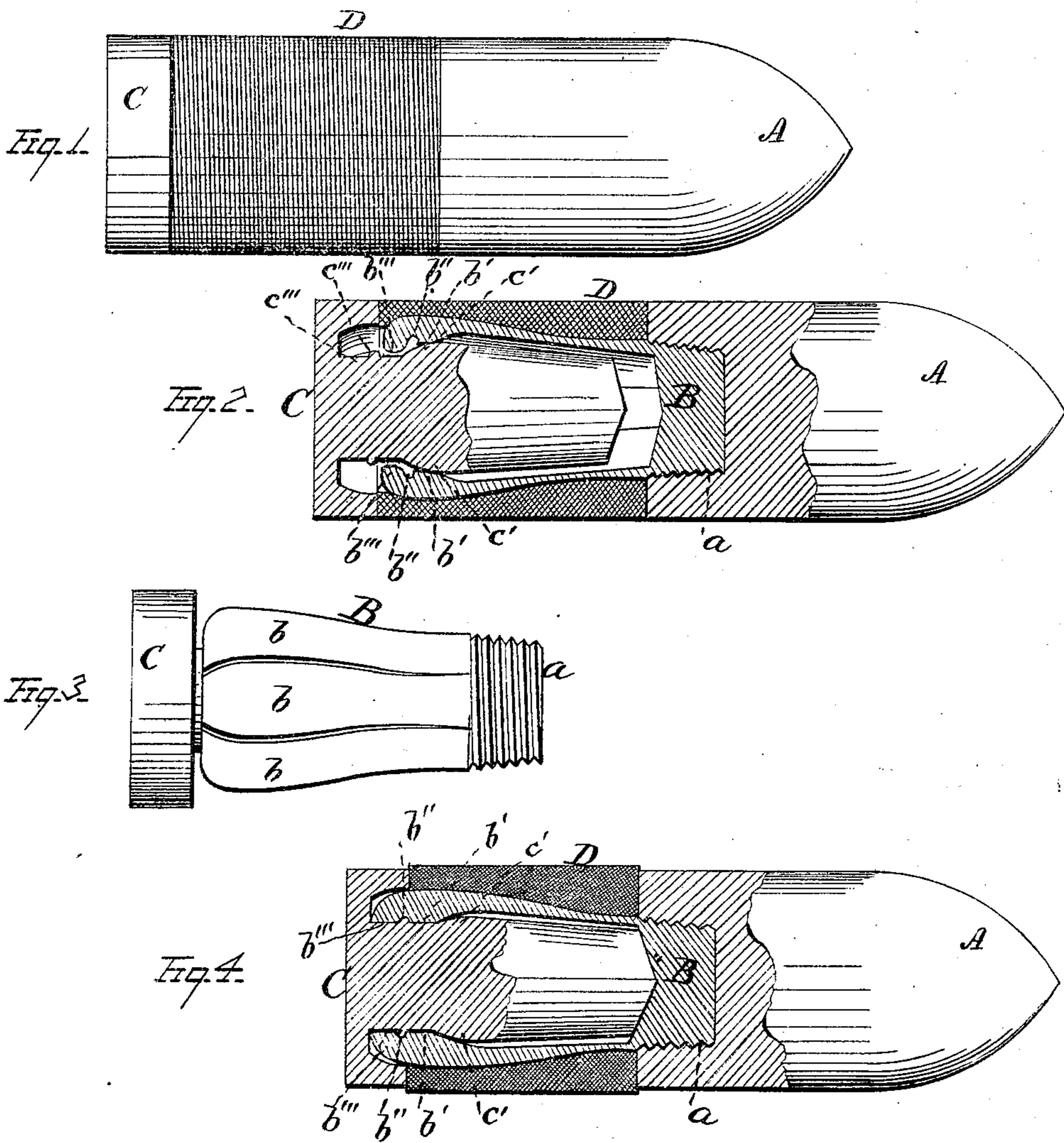


H. H. SIBLEY.  
Projectiles for Ordnance.

No. 148,330.

Patented March 10, 1874.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

HENRY H. SIBLEY, OF FREDERICKSBURG, VIRGINIA.

## IMPROVEMENT IN PROJECTILES FOR ORDNANCE.

Specification forming part of Letters Patent No. 148,320, dated March 10, 1874; application filed December 18, 1873.

*To all whom it may concern:*

Be it known that I, HENRY H. SIBLEY, of Fredericksburg, in the county of Spottsylvania and State of Virginia, have invented certain new and useful Improvements in Projectiles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in projectiles, designed principally for use in projectiles for artillery; and consists in the combination, with the projectile, of cotton or other fabric that will hold a lubricant, together with mechanism by which this fabric is pressed into and made to take the ridings of the bore of the gun, as hereinafter set forth and claimed.

In the drawings, Figure 1 is a view in elevation of my improved projectile before firing. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a separate view of the sabot and its spring-socket before firing; and Fig. 4 is a central longitudinal section of my projectile as it appears immediately after firing, showing the new position of the sabot, in which—

A is the head or body of the projectile, having a screw-tapped recess, *a*, in its rear end. B is the hollow socket, with a screw-shank by which it is secured to the head A. This socket B is made of some kind of spring metal, and its rear end is so cut as to form springing arms *b*. The interior of this socket has a swell at *b'*, an annular recess at *b''*, leaving at the end an annular collar, *b'''*. C is a sabot, of suitable material. Its shank fits into the spring-socket B, and is provided with a swell, *c'*, corresponding to the swell *b'* in the socket, and a neck, *c''*, in which the collar *b'''* rests previous to firing. Immediately beyond this neck *c''* is an abrupt annular projection, *c'''*. When the charge is exploded the springs *b* will yield, and the annular projection *c'''* will be driven into the annular recess *b''* in the socket B. D is a suitable fabric of cotton, felt, or other material that will hold a lubricant, and that possesses a sufficient degree of stability to take and hold the riflings of the gun. This is prepared with an interior opening, into which the

socket B will fit snugly. This fabric is slipped upon the socket B; the socket is then screwed firmly into the head A, when the whole will have the appearance as shown in Figs. 1 and 2. In this condition it will remain until the explosion of the charge, when the sabot C will be driven forward into its new position, as shown in Fig. 4. In this position it will be rigidly held by the annular projection *c'''*. This will cause the fabric to take the grooves by the radial and longitudinal pressure upon it, and give to the shot the rotary motion. This fabric will, therefore, at every firing of the gun, thoroughly cleanse it, and lodgments will be entirely overcome. These cops or fabrics should be prepared beforehand, as an article that can be slipped upon the socket B. The peculiar formation of the socket and the sabot is such that, before firing, the sabot will be held firmly in place. Upon firing, it is driven forward into a new position, and is there again held firmly in place.

Another advantage gained by the flexible fabric and the peculiar construction of the sabot by which the fabric when expanding is not permitted to yield, is an absolute prevention of windage, as the material not only fills the grooves, but the entire chamber of the gun.

Having thus described my invention, what I claim is—

1. The combination of the head A, the spring-socket B, and the sabot C, all combined and operating substantially as described, whereby the fabric is forced into the rifling by radial and longitudinal pressure.

2. The spring-socket B, provided with the inner contour, substantially as described, in combination with the sabot C, whose shank has an external contour, substantially as shown, whereby the sabot before firing is held rigidly in place, and after firing is again rigidly secured in its new position.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of December, 1873.

HENRY H. SIBLEY.

Witnesses:

WELLS W. LEGGETT,  
WM. H. BRERETON, Jr.