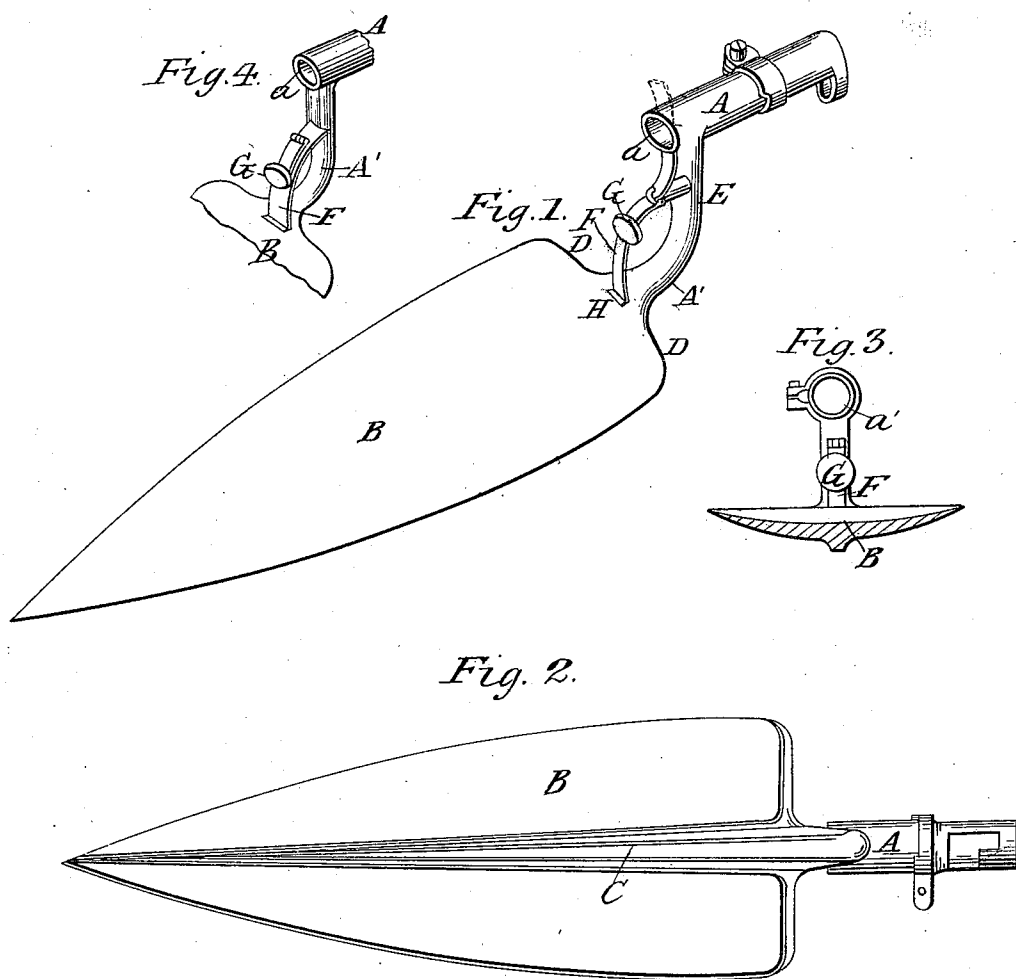


E. RICE.
Bayonet.

No. 91,564.

Patented June 22, 1869.



Witnesses:
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Inventor:
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United States Patent Office.

EDMUND RICE, OF UNITED STATES ARMY.

Letters Patent No. 91,564, dated June 22, 1869.

IMPROVEMENT IN SPADE-BAYONETS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDMUND RICE, brevet lieutenant colonel United States Army, have invented a new and improved Bayonet and Tompion; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of description marked thereon, in which—

Figure 1 is a front view of the bayonet.

Figure 2 is a rear view of the bayonet.

Figure 3 is an end view of the bayonet, looking against its point.

Figure 4 is a view of shank of bayonet, with fixed finger-guard and tompon.

A is the socket of the bayonet.

A' is the shank of the bayonet.

a is the muzzle of the bayonet, fitting over the gun.

B is a spade, attached to shank A'.

C is a projecting rib on back, to strengthen the blade.

D D are flanges, turned on lower end of blade.

E is a swivel, to support F.

