(No Model.)

G. H. GARRISON.

GUN CLEANING DEVICE.

No. 471,477. Patented Mar. 22, 1892.

Fig. 2

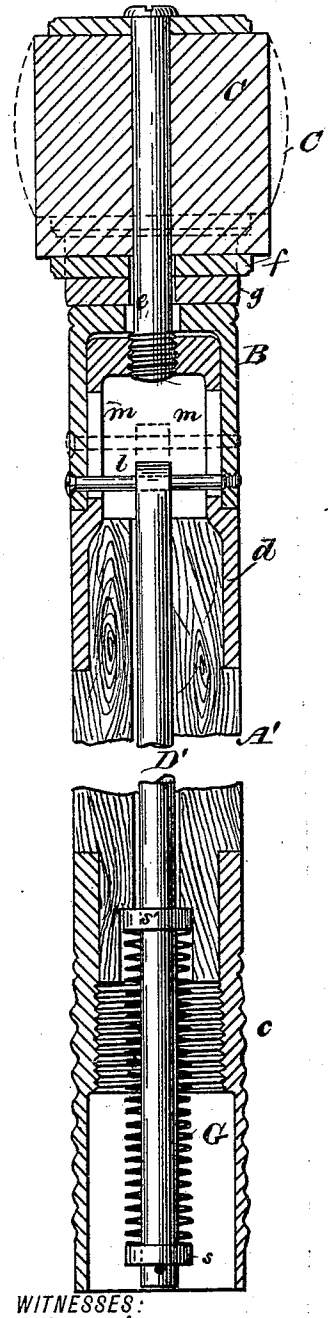


Fig. 1

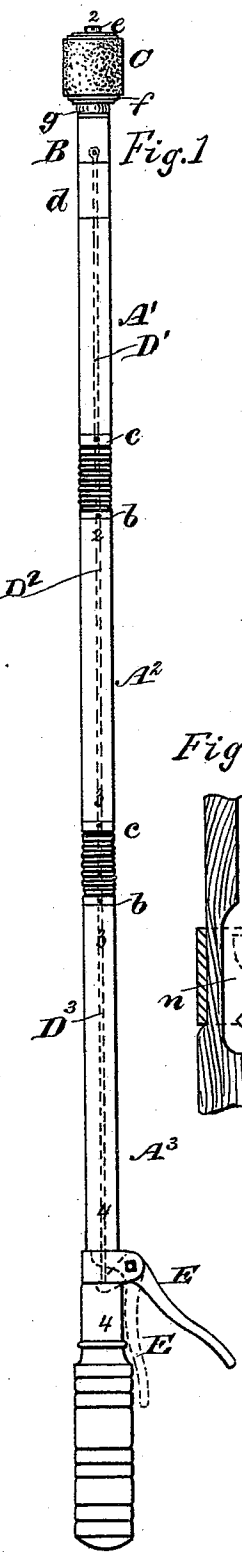


Fig. 3

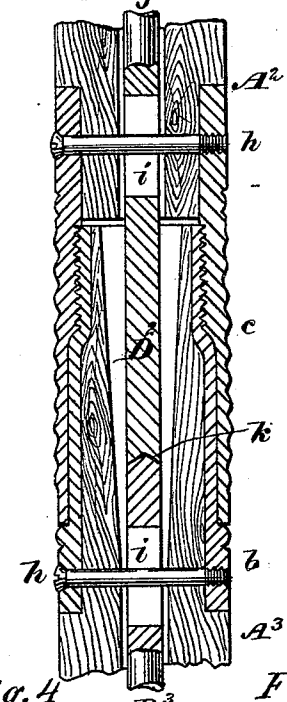


Fig. 4

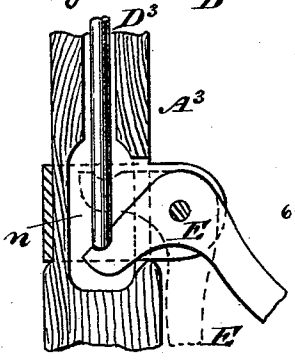


Fig. 5

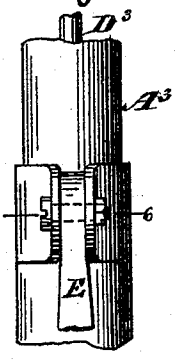
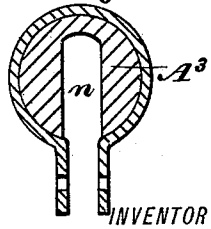


Fig. 6



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UNITED STATES PATENT OFFICE.

