United States Patent [19]

Rubin et al.

[11] **3,724,800**

[45] **Apr. 3, 1973**

[54] **TELESCOPIC SIGHT MOUNTING**

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[22] Filed: **Oct. 8, 1971**

[21] Appl. No.: **187,628**

[52] **U.S. Cl.** .....**248/205 R,** 33/50 R

[51] **Int. Cl.**.....**F41g 1/38**

[58] **Field of Search** .....248/205 R, 229, 226 R, 186; 33/50 R, 50 A

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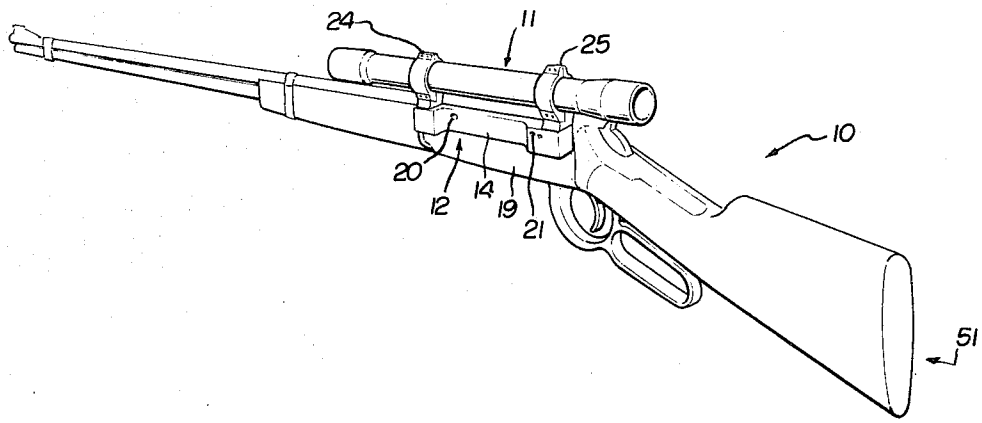
Primary Examiner—J. Franklin Foss

Attorney—Cullen, Settle, Sloman & Cantor

[57] **ABSTRACT**

A telescopic sight mounting formed of a mounting bar for fastening upon the side of a rifle, and a pair of ring-type scope holding clamps fastened upon the upper edge of the bar, with the forward clamp being pivotable about a vertical axis, and a rear clamp being arcuately movable in a horizontal plane for horizontally adjusting the angle of the scope relative to the rifle, and with the means for holding and moving the rear clamp being normally concealed by the clamp itself.

