United States Patent [19]

Walker

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[45] **July 24, 1973**

[54] **MUSKET BALL INSERTION TOOL**

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[52] **U.S. Cl.** ..... **42/90**, 42/1 R

[51] **Int. Cl.** **F41c 27/00**

[58] **Field of Search** ..... 42/1 R, 51, 85, 87, 42/90

[56] **References Cited**

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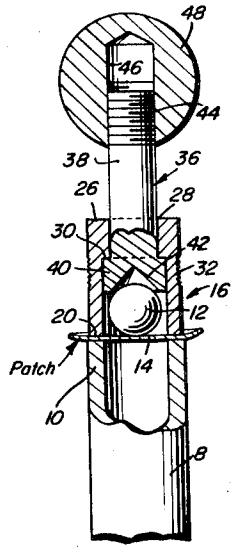
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[57] **ABSTRACT**

A manually usable tool embodying facilities for lining up and piloting a musket ball or minie ball into the muzzle of the barrel of a musket. It comprises a readily applicable adapter, more particularly, a sleeve which provides a chamber or receiver for the musket ball or minie ball. An end of the sleeve abuts and registers with the terminal end of the musket. The outer end of the sleeve is provided with a shouldered guide to accommodate a shouldered head on an enclosed end portion of a plunger. The plunger embodies a rod shiftably slidable in the guide, the rod having an exposed end provided with a ball-shaped or an equivalent finger grip or knob. The plunger provides ball-ejecting means which serves to project the ball beyond the sleeve and to tamp it and its patch, if desired or used, into the coacting end portion of the muzzle prior to bringing the usual ramrod into play.

