

(No Model.)

F. R. BULL.
PROJECTILE.

No. 580,368.

Patented Apr. 13, 1897.

Fig. 1.

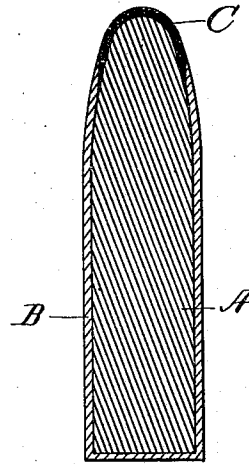


Fig. 2.

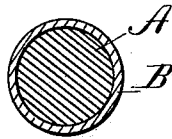
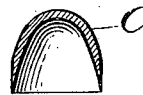


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

FREEMAN R. BULL, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO EDWIN S. FIELD, OF SAME PLACE.

PROJECTILE.

SPECIFICATION forming part of Letters Patent No. 580,368, dated April 13, 1897.

Application filed May 11, 1896. Serial No. 591,049. (No model.)

To all whom it may concern:

Be it known that I, FREEMAN R. BULL, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Projectiles for Firearms, of which the following is a specification.

This invention relates to bullets or projectiles for firearms, and particularly for arms for military uses, the object being to provide an improved composite construction for said projectiles in respect to the body and to the case inclosing the same; and the invention consists in the peculiar construction of the case of the projectile and other structural peculiarities, all as hereinafter fully described, and more particularly pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a longitudinal sectional view of a projectile constructed according to my invention. Fig. 2 is a transverse section through Fig. 1. Fig. 3 is a sectional view of a case part hereinafter described. Said figures illustrate the projectile about two and one-half times enlarged.

The construction of the herein-described projectile comprises a body A, of lead or similarly soft metal, and a case B, of copper or any other suitable material of the requisite softness to adapt itself to the lands and grooves of the rifling of the arm in which it is to be fired, whereby the projectile has the required engagement with said rifling to insure its axial motion and all unnecessary friction between the projectile and the said rifled surface of the barrel is obviated. It will be observed that the upper open end of the said case B is so conformed to the tapering form of the sides of the point of the body A that its upper end can have no engagement with the inner surface of the barrel of a firearm, and hence when fired it continues to lie

closely against said body, so that there is no tendency to separation of the body and the case.

Referring to Fig. 1, the case B of the projectile there illustrated is shorter than the body A thereof, and thus terminates below the apex of the said body, thereby leaving a portion of the point of the said soft-metal body projecting beyond the open end of said case. It being desirable to produce a projectile having an apex harder than said body A or case B, but preserving therein the other above-described structural characteristics of the herein-described projectile, the latter is provided with a cap c, of steel or similar hard metal, applied over the apex of the body A, substantially as shown in Fig. 1. The lower edge of said cap is preferably beveled and inclosed within the upper end of the case B, thus forming a projectile-case of composite structure which conforms to the rifling of the barrel of a firearm and yet possesses a hard point for penetration. Fig. 3 illustrates said cap separate from the projectile.

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

A projectile for firearms comprising a soft-metal body, a metallic case enveloping said body and extending from the base thereof nearly to the opposite extremity of said body, thereby leaving the forward end of said body extending beyond the open end of said case, and a cap of steel or similar metal harder than that composing said case, applied over said forward end of said body, the borders of said cap and case being in mutual engagement, substantially as set forth.

FREEMAN R. BULL.

Witnesses:

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