5 Claims, 8 Drawing Figures



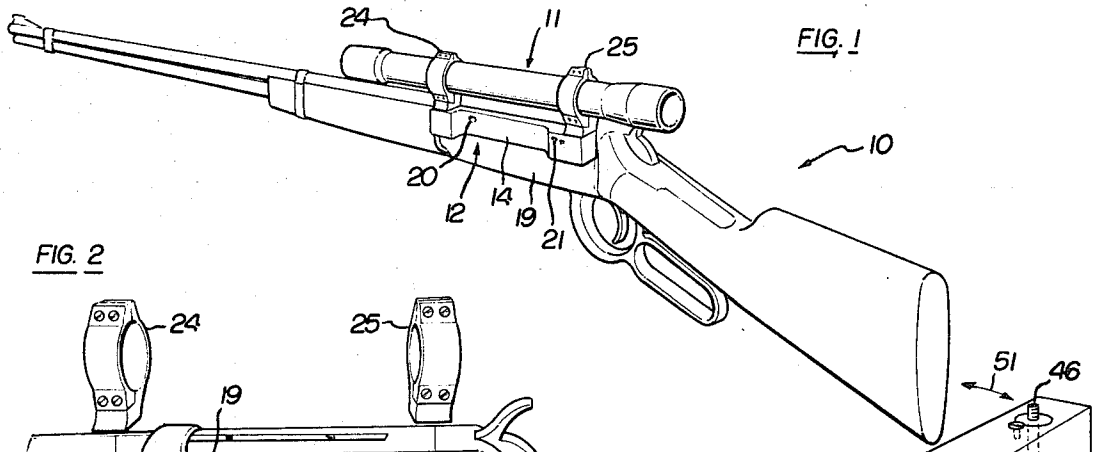


FIG. 1

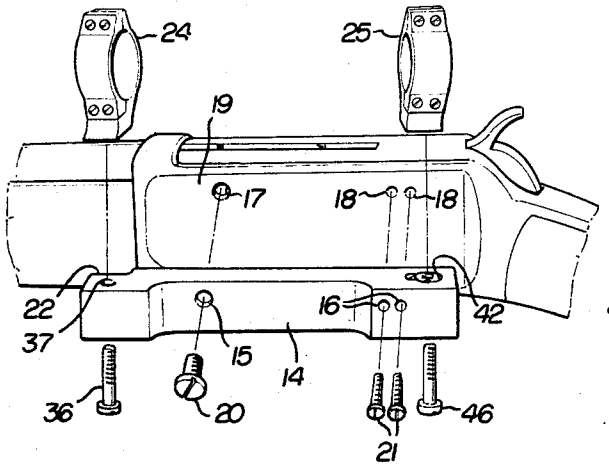


FIG. 2

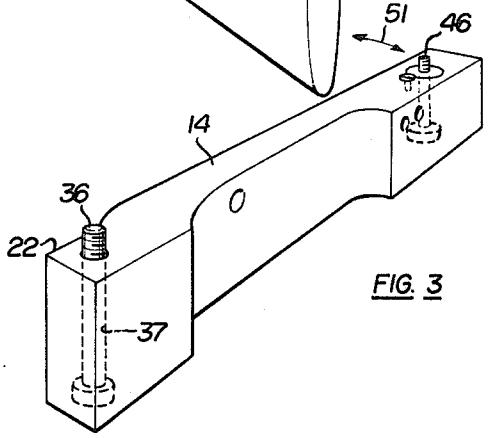


FIG. 3

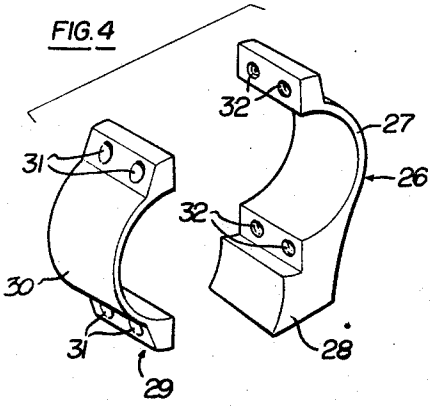


FIG. 4

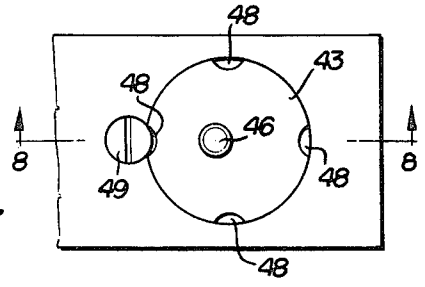


FIG. 7

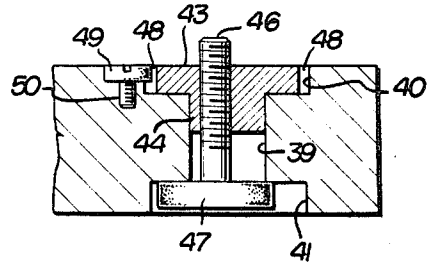


FIG. 8

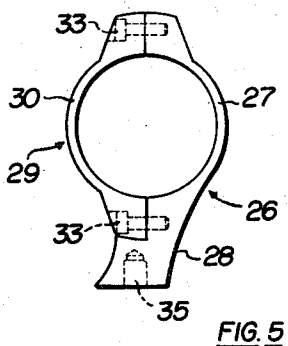


FIG. 5

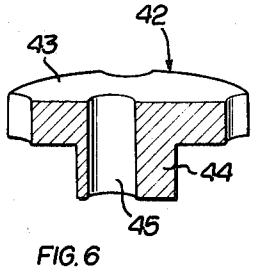


FIG. 6

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TELESCOPIC SIGHT MOUNTING

BACKGROUND OF INVENTION

The invention herein relates to a telescopic sight mounting which is an improvement of the types shown, for example, in our prior U.S. Pat. No. 3,463,430 granted Aug. 26, 1969 and in the prior patent to Williams No. 2,854,748 granted Oct. 7, 1958.

