

L. A. MERRIAM.
Projectile.

No. 215,015.

Patented May 6, 1879.

Fig. 1.



Fig. 2.



WITNESSES.

James I. Leeds.
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LINCOLN A. MERRIAM, OF NEW YORK, N. Y.

IMPROVEMENT IN PROJECTILES.

Specification forming part of Letters Patent No. **215,015**, dated May 6, 1879; application filed October 14, 1878.

To all whom it may concern:

Be it known that I, LINCOLN A. MERRIAM, of the city, county, and State of New York, have invented new and useful Improvements in Projectiles for Ordnance and Small-Arms, of which the following is a specification.

The object of my invention is to give the front and rear ends of elongated projectiles the form least resisted by the substances through which they pass in their rapid rotary and lineal motion.

I taper the front end of my projectile, Figures 1 and 2, making it conform to the vibratory or wave line in which the air and denser substances most readily move in their displacement, and terminate it in a minute point, the apex of an acute spheroid, a form the front end of the projectile assumes in passing through several feet of wood. A similar projection is also extended from the flat or slightly convex base of the projectile. The projectile in its rapid rotary and lineal motion becomes highly magnetic, and these points have important functions for eclectic and gyroscopic purposes.

When the projectile is constructed with flat spiral sides, in the well-known manner of the Whitworth, instead of terminating these sides as in that projectile, with a square shoulder

where the taper begins at the front end, I carry them spirally forward, as shown at L, on the taper to the base of the axial projection K, making them conform to the wave line in the displacement of the air, as described above. These spiral sides flow smoothly into the opening-point K, which completes the wave line, the form least resisted in passing through air and other substances, in consequence of the greater smoothness and uniformity of their packing. With this pointing the projectile also takes the grooves of the gun-barrel more readily when the cartridge is inserted in the chamber of the gun.

What I claim is—

1. The projectiles described, having the tapering front point described, and the central projection tapering to a point at the rear, having a less base diameter than the base of the bullet, constructed and arranged in the manner and for the uses set forth.

2. The projectile having the flat spiral sides carried spirally forward, as described, on the taper to the axial point of the projectile, in the manner and for the uses described.

LINCOLN A. MERRIAM.

Witnesses:

JAMES S. LEEDS,
OCTAVE WHITTAKER.