

C. G. KELLOGG.
PROJECTILE.

No. 183,009.

Patented Oct. 10, 1876.

Fig. 1

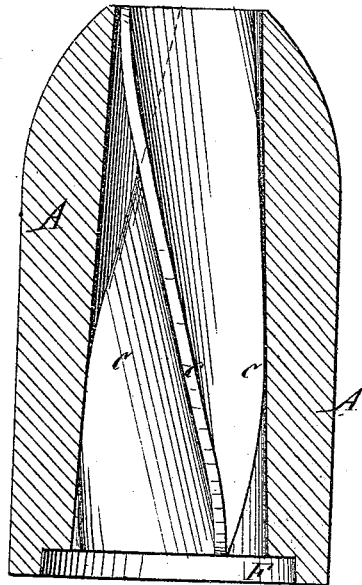
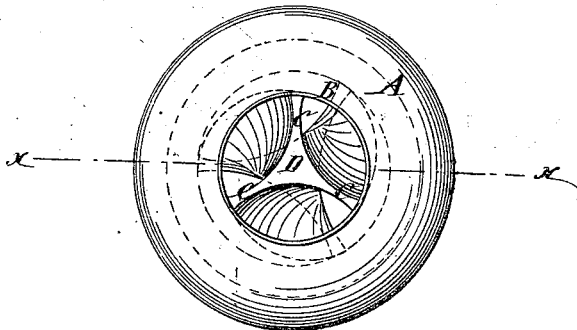


Fig. 2



WITNESSES:

C. Verma
A. J. Terry

INVENTOR:

C. G. Kellogg
BY *mm*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES G. KELLOGG, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PROJECTILES.

Specification forming part of Letters Patent No. 133,000, dated October 10, 1876; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, CHARLES G. KELLOGG, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Projectile, of which the following is a specification:

My invention consists of a hollow space through the center of the shot, longitudinally divided by triple spiral wings formed around a central core, to produce rotation of the shot, the three wings being used to secure exact balance of the shot as it rotates from the center, which cannot be accurately attained by the division of the space by one spiral partition, whether with or without a central core, but three wings or more produce such uniform action that all drift is avoided in the flight of the shot. More than three wings, however, are objectionable, as unnecessarily filling the space with metal.

Figure 1 is a longitudinal sectional elevation of my improved projectile, taken on the line *x x* of Fig. 2; and Fig. 2 is an end view.

Similar letters of reference indicate corresponding parts.

A is the shot, which is a long pointed cylinder, having an opening, B, through the center, which is divided into three exactly equal spaces around a central spiral core, D, by the

spiral wings C, thus insuring the exact balance of the shot, and causing the rotation from the center, which effectually prevents drifting, which cannot be effected by an open core with spiral vanes on the wall of the open space, which has been tried. F is a recess in the base of the projectile for a sabot, to prevent the force from passing through the open space. It will fall out when the projectile leaves the gun.

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

1. A long shot having three or more equal passages throughout its entire length, formed by three or more spiral vanes diverging from a solid core in the center of the shot, substantially as specified.

2. A long shot having three or more equal passages throughout its entire length, formed by three or more spiral vanes diverging from a solid core in the center, and a recessed rear, in combination with a sabot, substantially as specified.

CHARLES G. KELLOGG.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.