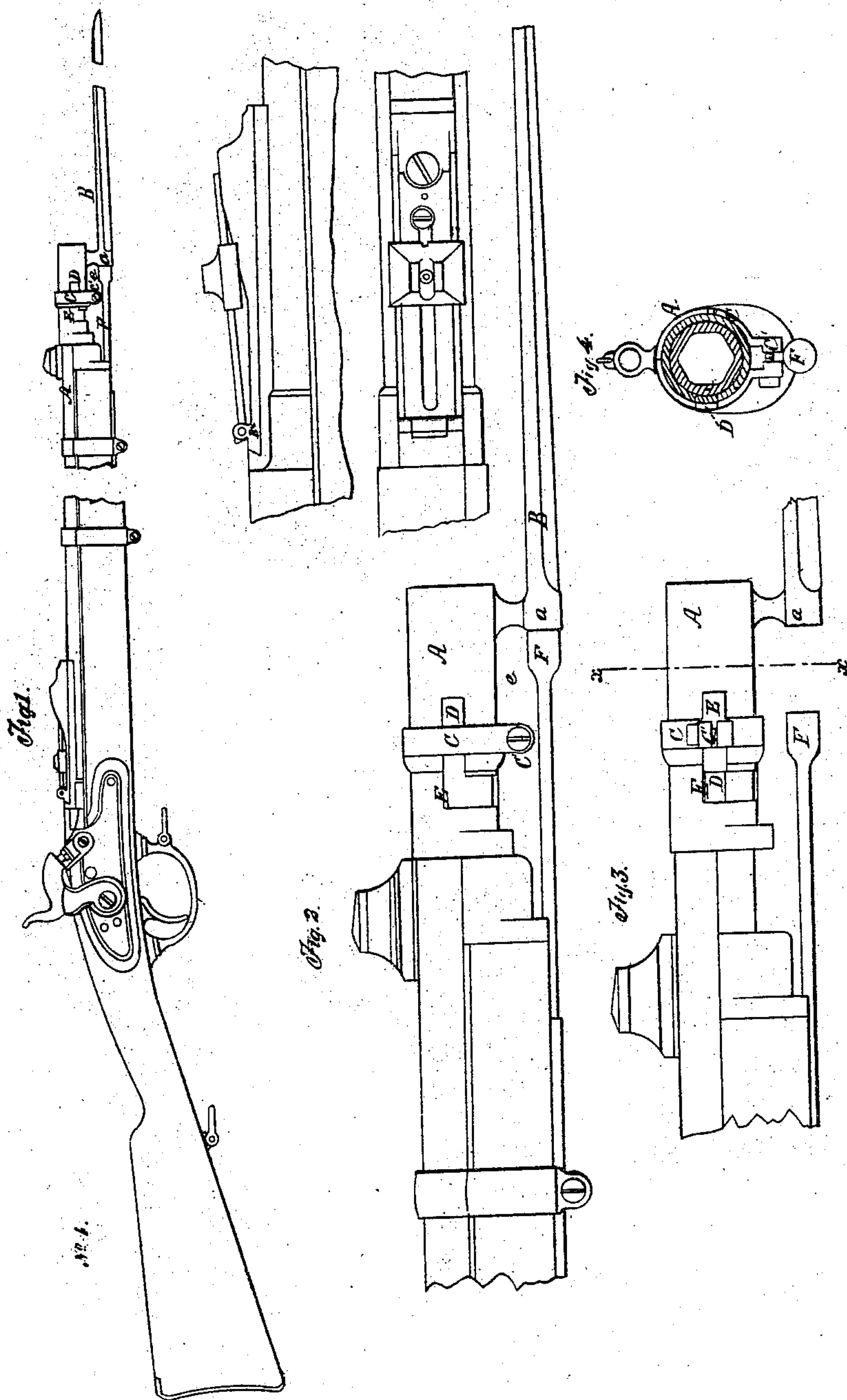


*H. Berdan,
Bayonet.*

No. 45,901.

