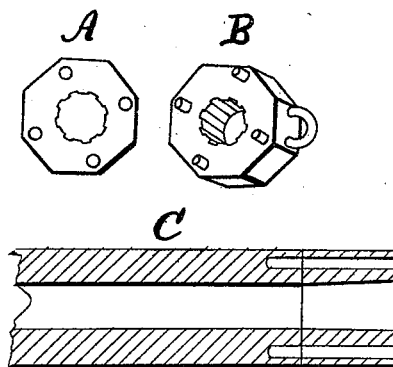


A. CLARK.
Loading Muzzle.

No. 1,565.

Patented April 24, 1840.



Inventor.

Alvan Clark

UNITED STATES PATENT OFFICE.

ALVAN CLARK, OF CAMBRIDGE, MASSACHUSETTS.

MOVABLE LOADING-MUZZLE FOR RIFLES.

Specification of Letters Patent No. 1,565, dated April 24, 1840.

To all whom it may concern:

Be it known that I, the undersigned, ALVAN CLARK, of Cambridge, in the county of Middlesex and State of Massachusetts, 5 artist, have invented a new and useful Improvement in Rifles, which I call a "Loading-Muzzle," of which the following is a true, full, and exact description, taken in connection with the accompanying drawings, referred to herein.

I make and adapt my loading muzzle in the following manner: I first drill two or more holes in the muzzle of the rifle barrel, and on opposite sides of, and parallel to its 15 caliber, as represented, Figures A and B, to the depth of from one inch to one inch and a half; and after rounding and straightening these holes with a suitable instrument, I put the barrel into an engine lathe and 20 cut it off with a thin "cutting-off tool" within about a fourth of an inch of the bottom of the holes, drilled, rounded and straightened as aforesaid. The two pieces are then, at the place of section, faced as 25 perfectly as possible at right angles to the caliber; and the short piece B in the annexed drawings, which was cut off from the end of the barrel at the muzzle, is intended as the loading-muzzle. (I then insert and fix 30 steel-wire pins into this muzzle-piece, projecting at the end or face where the muzzle-piece was cut off, so that the projecting part of these pins shall be adapted to the size and depth of the holes in the end of 35 the other piece or shooting barrel, above described; and accordingly by inserting these pins into those holes, the muzzle-piece may be replaced in such a manner that the caliber of both pieces will exactly coincide.

The loading-muzzle may be attached to the barrel by means of screws, instead of the pins, or by pins otherwise fitted and in other ways which will be obvious to any mechanic. The particular mode of attaching I do not 45 consider material. The caliber of the muzzle-piece (Fig. C,) is then slightly enlarged, or made tunnel-shaped, or bell-shaped, at its upper end, or the place of entrance for the ball, gradually diminishing and contracting 50 downward, so that at its lower end, it is of the precise dimension of the caliber of the barrel, and thus it is constructed to receive and compress, or mold, the ball, with facility and exactness to fit the rifling of the barrel. 55 The rifle being loaded, the loading-muzzle (B) is removed before discharging the rifle; and is put on and used at each time of loading, and then taken off before discharging.

The advantages of the loading-muzzle are, that it preserves the caliber of precisely the 60 same diameter and dimensions to the very point of delivery of the ball; the caliber having a sharp, and precisely defined and exact termination at the muzzle of the barrel, and this is a matter of the utmost im- 65 portance in rifle shooting, as has been proved by experiment, for if the caliber at the muzzle of the barrel be irregular and vary from the rest of the caliber, this will evidently divert the ball from the line of the 70 center of the barrel.

It has been the practice to enlarge or round the corners of the muzzle of the barrel of the patch rifle, in order to prevent injury to the patch in loading, and in thus 75 rounding or enlarging the muzzle, the probability or almost certainty, is, that the quality of the piece for accurate shooting will be impaired. Besides, such an enlargement or rounding of the end of the barrel- 80 muzzle, is confined to a distance of about an eighth of an inch from the extremity of the muzzle, whereas, by the loading-muzzle, the same contraction, or slight tunnel or bell shape is distributed over three quarters 85 of an inch, thus more effectually saving the patch from injury, facilitating the loading, enabling the shooter to load as tight as desirable, and at the same time to dispense with the use of the mallet and stick in 90 loading; and also preserving the barrel from injury and wear. The loading-muzzle affords great facility particularly in loading slugs or oblong shot. Though it is best to construct and adapt the loading-muzzle at 95 the time of making the rifle, yet it may be afterward made, as appears above.

The loading-muzzle may, if the shooter choose, be provided with a small staple or loop (C) whereby it may be appended to the 100 person by means of a cord or chain. This however, as will be obvious is not an essential part.

I claim as my invention and ask a patent for— 105

The loading-muzzle for the rifle, above described, constructed, adapted, fitted and applied as above described.

In witness whereof I hereto subscribe my name this 7th of Febry, 1840.

ALVAN CLARK.

Witnesses:

WILLARD PHILLIPS,
RICHD. ROBINS.