D. E. WILLIAMS.

CARTRIDGE.

No. 108,543. Patented Oct. 18, 1870.

Fig. 1.

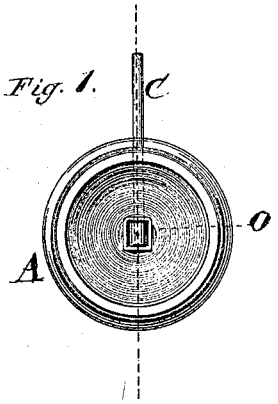


Fig. 2.

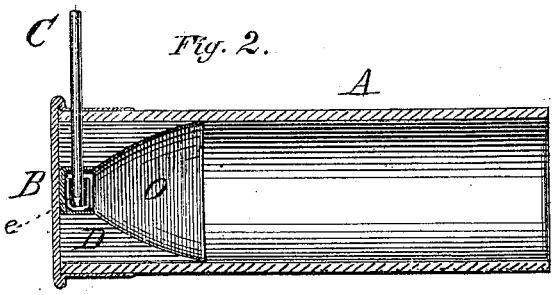
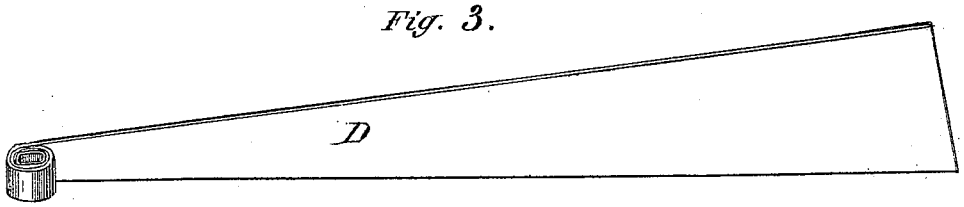


Fig. 3.



Witnesses,
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United States Patent Office.

DAVID E. WILLIAMS, OF DAVENPORT, IOWA.

Letters Patent No. 108,543, dated October 18, 1870.

IMPROVEMENT IN CARTRIDGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DAVID E. WILLIAMS, of Davenport, in the county of Scott and State of Iowa, have invented certain Improvements in Conical-breech Paper Cartridge, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to cartridges for breech-loading guns, and it consists in a novel manner of constructing a spherical or conical chamber at the base of the same, as hereinafter more fully explained.

Figure 1 is a front end view;

Figure 2, a longitudinal section; and

Figure 3 illustrates the manner of forming the spherical chamber.

The advantages of a spherical or conical breech in the chamber of guns, have long been recognized, and one of the greatest objections to the use of breech-loading sporting-guns arises from the fact that these advantages are lost by the use of the pastboard cartridge, as usually made, they being flat at their base. My present invention is intended to obviate this objection by so constructing the pasteboard cartridges as to provide them with a conical or spherical chamber, and thus enable them to be used in breech-loading guns with equal effect.

In constructing my improved cartridge, I form the body A of pasteboard, and secure thereon a flanged metallic head, in the usual manner.

I then provide a strip of paper, of the form shown by fig. 3, and commence at its narrow end to roll it on a stick, or other former, which shall leave, when withdrawn, at the center, a chamber of proper size to receive a cap, *e*, as shown in fig. 2.

This strip D, I continue to roll up until it forms a plug of proper size to fill the base of the shell, when it is shoved therein, as represented in fig. 2. As this strip D is wedge-shaped, it follows that, by beginning at the narrow end to form the roll, each successive layer overlaps the preceding one at one edge, the other being kept even, and thus a plug is formed having a conical chamber at its front end.

The strip D may be coated with paste when it is rolled, or it may be saturated with shellac, or merely dampened, and then pressed firmly into place by any suitable tool

It is obvious that instead of forming the chamber by thus rolling up a strip, paper pulp may be inserted, and then pressed into form, or it may be formed up first in a mold and press, and then be inserted, as may be found most convenient in practice.

This improvement is equally applicable to the pin-cartridge, such as is represented in the drawing, or to those having the cap inserted from the rear, at the center of the head, and known as the central-fire cartridges.

By means of my invention persons can take the ordinary pasteboard cartridge-shells, as they are now furnished in the market, with flat base, and convert them into cartridges having a conical chamber, all that is necessary being simply to cut the strip of paper, roll it up, and insert it, as described.

I am aware that it has been proposed to manufacture a cartridge of paper-pulp and farinaceous material, with a spherical base to its chamber, and also to make a metallic shell with a similar base to its chamber; and therefore I do not claim such, nor do I claim a spherical chamber, irrespective of the manner of constructing the same; but

Having fully described my invention,

What I claim is—

The conical chamber *o* in a cartridge-shell, made by rolling up a tapering strip of paper and, inserting it within the shell A, substantially as described.

DAVID E. WILLIAMS.

Witnesses:

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W. L. CARROLL.