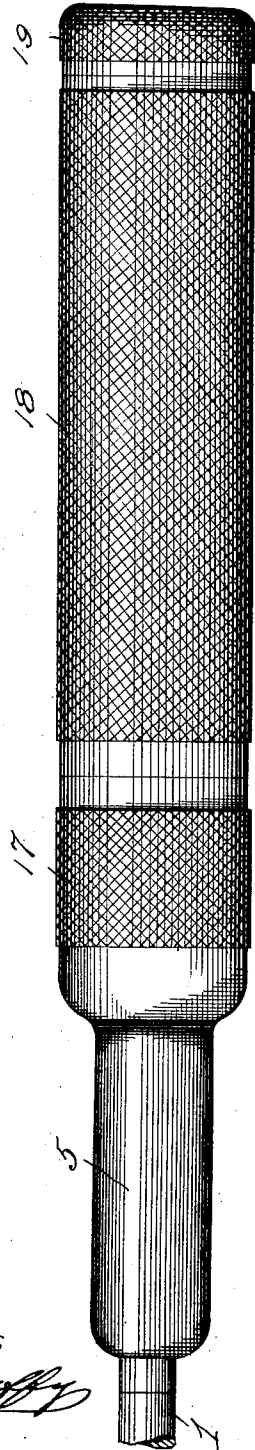


D. L. HUMPHREYS.
RIFLE CLEANER.
APPLICATION FILED APR. 19, 1911.

1,002,992.

Patented Sept. 12, 1911.

FIG. 1.



WITNESSES

W. M. Harper

FIG. 2.

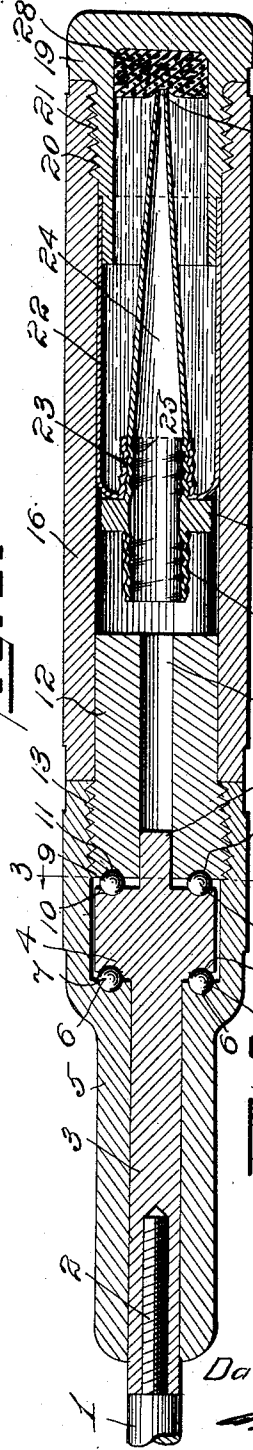


FIG. 3.

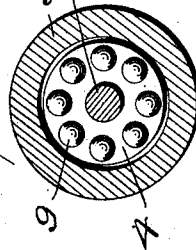
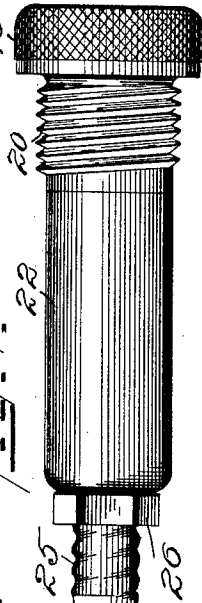


FIG. 4.



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RIFLE-CLEANER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DAVID L. HUMPHREYS, a citizen of the United States, residing at Vallejo, in the county of Solano and State of California, have invented certain new and useful Improvements in Rifle-Cleaners, of which the following is a specification.

This invention relates to a rifle cleaner and one of the principal objects of the invention is to provide a cleaning rod mounted on ball bearings in a rigid handle so that the rod will rotate to permit the swab or cleaning head to rotate and follow the spiral grooves of the rifle bore to thoroughly clean the rifle.

Another object of the invention is to provide a ball bearing rifle cleaner in which the cleaning rod is mounted in a handle on ball bearings, said handle being provided with a detachable oil can.

Another object of the invention is to provide a ball bearing rifle cleaner in which the handle is hollow and provided with an oil can having a reversible discharge tube fitted in the can, said discharge tube having its discharge orifice seated against a cork disk in the handle to form a liquid-tight joint to prevent the oil from leaking from the can in to the handle, said tube being reversible when removed from the handle to provide a convenient oil can.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which,

Figure 1 is a side elevation of the handle portion of the cleaner, the cleaning rod being broken away, Fig. 2 is a central longitudinal section of the same, Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2 looking in the direction indicated by the arrows, Fig. 4 is a side elevation of the oil can removed from the handle and having its discharge tube reversed from the position shown in Fig. 2.

