F. W. MARSTON.
Cartridge.

No. 209,127. Patented Oct. 22, 1878.

Fig. 1.

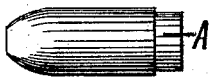


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

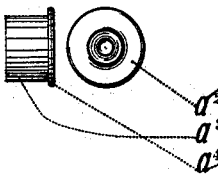


Fig. 6.

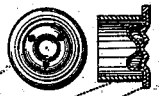


Fig. 7.

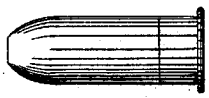
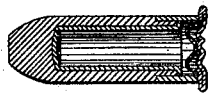


Fig. 8.



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UNITED STATES PATENT OFFICE.

FRANK W. MARSTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO OWEN JONES, OF SAME PLACE.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. **209,127**, dated October 22, 1878; application filed March 26, 1878.

To all whom it may concern:

Be it known that I, FRANK W. MARSTON, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved Cartridge; and I do hereby declare the following is a full and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon.

This invention consists, mainly, in the combination, with a hollow bullet, of an interior metal lining, as will be fully described hereinafter.

In the drawings, Figures 1 and 2 represent side and sectional elevations of the hollow bullet; Figs. 3 and 4, side and sectional elevations of the interior metal lining; Figs. 5 and 6, full and sectional elevations of the cap and shell of the cartridge; Figs. 7 and 8, side and sectional elevations of the cartridge complete.

To enable others skilled in the art to make my improved cartridge, I will proceed to describe the same fully.

A, Fig. 1, represents the bullet, which may be constructed generally in any proper manner, but is essentially provided with an interior recess, *a*, Fig. 2, extending in a longitudinal direction, as shown. a^1, Figs. 3 and 4, represents an interior lining, consisting of a metal tube closed at one end and flanged at the other, which is adapted in size and shape to snugly fit the recess *a*, as shown. a^2, Figs. 5 and 6, represents the cap or shell of the cartridge, consisting of the short metal cylinder a^3, provided with the head a^4, as shown.

This shell is provided with the fulminate to explode the cartridge in the usual well-known or other proper manner. It serves, also, in the usual manner, to pack the back of the cylinder and prevent the escape of gas when the cartridge is exploded.

The cartridge is made up, as shown in Fig. 7, by first inserting the lining in the bullet, then filling the same with powder, and, finally, slipping on the properly-prepared cap, the latter being held in position by friction or by any other proper means. The cap, it will be observed, in Fig. 8, overlaps the lining, so as to make the interior metal surface continuous.

The cartridge, when prepared, is exploded in the usual manner. The bullet and its lining, it will be understood, will both be discharged from the fire-arm, so that only the short shell will remain therein.

Some of the advantages of the described construction are as follows: By the employment of the interior lining it is possible to locate the powder within the bullet and explode the same without rupturing the bullet or materially changing its shape.

By the employment of the interior lining, also, it is possible to use a short shell without impairing the value of the cartridge.

The employment of the short shell is advantageous, because, after the cartridge has been exploded, it may be extracted much more readily than a long one, as the movement to eject the same is, of course, much less.

By the employment of a short shell, also, the difference in length between an empty shell and a loaded cartridge is largely increased, so that a movement amply sufficient to throw out the former cannot by any possibility affect the latter.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cartridge having a hollow bullet with an interior metal lining, substantially as described.

2. A cartridge having a hollow bullet with interior metal lining and an inclosing-shell overlapping the lining and part of the bullet, for the purpose of making the metal surface continuous.

3. The cartridge described, consisting of the hollow bullet *a*, the interior lining a^1, and shell a^2, combined and arranged as and for the purposes described.

This specification signed and witnessed this 20th day of March, 1878.

FRANK W. MARSTON.

Witnesses:
WALTER J. ROBERTS,
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