GEORGE H. GARRISON, OF KENT, WASHINGTON.

GUN-CLEANING DEVICE.

SPECIFICATION forming part of Letters Patent No. 471,477, dated March 22, 1892.

Application filed September 30, 1891. Serial No. 407,265. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. GARRISON, of Kent, in the county of King and State of Washington, have invented a new and useful Improvement in Gun Swabbing or Cleaning Devices, of which the following is a full, clear, and exact description.

This invention more especially relates to the rod which actuates the swab or cleaner proper for wiping out the interior of the barrel of a gun.

The object of the invention is to adjust the swab or cleaner by direct or independent pressure to any required size, so as to exert the necessary pressure against the sides of the barrel after the cleaner has been projected or put into the gun; and the invention consists in a gun-cleaner rod of novel construction, including attached adjusting means, whereby the above-named object is very efficiently and expeditiously obtained, substantially as hereinafter described, and more particularly pointed out in the claims.

By this invention the great objection to other gun-cleaning devices generally is avoided—namely, the unsatisfactory adjustment when the pressure to act upon the sides of the barrel is produced by tightening up the cleaner—as, for instance, by a screw—before putting the cleaner into the barrel, and which when the adjustment is made to adapt the cleaner to fit the breech of a gun makes it too large when shoved down toward the muzzle in choke-bore guns, thus requiring new or repeated adjusting.

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

Figure 1 represents an exterior longitudinal broken view of a gun swabbing or cleaning device embodying my invention and comprising a tubular main or outer rod or stick and an inner longitudinally-movable rod, both shown as constructed in three sections or lengths, with a swab applied to the forward end of the front outer member and a lever applied to the rear member or handle portion of the device for moving the inner rod forward to give the necessary pressure to and lateral distension of the swab. Fig. 2 is a longitudinal central section, upon a larger scale, extending from 2 to 2 in Fig. 1 of the forward portion or front section of the whole device, including the swab or cleaner. Fig. 3 is a further longitudinal section of the intermediate and rear members in part of the whole device; Fig. 4, a longitudinal sectional view of the rear member in part of the whole device with attached lever for actuating the inner rod; Fig. 5, an exterior longitudinal view of the portion shown in Fig. 4, looking in a plane at right angles to the latter figure; and Fig. 6 is a transverse sectional view upon the line 6 6 in Fig. 5, omitting the lever and central or inner rod.

While the device is here shown as constructed in three main sections or lengths detachably jointed together, it is not necessarily restricted to any number of such sections or pieces. I prefer, however, to make it in three pieces, and it will here be described accordingly.

A' A^2 A^3 indicate the three members or lengths of the outer rod, which is hollow or tubular and supposed to be made of wood. Said members or lengths are detachably connected together at their meeting end joints by screw-threaded metal ferrules *b c*, and the front member A' is fitted with a cap-like ferrule *d*, extending above it and of reduced diameter externally for a portion of its length to receive over it a longitudinally-sliding compressing-ferrule B, which, when forced forward or outward, serves to produce lateral distention of the swab C to give it the necessary pressure on the sides of the barrel. To this end the swab or cleaner C is or may be supposed to be made of felt or other soft and flexible material, with a screw *e* passing centrally through it and engaging at its inner end with the cap-like ferrule *d*, which is fast on the outer member A'. The head of this screw, or washer under its head, binds the swab at its outer end, while a washer *f* and nut *g*, screwing over and passing beyond the threaded end of the screw, act as a follower on the inner end of the swab and lie against the outer end of the sliding compressing-ferrule B, so that when the latter is forced outward the swab will be distended or expanded laterally, as required. Instead of a felt swab, a

cloth-covered rubber one similarly bound and held might be used, or a well-known split metallic one be readily remodeled to conform for operation in like manner. In fact, I do not restrict myself to any particular material of which to construct the swab.

