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MARKSMANSHIP INSTRUCTION ATTACHMENT FOR FIREARMS

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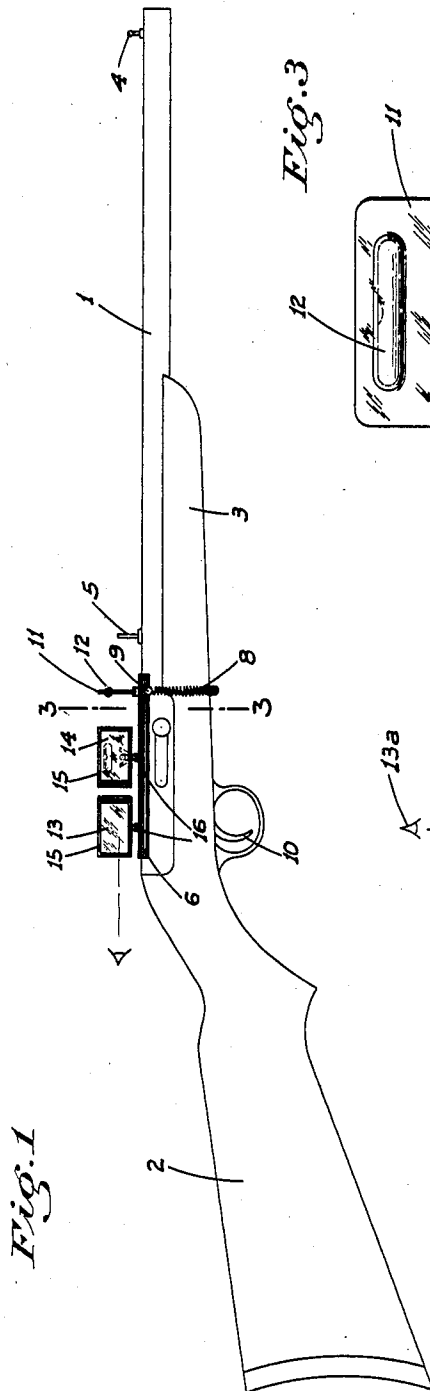


Fig. 3

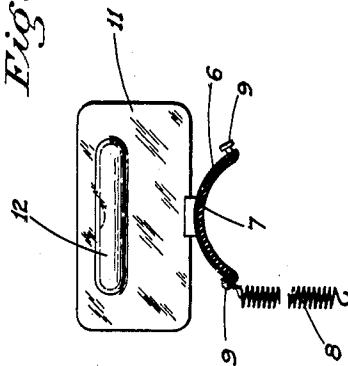
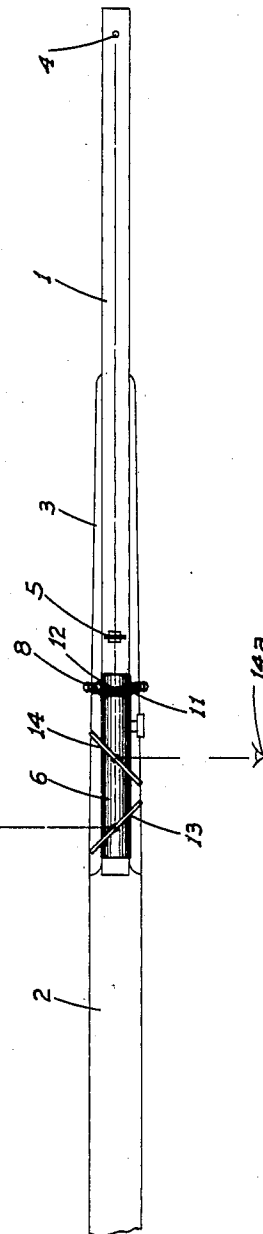


Fig. 2



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MARKSMANSHIP INSTRUCTION ATTACHMENT FOR FIREARMS

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4 Claims. (Cl. 88—2.2)

This invention relates in general to an attachment for firearms and especially rifles; the invention being directed in particular to a marksmanship instruction or checking attachment.

The principal object of the invention is to provide an attachment for a firearm, which enables a person other than the marksman to visually observe and check the alinement of the gun sights simultaneously with the marksman taking aim; such attachment being arranged so that such other person can accomplish such check from a point laterally of the firearm and without interference to the marksman.

A further object of the invention is to provide a checking attachment as above which includes a transparent and yet reflecting medium disposed across the line of sight, and at such angle that the observer at a lateral point is able to see the front and rear sights of the firearm, together with the target, in the same relation as the marksman.

An additional object is to mount a spirit level on the attachment in such position that it is not only visible to the marksman but also to the observer; such spirit level being positioned so as to indicate undesirable lateral cant of the firearm to one side or the other.

A further object of the invention is to produce a simple and inexpensive device, and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a side elevation of the attachment as applied to a rifle, the latter being shown somewhat diagrammatically.

Figure 2 is a top plan of the attachment as in use.

Figure 3 is an enlarged cross section on line 3—3 of Fig. 1, showing the attachment removed from the rifle.

