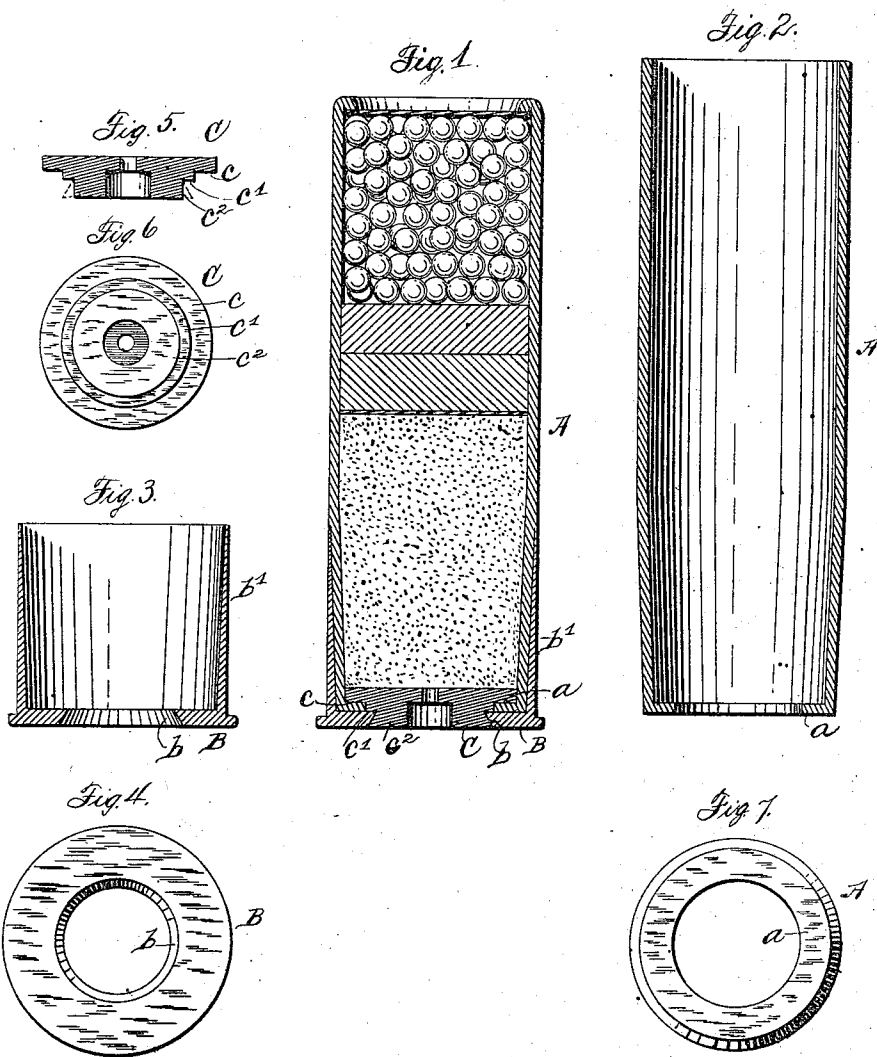


(No. Model.)

C. E. OVERBAUGH.
CARTRIDGE.

No. 498,857.

Patented June 6, 1893.



WITNESSES:
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CHARLES E. OVERBAUGH, OF BAYONNE, NEW JERSEY.

CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 408,857, dated June 6, 1893.

Application filed December 19, 1892. Serial No. 455,562. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. OVERBAUGH, of Bayonne, Hudson county, State of New Jersey, have invented a new and useful Improvement in Cartridge-Shells, of which the following is a specification.

This invention relates to cartridge shells having a paper body portion and a metal breech, and it consists in the construction and novel arrangement of parts as hereinafter set forth. One great objection to this class of shells is that in extracting a shell from a gun the metal breech is apt to be pulled off the paper body. My invention is intended to obviate this difficulty.

I will describe a cartridge shell embodying my improvement and then point out the novel features in the claims.

In the accompanying drawings Figure 1 is a longitudinal section of a shell embodying my improvement. Fig. 2 is a longitudinal section of a paper body portion. Fig. 3 is a section of a portion of the metal breech and clamping jaw. Fig. 4 is a bottom view thereof. Fig. 5 is a section of a portion of the metal breech as it appears before engaging with the other part of the breech. Fig. 6 is a bottom view thereof. Fig. 7 is a bottom view of Fig. 2.

Referring by letter to the drawings A designates the paper body portion of the shell having an inwardly turned annular lip or flange *a* at its lower end.

B designates the outer portion of the breech preferably of aluminum. It has a central opening and the wall of said opening is beveled outward as shown at *b*. The breech portion B has an integral annular jaw portion *b'* adapted to embrace the outer side of a portion of the body A.

C is the inner portion of the metal breech, adapted to clamp the lip or flange *a* of the body A between the portions B, C of the breech. This portion C has an undercut por-

tion *c* to engage over the inner surface of the lip or flange *a*; an undercut portion *c'* to engage the inner surface of the portion B around the opening through it, and a hub portion *c''* to pass through the opening in the portion B.

Before the parts B, C are swaged together the hub *c''* of the part C in all its parts has a circumference substantially equal to the smaller circumference of the opening through the part B, as shown in Figs. 5 and 6.

When the parts are placed together the hub portion *c''* is swaged outward by suitable tools, to engage the beveled wall of the opening through the part B of the breech, as shown in Fig. 1. The dotted lines in Fig. 5, also show the form of the hub after being swaged.

Having described my invention, what I claim is—

1. In a cartridge shell, the combination with a paper body having an inwardly-turned lip or flange,—of a metal breech portion having a jaw surrounding the body for a part of its length, and provided with a central beveled opening,—and a second metal breech portion having an outwardly swaged hub,—the lip or flange of the paper body being held between the two metal breech portions,—substantially as set forth.

2. In a cartridge shell, the combination with a paper body having an inwardly turned lip or flange,—of a metal breech portion connected to the body and having a central beveled opening,—and a second metal breech portion having the undercuts *c* and *c'*, and the hub portion, all arranged substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES E. OVERBAUGH.

Witnesses:

ANTHONY GREF,
WILLIAM M. ILIFF.