G. E. HART.

CARTRIDGE.

No. 169,806. Patented Nov. 9, 1875.

Fig. 1.

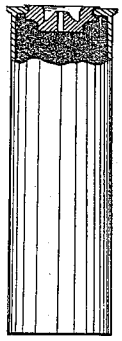


Fig. 2.

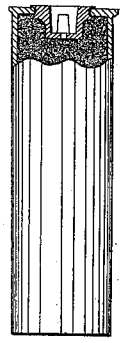


Fig. 3.

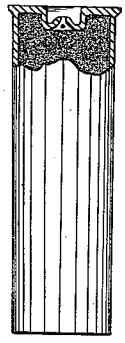
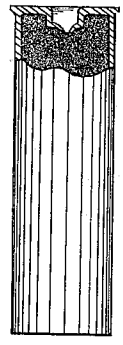


Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE E. HART, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 169,806, dated November 9, 1875; application filed May 5, 1875.

CASE A.

To all whom it may concern:

Be it known that I, GEORGE E. HART, of the city of Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Metallic Cartridge-Shells; and I do hereby declare that the following specification, taken in connection with the drawings furnished, is a full, clear, and exact description thereof, sufficient to enable others skilled in the art to make and use the same.

My invention consists of certain improvements in the construction and mode of securing in position that part of a cartridge-shell which forms the base or breech piece in which the battery-cup is formed, having for its object simplicity, durability, and cheapness of construction, and such as to enable me to dispense with the usual number of parts as formerly employed.

Referring to the drawings, in which Figure 1 represents a section of a shell and its base-piece in position with shallow battery-cup. Fig. 2 represents same invention with the ordinary battery-cup, provided with an anvil or nipple. Figs. 3 and 4 represent the Berdan style of battery-cup, (sectional,) of the usual manufacture, with re-enforced back, exhibiting the weakened parts of the battery-cup, &c.

To enable others skilled in the art to make and practice my invention, I will describe it more fully in detail.

The cylindrical part of the shell is constructed in nearly the usual form, and of suitable metal, with an inverted flange at one end, extending inwardly about one-eighth of an inch toward its center of diameter, thereby forming a stiff rim suitable to be embraced by the edges of the base-piece, which, when riveted, or closed over the edge of said rim, as shown in Figs. 1 and 2, form lips of sufficient strength to hold the parts together without the aid of other pieces or means. This base-piece may be formed by any of the known methods by which such work is or may be accomplished, although I generally form those with shallow battery-cups in dies, drilling the hole for the fulminate or fire-passage, while those in which anvils are employed may be formed in the same manner, with the exceptions of the battery-cup, which may be more conveniently drilled in consequence of its depth and limited diameter.

As the drawings fully illustrate my improvement, further description would appear superfluous and unnecessary.

I am aware that metallic cartridge-shells with breech-blocks or base-pieces formed separately have been made heretofore in great varieties, yet for the most part complicated and difficult to properly construct. Even in their simplest form of construction the manner of uniting the parts together, particularly when solder is employed, proved defective and liable to soon get out of order. To obviate these objections and difficulties, and for the purpose of producing a cartridge-shell with a base-piece of a desired or proper thickness in the fewest number of parts and in the simplest form, is my purpose.

I am aware that rubber cartridge-cases have been provided with metallic vents to prevent the enlargement at this point that would otherwise occur in firing, &c. I am also aware that caps provided with an annular tongue or groove for insertion into the base of a shell have been in use prior to my said invention. Therefore, these I do not claim.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

A metallic cartridge-shell with a thickened breech-piece, constructed substantially as described, uniting with the inverted flange of the cylinder at its base, substantially in the manner and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto subscribed my name before two subscribing witnesses on this 2d day of April, A. D. 1875.

GEORGE E. HART.

Witnesses:
JOHN DANE, Jr.,
S. E. HART.