Patented Jan 10 1865.



WITNESSES:

W. J. McManara
Free Lunch

INVENTOR.

Arman Benson

UNITED STATES PATENT OFFICE.

HIRAM BERDAN, OF NEW YORK, N. Y., ASSIGNOR TO LEVI P. MORTON, TRUSTEE OF HIRAM BERDAN, ABIA A. SELOVER, AND WM. B. BENSON, OF SAME PLACE.

IMPROVEMENT IN ATTACHING BAYONETS TO FIRE-ARMS.

Specification forming part of Letters Patent No. 45,901, dated January 10, 1865.

To all whom it may concern:

Be it known that I, HIRAM BERDAN, of the city, county, and State of New York, have invented a new and useful Improvement in Bayonet Attachments of Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a breech-loading musket, showing my improved arrangement of the bayonet. Fig. 2 is an enlarged side elevation of the muzzle of a gun with my improvement attached and the bayonet fastened in position; Fig. 3, a similar elevation showing the bayonet in its unfastened position ready for removal.

Similar letters of reference indicate corresponding parts.

This improvement is intended, principally, for use in connection with breech-loading fire-arms, in which the ram-rod is not generally required, except for cleaning the gun.

The object of the improvement is to cover or protect the projection of the clasp-ring, by which the bayonet is locked upon the gun; also to produce a better and more uniform appearance in the finish of the gun; also to assist the better balancing of the gun in firing or in bayonet exercise.

The muzzle of the gun-barrel A, the bayonet B, the fastening-ring C, the bayonet-stop D on the barrel, and the fastening-slot E in the bayonet-handle are all constructed in the usual manner well known to gunsmiths, and require no further description.

The bayonet is also applied to, fastened upon, and removed from the gun in the usual manner.

The only material difference between a gun provided with my improvement and the ordinary gun is in the position which the bayonet occupies when it is fixed or fastened upon the gun. In my improvement it will be observed that the blade of the bayonet stands on the same plane as the ramrod F of the gun

and the shank *a* of the bayonet-blade is in close juxtaposition to the top of the ramrod. By the common arrangement of the bayonet the shank of its blade stands upon one side of the gun, so that the shank forms an angular projection from the side of the gun, and forms an ugly shoulder, which not only gives a bad appearance to the finish of the gun, but is also the cause of serious difficulties in the use of the arm. For example, in battle the said heel *a* forms a shoulder or ledge against which the sword or bayonet of an adversary may catch, and so bring the force of the blow upon the holder of the gun; but in my improvement the position of the bayonet-blade directly over and in line with the ramrod so covers or protects the heel *a* that such blows as I have described will glance off harmless from the gun.

The projection *C'* of the fastening-ring C is also liable, by contact with tree-branches, brush, and other objects, to catch upon such objects and become turned or unlocked, thereby loosening the bayonet and causing it to be lost.

In marine engagements, when soldiers drill or fight with their guns across the rail of the vessel, or in fence fighting, the bayonets as commonly arranged are apt to become detached from the gun and lost overboard in consequence of the catching and unlocking of the ring C, as before described; but in the use of my improvement nothing of this kind can take place, owing to the covering or protection given to the projection *C'* and the bayonet-shank *a* by means of the arrangement of the blade of the bayonet to stand in line with the ramrod, as shown.

My improvement also permits the finer locking together of the guns when stacked, as the space between the shank of the bayonet and the top of the ramrod is closed by the latter, leaving an eye or open place between the end of the ramrod and the barrel, into which the points of the bayonets may enter, and thus form a firm stack.

My improvement may be applied in connection with nearly all kinds of bayonet-fasten-

ings, although I prefer to use the improvement in connection with the ordinary method of fastening.

I claim as new and desire to secure by Letters Patent—

The placing of the bayonet-blade and shank upon the under side of the barrel, in com-

bination with the ramrod, substantially as and for the purpose herein shown and described.

HIRAM BERDAN.

Witnesses:

WM. TREURN,

M. M. LIVINGSTON.