July 3, 1951

W. F. SCHNITGER

2,559,376

DEVICE FOR CLEANING, LUBRICATING, AND SEALING BARRELS OF GUNS

Filed Aug. 5, 1947

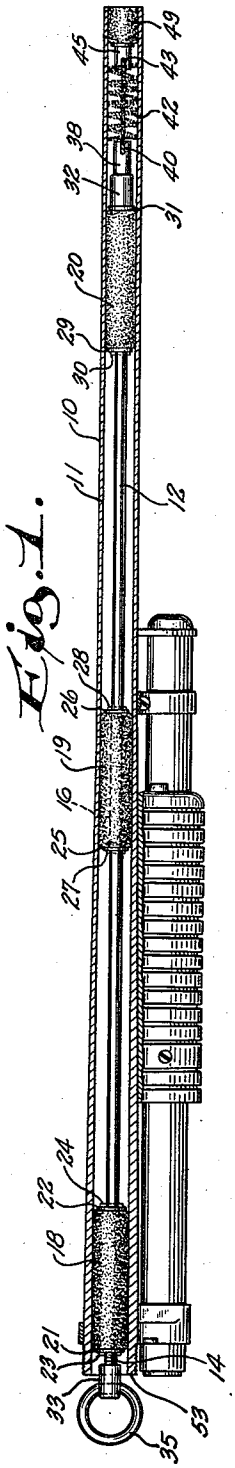

Fig. 1.

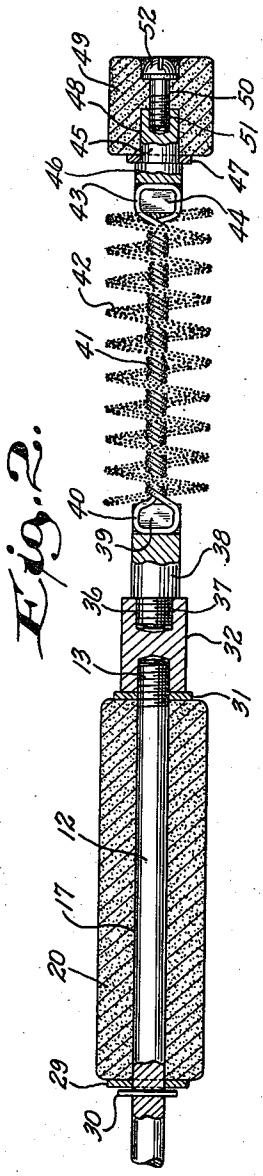

Fig. 2.

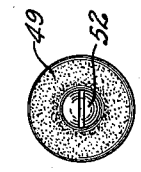

Fig. 6.

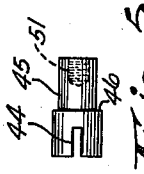

Fig. 5.

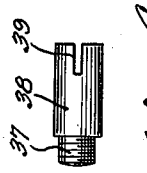

Fig. 4.

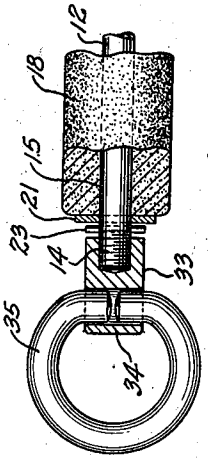

Fig. 3.

INVENTOR.

Wilbert F. Schnitger

BY

Morsell & Morsell

ATTORNEYS.

Patented July 3, 1951

2,559,376

UNITED STATES PATENT OFFICE

2,559,376

DEVICE FOR CLEANING, LUBRICATING, AND SEALING BARRELS OF GUNS

Wilbert F. Schnitger, Waukesha, Wis., assignor of one-half to Earl E. Southall, Milwaukee, Wis.

Application August 5, 1947, Serial No. 766,251

1 Claim. (Cl. 15—104.05)

1

This invention relates to improvements in devices for cleaning, lubricating and sealing barrels of guns.

In the use of fire arms, it is important after use to keep the bore of the gun barrel clean and well lubricated. It is also desirable to have means which will prevent the entrance of moisture or humid air into the bore while the gun is in storage or not in use so that rust will not occur.

It is a general object of the present invention to provide a single, relatively simple instrumentality, which can be inserted into the barrel of the gun when the gun is not in use to perform all three important functions of cleaning, lubricating and sealing.

A further object of the invention is to provide a device as above described, including a cleaning brush and one or more lubricating and sealing rolls wherein any of said members may be easily and quickly renewed after they have become worn.

A further object of the invention is to provide a device for cleaning, lubricating and sealing the barrels of guns wherein there is means projecting from one end of the gun bore, when the device is in use, for facilitating withdrawal of the device when required, the said means being quickly detachable so that the stock of the gun may be reassembled with the barrel if desired, leaving the cleaning and sealing device in position.

Other objects of the invention are to provide a device of the class described which can be used either with barrels having tapered bores or with barrels having straight bores; to provide a device which, when in place, prevents the insertion of shells and therefore acts as a safety when the gun is being transported or stored; and to provide a device which is relatively inexpensive to manufacture.

With the above and other objects in view, the invention consists of the improved device for cleaning, sealing, and lubricating the barrels of guns, and all its parts and combinations, as set forth in the claim, and all equivalents thereof.

In the accompanying drawing, illustrating one complete embodiment of the preferred form of the invention, in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a side view showing the device in sealing position in the barrel of a gun, the barrel being illustrated in longitudinal section;

Fig. 2 is a fragmentary view on an enlarged scale at the outer end of the device, parts being

2

broken away and shown in longitudinal section;

Fig. 3 is a fragmentary view of the inner end of the device, parts being broken away and shown in longitudinal section;

Fig. 4 is a side view of one of the brush holding studs;

Fig. 5 is a side view of the other brush holding stud; and

Fig. 6 is an outer end view of the improved device.

