

E. HOYT, Jr.
Projectile.

No. 12,795

Patented May 1, 1855.

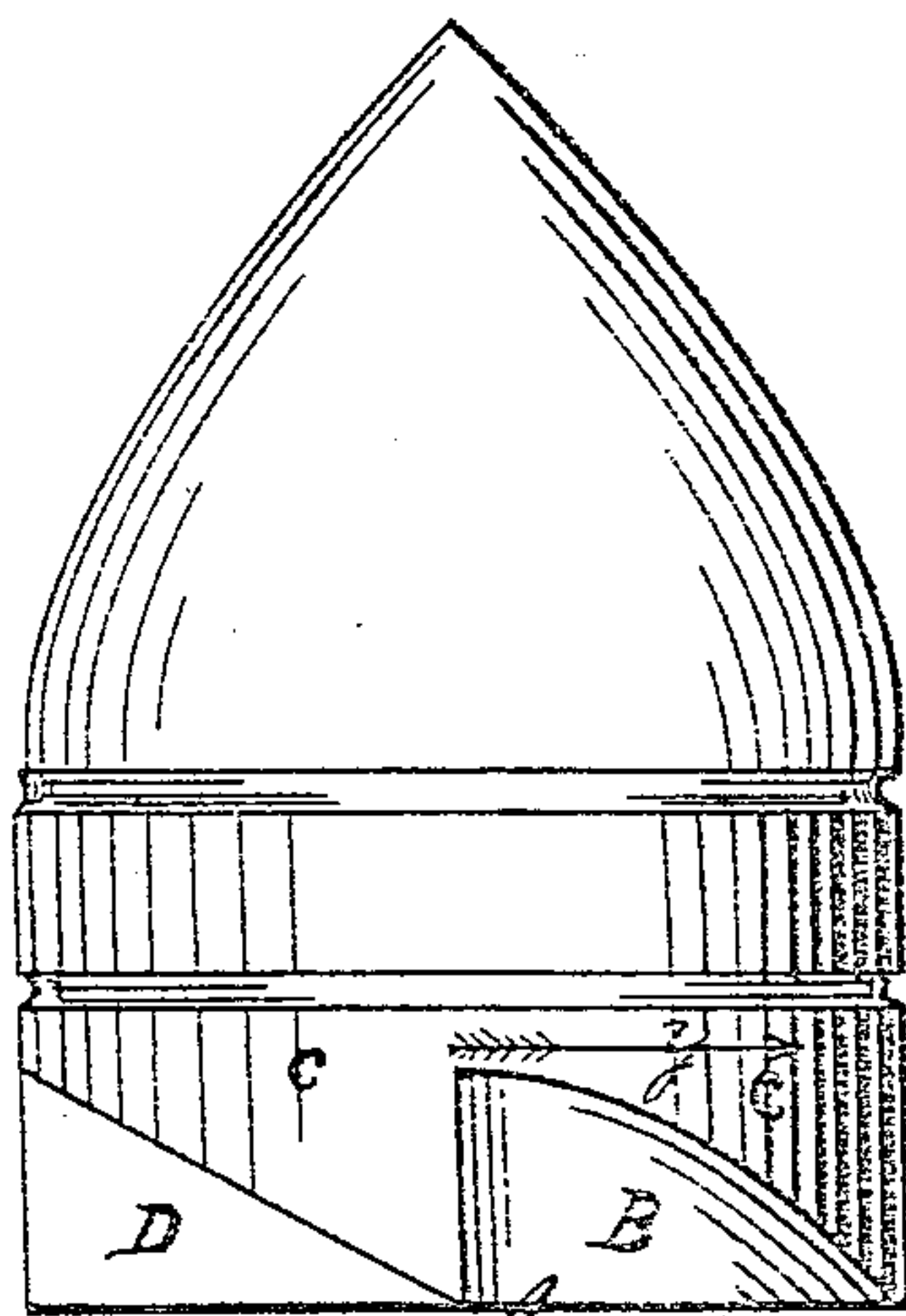


Fig. 1.

