CLEANING ROD FOR FIRE ARMS

Karl R. Lewis, Thomas J. Hartog, and Harry E. Heiter, Ogden, Utah, assignors to Browning Industries Inc, Ogden, Utah

Filed Dec. 10, 1962, Ser. No. 243,445
6 Claims. (Cl. 74—548)

This invention relates to accessories for fire arms and is more particularly directed to a universal cleaning rod for cleaning barrels of all types of guns.

A principal object of the present invention is to provide a cleaning rod with a releasable locking mechanism in its handle portion to permit the free rotation of the rod with relation to the handle or locking the handle and rod together as required by the type of gun barrel being cleaned.

Another object of the present invention is to provide a cleaning rod which is readily converted to being capable of cleaning barrels of all types of guns.

A further object of the present invention is to provide a universal cleaning rod that may be used for cleaning rifle bores with its rod freely rotating to follow the rifling as the cleaning rod is pushed and pulled through the rifle barrel or the rod may be locked with relation to the handle or permit the positive manipulation of the brush in cleaning smooth bore barrels of shot guns, revolvers, and the like.

A still further object of the present invention is to provide a cleaning rod having rod sections threadedly engaged which do not require the use of pliers, wrenches or the like but instead may be assembled and dismantled by the use of a hardened pin which operates as a wrench.

With these and other objects in view, the invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

FIGURE 1 is a side elevational view of gun cleaning rod constructed in accordance with our invention.

FIGURE 2 is a top plan view.

FIGURE 3 is a cross sectional view taken along the line 3—3 of FIGURE 2.

FIGURE 4 is a longitudinal cross sectional view taken along the line 4—4 of FIGURE 3.

FIGURES 5 and 6 are transverse sectional views taken along the lines 5—5 and 6—6 respectively of FIGURE 3.

FIGURE 7 is a view similar to FIGURE 3 with its actuating knob lifted and rotated 90 degrees to place it in the release position.

FIGURE 8 is a longitudinal cross sectional view taken along the line 8—8 of FIGURE 7.

Referring to the drawings wherein like numerals are used to designate similar parts throughout the several views, the numeral 10 refers to our cleaning rod consisting of a body member 11 substantially cylindrical in construction and having a pair of concentric bores 12 and 13. The upper bore 12 is provided with threads and is larger than the lower bore 13, thereby forming a peripheral shoulder 14.

A rod 15 is rotatably received by the bore 13 having its upper portion extending into the bore 12 and is provided with a peripheral groove 16 at the position of the shoulder 14. An open or U-shaped washer 17 is slidably fitted in the peripheral groove 16 of the rod 15 bearing against the shoulder 14 to prevent outward or downward longitudinal movement of the rod 15 but not hamper the rotational movement of the rod 15 with relation to the body member 11. The upper end of the rod 15 is slotted on each side as at 18 to form an elongated and centrally disposed lug 19.

To prevent the upward or inward longitudinal movement of the rod 15, a lower end 21 of a threaded bushing 20 engages and bears against the top surface of the washer 17 which acts as a thrust bearing for the rod 15. The bushing 20 which is threadedly received by the bore 12 extends above the body member 11 having a handle 22 threadedly mounted thereon. The handle 22 is threaded tightly against the body member 11 so that with the application of Locktite, a glue-like substance on the various threads, the handle 22, body member 11 and the bushing 20 will operate as a single unit. The threaded bushing 20 is provided with a pair of concentric bores 23 and 24, the upper bore 23 being smaller in diameter than the lower bore 24, thereby forming a peripheral shoulder 25. At the top portion of the threaded bushing 20 there are two transversely disposed slots 26 and 27 disposed at right angles to each other, the slot 26 being shallow, while the slot 27 being deeper as best shown by FIGURES 3 and 6—8 inclusive.

The handle 22 is provided with a circularly slotted portion 29 on its upper surface for receiving a knob 30 of a locking mechanism. The locking mechanism consists of a lock member 30 which is both slidably and rotatably positioned within the bores 23 and 24 of the threaded bushing 20. The lower end of the lock member 30 is provided with a slotted portion 31 for receiving the lug 19 and thereby lock the lock member 30 and the rod 15 together for unitary rotation.

A coil spring 41 encircling the lock member 30 within the bore 24 extends between the shoulder 25 of the threaded bushing 20 and a shoulder 32 extending about the lock member 30 to yielingly force the lock member 30 into locking engagement with the rod 15.

The lock member 30 is manipulated by means of the lock button 28 which is provided with a depending lug 33 and a slotted body portion 34 that is threadedly received by a threaded bore 35 formed in the upper portion of the lock member 30. The depending lug 33 of the locking mechanism is normally received by the slot 27 of the threaded bushing when the rod 15 is in its locked position as explained hereinafter. A coating of Locktite, a glue-like substance on the threads of the member 34 will lock the lock member 30 and the lock button 28 together so as to cause them to operate as a unit.

At the outer or free end of the rod 15, there is provided a threaded bore 36 for receiving the threaded end portion 37 of an extension rod 38. Both of the rods 15 and the extension rod 38 have a radially disposed bore 39 drilled therethrough. In lieu of a tool such as pliers, wrenches and the like for fastening the various rods 15, 38 together, an elongated pin (not shown) is inserted into each of the bores 39 and manipulated to rotate the rods 15, 39 and tighten the rods together. It has been found that the use of pliers, wrenches, etc., causes burrs on the rods that serve to scratch out or mar the interior surfaces of a gun barrel. If a short barrel such as that of a revolver is to be cleaned, only one extension rod 38 is used, which is provided with a brush 40 or other cleaning implement, for cleaning the barrel. If a rifle or shot gun barrel is to be cleaned a sufficient number of extension bars 38 are affixed to the cleaning rod 10 to permit the brush 40 on the end of the last extension bar 38 to pass from one end to the other end of the gun barrel in order to clean same.

