

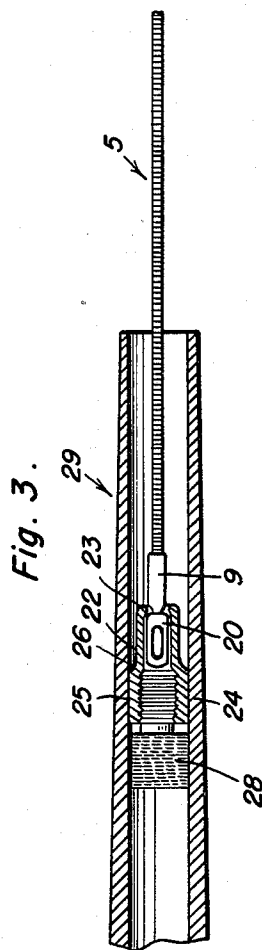
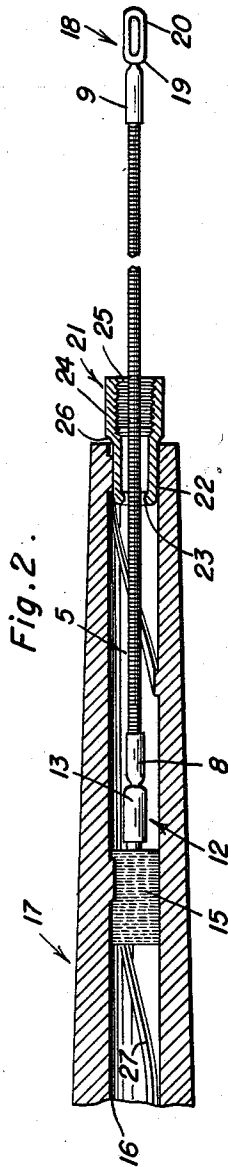
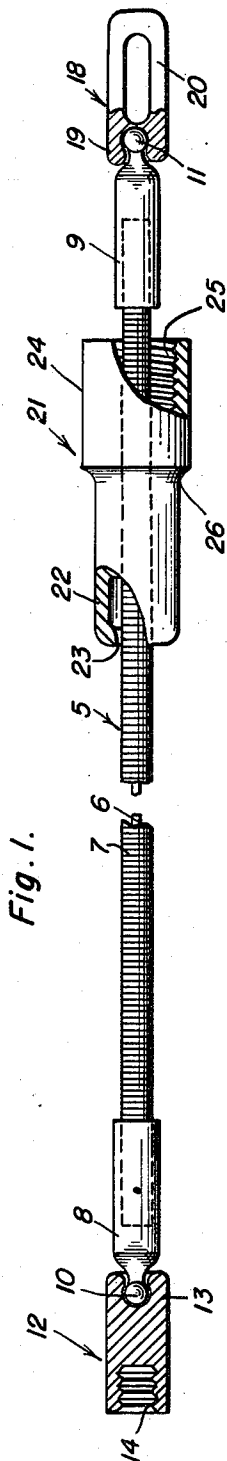
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V. G. MALESKY

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FLEXIBLE RIFLE AND SHOTGUN CLEANING SHAFT

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Victor G. Malesky
INVENTOR.

BY *Oliver A. Brown*
and *Harvey B. Jacobson*
Attorneys

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FLEXIBLE RIFLE AND SHOTGUN CLEANING
SHAFT

Victor G. Malesky, Dearborn, Mich.

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The present invention relates to certain new and useful improvements in a flexible rifle and shotgun cleaning shaft in which users will find their essential needs and requirements fully met, contained and effectively available.

Some time ago I devised and perfected a semi-rigid cable, or so-called flexible shaft, with suitably mounted adapters on opposite ends, to take the place of rigid rods and flexible cords characterizing rifle and shotgun barrel cleaners in prior art constructions. The cleaner in question is the subject matter of an application for patent filed by me under the date of March 20, 1947, and identified as Serial Number 735,896.

Reference being had to co-pending application 735,896, it will be seen that the cleaner in question has to do with a flexible shaft of such rigidity that when in use in the bore of the barrel, is substantially unyielding in an axial direction, straight from end to end, and such that it may be passed through and worked back and forth in the gun barrel and yet is sufficiently flexible, in lateral directions, that it may be coiled and rolled, when not in use, into compact and convenient form for ready handling and easy carrying. Adapters are secured to opposite outer ends of the shaft, one adapter embodying a swivelly mounted screw threaded socket member to accommodate a brush or the like, said socket member connected to a rigid fitting which is secured permanently to the adjacent end of the shaft, said fitting having a ball jointing element swivelly connected with said socket member. There is a second adapter on the opposite end of the shaft, also swivelly mounted, the latter adapter being cylindrical in cross section and provided at its outward end with a screw threaded centrally disposed socket to accommodate a cleaning brush, and being exteriorly provided adjacent its inner swivelly mounted end with a circumferentially surrounding groove to accommodate a patch, if desired, to be tied on said adapter for practical cleaning use.

