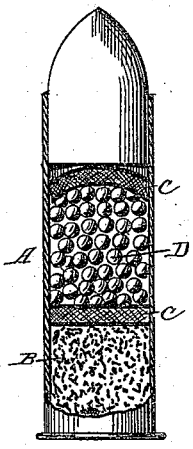


Fig. 4.

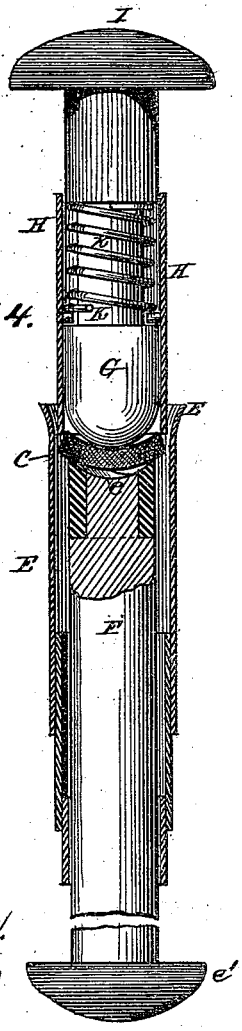
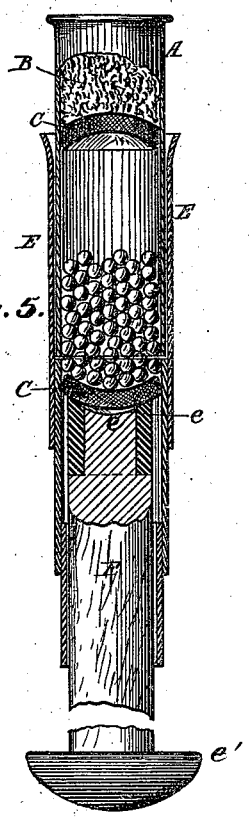


Fig. 5.



Attest:

H. L. Perrine.

J. E. Coombs

Inventor.

Joseph P. White

By James L. Norris

Atty.

UNITED STATES PATENT OFFICE.

JOSEPH P. WHITE, OF SAVANNAH, GEORGIA.

IMPROVEMENT IN SHOT-CARTRIDGES.

Specification forming part of Letters Patent No. **186,391**, dated January 16, 1877; application filed April 22, 1876.

To all whom it may concern:

Be it known that I, JOSEPH P. WHITE, of Savannah, in the county of Chatham and State of Georgia, have invented certain new and useful Improvements in Cartridges, of which the following is a specification:

This invention relates to a new method and apparatus for loading cartridges, being particularly designed for the cartridges of breech-loading shot-guns, its object being to increase or decrease the "spread" of the shot when the gun is discharged.

The improvements are fully hereinafter described, and specifically pointed out in the claims, a preliminary description being, therefore, deemed unnecessary.

In the drawing, Figure 1 represents a sectional view of a cartridge packed with my improved wad; Fig. 2, a sectional view of a modification of my invention; Fig. 3, a similar view of another modification. Fig. 4 represents a sectional view of the apparatus as employed for cupping the wads; and Fig. 5, a sectional view of the same as employed for forcing the wad into the shell.

The letter A represents an ordinary cartridge-shell, constructed of any suitable material; B, the charge of powder; and C C the wads between which the charge of shot D is secured.

In Fig. 1 the wads are inserted with their concave sides opposite each other, which causes the shot to spread or diverge, when the gun is discharged, to the greatest possible extent.

In Fig. 2 the convex sides of the cartridge-wad face each other, for the purpose of decreasing the spread of the shot when the gun is fired.

The letter E represents a tube or sleeve with a flaring mouth, in which is fitted a plunger, F, having a cup-shaped recess, *e*, at one end, and a knob or handle, *e'*, at its other end, by means of which it can be conveniently operated by the hand. G represents a cylindrical former, upon which is mounted a sliding sleeve, H, of exactly the diameter of the cartridge-shell.

One end of said former is made convex in shape, and the other is provided with a knob or handle, I, and a spiral spring, K, surrounds said former, in order to return the tube to its normal position when the former is withdrawn from the cartridge after forcing the wad into the cartridge.

The tube E is of proper size to fit neatly over the cartridge-shell, and the sleeve on the former G, when in place.

The operation of my apparatus is as follows: The wad, which is slightly larger in diameter than the bore of the cartridge-shell, is inserted in the concave recess in the end of the plunger F, said plunger being held in the position shown in Fig. 4, so as to bring its concave end just within the enlarged or flaring mouth of the tube E. The convex end of the former G is then forced down upon the wad, pressing the same into the concave recess upon the plunger, and giving said wad a concavo-convex or cup shape. The former G is then removed, and the plunger withdrawn to the rear of the tube E, and the cartridge, properly charged with powder, is placed in said tube. The wad is then pushed home, with its concave side toward the mouth, by means of the former. The cartridge is then removed, and the proper quantity of shot filled in it, and the upper wad, prepared as above described, is inserted by means of the plunger setting the wad in with its concave side outward, as shown in Fig. 1. This operation is reversed to secure the wads in position, with their convex sides facing each other, as shown in Fig. 2.

It is evident that the positions of the wads may be otherwise relatively arranged. For instance, the wads may be inserted with the concave side of one facing the convex side of the other; and it is also evident that but one of the concave wads may be employed, the place of the other wad being supplied by an ordinary plain wad; and, therefore, I do not limit myself to the two concave wads, or their particular arrangement.

By my invention an ordinary shot-gun can be made to throw the shot in a comparatively solid body, with little divergence, to adapt the gun for long-range shooting, or can be

made to spread the shot, so as to adapt the gun to short-range shooting, enabling the same gun to be used for a variety of purposes.

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

1. In a shot-cartridge, the combination of the shell A and the two concavo-convex wads C C, facing each other, and between which the shot is compressed and confined in the shell, substantially as described.

2. The combination of the tube E, plunger F, with concave end and former G, and sleeve H, for forming the concavo-convex wads, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

JOSEPH P. WHITE.

Witnesses:
J. G. SCHWARZBAUM,
J. J. ABRAMS.