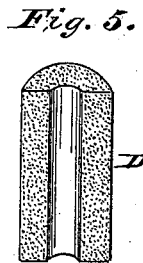
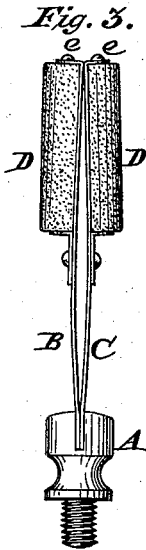
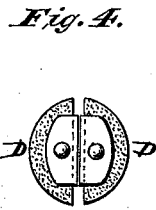
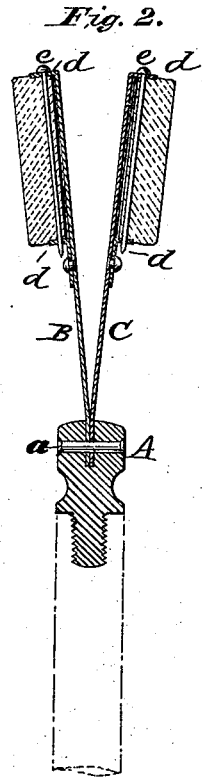
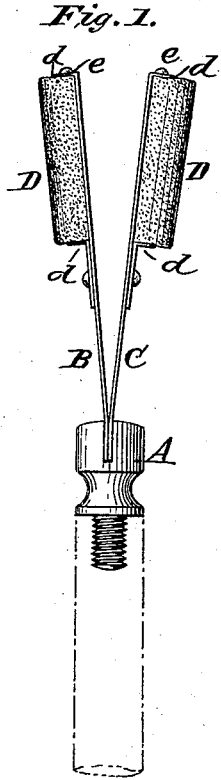


H. COMSTOCK.  
Gun-Swab.

No. 211,555.

Patented Jan. 21, 1879.



Witnesses:

*J. C. Brecht.*  
*J. A. Rutherford.*

*Inventor*  
*Harry Comstock.*

*By James L. Norris.*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

HARRY COMSTOCK, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS HIS  
RIGHT TO GLOVER AND CUSHMAN, OF SAME PLACE.

## IMPROVEMENT IN GUN-SWABS.

Specification forming part of Letters Patent No. **211,555**, dated January 21, 1879; application filed  
June 8, 1878.

*To all whom it may concern:*

Be it known that I, HARRY COMSTOCK, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Gun Cleaners or Swabs, of which the following is a specification:

This invention relates to an improved swab or cleaner for fire-arms, and is designed especially for that class known as "choke-bore guns," in which the bore is made to vary in caliber at different points throughout its length.

My invention consists in the combination of a head, spring-arms provided with shoulders, and pads arranged between said shoulders, as will more fully hereinafter appear.

In the drawings, Figure 1 represents a side elevation of my improved swab or cleaner. Fig. 2 represents a sectional view of the same. Fig. 3 is a side elevation, showing the springs compressed. Fig. 4 represents an end view. Fig. 5 is a detached view of one of the pads.

The letter A represents a metallic head provided with a screw-threaded shank, by means of which it may be attached to the end of a ramrod of a gun, and B C represent two spring-arms, secured to said head, and expanding toward their lower or free ends when in their normal position. These spring-arms are removably attached to the head A by having their inner ends placed flatwise together, and inserted in a socket cut transversely through or across the end of said head, and thus secured by a rivet, *a*, the hole for which is at right angles to the socket. By this construction, it will be seen, I am enabled to form the spring-arms and temper them separately from the head, which may be of cast metal; and should one of the arms become broken, it can be easily removed and replaced by another without necessitating the loss of the whole instrument. To the ends of said springs, on their outer sides, are secured elastic or yielding pads D, which may be constructed of any suitable material—such as felt, leather, cork, hair, bristles, wire, or the like.

In the present instance the pads are represented as constructed of felt, and the arms are

constructed with shoulders *d d*, between which said pads are held, being secured by means of pins *e e*, passing through the shoulders and longitudinally through the pads.

I have above described one form of my improved invention; but it is obvious that it can be variously modified without departing from its nature and spirit. For instance, the head to which the springs are attached may be formed directly upon the end of a ramrod, or said head may be entirely omitted and the springs formed with a shank to be attached to the end of the ramrod, or the springs may be attached directly to said ramrod.

Again, instead of forming the springs with shoulders, and securing the pads thereto by means of pins, other methods of fastening the same may be employed if found desirable.

The operation of my improved swab or cleaner will be readily understood in connection with the above description. In inserting it in the gun the spring-arms are pressed together by hand until the swab will readily enter. After its insertion the pressure is removed, allowing the springs to expand and press against the sides of the bore; and as the swab is passed through the barrel the springs will be automatically pressed together or expanded, according to the varying caliber of the barrel, thus insuring the removal of dirt or deposits from all parts of the bore alike.

What I claim is—

1. The combination of the head A, spring-arms B C, provided with shoulders *d d*, and the pads D D, arranged between said shoulders, substantially as described.

2. The combination of the head A, spring-arms B C, provided with the perforated shoulders *d*, the segmental pads D D, and pins *e*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

HARRY COMSTOCK.

Witnesses:

JOHN WHITTLE,  
HARRY PERRIN.