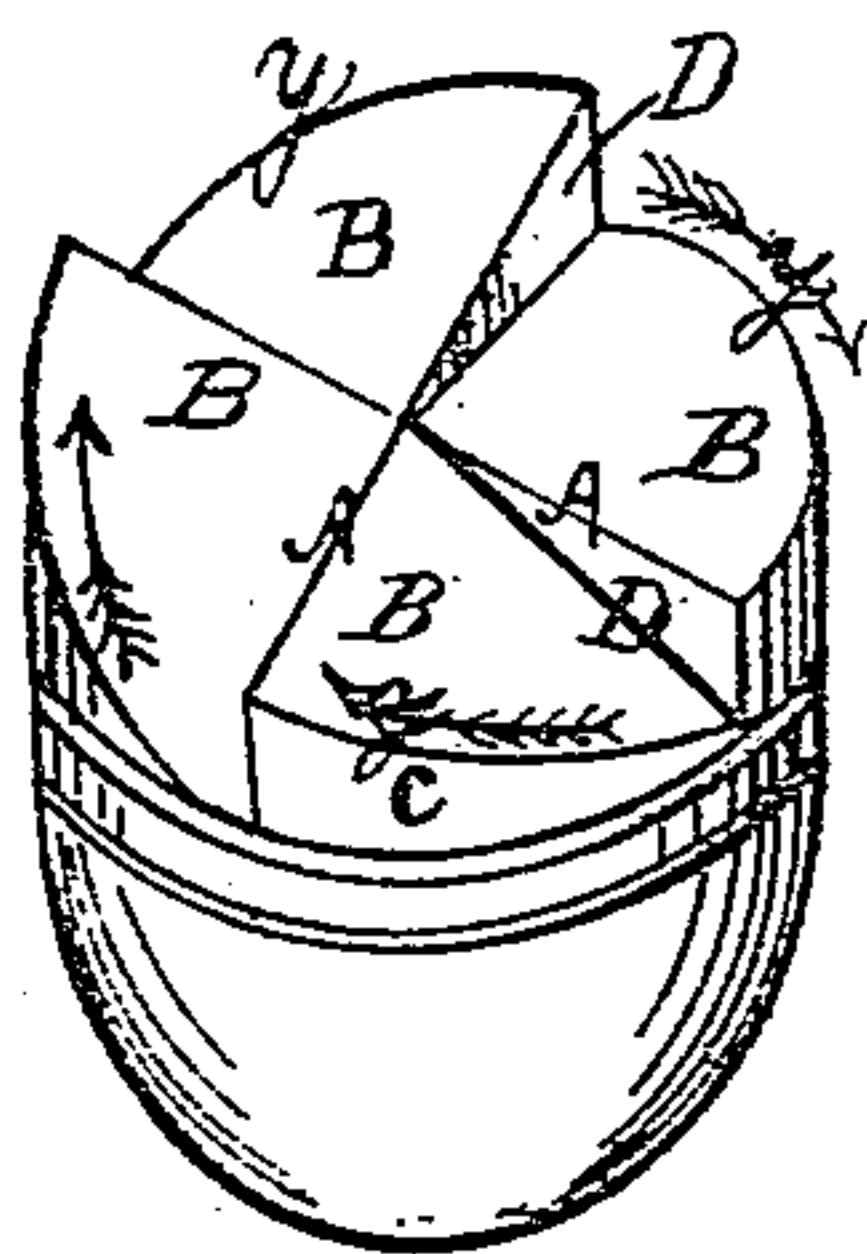


Fig. 3.

