W. H. SWETT.

PROJECTILE.

APPLICATION FILED FEB. 10, 1912.

1,049,419.

Patented Jan. 7, 1913.

Fig. 1.

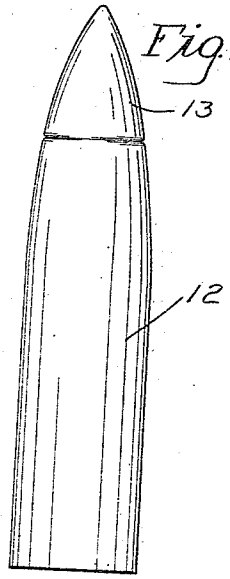


Fig. 2.

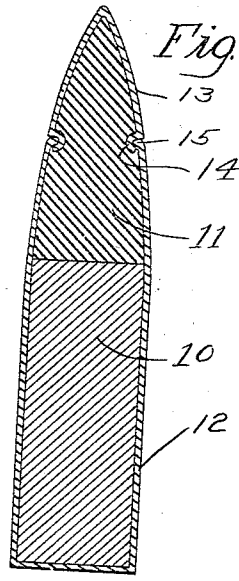


Fig. 3.

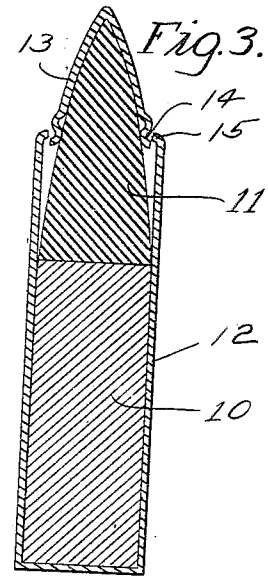


Fig. 5.

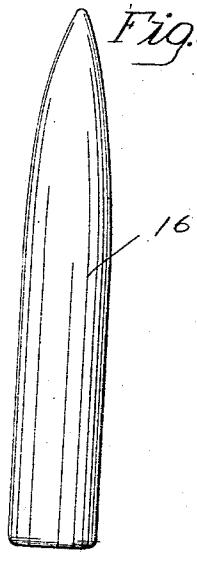


Fig. 6.

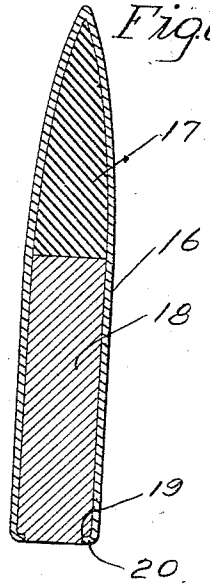


Fig. 7.

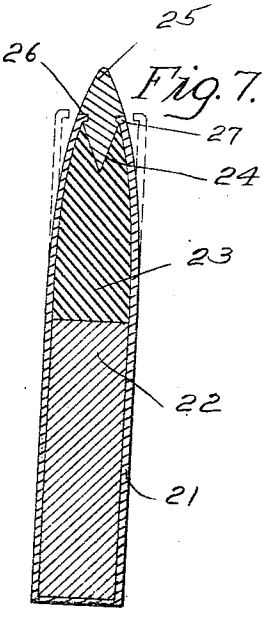


Fig. 8.

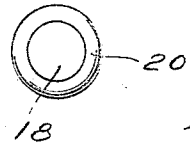
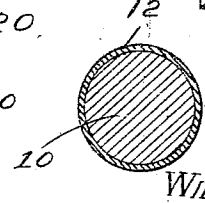


Fig. 4.



Witnesses

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PROJECTILE.

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To all whom it may concern:

Be it known that I, WILLIAM HENRY SWETT, citizen of the United States, residing at Berkeley, in the county of Alameda and State of California, have invented certain new and useful Improvements in Projectiles, of which the following is a specification.

This invention relates to projectiles and the principal object of the invention is to so construct the projectile that it will hold a truer course through the air with less rifling of the gun barrel thus causing the gun to last longer. This is accomplished by forming the projectile of two portions, a rear and a forward portion, the forward portion being formed of heavier metal than the rear portion, thus causing the projectile as it passes through the air to be held true. It is also intended to provide the forward end with a hard penetrating point which will cause the heavy or forward portion of the projectile to mushroom when it strikes, and also to assist the projectile in entering the object which it strikes.

This invention is illustrated in the accompanying drawings, wherein,

Figure 1 is a side elevation of one form of projectile. Fig. 2 is a longitudinal sectional view through Fig. 1. Fig. 3 is a view similar to Fig. 2 showing the projectile in the course of construction. Fig. 4 is a cross section taken through the projectile. Fig. 5 is a side elevation of a slightly modified form of projectile. Fig. 6 is a longitudinal sectional view through Fig. 5. Fig. 7 is a view similar to Fig. 6, showing the projectile provided with a penetrating point. Fig. 8 is an end view of the projectile shown in Fig. 6.

Referring to the drawing, it will be seen that there has been provided a projectile having a body portion 10 which is formed of relatively light metal, such for instance as aluminum, and a relatively heavy nose 11 which is formed of a heavy but comparatively soft metal, such for instance as lead. The body portion and nose fit into a casing 12 and a tip 13 is mounted upon the forward end of the nose 11. The tip is provided with a crimped inner portion forming the annular seat 14 in which the inwardly extending flange 15 fits. After the portions of the projectile have been assembled as shown in Fig. 3, they are placed in a swaging machine, and the outer casing and tip are compressed so that they assume the shape shown in Fig. 2, thus being tightly held in place and holding the portions of the projectile together.

In Figs. 5, 6 and 8, there has been shown a slightly modified form of projectile in which the casing 16 is open at the rear end so that the heavy nose 17 and light body portion 18 may be inserted, the body portion 18 being provided with a reduced end forming a seat 19 in which the edges 20 of the casing are compressed so that the portions of the projectile will be held together.

In Fig. 7 there has been provided a projectile having a casing 21 in which the light body portion 22 and heavy nose 23 are mounted. The nose 23 is provided in its forward end with a conical socket 24 in which a point 25 is mounted. The point is formed of hard metal such, for instance, as steel, and is provided with a pointed outer end portion so that a penetrating point is provided. The point is provided intermediate its length with an annular groove 26 in which an inwardly extending flange 27 formed at the forward end of the casing 21 is swaged, so that the point will be securely held in place.

When using this projectile the light body portion may be more easily drawn by the air currents caused by its passage through the air, than the heavy nose. This causes the projectile to travel more truly through the air after leaving the gun.

In the form shown in Fig. 7, the steel point assists the projectile in entering the object struck and also causes the soft nose to be mushroomed upon striking the object.

What is claimed is:—

1. A projectile comprising a casing, a relatively light body portion mounted in said casing, a relatively heavy and soft nose mounted in said casing, said nose being provided with a socket in its outer end, a relatively hard penetrating point seated in said socket and provided with an annular groove formed intermediate its length, and an in-

wardly extending flange at the end of said casing adapted to be compressed into said groove.

2. A projectile comprising a body portion, a nose, a point carried by said nose and provided with an annular groove adjacent its inner end, and a casing for said body portion and nose having its edge fitting into said groove to hold said body portion, nose and point together.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HENRY SWETT.

Witnesses:
F. P. SCHROEDER,
W. A. STOCK.