Referring now more particularly to the characters of reference on the drawing, the attachment is here shown in place on a rifle which includes, as usual, a barrel 1, a stock 2, a hand grip 3, a front sight 4, and a rear sight 5; the rear sight, as is conventional, being mounted some distance ahead of the rear end of the barrel.

The attachment which comprises this invention is constructed and mounted as follows:

An elongated strip-like plate 6, which is con-

cave in cross section thus forming an elongated saddle, is seated on barrel 1 rearwardly of the rear sight 5. The concavity of the plate will of course depend on the sectional shape of the barrel, and if desired the plate may be fitted with a friction lining 7.

The plate 6 may be attached to the barrel in any suitable and convenient manner, and, for the purpose of illustration, the plate is here secured in place by a helical tension spring 8 which connects at its ends on headed pins 9 adjacent the sides of the plate and thence extends about the grip 3 ahead of trigger 10. One end of the spring is releasable from the corresponding pin to permit removal of the attachment.

Adjacent its forward end plate 6 is fitted with a rigidly mounted, vertical, and transversely extending pane 11 of transparent material such as heavy glass; such pane being substantially rectangular and having a horizontally disposed spirit level 12 formed therein in a plane above the normal line of sight along the gun sights.

Rearwardly of fixed pane 11 and in longitudinally spaced relation thereto, and to each other, I mount a pair of transparent panes 13 and 14 respectively; these panes preferably being of glass polished to produce a reflective surface, and being of a size so that the reflective surface thereof is substantially the same size and configuration as pane 11. The reflector panes 13 and 14 are provided with a protective border or frame 15, and each of said panes is mounted on plate 6 by means of a ball and socket 16. The panes 13 and 14 are in substantial horizontal alinement with pane 11, and when in use panes 13 and 14 are adjusted to opposed acute angles to the line of sight, as shown.

In use, it will be seen that observers to both sides of the rifle, as indicated diagrammatically at 13a and 14a respectively, and without interfering with the marksman, have a reflected view in the corresponding reflector pane of the same elements seen by the marksman; namely, the front and rear sights, the target, and the spirit level 12. It is thus possible for an observer on either side of the rifle, and upon proper adjustment of the corresponding reflector pane, to accurately check on the marksman's aim, timing, and concentration as well as his ability to hold the gun without lateral cant. In this way instruction of students is greatly facilitated, much time is saved, accuracy is assured, and errors otherwise difficult to detect are soon ascertained and remedied.

The present invention also is useful in connec-

tion with "sighting in" firearms, as well as checking ammunition; the observers, together with the marksman, cooperating to the end that the above tests may be accurate.

It will be obvious that this invention will provide many other advantages in connection with the use of firearms.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. In combination with a firearm including a barrel having a front and rear sight mounted thereon; an elongated supporting plate resting lengthwise on top the barrel rearwardly of the rear sight, means securing said plate on the barrel, three upstanding, transverse panes of transparent material disposed above but adjacent said plate and in longitudinally spaced relation, means rigidly mounting the forward pane in connection with the plate, a normally horizontal spirit level formed in said forward pane adjacent but clear of the line of sight, means mounting the other panes on the plate for universal adjustment; the forward face of said other panes forming reflecting surfaces, and said other panes intersecting the line of sight and being disposed at opposite acute angles thereto.

2. In combination with a firearm including a barrel having a front and rear sight mounted thereon; a pane of transparent material, means mounting said pane in upstanding transverse position on top of the barrel rearwardly of the rear sight, the forward surface of said pane forming a reflecting surface, said pane intersecting and being disposed at an acute angle to the line of sight, another pane of transparent material, means mounting said other pane in upstanding

transverse position on top of the barrel at right angles thereto intermediate said first named pane and the rear sight, said other pane intersecting the line of sight, and a normally horizontal transverse spirit level formed in said other pane within the field of vision of said reflecting surface of said first named pane and adjacent but above the line of sight, whereby an observer at a lateral point relative to said first named pane may simultaneously view an image of said sights and an image of the spirit level in said reflecting surface.

3. In combination with a firearm including a barrel having a front and rear sight mounted thereon; a pane of transparent material, means mounting said pane in upstanding transverse position on top of the barrel rearwardly of the rear sight, the forward surface of said pane forming a reflecting surface, said pane intersecting and being disposed at an acute angle to the line of sight, a normally horizontal transverse spirit level, means mounting said level on top of the barrel ahead of said pane within the field of vision of said reflecting surface thereof, adjacent but clear of the line of sight, whereby an observer at a lateral point relative to said pane may view an image of said sights and an adjacent image of said spirit level in said reflecting surface; said pane being mounted for universal adjustment.

4. In combination with a firearm including a barrel having a front and rear sight mounted thereon; a supporting member resting lengthwise atop the barrel rearwardly of the rear sight, means securing said member in connecting with the barrel, two upstanding transverse panes of transparent material disposed above but adjacent said member in longitudinally spaced relation, means rigidly mounting the forward pane in connection with the member, a normally horizontal spirit level formed in said forward pane but clear of the line of sight, means mounting the other pane on the member for universal adjustment; the forward face of said other pane forming a reflecting surface, and said other pane intersecting the line of sight and being disposed at an acute angle thereto.

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