

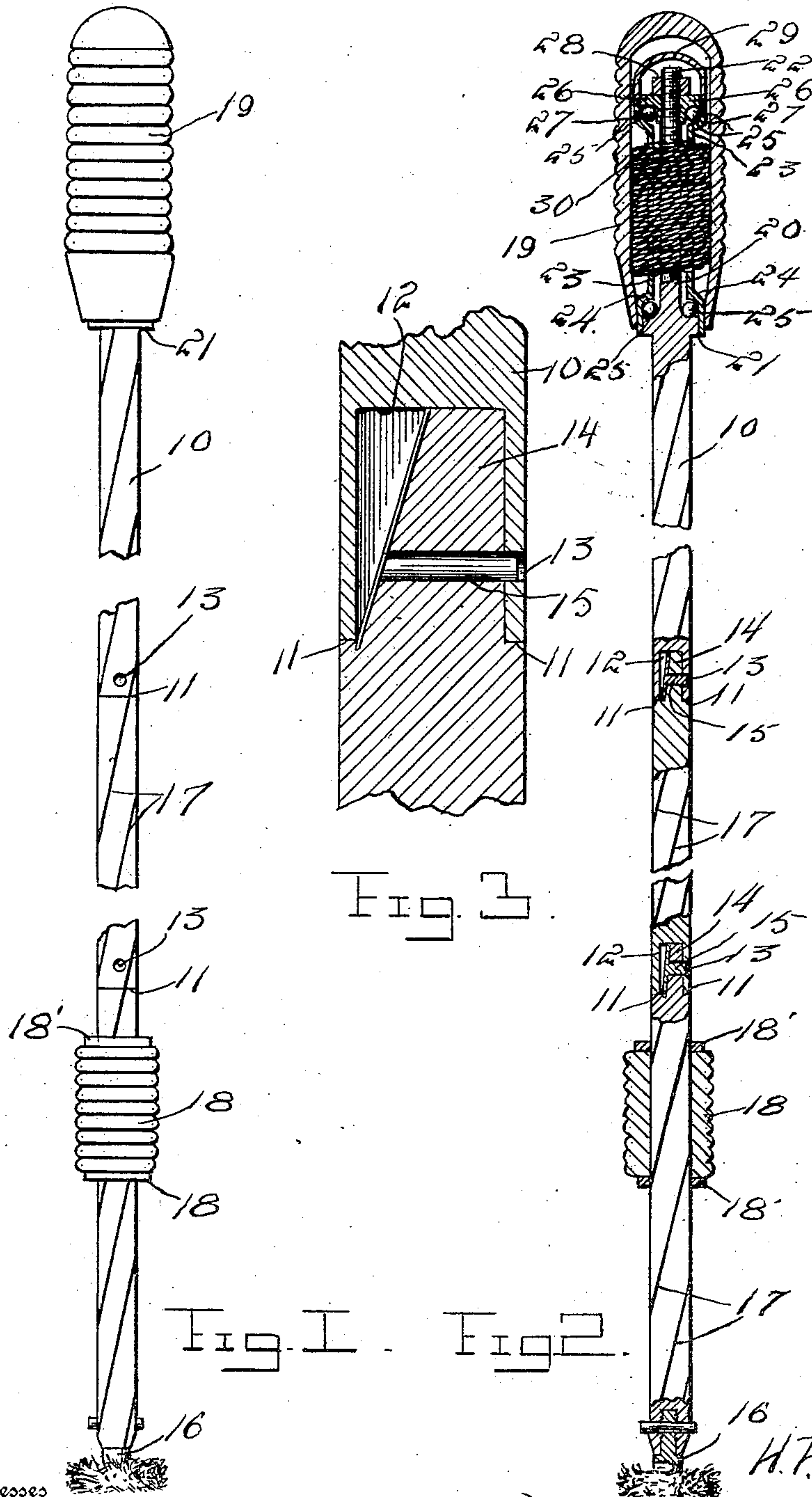
No. 855,297.

PATENTED MAY 28, 1907.

H. P. FITZGERALD.

RAMROD.

APPLICATION FILED NOV. 20, 1906.



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY P. FITZGERALD, OF JAMESTOWN, KANSAS.

## RAMROD.

No. 855,297.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed November 20, 1906. Serial No. 344,312.

*To all whom it may concern:*

Be it known that I, HENRY P. FITZGERALD, a citizen of the United States, residing at Jamestown, in the county of Cloud, State of Kansas, have invented certain new and useful Improvements in Ramrods; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to gun cleaners of the kind or class that operate to rotate the wiper on the end of the rod as it is reciprocated in the gun, so that it will more perfectly perform its work than though it were alone reciprocated in the bore of the barrel.

It is the object of the invention to provide improvements whereby in reciprocating the rod having substantial screw threads of very great pitch formed on its exterior surface it may be forced through a spool or nut, interiorly threaded in a corresponding manner in a relatively easy manner because of the absence of undue friction on the rod in the handle making it a matter of ease to hold the spool against rotation while reciprocating the rod and at the same time effecting rotation of the rod and with it the rotation of the wiper or cleaner.