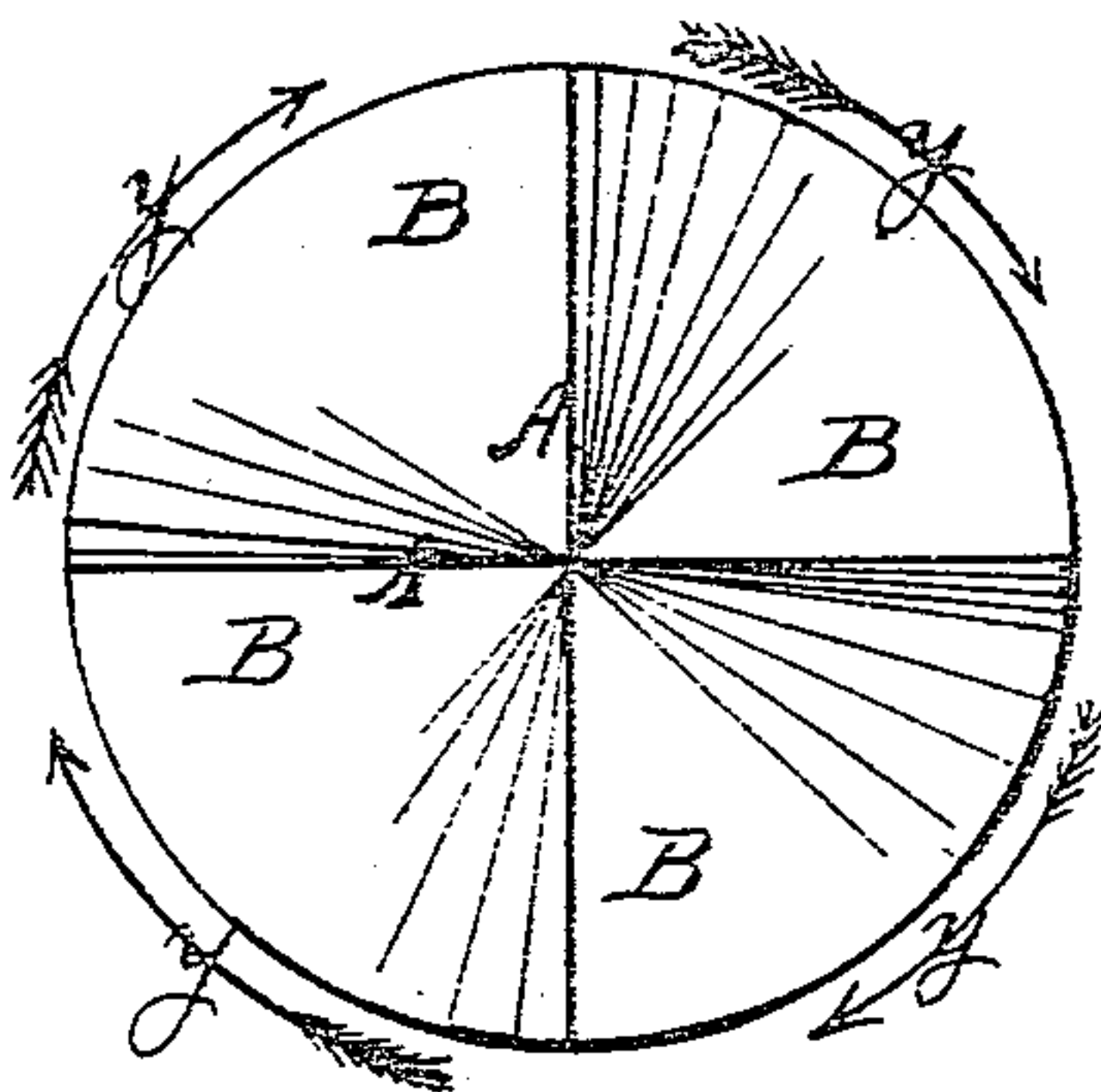


Fig. 2.