Referring to the drawings for a more particular description of my invention, the numeral 1 designates the cleaning rod which may have any suitable cleaning head at one end. Since this is no part of my present invention, I have broken away the rod and have not shown the cleaning head.

Projecting from the rear end of the cleaning rod is a threaded stem 2, said stem being fitted into a threaded opening in a shank or stem 3 provided with a ball bearing head 4. The head 4 is mounted in a recess in a tube

or nipple 5 forming part of the handle. The nipple 5 is provided with an annular groove or ball race 6 and a series of steel balls 7 are mounted in the raceway 6 and are seated in a groove 8 formed in the head 4. A series of steel balls 9 are mounted in an annular groove 10 in the head 4, said balls being seated within an annular groove 11 in a threaded plug 12 fitted to the nipple 5 as shown at 13. The plug 12 is provided with a longitudinal bore 14, and a stud 15 on the head 4 projects into the bore 14 as shown in Fig. 2. Rigidly connected to the plug 12 is a hollow handle member 16, said member being either brazed or shrunk onto the plug 12 to make a rigid connection. The tube or nipple 5 is milled or roughened upon its outer surface as at 17 and the handle member 16 is also milled or roughened as at 18, so that the handle and tube may be grasped by the hand and held rigid while the rod 1 will rotate on the balls 6 and 9 as the rod is reciprocated within the rifle bore, thus permitting the head to rotate as it is reciprocated for cleaning the spiral grooves and ribs of the bore.

Fitted in the hollow handle member 16 is an oil can comprising a threaded cap 19 provided with exterior screw-threads 20 which fit the interior threads 21 at the outer end of the handle member 16. The cap 19 has rigidly fitted to its inner end an oil receptacle or shell 22 provided with an inwardly extending threaded member 23. The tapering oil discharge tube 24 is reversibly fitted in the threaded member 23 and is provided with spiral corrugations or threads 25 surrounding the tube. A nut or wrench-engaging element 26 is formed on or connected to the tube 24 and a threaded nipple 27 is formed on one end of the tube 24, thus permitting the tube 24 to be reversed and shortened for insertion in the handle member 16 and when removed may be withdrawn from the oil receptacle and reversed as shown in Fig. 4, and connected to said oil receptacle by means of the threaded nipple 27, as will be understood. To prevent the escape of oil from the receptacle into the handle, a disk of cork or other similar compressible material 28 is fitted in the cap 19 against which the discharge opening of the tube bears to provide an oil-tight connection.

The operation of my invention may be briefly described as follows:—The cleaning head or swab is inserted within the rifle bore

and by grasping the handle the cleaning head is rotated as it is reciprocated within the bore. When it is desired to use the oil can the cap 19 is withdrawn from the handle 5 and the tube 24 reversed.

My invention is simple in construction, efficient in use, will operate smoothly for cleaning the spiral bore of a rifle or other gun or ordnance, can be manufactured at low 10 cost, and has convenient provision for an oil can, and will insure the rotation of the cleaning head as it is moved in and out of the bore of the gun.

I claim:—

15 1. A rifle cleaner comprising a hollow handle, a rod fitted within said handle and mounted on ball bearings to rotate relatively to said handle, and an oil can fitted within said handle and provided with a reversible 20 discharge tube.

2. In a rifle cleaner the combination of a cleaning rod, a handle, ball bearings for said cleaning rod within said handle, an oil can within said handle, said oil can comprising 25 a threaded cap, an oil receptacle secured to said cap, and a reversible discharge tube

connected to said receptacle, said cap being provided with a compressible disk for cleaning the discharge opening in said tube when the latter is placed within the handle of the 30 cleaner.

3. A rifle cleaner comprising a hollow handle, a cleaning rod mounted on ball bearings in said handle, and an oil can mounted in said handle, said oil can comprising a 35 threaded cap fitted to the end of the handle, an oil receptacle secured to said cap, said oil receptacle having an inwardly projecting nipple provided with corrugations or screw threads, a detachable discharge tube pro- 40 vided with corrugations or threads, a nut disposed intermediately of said threads to permit the reversal of said tube, and a cork disk fitted within the cap to close the discharge opening of said tube when placed 45 within the handle.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID L. HUMPHREYS.

Witnesses:

H. J. WAY,

J. E. WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."