The direct pressure to expand the swab laterally after it has been put into the barrel of the gun is produced by the longitudinally-movable inner rod, which lies centrally within the main or outer rod, and is here shown as also constructed in three sections or lengths D′ D^2 D^3 to conform to the members A′ A^2 A^3. These rod-sections are guided in their longitudinal movement and restrained from falling out of their respective outer-rod sections when the outer rod is disjointed by rivets, pins, or screws *h* passing transversely through the outer rod or its ferrules and through slots *i* in the inner-rod sections. The several inner-rod sections are preferably made to center with each other at their meeting ends, as shown at *k* in Fig. 3, and so that they will virtually form a straight continuous rod. The front section or length D′ of this movable rod is hooked on or engages with a transverse pin or screw *l*, applied to the compressing-ferrule B and passing through side slots *m m* in the cap-like ferrule *d*, on which the compressing-ferrule B slides. This provides for the outward movement of the compressing-ferrule to laterally expand or distend the swab C by projecting the inner rod D′ D^2 D^3 forward, and so producing end compressions on the swab, which swells it out laterally, as shown by dotted lines in Fig. 2. Such outward movement of the inner rod is effected by applying force to the back end of the section D^3 of said rod—as, for instance, through a cam-lever E, applied to a split strap on the rear member A^3 of the outer rod and working at its cam end within a recess *n* in said member, the cam portion of the lever bearing against the back end of the rod-section D^3 and being held there and the working parts in place ready for operation by a spring G, arranged between a stop-collar *s* on the inner-rod section D′, and a loose collar *s*′, having a suitable bearing or stop in the front main member A′.

By means of this device it will be seen that the swab or cleaner may be readily entered within the gun and be distended or spread laterally by direct pressure applied to it after it has been put into the gun and be adjusted to give any required pressure against the sides of the barrel, it only being necessary in order to accomplish this to apply the requisite force to the back end of the inner rod to move it forward, while the outer rod is held firmly by the hand, and this may readily be done by pressing with more or less force on the handle portion of the cam-lever E against the tension of the return-spring G.

If required to change the length of the whole device, the middle section of the outer rod, with its contained inner-rod section, may be disjointed and removed and another like section of outer and inner rod of the necessary or changed length be substituted therefor.

Any standard gun-cleaner as now made can be used when desired on the outer or main rod without the inner-rod direct-pressure attachment.

The several ferrules which are fitted onto the ends of the wooden members of the outer rod may be secured thereon by screw-threads cut on the ends of said wooden members, and the ferrules may be made to fit said screw-threads, or the ferrules may be secured to their places by cross pins or rivets or otherwise.

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

1. In gun swabbing or cleaning devices, the combination of a tubular main outer rod adapted to carry the swab or cleaner on its forward end and a longitudinally-movable inner rod adapted by applying force to independently move the inner rod forward to produce a direct and independent pressure on the swab or cleaner to expand or distend it laterally.

2. In gun swabbing or cleaning devices, the combination, with a tubular main outer rod adapted to carry the swab or cleaner on its forward end and an independently and longitudinally movable inner rod adapted to produce direct pressure on the swab or cleaner to expand or distend it laterally, of a hand lever or device applied to the outer rod and operating to project the inner rod forward and to control the pressure applied to it, substantially as specified.

3. In gun swabbing or cleaning devices, the combination of a tubular main outer rod constructed in separable jointed sections or lengths and adapted to carry the swab or cleaner on the forward end of its advance section and an independently and longitudinally movable inner rod adapted to produce direct pressure on the swab or cleaner to expand or distend it laterally, also constructed in sections or lengths to correspond with the sections or lengths of the outer rod and independently carried by the latter, essentially as herein set forth.

4. In gun swabbing or cleaning devices, the combination of a tubular main outer rod constructed in separable jointed sections or lengths and adapted to carry the swab or cleaner on the forward end of its advance section, an independently and longitudinally movable inner rod adapted to produce direct pressure on the swab or cleaner to expand it laterally, also constructed in sections or lengths to correspond with the sections or lengths of the outer rod and independently carried by the latter, and means, substantially as described, for controlling and regulating the movement and pressure of the inner rod

and for holding the working parts in position, essentially as specified.

5. The combination of the tubular main or outer rod constructed in separable jointed sections or lengths, as described, the laterally-slotted cap-like ferrule *d* on the outer end of the forward one of said sections, adapted to receive a screw for attachment of the swab or cleaner, the independently and longitudinally movable inner rod, also constructed in sections or lengths to correspond with the sections or lengths of the outer rod and independently carried by the latter, the sliding compressing-ferrule B on the exterior of the cap-like ferrule *d*, connected by a pin *l* with the forward inner-rod section, the spring G, and the cam-lever E, substantially as and for the purposes herein set forth.

GEORGE H. GARRISON.

Witnesses:
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