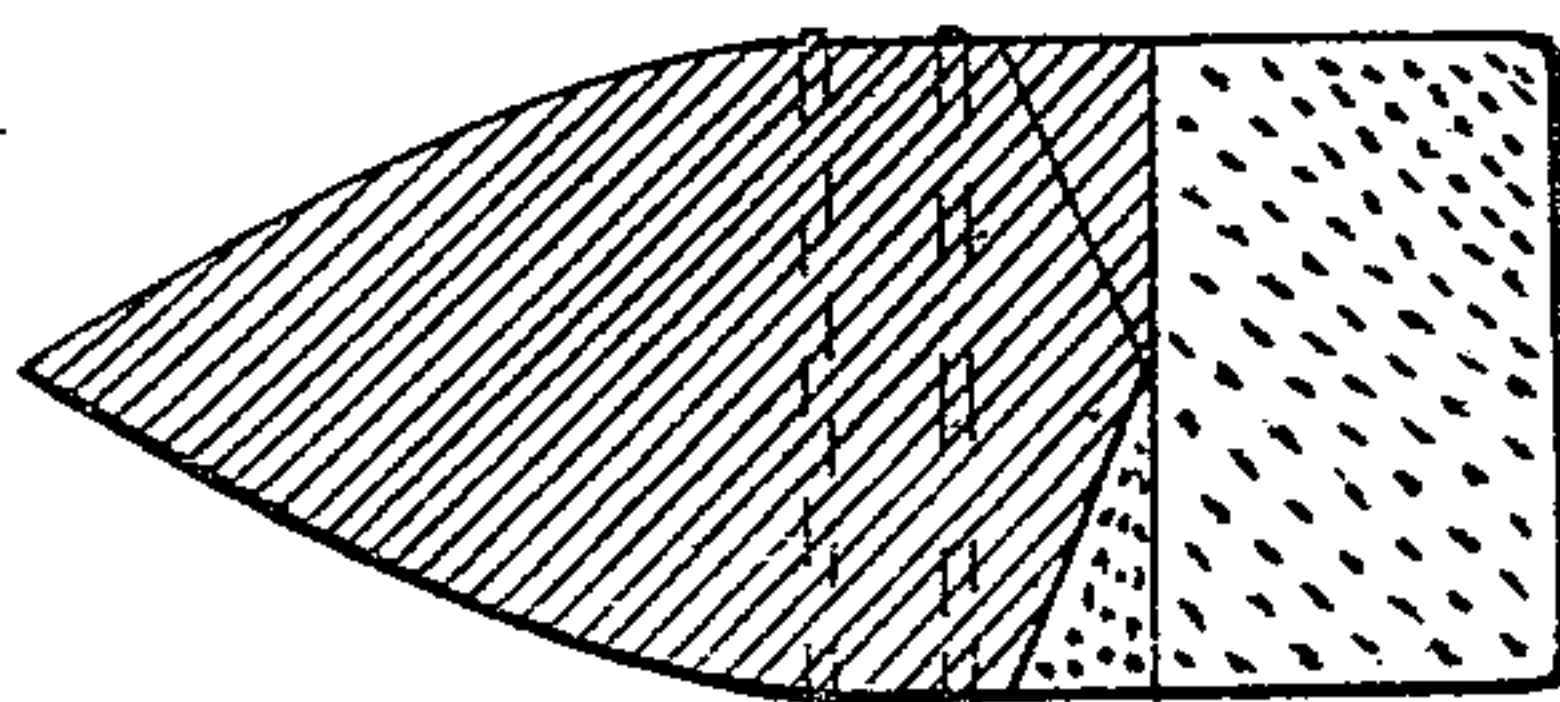


Fig. 4.

UNITED STATES PATENT OFFICE.

EBEN HOYT, JR., OF CHELSEA, MASSACHUSETTS.

IMPROVED PROJECTILE FOR FIRE-ARMS.

Specification forming part of Letters Patent No. 12,795, dated May 1, 1855.

To all whom it may concern:

Be it known that I, EBEN HOYT, Jr., of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Method of Constructing Shot and Shells, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side view of the shot. Fig. 2 is a rear view. Fig. 3 is a perspective view. Fig. 4 is a section through the shot with the cartridge attached.

Various attempts have been made to impart a rotary motion to heavy iron shot and shells, but thus far without satisfactory results.

My invention has for its object the accomplishment of this end; and it consists in furnishing the rear end of the ball with inclined planes or surfaces, against which the force of the discharge reacts, by which means the ball is caused to rotate as desired.

To enable others skilled in the art to make and use my invention, I will proceed to describe the manner in which I have carried it out.

The general form of my shot is cylindrical, with the advance end pointed or conical. Upon the rear end two diameters, A A, cross each other at right angles, which diameters are in a plane perpendicular to the axis of the ball, and divide its rear into four sections or quadrants, B. These quadrants are sloped off so as to form inclined planes, making obtuse angles with the cylindrical surface C, as seen in the drawings. Between each of these quad-

rants, and passing through the diameters A A and also through the axis of the ball, are the triangular planes D, each of which has one of the planes B inclined thereto.

It is evident that with a ball thus constructed the expansive force of the discharge upon the inclined planes B will cause the ball to rotate in the direction of the arrows Y. In heavy balls, where considerable windage is allowed, the effect is greatly augmented by the rushing of the products of the discharge across the inclined surfaces as it escapes between the ball and the bore of the gun.

I do not intend to limit myself to any particular angle of inclination for the planes B; nor do I wish to confine myself to any particular number of planes, nor to plane surfaces alone, for the number and inclination may be varied, and curved surfaces may be employed without departing from the principle of my invention.

Hitherto I have spoken of my invention as particularly applicable to heavy iron shot and shells. It is evident, however, that it may also be employed with advantage to smaller shot for muskets or other smooth-bored guns.

What I claim as my invention, and desire to secure by Letters Patent, is—

The employment of inclined surfaces upon the rear end of the ball, operating in the manner and for the purpose substantially as herein set forth.

EBEN HOYT, JR.

Witnesses:

SAM. COOPER,
JOHN S. CLOW.