4 Claims, 4 Drawing Figures



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Fig. 1

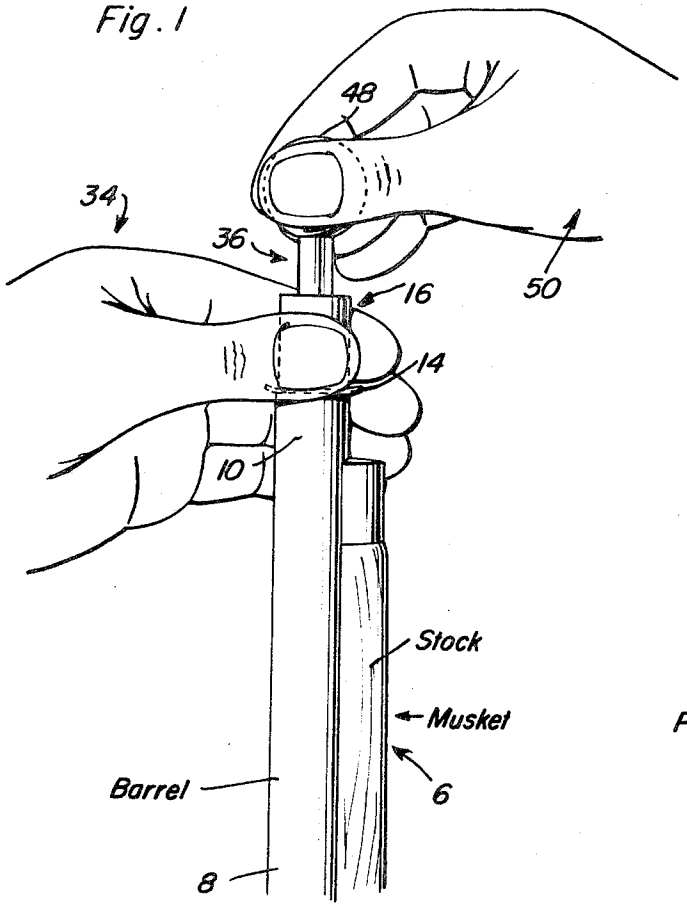


Fig. 2

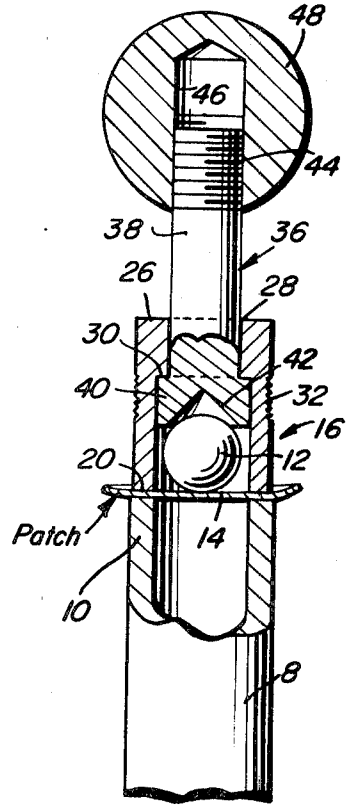


Fig. 3

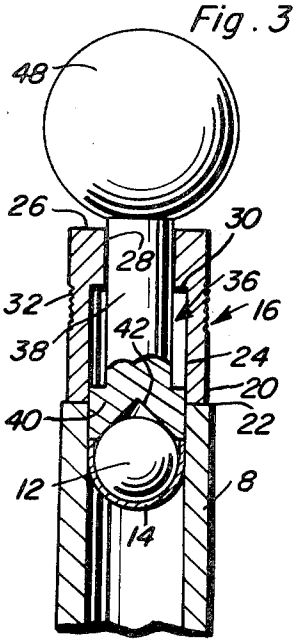
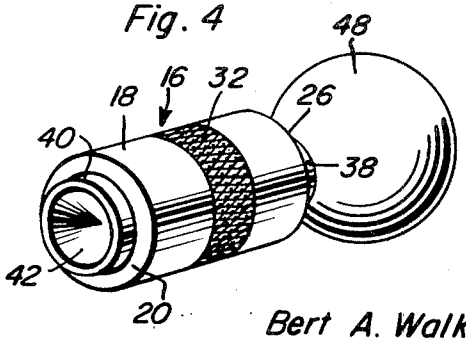


Fig. 4



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MUSKET BALL INSERTION TOOL

This invention relates to special purpose accessories such as are expressly designed and structurally adapted to be used by and for the pleasure of muzzle-loading enthusiasts, hobbyists and sportsmen who advocate and desire to perpetuate skills which have to do with popularly used muskets and pertains, more particularly, to a new and useful musket ball or minie ball handling, inserting and starting tool.

Recognition and acceptable promotion of muzzle-loading practices is desirable in the field of endeavor under consideration because of the fact that makeshift procedures such as are usually resorted to are often time consuming and exasperating. For example, choosing a satisfactory powder charge and ball can and often does pose a problem and can interfere with expedient placement of the musket ball or minie ball in the muzzle of the barrel. An object of the present invention is to pave the way for musket ball or minie ball handling difficulties and, in so doing, to provide a practical and feasible hand tool which achieves the step-by-step result desired and assists the shooter in satisfactorily competing for efficient shooting and affords a chance to win a prized trophy.

Persons conversant with the field of endeavor under consideration are aware that because of ever varying and makeshift procedures followed, painstaking care and learned skills are often necessary with respect to lining up and starting the ball in the muzzle. It follows that is is an object of the present invention to provide an easy-to-grip adapter sleeve and a readily grippable plunger which is slidingly oriented with the sleeve and which has a recessed head which cooperates with and imposes the desired end-thrust action on the ball.

Briefly the tool is an innovation in that it is characterized, broadly stated, by an adapter sleeve, that is a sleeve the hollow portion of which provides a receiver or chamber for the ball. One end of the sleeve is flat to abut the terminal end of the muzzle of the barrel. The other end is apertured and fashioned into a first shoulder to cooperate with a second shoulder which is a part of the slidable end of the plunger rod. The rod extends through and beyond the guide where it is threaded, as is usually the case, to provide for the attachment thereto of a suitably screw-threaded ball. This ball is sufficiently large that it provides a knob or finger grip which facilitates handling the device. The sleeve is held by the fingers of one hand and lined up with the barrel. The finger grip or knob is held by the fingers of the other hand and the two parts can thus be manipulated to eject the ball from the sleeve into the end portion only of the muzzle prior to bringing the usual ramrod into play.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIG. 1 is a view in elevation showing an end portion of the barrel, more particularly the muzzle and showing the two-part hand tool and how the sleeve is held with the fingers in one hand and the knob or fingergrip is held by the fingers in the other hand to achieve the desired ball inserting and starting step.

FIG. 2 is an enlarged view with parts in section and elevation detailing the parts appearing in FIG. 1 and showing the ball in its initial position, that is, before it is projected into the muzzle.

FIG. 3 is a view similar to FIG. 2 and showing the ball and its patch, if desired, projected and lodged in the muzzle and readied for the aforementioned ramrod.

FIG. 4 is a view in perspective on an appropriately enlarged scale showing the hand tool by itself.

With reference to the views of the drawing, the barrel of the musket **6** is denoted by the numeral **8.** The muzzle end of the barrel is denoted at **10.** The conventional musket ball is denoted (FIGS. **2** and **3**) by the numeral **12.** The aforementioned disc-like or equivalent patch is denoted at **14.** The patch is shown in its initial position in FIG. **2** and in its inserted position in FIG. **3** in which position it is partly wrapped by the cloth or equivalent patch. It is pointed out that in some instances the patch is not desired and thus is not used. Also, the tool of this invention may also be employed to insert a minie ball into the muzzle end of the barrel.

