

(No Model.)

G. H. GARRISON.  
GUN SWAB.

No. 486,331.

Patented Nov. 15, 1892.

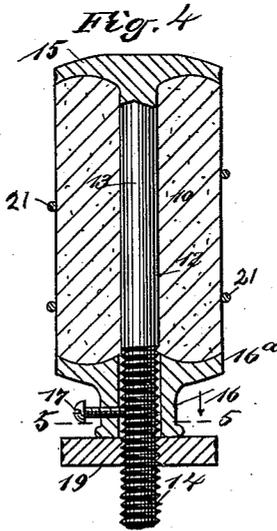
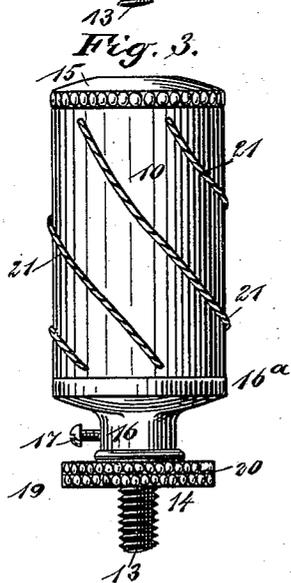
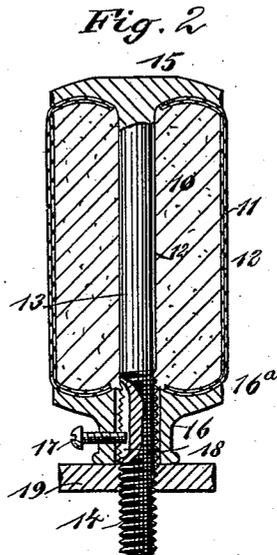
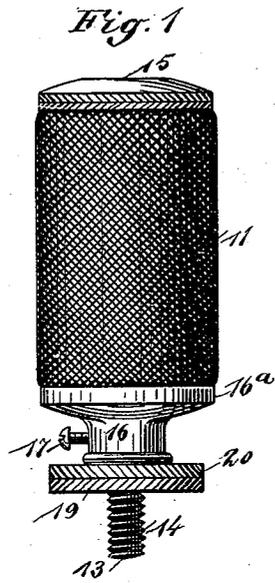
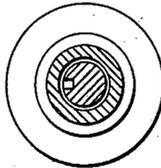


Fig. 5



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE H. GARRISON, OF SUMAS CITY, WASHINGTON.

## GUN-SWAB.

SPECIFICATION forming part of Letters Patent No. 486,331, dated November 15, 1892.

Application filed March 2, 1892. Serial No. 423,449. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. GARRISON, of Sumas City, in the county of Whatcom and State of Washington, have invented a new and useful Improvement in Gun-Swabs, of which the following is a full, clear, and exact description.

My invention relates to an improvement in gun swabs or cleaners, and has for its object to provide a device of simple, durable, and economic construction and to provide a means whereby the body of the device will consist of an effective reticulated cleaning material supported by an elastic cushion having equal bearing over all the surfaces of the said cleaning material.

Another object of the invention is to provide a means whereby the device may be expeditiously and conveniently manipulated in such a manner as to adjust it to the bore of any gun-barrel it may be desired to clean.

Another object of the invention is to construct the device in such a manner that the entire cleaning portion of the body will act at one time upon the interior of the barrel, thus insuring an expeditious and effective cleansing of the interior of the latter.

The invention consists of the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved device. Fig. 2 is a central vertical section through the device. Fig. 3 is a slightly-modified form of the cleaner or swab. Fig. 4 is a central vertical section through the modification, and Fig. 5 is a transverse section taken practically on the line 5 5 of Fig. 4.

In carrying out the invention the body of the device consists of a cylindrical cushion 10, made from rubber or like material, and a wire-gauze cylinder 11, stretched over and secured in such a manner as to completely cover the outer surface of the elastic cushion, the gauze cylinder being applied to the cushion in such a manner as to render it closely and smoothly fitting. The wires of the gauze cylinder run diagonally from end to end, allow-

ing the cylinder to contract and expand, or its length is shortened by the end movement of the cushion, and the manner in which the gauze cylinder is made admits of its ends being carried smoothly over the cushion-body and entirely free from bunches or ridges.

In practice the elastic body-cushion 10 is provided with a central longitudinal bore 12, and the gauze cylinder 11 is made to extend over and around both ends of the cushion. The bore 12 in the cushion is adapted to receive a stem 13, and that portion of the stem passing through the bore of the cushion is preferably made smooth, as illustrated in Figs. 2 and 4, while the lower portion of the stem, or that portion extending beyond the lower end of the cushion, is provided with a thread 14.

