

J. F. CLEU.  
Sabot for Projectile

No. 45,023.

Patented Nov. 15, 1864.

Fig. 2

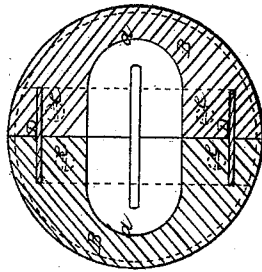


Fig. 1

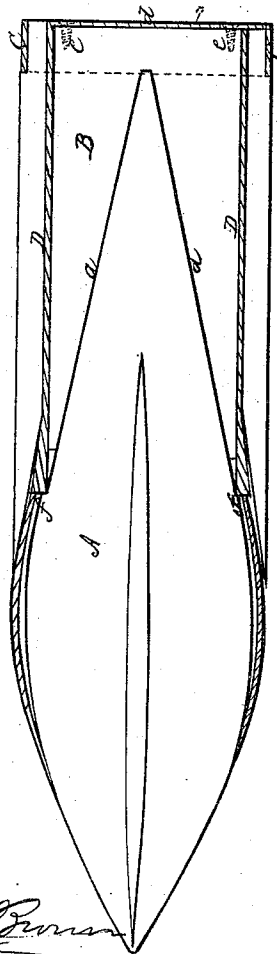
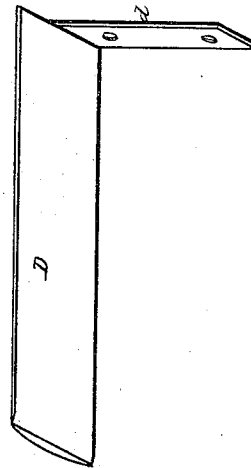


Fig. 3



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SABOTS FOR ORDNANCE-PROJECTILES.

Specification forming part of Letters Patent No. 45,023, dated November 15, 1864; antedated October 30, 1864.

*To all whom it may concern:*

Be it known that I, JOHN F. CLEU, of the city, county, and State of New York, have invented certain new and useful Improvements in the Sabots of Projectiles used in Ordnance; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal section of a sabot attached to a projectile. Fig. 2 is a transverse section of the same. Fig. 3 is a perspective view of one of the metal supporting-pieces which is applied to the sabot for the purpose of transmitting to the projectile the force produced by the explosion of the charge of the gun.

Similar letters of reference indicate like parts.

This invention consists, first, in a novel construction of the sabot of a projectile used in ordnance, whereby it is attached to the projectile without the use of straps, and is caused to serve as an expanding packing for the more effectual prevention of windage between the projectile and the bore of the piece of ordnance from which it is projected.

It consists, secondly, in fitting the sabot, which is made of wood or other comparatively-yielding material, with metal supporting-pieces, so applied to act upon shoulders provided upon the projectile as to transmit to the projectile in a positive and unyielding manner the force evolved by the explosion of the projecting charge of gunpowder.

The drawings represent my improved sabot applied to a projectile, A, of peculiar form, which I term the "fish-shaped" projectile; but its application is not confined to this kind of projectile, as it may be used with any projectiles which diminish in size toward the rear. The body of the sabot is composed of two or more pieces of wood, B B, (two represented,) arranged side by side lengthwise of the sabot, so that they combine to produce a cylindrical exterior, and held together by a metal band, C, surrounding their rear ends. The cylindrical exterior thus produced is of a diameter to fit easily to the bore of the gun. The said pieces are hollowed out in front to produce

an internal cavity, *a*, of a form to fit the exterior of the rear portion of the projectile. The band C, holding them together securely at their rear ends, allows their front ends to be sprung out slightly when the rear portion of the projectile is pushed tightly into the cavity *a*, but causes them to produce an elastic pressure upon the said portion of the projectile sufficient to retain the sabot upon the projectile without the use of straps.

D *d* D *d* are the metal supporting-pieces, of which there are two represented, but of which there might be a greater number when the sabot is made of more than two pieces, B B. These supporting-pieces may be made of iron, and are of the angular form shown in Figs. 1 and 2. The portion D of each is received within the body of the sabot, and the portion *d* fits closely against or is sunk flush into the heel thereof and secured thereto by screws *e e*. The front ends of the portions D enter the cavity *a* at suitable points to bear against the shoulders *f*, which are formed upon the exterior of the projectile for the purpose, when the sabot is pressed hard forward upon the projectile, and they are inserted into narrow deep grooves cut lengthwise in the inner faces of the pieces B B, of which the body of the sabot is composed, each being received half in one and a half in another of the said pieces, as shown in Fig. 2; but the portions *d d* are of only half the width of the said portions D D, as shown in Figs. 2 and 3, that each may be attached to one of the pieces B B by the screws *e e*, as shown in Fig. 2, and permit the said pieces with the supporting-pieces separately attached to be put together easily before the band C is put on. The putting on of the band C secures the two pieces B B together, and when they are thus secured the supporting-pieces do not interfere with the expansion of the sabot hereinbefore mentioned. The portions D D of the supporting-pieces fitting closely within the body are stiffened and prevented from bending or buckling, and so caused to transmit to the projectile in an unyielding manner the force evolved by the explosion of the projecting charge and prevent the crushing up of the body B B of the sabot. The portion D of each one, owing to its greater width, is partly supported by the portion *d* of the other.

To secure the band C in place, it may have

an internal screw-thread, to screw onto the pieces B B.

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

1. The sabot composed of two or more longitudinal pieces, B B, of wood or other material, arranged side by side, and united only at their rear ends by a metal band, C, thereby enabling it to be attached tightly to the projectile by an

elastic pressure, substantially as herein specified, without the aid of straps.

2. The metal supporting-pieces D & D d, fitted into and secured to the body of the sabot, to operate substantially as herein set forth.

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Witnesses:

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