ATTACHMENT FOR USE IN CLEANING FIREARMS

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This invention relates to an attachment for use in cleaning firearms and more particularly to an attachment which ensures proper alignment of a cleaning rod with the bore of a bolt action rifle.

The conventional method of cleaning the bore of a rifle requires the insertion of a cleaning rod to which a brush or cleaning patches are attached. In the preferred method the cleaning rod is inserted through the breach of the rifle, rather than the muzzle, and it is essential that the cleaning rod be maintained in proper alignment with the bore if damage to the rifling, chamber, and particularly the throat of the rifle is to be prevented.

The use of cleaning rod guides has generally been limited to guides which are inserted in the muzzle of the rifle so as to align a cleaning rod inserted from the muzzle end of the barrel. The attempts to provide a guide which can be used for alignment of a cleaning rod inserted from the breach have not been marked with success, primarily because of the impracticability of the devices suggested both from the standpoint of ease of use and cost of manufacture. Moreover, such devices have been restricted to use in a single type of rifle.

The present invention provides a unique cleaning rod guide which may be manufactured very inexpensively, which is simple to use, and which may be employed in different types of bolt action rifles. It is accordingly a principal object of the invention to provide such an improved device.

A further object of the invention is to provide a device of the foregoing type which in use effectively removes dirt or other foreign matter from the cleaning rod.

A more specific object of the invention is to provide a device of the aforesaid type which may be readily inserted in and removed from bolt actions of the Mauser, Winchester 70, or Remington 721 or 722 type.

The foregoing and other objects of the invention and the manner in which such objects are accomplished will become more readily apparent upon consideration of the following detailed description of the invention taken in conjunction with the accompanying drawings wherein:

Figure 1 is a side elevation view, partly in section, of the device of the invention inserted in a Mauser action and illustrating the manner in which the device aligns the cleaning rod with the bore of the rifle;

Figure 2 is a plan view, partly in section, of the structure illustrated in Figure 1;

Figure 3 is a side elevation view, partly in section, illustrating the manner in which the device of the invention is inserted in an action of the Winchester 70 type; and

Figure 4 is a longitudinal sectional view of the device of the invention and illustrating its relationship with a cleaning rod.

Briefly stated, the invention utilizes a main sleeve which is inserted within the rear bolt bearing of the rifle after the bolt has been removed. The device incorporates means for removably locking the sleeve within the receiver of different types of bolt action rifles. Internally of the main sleeve is fixed a soft inner sleeve through which the cleaning rod passes and which removes dirt or foreign matter from the cleaning rod. The device has a central bore formed in material more rigid than the soft sleeve and which aligns and guides the cleaning rod.

Referring now to the drawings, the device of the invention, generally designated by reference numeral 10, comprises a main sleeve 12, which may be formed from a suitable metal, and which preferably has a stepped bore with a portion 14 of smaller diameter and a portion 16 of larger diameter. Within portion 16 is located a soft inner sleeve 18 which may be formed of felt or similar material. Sleeve 18 has an outer diameter substantially the same as the inner diameter of the bore portion 16 so that it may be inserted within the bore fairly snugly. A washer 20 (which broadly may be termed a sleeve) of a harder material, such as metal, is preferably inserted within the bore portion 16 before the soft sleeve 18 to prevent the soft sleeve from being forced past the step 22 at which bore portions 14 and 16 meet. Behind the soft sleeve 18 is inserted a guide sleeve 24 formed of a material harder than the sleeve 18, such as wood. Sleeve 24 has substantially the same outer diameter as sleeve 18 and washer 20. Sleeves 18, 20, and 24 have central openings which are aligned to provide a central bore 26 through which a cleaning rod, indicated in phantom at 28, may pass. The inner diameter of the portions of the bore 26 in sleeves 20 and 24 is only slightly larger than the outer diameter of the cleaning rod 28, so that the cleaning rod is closely guided by these bore portions. The inner diameter of the bore portion through the soft sleeve 18 is slightly smaller than the outer diameter of the cleaning rod 28 so that the cleaning rod must expand this bore portion in passing through the soft sleeve, whereby a wipping action is exerted on the cleaning rod by the soft sleeve. The assembly of the sleeves 18, 20, and 24 may be held in place within the main sleeve 12 by a set screw 30, which is threaded radially into the main sleeve and which engages the outer surface of sleeve 24. For a purpose to be described, the main sleeve 12 has a circumferential groove 32, a radial projection formed by the head of a screw 34 threaded radially into the sleeve, and an outward enlargement 36 at the rear end of the sleeve.

Referring now to Figures 1 and 2, wherein so much of a Mauser action is illustrated as is required for explanation, the device 10 is shown inserted within the rear bolt bearing 38 of the receiver, the bolt having been removed. The conventional chamber housing 40, which receives the end of the barrel 42, and the trigger 44 are shown for orientation purposes. The outer diameter of the main sleeve 12 conforms closely to the bolt bearing surfaces so that the sleeve 12 is concentric with the bore of the rifle. Slightly behind the rear bearing 38 is an abutment 46 which mates with the abutment constituted by the forward edge of the enlargement 36 and limits the insertion of the sleeve 12 within the bearing 38. When the sleeve 12 reaches its point of maximum insertion, the circumferential groove 32 is located to receive the ejector 48 (Fig. 2) of the Mauser action, and the ejector holds the device of the invention within the bearing 38. When the device is used with a rifle having a Mauser action, the screw 34 is oriented to the right side of the action as viewed from the top in Figure 2. In this position, the screw does not interfere with the ejector 48. To release the sleeve 12 for removal, the ejector lever 50 is turned about its pivot 52, withdrawing the ejector 48 from the groove 32 and permitting the sleeve 12 to be slid rearwardly from the bearing 38.