Since filing my original application, I have discovered the need for further refinements and improvements. In reducing to practice the construction embodying my latest provisions I have retained herein the aforementioned semi-rigid push-pull shaft with swivelly mounted adapters on opposite ends of said shaft, one adapter having an axial screw threaded socket member to accommodate a bore cleaning brush, the second adapter being a rigid longitudinally elongated link to accommodate and operate a cleaning patch (not shown). In addition, I now provide a third adapter which is freely slidable on the shaft be-

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tween the first and second named swivelly attached adapters and said third adapter has a special sleeve at one end and an enlarged internally screw threaded socket member at the opposite end.

More specifically, novelty is predicated upon the third or slidable adapter whose sleeve is of an internal diameter greater than the cross section of the stated link, whereby to permit the link to telescope completely into the sleeve, to allow the socket member to swivelly project beyond the link and to allow a brush to be screwed and held into said socket member for cleaning a gun barrel.

More importantly, the stated third adapter carries a sleeve portion which is adapted to fit telescopically into the muzzle end of a rifle barrel at which time the larger socket member constitutes a retaining shoulder and wherein said sleeve functions as a guide bushing for the flexible shaft to prevent the latter from coming into scraping contact with and ruining the rifle lands.

Briefly then, novelty in the instant subject matter is predicated upon the semi-rigid push-pull shaft with distinguishably different swivelly mounted adapters on opposite ends and with the shaft slidable in the bushing in the manner shown in Figure 2. Then, too, novelty is predicated on the converter-type slidable third adapter whose sleeve portion serves not only as the stated bushing but also as a receptacle and holder for the slotted link as shown in Figure 3 and wherein the screw threaded socket member projects to accommodate a larger type brush for cleaning a smooth bored gun barrel.

Other objects and advantages will become more readily apparent from the following description of the accompanying illustrative drawings.

In the accompanying drawings wherein like numerals designate like parts throughout the views;

Figure 1 is a fragmentary view with parts in section and elevation showing a flexible rifle and shotgun cleaning shaft constructed in accordance with the principles of the present invention;

Figure 2 is a view showing a fragmentary portion of a rifle barrel and illustrating how the slidable or converter type adapter is, in this instance, used as a guide bushing for the reciprocable semi-rigid shaft; and,

Figure 3 is a view showing a fragmentary portion of a gun barrel and illustrating the manner in which the third adapter is slid to telescopically encompass the slotted link adapter and to make provisions for attachment of a gun cleaning brush.

Referring now to the drawings by distinguishing reference numerals and lead lines and with particular reference to Figure 1, the flexible or semi-rigid push-pull shaft is denoted by the numeral 5 and is characterized by a central core wire 6 encased within a multiplicity of coiled wrappings 7. I might explain in connection with this shaft that it embodies four wires which wrap clockwise around the center core wire 6, four wires wrapped around the first named four in a counterclockwise direction, four more wires wrapped around the second wrappings in a clockwise direction, four wires wrapped around the third wrappings in a counterclockwise direction. This is what may be conveniently called a speedometer cable and is quite adequate to perform the functions of my desired flexible shaft. The latter, though of sufficient rigidity, is such that it may be conveniently used in the field at all times due to the fact that it is not bulky and can be coiled or rolled to a coiled form (as illustrated in the drawings in Serial Number 735,896). The shaft is rigid enough that it is substantially unyielding in an axial direction and may be pushed through the muzzle end of a rifle or shotgun barrel and then pulled through from the muzzle end, thus cleaning all rifles and shot guns from the breech chamber, whereby not to push the burnt powders or other fine matter into the mechanism of the firearm or the cartridge chamber. On the other hand, it is laterally flexible and may, as stated, be rolled or coiled into compact carrying form. Rigid fittings 9 and 8 respectively are permanently secured to the ball jointing heads or elements 10 and 11 respectively. The adapter at the left is denoted by the numeral 12 and comprises a cylindrical body whose inner end is fashioned at 13 and swivelly connected to the ball jointing head 10. The outward end of the body is recessed and screw threaded to provide a socket member 14, which in practice, serves to accommodate the brush 15 (see Figure 2) for cleaning the bore 16 of a rifle barrel 17.

The other adapter, the second one, is denoted by the number 18 and is fashioned at 19 and swivelly connected to the ball jointing element 11. This adapter is in the form of a slotted rigid link 20 and is adapted to accommodate a cloth or equivalent patch for cleaning purposes.

I may state in connection with adapters 12 and 18 that they are primarily intended for use in cleaning rifle barrels. In Figure 2 I show the adapter 12 in use. In practice the adapter 18 may be turned around, end for end so to speak, and conveniently used in a gun barrel in the manner depicted in Figure 3.