Referring more particularly to the drawing, the gun barrel is indicated by the number 10. The barrel illustrated has a bore 11, which is tapered slightly in an outward direction. It is to be understood, however, that the invention is equally applicable for use in connection with guns having straight bores.

The improved device with which the present invention is concerned includes a straight metal rod 12 having its outer end threaded as at 13, and also having its inner end threaded as at 14. The rod is inserted through the longitudinal bores 15, 16 and 17 of rolls 18, 19 and 20. These rolls may be formed of felt or any material capable of being impregnated with a lubricant and having the flexibility and cushioning characteristics necessary for the purpose. While the device will perform its function with only one roll on the rod 12 located in the position of the roll 18, nevertheless the efficiency is improved materially by utilizing more than one roll such as the three rolls illustrated.

The roll 18 is removably retained in position by means of end washers 21 and 22 which are in turn held by cotter pins 23 and 24 extending through cotter pin holes in the rod 12.

The roll 19 is similarly removably held in position by means of end washers 25 and 26 and cotter pins 27 and 28. Roll 20 is restrained against longitudinal movement in one direction by washer 29 and cotter pin 30, and against movement in the other direction by a washer 31 held in place by a connection member 32, which is screwed onto the threaded end 13 of the rod.

At the inner end of the device there is a cap nut 33 threaded on the end 14 of the rod 12. The nut has a transverse bore 34 within which a finger ring 35 is inserted.

The connection member 32 has its outer end formed with a threaded bore 36 for receiving the threaded stem 37 of a brush holding stud 38. The latter has its outer end inwardly slotted as at 39 to receive the looped end 40 of the wire core 41 of brush 42. The looped end 40 may be frictionally squeezed in position in the slot 39. The

other end of the brush is formed with a loop **43** which is similarly held in a slot **44** of a brush holding stud **45**. The stud **45** has its outer end of reduced diameter to form an intermediate shoulder **46**. A washer **47** may be placed on the outer end of the stud **45**, and then the outer end of the stud may be inserted into the bore portion **48** of a relatively short sealing roll **49**. The roll **49** is formed of material similar to the rolls **18**, **19** and **20**. The bore portion **48** terminates at a point intermediate the length of the roll **49** and joins a smaller bore **50**. A screw **52** inserted from the outer end through the bore **50** is threaded into a threaded bore portion **51** at the outer end of the stud **45** to removably hold the parts **49** in position. The roll **49** is also impregnated with a lubricant.

After a gun has been used it is broken open to expose the inner end **53** of the bore. The improved device is then inserted into said end to the position illustrated in Fig. 1. The rolls **18**, **19**, **20** and **49** and the brush **42** have an external diameter which is slightly larger than the bore of the gun with which they are to be used. There is sufficient flexibility in the members, however, to permit manipulation while providing for a snug fit into either a tapered bore or a straight bore.

As the device is being inserted, the various portions of the bore will be lubricated by the rolls **49**, **20**, **19** and **18**, and the brush **42** will perform a cleaning operation. When the gun is to be put away in storage, the device is left in the position shown in Fig. 1, with the outer end of the roll **49** flush with the outer end of the barrel; thus entry of moisture into said end is prevented. In addition, the device is of such length that when the roll **49** is located as in Fig. 1, the roll **18** is located close to the inner end of the barrel to prevent the entrance of moist air into any part of said end where it could do harm. The device may be manipulated by using the finger ring **35**. However, if it is desired to reassemble the gun with the sealing device in position, then the ring may be unthreaded from the rod end **14**. When this has been performed, there is nothing projecting beyond the inner end of the bore to prevent reassembling the stock on the barrel. While the gun is thus stored, the use of the sealing device is insurance against the presence of a shell in the barrel. Thus the gun cannot be accidentally discharged.

The brush **42** can be quickly replaced when required by unthreading the stud **38** and screw **52** and replacing with a new brush equipped with new studs **38** and **45**, or a new brush may be inserted in the slots **39** and **44** of the old studs. In addition the construction is such as to permit quick removal and replacement of any of the rolls **18**, **19**, **20** and **49**.

Various changes and modifications may be made without departing from the spirit of the invention, and all of such changes are contemplated as may come within the scope of the claim.

What I claim as the invention is:

In a device for cleaning and oiling guns, a cylindrical brush having a first wire loop at one end and a second wire loop at the opposite end; a first stud projecting axially of said brush and formed at one end with a diametric slot in which said first loop is removably positioned and being formed at its other end with external screw threads; a second stud projecting axially of said brush and formed at one end with a diametric slot in which said second loop is removably positioned and being formed at its other end with a portion of reduced diameter, said reduced portion being formed in its outer end with a threaded axially extending aperture; an axially bored cylindrical roll of relatively soft compressible material positioned on the reduced portion of said second stud; and a screw extending through the bore of said roll and having a portion removably positioned in the threaded aperture of the second stud for holding said roll in position on said stud.

WILBERT F. SCHNITGER.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
190,123	Budd	May 1, 1877
464,843	Bagger	Dec. 8, 1891
739,653	Dalrymple	Sept. 22, 1903
966,100	Johnson	Aug. 2, 1910
1,004,710	Swazey	Oct. 3, 1911
1,164,665	Reeves	Dec. 21, 1915
1,205,533	Heaps et al.	Nov. 21, 1916
1,471,300	Williams	Oct. 16, 1923
1,556,494	Cooper	Oct. 6, 1925

FOREIGN PATENTS

Number	Country	Date
12,780	Great Britain	of 1897
454,907	Great Britain	Oct. 9, 1936
547,897	Germany	Apr. 14, 1932