The upper end of the stem has formed thereon a disk-like head 15, the upper face of which from its center in the direction of its periphery is more or less concave, and the upper portion of the gauze cylinder 11 of the body is held closely in engagement with the upper end of the elastic cushion 10 through the medium of the head of the stem. A portion of the lower threaded end of the stem has loosely mounted thereon a socket-sleeve 16, and this sleeve is provided at its upper end with a disk-like flange 16<sup>a</sup>, the upper surface of which from the bore or opening of the sleeve is concaved out to the periphery of the flange, and the flange of this sleeve is adapted to clamp and maintain in firm engagement the lower portion of the screen cover or casing 11 with the lower end of the elastic body-cushion 10.

The sleeve is adapted simply to have longitudinal movement upon the stem 13—that is, to and from the head of the latter—and to that end a set-screw 17 is passed through the body of the sleeve into a channel 18, produced in the threaded portion of the stem, or that portion surrounded by the sleeve, as is best shown in Fig. 2. Upon the lower threaded end of the sleeve an adjusting-nut 19 is placed. This nut is preferably made circular, and its peripheral surface is milled or roughened in any suitable or approved manner, as illustrated at 20 in Figs. 1 and 3. When milled, preferably the milling is made in two directions and appears in the form of two belts; but instead of the milling offsets of a beaded character may be produced upon the periphery of the nut,

and the peripheral surface of the head 15 of the stem 13 is likewise roughened, so that in the manipulation of the device the head may be firmly held in the hand and the nut 19 conveniently and expeditiously manipulated to force the sleeve 16 in direction of or away from the head 15 of the stem, according as it may be desired to increase or to decrease the diameter of the body to fit snugly into gun-barrels of differing diameters.

It is obvious that the adjustment of this device may be expeditiously and conveniently effected and that when it is inserted in a gun-barrel, being used in connection with any approved form of rod or staff, the gauze casing or cylinder of the body will engage uniformly throughout its entire outer face with the interior wall of the gun-barrel, and as the swab is manipulated in the barrel will therefore clear everything before it; and, further, the gauze cylinder being provided with the rubber or elastic cushion 10, bearing upon it equally throughout its length and width whenever any one portion of the gauze is depressed, as by the rifling of a barrel, for instance, when that portion of the gauze is carried over the rib producing the rifling it will accommodate itself to the channels between the ribs of the barrel. Thus this swab may be employed as effectively in the cleaning of rifle-barrels as in the cleaning of barrels having a smooth bore.

In Figs. 3 and 4 I have illustrated a modification in the form of swab. This modification consists simply in a slight change in the construction of the body, all parts remaining the same with the exception of the covering for the elastic cushion 10, and instead of employing a gauze covering on the entire surface of this cushion ribs 21 are produced upon the outer surface of the cushion, being secured thereto in any suitable or approved manner, and these ribs preferably consist of one or more strands of wire, and when more than one strand is employed the strands constituting each rib are twisted together. This cushion, if desired, may be put upon the device, instead of the usual cushion, to make the contact of the gauze cylinder more severe against the inner surface of the barrel.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a gun-swab, the combination of a screw-threaded stem having a head at one

end and provided with a channel in its screw-threaded portion, a sliding sleeve on the stem, a set-screw passed through the sleeve into the channel of the stem, a cylindrical core on the stem between the head thereof and the sliding sleeve and having a cleaning-surface, and a clamping-nut on the screw-threaded end of the said stem, substantially as described.

2. A gun swab or cleaner consisting of a body comprising a rubber core or cushion and a reticulated cylindrical cover snugly fitting the core or cushion and extending around the ends thereof, a stem projected through the core or cushion, provided with a head in firm engagement with the upper portion of the body and having a threaded lower end extending beyond the lower portion of the body, a sleeve mounted upon the lower end of the stem and engaging with the lower end of the body, and a lock or adjusting nut screwed upon the lower portion of the stem, the said lock or adjusting nut acting to maintain the sleeve and likewise the head of the stem in positive yet removable engagement with the body, as and for the purpose specified.

3. A gun swab or cleaner consisting of a body comprising a rubber core or cushion of cylindrical form and a reticulated covering closely adhering and conforming to the exterior of the core or cushion, a stem projected downward through the core or cushion, provided with a disk-like head concave upon its under surface and engaging firmly with the upper end of the body, the lower end of the stem being carried beyond the lower portion of the body and threaded, a sleeve provided with an upper flange and loosely mounted upon the projecting portion of the stem, the flange being concave in its upper face and in firm engagement with the lower portion of the body, a set-screw passed through the sleeve into a slot in the stem, whereby the sleeve is prevented from turning, and an adjusting or lock nut of disk-like form screwed upon the lower end of the stem to an engagement with the sleeve, the peripheral surface of the head of the stem and likewise the peripheral surface of the lock or adjusting nut being serrated or otherwise roughened, as and for the purpose specified.

GEORGE H. GARRISON.

Witnesses:

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W. W. JONES.