Attention is now directed to the third and highly significant adapter unit 21. This comprises a longitudinally bored sleeve one end of which is relatively small, as at 22, and which has an intumed lip 23 providing a stop shoulder. The opposite end of the sleeve is enlarged in diameter, as at 24, and provides a socket member which is internally screwthreaded as at 25. It is also defined a stop shoulder on its exterior, as at 26.

This adapter 21 is convertible so that it functions on the one hand as shown in Figure 2, and on the other hand, as shown in Figure 3. The bore of the sleeve portion 22 is such in diameter as to form a receptacle and holder for the slotted link adapter 20, as shown in Figure 3. Said adapter 21 is at all times maintained on the shaft between the two adapters 12 and 18 and, therefore, cannot become lost or misplaced. In fact,

by having all three adapters on the one cable or shaft, all parts are constantly assembled and in readiness for selective use.

In reference to Figure 2 of the drawings here the smaller sleeve portion 22 is telescoped frictionally into the muzzle end of the barrel with the shoulder 26 abutting the muzzle and with the socket member projecting beyond the muzzle. When thus inserted the adapter constitutes a bushing and a guide for the flexible shaft. It allows the shaft to be worked back and forth in the bore 16 with the brush 15 cleaning the bore and the rifling lands 27. By centering the shaft at one end with the bushing, said shaft may be worked back and forth without damaging the rifling lands 27.

In Figure 3 the sleeve portion 23 is slipped over the link adapter and the link adapter is thus housed within the sleeve and held assembled by the shoulder or stop lip 23. At the same time the two adapters 18 and 21 may swivel, as a unit, in relation to the flexible shaft. Also, the socketed portion or member 25 projects beyond the slotted link to accommodate a cleaning brush 28 such as may be used in cleaning the bore of the gun barrel 29. If one does not desire to use the brush, it is possible to attach a cloth patch to the slotted link 20 and then pull the link and patch into the adapter (not shown) to accomplish with the patch what would otherwise be accomplished with the brush.

Reviewing the device it will be seen that the flexible shaft has permanently swivelly mounted adapters on each end and the sliding adapters which may take any position in between the other two adapters, but which is preferably designed to serve as a bushing as shown in Figure 2, on one hand, and the brush attaching purpose, as shown in Figure 3, on the other hand. All of the parts in conjunction with each other form a complete appliance in which none of the parts may be lost or misplaced and in which all of the parts contribute their proportionate shares to the production of an overall satisfactory and practical assembly. Each permanent adapter is constructed so that it will follow the rifling in the barrel while in the process of cleaning the firearm. The sliding adapter is to be used for shotgun brushes or swabs and the small end of the adapter is used, as stated, as a shaft guide or bushing. When placed in the muzzle of the rifle it will guide the shaft through the bore and said shaft will not cut the rifling lands while being pulled through and thus cannot damage the latter.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

Having described the invention, what is claimed as new is:

1. A gun barrel cleaner which permits cleaning of the bore of a barrel from the chamber end of said barrel comprising a resilient push-pull shaft, said shaft being semi-rigid, substantially unyielding in an axial direction and approximately straight from end to end when in use and substantially laterally flexible to be coiled,

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when not in use, into a compact and convenient form for carrying, a rigid fitting secured to one end of said shaft having a ball jointing head, and an adapter swivelly joined to said head, said adapter being a rigid slotted link to accommodate and hold a cleaning patch.

2. A gun barrel cleaner which permits cleaning of the bore of a barrel from the chamber end of said barrel comprising a resilient push-pull shaft, said shaft being semi-rigid and substantially straight from end to end when in use and substantially flexible to be coiled, when not in use, into a compact and convenient form for carrying, an adapter swivelly mounted on one end of said shaft, said adapter embodying a rigid longitudinally slotted link to accommodate a cleaning patch, a second adapter slidably mounted on said shaft inwardly of said first adapter having a sleeve at its inner end and an internally screw threaded socket at its outer end opening in a direction toward said first-named adapter, said sleeve being of an internal diameter greater than the cross-section of said link and of a length greater than the length of the link, whereby to permit the link to telescope completely into the sleeve, to allow the socket member to project beyond the link and to allow a brush to be screwed and held in said socket member for cleaning a gun barrel.

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3. A gun barrel cleaner comprising a flexible shaft terminating in a rigid fitting, an adapter swivelly mounted on said fitting, and a sleeve fitting over and snugly enclosing said adapter, said sleeve having an annular inturned end portion providing a stop shoulder adapted to engage the adapter to locate and position the sleeve over said adapter, and an internally screw-threaded socket member formed integral with the other end of said sleeve.

VICTOR G. MALESKY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
799,125	Whinery	Sept. 12, 1905
821,198	Stocker	May 22, 1906
1,061,119	P'pool	May 6, 1913
1,499,460	Kennedy	July 1, 1924
1,603,842	Colpe	Oct. 19, 1926
2,058,756	Ayer	Oct. 27, 1936
2,328,973	Goldfisher	Sept. 7, 1943

FOREIGN PATENTS

Number	Country	Date
862,664	France	Dec. 16, 1940