The nature of the invention may be fully and clearly ascertained from the device portrayed in the annexed drawings, forming a part of this specification, in view of which the invention will first be described with respect to its construction and mode of operation, and then be pointed out in the subjoined claims.

Of the said drawings—Figure 1 is a side elevation of my improved gun cleaner, part of its length being represented as broken out. Fig. 2 is a longitudinal section of the spool and handle, the rod and some of the other longitudinally central parts being represented in elevation. Fig. 3 is a sectional detail, showing the manner of connecting the sections forming the rod.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

Of the drawings 10 designates the rod, which is made in sections as indicated at the lines 11, so that it can be taken apart and put into compact form for carrying it about.

The sectional connection of the parts is formed by making a square socket 12 in

one of the abutting ends, and forming a small hole 13 laterally through the side of the latter, and reducing the other abutting end, making it in the form of a square tenon 14, adapted to fit the socket 12, and mounting on one side of the tenon an outwardly spring-pressed pin 15 in such manner that its outer end may be pressed in even or flush with the surface of the tenon so that the latter can enter the socket, and when the pin comes into register it will spring out into the said hole 13. By pressing inward on the pin and pulling in opposite directions on the sections they may readily be disjointed.

The rod 10 is provided on its lower end with a short part, 16, removably connected therewith in any suitable manner and constructed as a wiper or to be provided with means to act as a wiper or cleaner to the bore of the barrel.

17 designates the screw-thread of great pitch on the exterior of the rod, which latter extends through a spool or nut 18 threaded interiorly in a corresponding manner. The spool 18 is provided with metallic caps 18' at the top and bottom, has annular ribs between said caps, and is adapted to rest on the end or muzzle of the barrel and be held against rotation, while the rod is being reciprocated, which specified operation will cause the rod and gun-cleaner or wiper to be rotated also, as will be entirely understood without further description.

19 is the handle which is exteriorly provided with a succession of annular ribs so that the operator may secure a firm grasp thereon in reciprocating the rod in the gun. The upper end portion 20 of the rod 10 is provided on its lower portion with a smooth shoulder 21, above which it is given a cone or frusto-conical shape and then extends upward as a reduced round part of the rod, being screw-threaded at its extremity, as at 22.

A sleeve, 23, flared at both its upper and lower ends surrounds the part 20 and the cone down to the shoulder 21, forming a sort of raceway, 24, for the hardened steel anti-friction balls 25, adapted to roll between the said raceway and cone. At its upper end the part 20 has a frusto-conical nut, 26, turned thereon between which and the inner face of the flared end 27, balls 25 similar to those before described are adapted to run. A tap 28 is turned down on the nut 26, and a screw cap 29 is turned on the upper end of the sleeve. The sleeve 23 is then wound



with threads or cords between the flared end as represented at 30, until the body of the sleeve is filled out flush with the flared ends, when glue or other cement is applied to the windings and the socketed handle 19 is forced over the cap and sleeve and becomes glued thereto.

Under this construction, with the spool on the muzzle of the gun, and the rod relieved of friction in its connection with the handle, the spool can readily be held stationary while the rod is being reciprocated and rotated as set forth, and no necessity arises for rigidly connecting the spool with the barrel.

What is claimed is:

1. In a device of the type set forth, a rod carrying a wiper at its lower end and designed for manual reciprocation, means for rotating said rod during its reciprocation, said rod being formed at its upper end with an annular shoulder 21 formed to serve as a raceway and a reduced portion beyond said shoulder, a sleeve 23 having flaring upper and lower ends, a nut 26 threaded on said reduced portion and formed to serve as a raceway, ball bearings disposed in said raceways between said flaring ends and said respective shoulder and nut, and a nut 28 threaded on said reduced end and engaging said nut 20.

2. In a device of the type set forth, a rod carrying a wiper at its lower end and designed for manual reciprocation, means for

rotating said rod during its reciprocation, said rod being formed at its upper end with an annular shoulder 21 formed to serve as a raceway, and a reduced portion beyond said shoulder, a sleeve 23 having flaring upper and lower ends, a nut 26 threaded on said reduced portion and formed to serve as a raceway, ball bearings disposed in said raceways between said flaring ends and said respective shoulder and nut, a nut 28 threaded on said reduced end and engaging said nut 26, and a screw cup 29 turned on the upper end of said sleeve.

3. In a device of the type set forth, a rod carrying a wiper at its lower end and designed for manual reciprocation, means for rotating said rod during its reciprocation, said rod being formed at its upper end with a reduced portion, a sleeve surrounding said reduced portion, ball bearings held between said sleeve and said reduced portion, a cord wound about said sleeve, and formed to be coated with glue and a socketed handle surrounding said sleeve, said cord being glued to said handle.

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

HENRY P. FITZGERALD.

Witnesses:

ED PRATT,

MABEL CLEMONS.