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G. S. COOPER

RIFLE CLEANER

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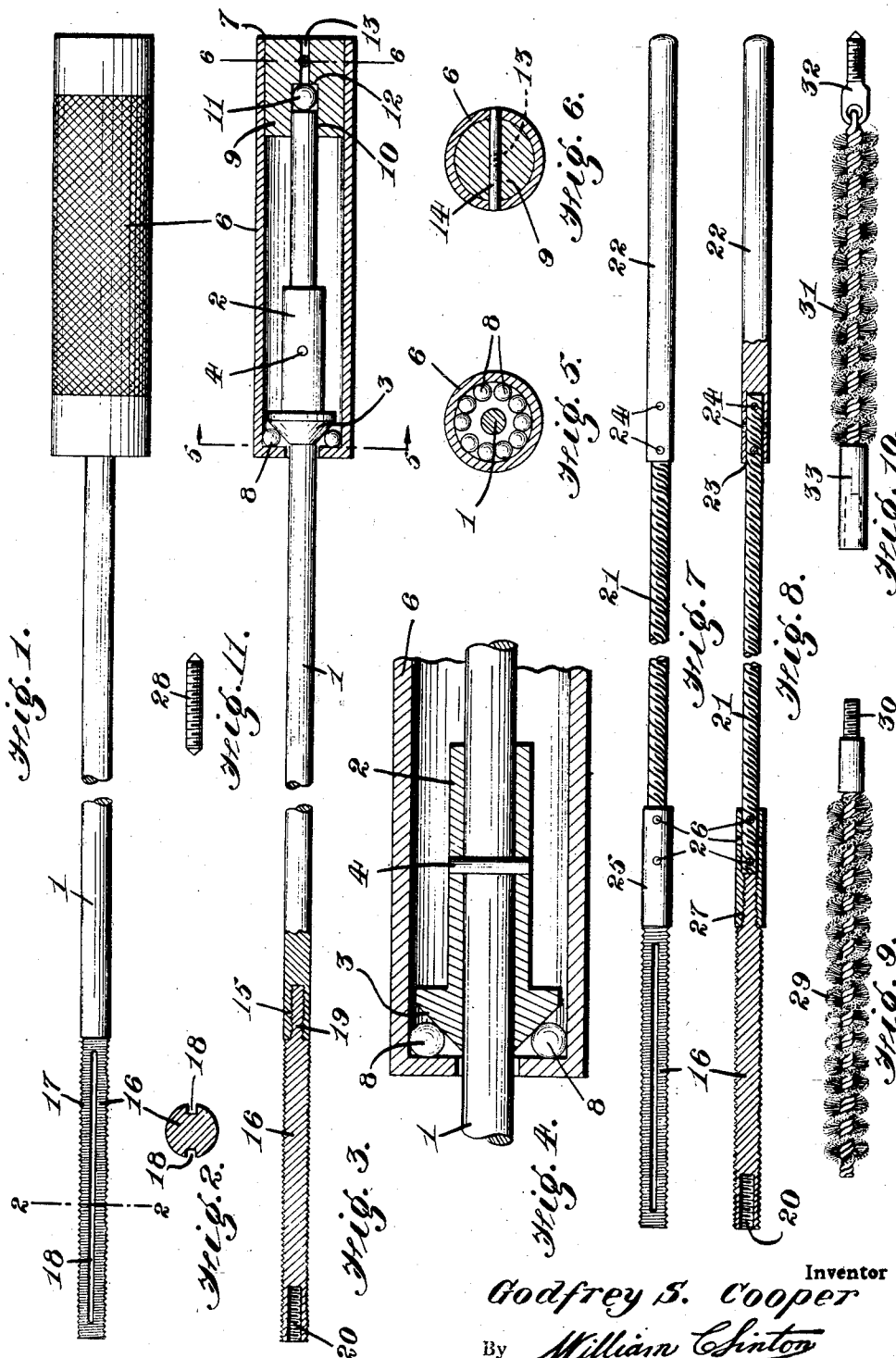

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

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RIFLE CLEANER.

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To all whom it may concern:

Be it known that I, GODFREY S. COOPER, a subject of the King of Great Britain, residing at Vankleek Hill, Province of Ontario, Canada, have invented certain new and useful Improvements in Rifle Cleaners; and I do hereby declare that the following is 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.

The present invention pertains to a novel combination rifle cleaner and has for its object the provision of a device of this character combining in compact form a number of valuable features whereby a complete and serviceable rifle cleaner is produced.

Definitely stated, the object of the invention is to provide:—

For cleaning modern rifles from the breech and thus avoiding injury to the muzzle;

For the cleaning rag or brush following freely the twist of rifling;

For combining rag cleaner and brush and using both at the same time;

For secure attachment of the cleaning rag to its holder and for a long, uniform bearing of the rag in the bore;

An efficient cleaner, convenient to carry and use when away from camp;

Against the misfortune of getting a rag stuck fast in the bore.

This invention provides for cleaning modern rifles from the breech safely and thoroughly, thus avoiding injury to the muzzle, since many rifles cannot be cleaned from the breech with a rigid rod.