Figure 3 illustrates the insertion of the device of the invention in a rifle having an action 54 of the Winchester 70 type. For such use, the screw 34 is oriented to the left, instead of to the right, as in the Mauser action, and the bolt stop 56 engages the screw and holds the sleeve.
12 in place. The bolt stop is withdrawn downwardly by pressing forwardly on the spring biased button 58 in the usual manner. The invention is held in Remington 721 or 722 in the same manner, but the bolt stop is released by a button above the trigger.

To utilize the invention, the cleaning rod 28 is first inserted through the bore 26 from the rear, as shown in Figure 4, and is forced all the way through the sleeve 12 until it protrudes from the forward end of the sleeve (about 2 inches). The patches or cleaning brush are then attached to the forward end of the cleaning rod in the conventional manner, and the sleeve 12 and the cleaning rod are then inserted in the bearing 38 and assumed the position illustrated in Figure 1. Since the sleeve 12 is accurately aligned with the bore of the rifle, the central bore 26 of the sleeve accurately guides the cleaning rod 28 through the bore of the rifle, the forward end of the cleaning rod being further guided by the patches or brush. The cleaning rod may then be reciprocated within the rifle bore to clean the same in the usual manner.

When the cleaning has been accomplished or when fresh patches are required, the cleaning rod is withdrawn to the position of Figure 1, and the sleeve 12 is then released in the manner previously described so that the rod and sleeve may be removed as a unit from the rifle action. The patches or brush are then removed from the cleaning rod, and the cleaning rod is withdrawn from the sleeve 12. In moving through the sleeve 12, either in withdrawal or insertion, the cleaning rod is wiped by the soft sleeve 18, thereby effectively removing dirt or other foreign material. Sleeve 18 may be renewed when required.

It will thus be apparent that the device of the invention provides an effective means for guiding a cleaning rod inserted through the breech end of a rifle, which may be one of several bolt action types. By virtue of the simple construction of the invention, manufacturing costs are low, and hence a practical commercially feasible device is provided. While a preferred embodiment of the invention has been shown and described, it will be apparent to those skilled in the art that modifications can be made in this embodiment without departing from the principles and spirit of the invention, the scope of which is defined in the appended claims. Accordingly, the foregoing embodiment is to be considered illustrative, rather than restrictive of the invention, and those modifications which come within the meaning and range of equivalency of the claims are included therein.

We claim:

1. A cleaning attachment for firearms of the bolt action type comprising a main sleeve adapted to be inserted in the rear bolt bearing, said sleeve having means to hold it releasably in said bearing, said sleeve having a soft sleeve therein with a central bore having a surface adapted to engage and wipe a cleaning rod inserted through the bore.

2. The attachment of claim 1, said main sleeve having a stepped bore, the forward portion of which is smaller in diameter than said soft sleeve and the rearward portion of which is large enough in diameter to accommodate said soft sleeve, said soft sleeve being held within said main sleeve between a pair of hard sleeves fitting snugly within said rearward portion and having a central bore aligned with the central bore of the soft sleeve.

3. The attachment of claim 1, said holding means comprising a groove on the outer surface of said main sleeve located to receive the ejector of a Mauser action.

4. The attachment of claim 1, said holding means comprising a projection on the outer surface of said main sleeve located to engage the bolt stop of an action such as a Winchester 70 or Remington 721.

5. The attachment of claim 1, said main sleeve having an abutment near its rear end adapted to engage an opposing abutment near said rear bearing to limit insertion of said main sleeve in said bearing.

6. A cleaning attachment for a rifle of the Mauser bolt action type, comprising a sleeve having a central bore adapted to receive and closely guide a cleaning rod, said sleeve being adapted for insertion in the rear bolt bearing of the rifle and having a circumferential groove located to receive the ejector of the rifle to hold the sleeve in the bearing.

7. The attachment of claim 6, said sleeve having an outwardly enlarged rear end adapted to engage an abutment near said bearing and limit the insertion of said sleeve in the bearing.

8. The attachment of claim 7, said sleeve further having a projection on its outer surface in spaced relation to said outwardly enlarged rear end adapted to engage the bolt stop of an action such as a Winchester 70 or Remington 721.

9. A cleaning attachment for a rifle of the Winchester 70, Remington 721 or 722 bolt action type, comprising a sleeve having a central bore adapted to receive and closely guide a cleaning rod, said sleeve being adapted for insertion in the rear bolt bearing of the rifle and having an enlarged rear end adapted to engage an abutment contiguous to said bearing and limit insertion of said sleeve in said bearing, and further having a projection located to pass beyond and lock in front of the spring biased bolt stop of the rifle when said enlarged end engages said abutment to hold the sleeve in the bearing, said sleeve being adapted to be released from the bearing by release of said spring biased bolt stop.

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