

No. 647,730.

Patented Apr. 17, 1900.

P. SWEENEY.
PROJECTILE FOR SMALL ARMS.
(Application filed July 10, 1899.)

(No Model.)

Fig. 1.

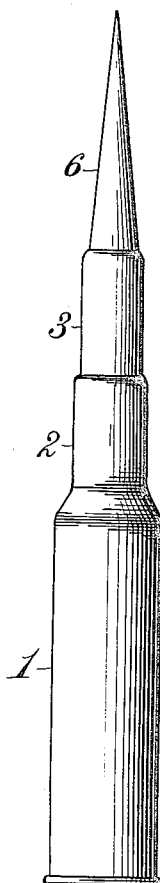


Fig. 2.

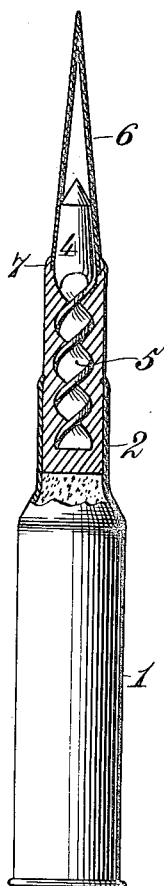


Fig. 3.



Witnesses.
Robert Everett
F. B. Keefe

Inventor.
Peter Sweeney.
By *James L. Norris.*
Att'y.

UNITED STATES PATENT OFFICE.

PETER SWEENEY, OF NEW YORK, N. Y.

PROJECTILE FOR SMALL-ARMS.

SPECIFICATION forming part of Letters Patent No. 647,730, dated April 17, 1900.

Application filed July 10, 1899. Serial No. 723,383. (No model.)

To all whom it may concern:

Be it known that I, PETER SWEENEY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Projectiles for Small-Arms, of which the following is a specification.

My invention relates to an improvement in projectiles for small-arms.

One of the objects of the invention is to provide improved means whereby to decrease the resistance offered to the bullet or projectile in its flight through the air.

A further object of the invention relates to means for securely inclosing the shank of a steel point for the projectile within a lead casing.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is a view in elevation of a rifle-cartridge provided with my improved means for decreasing the resistance of the air. Fig. 2 is a sectional elevation of the same, and Fig. 3 is a detail view of the steel body which is embedded in the lead casing.

Referring to the drawings, the numeral 1 indicates the shell of a rifle-cartridge, which shell is preferably of the type having a contracted portion 2 for receiving a bullet 3 of less diameter than the main portion of the shell. As ordinarily constructed this bullet is surrounded with a steel shell in order as far as possible to prevent it from flattening on striking an object, as, the propelling force being equal, a bullet of small diameter will flatten more readily on striking an object than one of larger diameter.

A cartridge constructed as indicated is used in the modern Mauser and other rifles. The steel shell referred to, however, does not take readily to the rifling of the barrel and, besides, tends to wear away this rifling more rapidly than would an ordinary lead bullet. In order to overcome this objection and also to provide a projectile or bullet which shall possess high penetrating power with the minimum liability to flatten on striking an object, I provide the lead bullet 3 with a steel point or head 4, having a shank 5, about which and a part of head 4 the bullet 3 is molded. I have shown the shank 5 as provided with

spiral threads in the manner of a corkscrew. This construction presents a series of continuous shoulders about which the lead is molded and which will serve to firmly lock the shank and bullet in firm fixed relation. The head 4, it will be seen, is of less diameter than the bullet 3, so that said bullet is free to take into the rifling of the barrel. At the same time the manner of locking the head 4 and shank 5 within the lead bullet prevents said head and shank, which parts may be described as forming a core, from leaving the bullet when the latter takes the rifling, the velocity of the projectile being thereby slightly impeded, or the lead from being twisted from about said core. The steel head 4 is pointed, as shown at 5, and said head will of course possess greater penetrating power than would an ordinary bullet of lead. I may use a bullet constructed as described without further improvements or additions. I prefer, however, to employ in connection therewith my improved device for lessening the resistance of the air to the flight of the bullet. This device comprises a conical cap 6, of thin sheet metal, such as copper or tin, which is designed to be inserted over and fit snugly the head 4, and preferably its lower edge is embedded in the lead about the head, as shown at 7. The cap 6 being relatively long, pointed, and having a gradual taper from its apex to the edge of the bullet will readily cleave the air, and but a minimum amount of resistance will be offered to its flight, owing to the fact that its resistance-surfaces are all slanting. The cap 6 being very light will not operate to overbalance the projectile, or, in other words, cause it to rotate on any but a longitudinal axis in its flight through the air. The cap 6 can of course be applied to other forms of projectiles than that described herein and may be found to be applicable to very large projectiles.

Having thus fully described my invention, what I claim as new is—

1. A projectile for small-arms comprising a hard-metal core having a pointed head and a spirally-threaded shank, and a lead casing or bullet molded about said shank, substantially as described.

2. A projectile for cartridges comprising a

lead casing or bullet having a hard-metal
core locked therein and projecting from one
end thereof to afford a head, and a conical
or tapering cap inserted on said head and em-
5 bedded in the surrounding body of lead, sub-
stantially as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

PETER SWEENEY.

Witnesses:

GEO. W. REA,
F. B. KEEFER.