When cleaning a smooth bore of a shot gun barrel or that of a revolver cylinder, it is preferable that the han-
3,208,302

die 22 and the cleaning rod 10 be locked together to operate as a unit so that the brush 40 may be positively manipulated by the user of the cleaning rod 10. This condition of the cleaning rod 10 is effected by the lug 33 being seated in the slot 27 of the threaded bushing 20 and the lug 19 on the top end of the rod 15 received by the slot 29 of the lock member 30. In this position of the various parts as shown by FIGURES 3-6 inclusive, the rod 15 can only rotate when the handle 22 is rotated.

On the other hand, in cleaning rifle bores, it is preferable that as the cleaning rod is pushed back and forth through the rifle barrel, the rods 15, 30 rotate freely so that the brush 40 or other cleaning implement being used can follow the rifling. This condition may be quickly effected by merely grasping the knob 28 by the thumb and forefinger and lifting the knob 28 against the force of the coil spring 41. As the knob 28 is lifted, the lock member 30 is simultaneously lifted and when the knob 28 has been lifted a sufficient height, the lug 33 will be positioned out of the slot 27 and above the top edge of the threaded bushing 20. Also, the lug 19 will have left the confines of the slot 31 as the bottom wall of the lock member 30 will lie in a plane above the lug 19. The knob 28 is now rotated 90 degrees in either direction and released. The coil spring 41 will cause the lug 33 to seat on the shallow slot 26. The rod 15 is now free to rotate freely while the handle 22 is held in one's hand during a barrel cleaning operation as best shown by FIGURES 7 and 8.

Having disclosed our invention, what we claim as new and desire to secure by Letters Patent of the United States is:

1. A cleaning rod for fire arms comprising a body member, a handle secured to said body member and rotatable with said body member as a unit, a rod rotatably mounted on said body member, locking means releasably securing said rod to said body member and means mounted on said handle cooperatively engaging said locking means for releasing said locking means, said handle remaining secured to said body member whereby said rod may rotate with relation to said body member and said handle.

2. A cleaning rod for fire arms comprising a body member having a longitudinal bore and a shoulder portion in said bore in proximity of one end, a handle secured to said body member at the other end, a rod rotatably mounted in said bore adjacent said shoulder, washer means mounted on said rod and engaging said shoulder portion, locking means mounted in said bore and engaging said rod in various rotational movements of said locking means and said rod, a knob secured to said locking means and further means for disengaging said locking means from said rod whereby said rod may rotate freely of said handle.

3. A cleaning rod for fire arms comprising a body member having a longitudinal bore and a shoulder portion in said bore in proximity of one end, a handle secured to said body member at the other end, a rod rotatably mounted in said bore adjacent said shoulder, said rod having a peripheral slot in proximity of said shoulder, washer means mounted on said peripheral slot and engaging said shoulder on one side, means mounted in said body member engaging said washer means on the other side to prevent longitudinal movement of said rod, locking means slidably mounted in said bore and engaging said rod for locking said handle and said rod together, a knob secured to said locking means, resilient means urging said locking means and said rod into locking engagement and further means for disengaging said locking means and said rod whereby said rod may rotate freely of said handle.

4. A cleaning rod for fire arms comprising a body member having a longitudinal bore and a peripheral shoulder in said bore in proximity of one end thereof, a bushing mounted in said bore, a handle secured to said bushing and said body member at the other end of said bore, a rod rotatably mounted in said bore, said rod having a peripheral slot in proximity of said shoulder, washer means received by said peripheral and engaging said shoulder on said side, and a locking portion of said bushing on the other side for preventing longitudinal movement of said rod, a lug mounted on the end portion of said rod, a lock member mounted in said bore, said lock member having a slotted portion receiving said lug member, a knob rotatably mounted on said handle, a lug portion depending from said knob, said bushing having a slot receiving said lug portion for securing said knob and said lock member together, and resilient means urging said knob and said lock member in the direction of said rod and lock said handle and said rod for unitary rotational movement.

5. A cleaning rod for fire arms comprising a body member having a threaded bore and a peripheral shoulder in said bore, a threaded bushing threadedly mounted on said bore, an elongated handle threadedly mounted on said bushing and in engagement with said body member, a rod rotatably mounted in said bore having a peripheral slot at one end portion in proximity of said shoulder, washer means received by said peripheral slot and engaging said shoulder and the end of said threaded bushing for preventing longitudinal movement of said rod, an elongated lug member mounted at said one end portion of said rod, a lock member slidably and rotatably mounted in said bore, said lock member having a slotted portion receiving said elongated lug member, a knob mounted on said handle, a lug portion depending from said knob, said bushing having a slot receiving said lug portion, means securing said knob and said lock member, and resilient means urging said knob and lock member in the direction of said rod whereby said handle and said rod are locked together.

6. A cleaning rod for fire arms comprising body means, a handle secured to said body means and rotatable with said body means as a unit, said body means having a substantially axially disposed bore, a rod rotatably mounted in said bore, locking means mounted in said bore engaging said rod for securing said rod and handle for unitary rotational movement, knob means rotatably mounted on said handle and releasable means operatively engaging said locking means for disengaging said locking means and said rod, said handle remaining secured to said body member whereby said rod may rotate freely of said handle and said body member.

References Cited by the Examiner

UNITED STATES PATENTS

448,259 3/91 Reynolds 327—53
1,081,934 12/13 Wessolek 64—4
2,047,704 7/36 Podolsky 327—53
3,023,040 2/62 Cawley et al. 287—125

MILTON KAUFMAN, Primary Examiner.
CARL W. TOMLIN, Examiner.