F, a finger-guard.

f is a hinge, connecting tompon with swivel.

G is the tompon.

H is a slot in blade, to receive end of F.

In Figure 4, F is a stationary or fixed finger-guard.

It is well known that the bayonet, as at present constructed, is of very little practical service in warfare, as, on account of the deadly character of rifles now in use, it is impossible, except in very rare cases, for opposing forces to come so near to each other as to cross bayonets.

It is also well known, that by throwing up an earthwork, of a very few inches in height, and, especially, by excavating in the earth ditches, of just sufficient depth to allow the men to lie on their faces or backs, and not be above the level of the ground in which the ditches are dug, troops may remain a long time exposed to the enemy's fire without serious loss, as the shot will be thrown over them; or, striking the earth in front, ricochet over them.

These earthworks may be thrown up, or the ditches dug, in a very few minutes—in less time than will be required by the enemy to get the range of the troops—if each man is provided with a small spade or trowel, to be used for that purpose.

The nature of my invention consists in substituting for the spade A trowel B, so that it may be used in excavating, while, at the same time, it may be used in piercing, when necessary; and, in providing it with a tompon, that cannot be lost or detached, and will prevent the earth from entering the muzzle of the piece, when digging.

To enable others skilled in the art to make and use

my invention, I will proceed to describe its construction and operation.

I make the socket A (or part that goes over the muzzle of the musket) in any manner in which it generally is constructed.

The shank A', also, is made of any usual form.

From the shank arises the blade B, which, instead of being made of any of the forms now in use, is made wider and shorter, so as to form a spade or trowel.

The most convenient length is about eight and one-half inches, and width, at widest part, about three and one-half or four inches, and the shape nearly that represented in the drawing.

The exact size and proportion may be varied, as experience may suggest, the object being to make of the bayonet a tool for excavating earth.

The lower edge should have a small flange, as at D D, or otherwise made blunt, so that it cannot cut the hand of the soldier, and will prevent the earth from sliding back over that edge. The other edges should be sharp, that, in case of necessity, the bayonet may be used for thrusting and piercing, in a charge or in defence.

To strengthen the weapon, a rib, C, may be formed on the back, which will not add materially to its weight.

The bayonet, thus constructed, may be used for excavating, either when attached to the musket, or by itself.

In the former case, it is desirable to have the muzzle a of the piece closed, so as to prevent the ingress of dirt. For this purpose, I attach to the bayonet a tompon, constructed in the following manner:

Near the socket A, I make, in the shank A', a hole, in which I insert and secure a swivel, E. With the upper end of this, by hinge f, is connected the guard F, constructed of a flat or rounded piece of metal, of such a shape as to form, when turned toward the blade, a guard for the finger which clasps the shank A', when digging without the musket.

The free end enters a slot, H, in the blade, which holds it in place.

On this guard is fastened a tompon, G, made of India rubber, cork, wood, or other suitable material, and of such a shape and size as to fit the muzzle of the piece.

To insert the tompon in the muzzle, turn the guard F on the swivel E, as an axis, until it comes out of the slot H, and then turn it backward on the hinge f, and sideways on the swivel E, until it enters the muzzle.

It is evident that this tompon may be attached to any bayonet, and is useful not only to prevent earth from entering the muzzle, but for all purposes for which a tompon is needed.

Instead of the above construction, the following may be used, as in fig. 4. The guard F may be made fixed

at both ends, and the tompon may be hinged to the guard by hinge *f*.

The advantages of my improvement are stated in the first part of this specification. Its cost will little if at all exceed the cost of the bayonets now made, and which are of little or no practical use; and it will not be heavier than they, while mine may be the means of saving many lives, as an instrument of defence, while no less useful as a weapon of attack.

In addition to these advantages, the improved bayonet may, when not on the musket, be so worn as to serve as a shield to the side of the abdomen, and thus protect the most vital part while in battle.

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

1. The spade B, when provided with a socket, A, and shank A', as described, adapted to and combined with the muzzle of a musket, as set forth.

2. The finger-guard F, connected at one end with the shank A' by means of the swivel E, as described.

3. The finger-guard F, connected at one end with the shank A', and at the other end with spade B, as described.

4. The tompon G, connected with shank A' by swivel E or finger-guard F, substantially as set forth and described.

EDMUND RICE.

Witnesses:

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