

G. E. HART & J. LOGAN.

Cartridges.

No. 151,121.

Patented May 19, 1874.

Fig. 1.

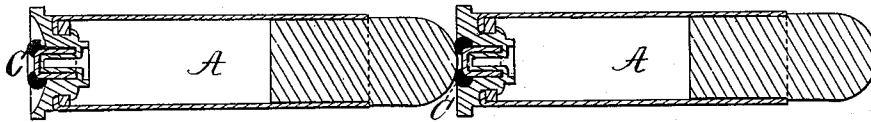


Fig. 2.

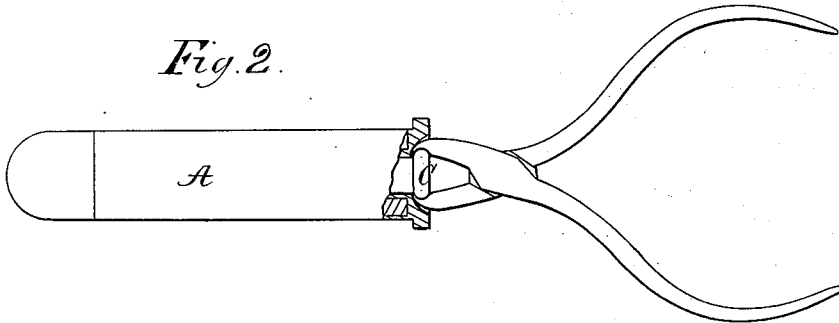


Fig. 3.

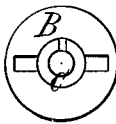


Fig. 4.



Witnesses.

Mary J. Wiley.
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UNITED STATES PATENT OFFICE.

GEORGE E. HART AND JOHN LOGAN, OF NEWARK, NEW JERSEY; SAID
LOGAN ASSIGNOR TO SAID HART.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. **151,121**, dated May 19, 1874; application filed
March 27, 1874.

To all whom it may concern:

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

The nature of our invention consists in the employment of a ring made to fit a recess in the rear part of the battery-cup, surrounding and covering a part of the top of the percussion-cap when the latter is placed in position in a cartridge-shell; the object of which is to provide a means for preventing the contact of the projectile of a following cartridge from engaging the cap of the preceding one when placed in numbers of two or more in a magazine-gun or other similar fire-arm, although equally serviceable when to be packed together in boxes or otherwise where their ends are likely to come in contact. This invention is particularly adapted for such shells as may be desirable to reload after firing, as the ring admits of being removed and replaced at will.

Referring to the drawings, Figure 1 represents sectional views of two cartridge-shells in close proximity to each other, with the end of the projectile resting against the ring, which forms the guard to protect the cap; Fig. 2, a shell with a part of the base cut away, exhibiting the ring in position, and a recess for the admission of a tool to remove the same, (it exhibits, also, a convenient tool for that purpose;) Fig. 3, an end view of shell, with ring in position, and the recess or slot for the admission of the instrument for removing said ring; Fig. 4, an enlarged view of the ring, (under side.)

The shell to which our invention applies may be of the usual kind, constructed with a centrally-arranged battery-cup, in which a percussion-cap is employed. In Fig. 1 it will be perceived that the seat for ring is made to conform somewhat to the shape of the latter, and

is exhibited as being rounded, which may be accomplished by any of the known ways, and very conveniently done by being held in a chuck on a lathe and turned out by a suitable tool. The drawing represents suitable arrangements and proportions for its formation. The ring *c* is made with a recess therein, which partly closes over the top edges of the cap, as shown in Fig. 1, its outer diameter snugly filling the recess provided for it, which is slightly rounded; or it may be angular, with the mouth slightly smaller than the opening below it.

The ring is represented as open at one side, to admit of a slight compression to allow of being sprung into position, although it is not absolutely necessary, as a solid, or ends closely connecting, may be pushed into position readily, although the latter way has the effect to wear away the edges provided to retain it. Neither is it necessary to form the outer diameter of the ring by rounding, as any other formation that may be retained within the recess by a lip or similar means will serve the end desired.

The principal feature to be regarded is the partial covering of the top edges of the cap, so as to reduce the amount of surface which otherwise would be exposed; and, as the ring naturally projects above the cap, the end of the following projectile rests upon it instead of the cap.

We would remark that the slit in which the tool enters for removing the ring or cap is the same as covered by Letters Patent granted to us September 16, 1873.

Having thus set forth our invention, what we claim as new, and desire to secure Letters Patent of the United States for, is—

The combination of the ring *c* with the battery-cup of a center-fire cartridge, whereby the primer is protected and premature explosion obviated, substantially as set forth.

GEORGE E. HART.
JOHN LOGAN.

Witnesses:

ISAAC R. DENMAN,
JOHN DANE, Jr.