No. 684,981. Patented Oct. 22, 1901.

A. C. DRUMMOND & T. W. LAYMAN.

GUN CLEANER.

(Application filed May 14, 1901.)

(No Model.)

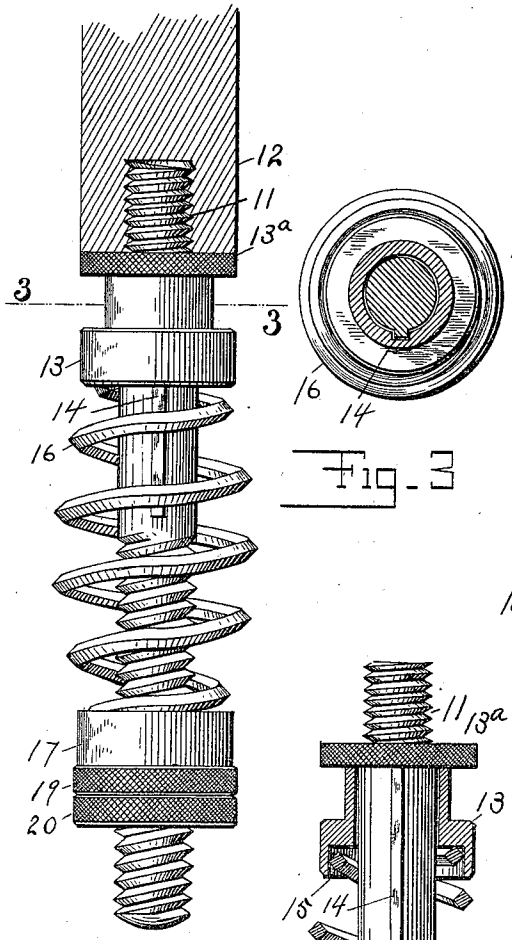

Fig. 1

Fig. 3

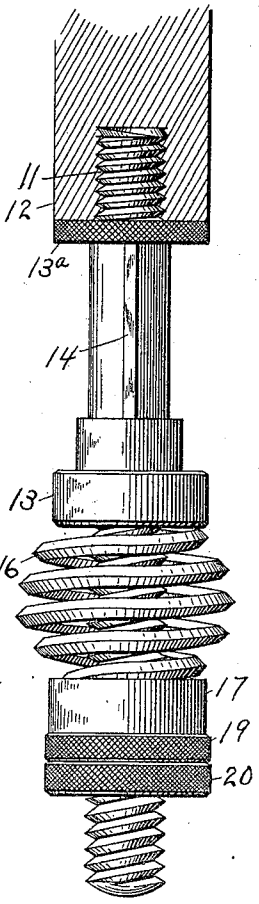

Fig. 2

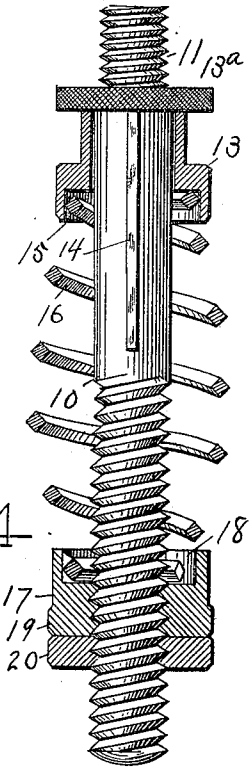

Fig. 4

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GUN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 684,981, dated October 22, 1901.

Application filed May 14, 1901. Serial No. 60,213. (No model.)

To all whom it may concern:

Be it known that we, ALEXANDER C. DRUMMOND and THEODORE W. LAYMAN, of Walden, Orange county, New York, have invented certain new and useful Improvements in Gun-Cleaners, of which the following is a full, clear, and exact description.

Our invention relates to improvements in that class of gun-cleaners which are adapted to be attached to the end of a cleaner-rod or ramrod.

The object of our invention is to produce a very simple and inexpensive device of this kind which is adapted for use in connection with different kinds of guns and different sizes of bore, which can be used in connection with any ordinary cleaning-rod, which adjusts itself to the bore of the barrel, so as to perfectly fit against the whole inner surface thereof, which presents a cutting edge to the barrel, so that all dirt and rust are quickly removed and the barrel burnished at the same time, which has means for catching the removed particles, and which in general is adapted to quickly and thoroughly clean and burnish the barrel of a gun.

To these ends our invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar figures of reference refer to similar parts throughout the several views.

Figure 1 is a side elevation of our improved cleaning device, showing the same attached to a cleaner-rod, the latter being shown in section. Fig. 2 is a view similar to Fig. 1, but with the cleaning blade or spring compressed. Fig. 3 is a cross-section on the line 3 3 of Fig. 1, and Fig. 4 is a longitudinal section of the cleaner.

In carrying out our invention we use a rod 10, small enough to easily enter any ordinary barrel-bore, and at one end this is screw-threaded, as shown at 11, to enable it to engage the cleaning-rod 12.

On the end next to the cleaner-rod is a sliding collar 13, which slides on a key 14 on the rod, the collar being provided with a suitable keyway, so that it will slide, but cannot turn, and the collar is preferably socketed on the inside, as shown at 15, so that the end of the spiral cutter or blade 16 may fit nicely into it. The spiral blade 16 is of spring-wire, and the wire is preferably rectangular in cross-section; but in any event it should present an edge at its outer surface, so that this cutting edge will come into sharp contact with the gun-barrel, and so quickly remove any dirt or rust thereon. The second end of the spiral blade or cleaner rests in the socket 18 of the nut 17, which is screw-threaded on the rod 10, as shown clearly in Fig. 4, and this nut is provided with a milled edge 19 to enable it to be easily turned. It will be seen that by adjusting the nut 17 the spring or blade 16 can be more or less compressed, as the collar 13 rests at its outer end against a nut 13^a, which serves as a fixed abutment for the collar. After the nut 17 has been adjusted it is prevented from being displaced by the check-nut 20, which can be turned up firmly against it.

From the foregoing description it will be observed that by adjusting the nut 17 in and out the spiral blade 16 can be more or less compressed and that as the compression of the spiral blade expands it laterally the blade can be made to fit a gun-barrel of any ordinary bore.

When the cleaner is pulled through a barrel, the resistance of the spiral blade 16 causes the blade to be compressed, as in Fig. 2, thus making it practically a solid cleaner with spiral grooves, and the removed dirt passes through the grooves and falls into the cup or socket 18 of the nut 17, so that the dirt is not only taken off the barrel-surface, but is removed entirely from the barrel. After the barrel is cleaned as above it may be oiled by simply placing an oiled cloth over the spiral blade 16 and drawing the cleaner through the gun-barrel.

From the foregoing description it will be readily seen that this device can be instantly applied to a rod and forced through a barrel, that it will at once adapt itself to the bore of the barrel, and that the cleaning is quickly and thoroughly accomplished.

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

A gun-cleaner comprising a rod threaded at both ends, a sliding collar keyed to the rod so as not to turn thereon, said collar having one side socketed, a nut on the second end of the rod, said nut having its inner portion cup-shaped, a single helical spring coiled around the rod and provided with an exterior cutting edge, the spring having one end resting in the socket of the nut, and the opposite end resting in the socket of the sliding collar, and nuts on opposite ends of the rod, one abutting with the collar, and the other with the socketed nut so that the socketed nut and the sliding collar may be adjusted back and forth in relation to each other.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

A. C. DRUMMOND.
T. W. LAYMAN.

Witnesses:
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