The tool, which is constructed as detailed in FIGS. **2** to **4,** inclusive, and which is used in the manner illustrated in FIG. **1** is characterized by a primary component part which is referred to broadly as an adapter **16** and which, more specifically, comprises a cylindrical sleeve **18** of requisite length and transverse cross-section. The sleeve is usually slightly smaller in diameter than the outside diameter of the barrel **8** as is evident from FIGS. **2** and **3.** One end portion **20** of the sleeve is smooth and planar and suitably abuts a coinciding end portion **22** of the muzzle. The hollow portion **24** provides a chamber for the ball **12** when it is in the locale shown in FIG. **2.** The other end portion of the sleeve is differentiated by the numeral **26** and is fashioned into an appropriate guide **28** and an accompanying limit stop shoulder **30.** The median exterior portion of the sleeve is preferably knurled as at **32** to facilitate gripping the sleeve with the fingers of one hand, the hand **34** in FIG. **1.** This hand serves to position the sleeve and hold it in place when in the positions appearing in FIGS. **1** and **2** and then again in FIG. **3.** The aforementioned ejecting means comprises a plunger which is denoted, generally stated, by the numeral **36.** This plunger comprises a rod or stem **38** which is properly and shiftably slidable in the guide. This rod is provided at one end with an enlarged inner head **40** which constitutes a shoulder and which has a conical recess or pocket **42** for end-thrust association with the ball. A portion of the stem or rod extends through and beyond the guide where it is screw-threaded as at **44** in FIG. **2** and is screwed into a screw-threaded socket **46** provided in a suitably enlarged ball **48** which constitutes a knob and also a grip for the fingers of the hand **50** (FIG. **1**).

The manner in which the component parts are constructed and assembled to provide the manually usable ball starter implement or tool will be clear from the several views of the drawing. The manner in which the adapter sleeve is positioned and held is shown in FIG. **1.** Also the use of both hands is evident in FIG. **1.**

FIG. **2** shows how the ball **12** can be pocketed in the available chamber **24** and how the ball and patch, if desired, are coordinated with each other and associated with the muzzle and tool, respectively.

Assuming that the tool is positioned and used in the way illustrated in FIG. **1** it will be evident that the re-

cessed end of the plunger, that is the recessed head **40,** comes into play and exerts end-thrust pressure on the ball in a manner to lodge the ball and its patch, if used, in place as shown in FIG. **3.** It follows that this simple and practical tool well serves to start a musket ball or minie ball down the barrel of a musket and results in a more efficient and reliable entry of the ball into the barrel prior to using the ramrod (not shown).

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A hand tool for lining up and piloting a musket ball into a muzzle of a barrel of a musket comprising: a sleeve providing a chamber for reception and temporary retention of said ball, said sleeve being adapted to be gripped by one hand of a user and positioned and held in communicating alignment with the aforementioned muzzle, and ball ejecting means operatively carried by said sleeve and engageable with said ball and which when gripped and actuated by the other hand serves to project the ball beyond the sleeve and tamp it into said muzzle prior to bringing a ramrod into use, said sleeve having one end designed and adapted to abut and align itself with a terminal end of said muzzle, the other end of said sleeve having an axial guide, said ejecting means comprising a plunger embodying a rod shiftably slidable in said guide and having a first head at one end confined and slidable in said sleeve and having end thrust contact with said ball, and also having a second head at its other end which constitutes a fingergrip.

2. The hand tool defined in and according to claim **1,** and wherein said guide is provided with a limit stop shoulder, said first head being shiftable toward and from and being adapted to strike said shoulder.

3. A hand tool for lining up and piloting a musket ball into a muzzle of a barrel of a musket comprising an adapter sleeve providing a chamber for reception and temporary retention of an insertable and projectable ball, said sleeve being of a length and diameter that it can be conveniently gripped by a user, said sleeve having a proximal end which is planar and adapted to register with and abut a terminal end of the aforementioned muzzle, one end of said sleeve being centrally apertured and providing a shouldered guide, and ball ejecting means operatively carried by said one end portion of said sleeve and temporarily engageable with said ball and which when gripped and actuated serves to project the ball beyond the other end of said sleeve, said ejecting means comprising a plunger embodying a rod, said rod having a head at one end which is confined and slidable in said sleeve and which has an axial recess designed and adapted to provide end-thrust contact with a surface portion of said ball, said rod also having a gripping and actuating head at its other end, said gripping and actuating head constituting a fingergrip.

4. The tool defined in and according to claim **3** and wherein an outward end portion of said rod is screw-threaded, said gripping and actuating head being detachably connected with said screw-threaded end portion of said rod, being ball-like, and providing a knob-type fingergrip.

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