The invention is fully disclosed in the following description and in the accompanying drawings in which:

Figure 1 is an elevation of the handle and rod having a rag holder connected thereto;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a longitudinal section corresponding to Figure 1;

Figure 4 is a detail sectional view of the handle;

Figure 5 is a section on the line 5—5 of Figure 3;

Figure 6 is a section on the line 6—6 of Figure 3;

Figure 7 is an elevation of the pull through;

Figure 8 is a sectional view thereof partly in elevation;

Figure 9 is an elevation of a brush;

Figure 10 is an elevation of a special brush; and,

Figure 11 is an elevation of the safety screw.

Reference will now be had to these views by means of like characters which are employed to designate corresponding parts throughout.

The rod 1 is provided near the outer end thereof with a sleeve 2 having a conical head 3. The sleeve is secured to the rod by means of a pin 4 passed through both the members. The sleeve and outer end of the rod are surrounded by a tubular handle 6 having an open end 7. In the inner end of the handle is provided a plurality of ball bearings 8 engaging the end and lateral walls of the handle and also the surface of the conical head. The angle of the head is 45° with its axis so that the contact point of each ball with the head is equidistant from the other two points of contact. In the open end of the handle is inserted a brass plug 9 having a recess 10 which receives the outer extremity of the rod. In the recess is also seated a ball bearing 11 engaging the rear wall 12 of the recess which is squared. A bore 13 is provided in communication with the recess 10 for facilitating access to the ball. The plug is held within the handle by means of a pin 14 passed through both these members, as shown in Figure 6.

The remaining or inner end of the rod is tapped as indicated by the numeral 15. The rag holder 16 is preferably threaded as at 17 and provided with a plurality of longitudinal-grooves 18 which hold the rag from slipping. The threads 17 may be replaced by separated circular and square grooves if desired. One end of the holder is reduced and threaded as at 19 for insertion in the tapped end 15 of the rod. The remaining end is tapped as at 20 for the connection of auxiliary devices thereto, as pointed out below.

The cleaning outfit also comprises a pull through consisting of a linen cord 21 having a weight 22 attached thereto. The connection between the weight and the cord is made by inserting one end of the cord into a bore 23 formed in an end of the weight, and passing pins 24 therethrough. A sleeve 25 is

similarly attached to the other end of the cord by means of pins 26. The sleeve is partially threaded as at 27 for the purpose of receiving the rag holder 16 whereby the pull through is completed.

When the rag holder is secured to the rod as shown in Figures 1 and 3 and the cleaning rag is attached by rolling or winding it on the holder, the cleaner is inserted through the breech of the rifle. The handle is held in the hand and pushed downwardly, whereupon the holder and rod are turned by the rifling in the bore. The ball bearings above mentioned provide for very light and easy turning of the rod with relation to the handle. Adjustment of the bearings may be made by placing a disc between the ball 11 and the squared bottom 12 of recess 10 in the brass plug 9.

The pull through device is used by dropping the weight into the breech and allowing it to pass out through the muzzle. In case it becomes stuck in the bore, it can be removed by threading the screw 28 into the tap of the rod or of another pull through which is inserted into the breech. The screw is then turned into the tap 20 of the rag holder which is caught, whereupon the entire device may either be pulled back out through the breech or pushed out through the muzzle. The screw 28 may also be secured to a suitable copper or iron wire instead of to the rod or rag holder.

For scouring the bore, the standard brush 29 having a threaded end 30 can be used by screwing it into the tapped end 15 of the rod or the tapped end 27 of the pull through. This brush and rag holder 16 may both be used on the rod at the same time.

Figure 10 illustrates a special brush for use with the pull through having at one end a threaded link 32 and at the other end a tapped socket 33. A special brush 31 and rag holder 16 may both be attached to the pull through at the same time for cleaning lever action rifles.

While a specific embodiment of the invention has been illustrated and described, it is to be understood that various alterations in the details of construction may be made without departing from the spirit of the invention as indicated by the appended claims.

Having thus fully described the invention, what I claim as new and desire to protect by Letters Patent is:—

1. A rifle cleaner comprising a rod, a conical member secured thereto at one end; a tubular handle surrounding said conical member, ball bearings provided between said conical member and an end of the handle; the remaining end of the rod being threaded internally; a rag holder having one end reduced and threaded for insertion in the internally threaded end portion of the rod, the remaining end of the rag holder, being threaded internally; and a threaded adaptor or connection for connecting the internally threaded end of the rod with the internally threaded end of the rag holder or of the brush.

2. In a rifle cleaner, a holder for the cleaner patch having one end threaded for connecting with a rod or with a pull through device; having its central portion jagged by threads or circular grooves and also by longitudinal grooves; and having the remaining end portion threaded internally for the connection of auxiliary devices thereto, and more particularly for the purpose of withdrawing the holder from the bore of a rifle in case that it should become struck fast in the bore while being used with a pull through device.

In witness whereof I have hereunto set my hand.

GODFREY S. COOPER.