The device disclosed in our own earlier patent above, includes a bar fastened across the top of the receiver portion of a bolt action rifle, with ring-type clamps secured to the bar for holding a scope above and in parallel alignment with the rifle barrel. For certain types of rifles, as for example the so called "Winchester Model No. 94," it is not practical to arrange the mounting bar above the barrel or receiver because of the nature of the rifle construction. Here, it is desirable to mount the bar upon the side of the receiver of the rifle.

Thus, the Williams patent mentioned above shows a mounting bar, upon which the clamps are secured, fastened to the side receiver cover plate of the rifle. This prior construction, however, has the disadvantage of requiring the gunsmith to drill and tap accurately formed holes in the side receiver plate, requiring considerable labor and expense.

Additionally, with these types of rifle telescopic sight mounts, it is desirable to provide some means for adjusting the mounted telescopic sight in a horizontal plane, parallel to the bore of the rifle, for accurate alignment between the scope axis and the barrel axis. This type of alignment is required only rarely, but is desirable to have available when needed.

In the foregoing types of sight mounts, as for example, in the above Williams patent disclosure, a means is provided for moving the scope relative to the rifle. However, it has been conventional to leave such mounting adjustment means exposed with the result that these can be tampered with or inadvertently loosened. Consequently, in the past, the telescopic sights have become accidently mislined.

Thus, the invention herein relates to an improvement in the foregoing types of mounting devices wherein the need for drilling accurately located mounting through holes is eliminated and wherein a sight angle adjustment means is provided, but this is concealed in such a way that it cannot inadvertently be tampered with.

SUMMARY OF INVENTION

The invention herein contemplates a telescopic sight mount having a bar arranged for side mounting upon the conventional receiver side cover plate, utilizing the existing screw holes in the plate, to eliminate the need for drilling additional accurate holes, and with a forward ring-type clamp vertically pivotally secured to the forward end of the bar by means of a vertical screw and the rear ring-type clamp secured to the rear of the bar by means of a screw extending through an offset hole in a rotatable bushing, so that rotation of the bushing arcuately moves the scope in a horizontal plane, and wherein the bushing and screw are concealed by the base of the rear clamp.

The construction herein makes it possible for the average rifle owner to install the scope mount by himself, without the necessity of using the services of a skilled gunsmith and makes it possible for him to adjust the horizontal alignment between the rifle bore axis and the scope only when desired, eliminating inadvertent adjustments.

These and other objects and advantages of this invention will become apparent upon reading the following description, of which the attached drawings form a part.

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of the telescopic sight mounting herein securing a conventional scope to a rifle.

FIG. 2 is a perspective view showing a portion of the rifle and the scope mounting parts disassembled.

FIG. 3 is a perspective view of the side mounting bar.

FIG. 4 shows a ring-type clamp, with its two parts disassembled.

FIG. 5 is an end view of the ring-type clamp.

FIG. 6 is a perspective, cross sectional view of the adjustment bushing, and

FIG. 7 is an enlarged top or plan view of the bushing within the side mounting bar.

FIG. 8 is a cross sectional view taken in the direction of arrows 8—8 of FIG. 7.

DETAILED DESCRIPTION

FIG. 1 illustrates a rifle **10** such as of the so called "-Winchester 94" type model which is lever operated and has a side receiver cover. Secured to the rifle is a conventional telescopic sight **11** by means of the mounting generally designated as **12**.

The mounting includes an elongated, narrow bar **14**, arranged on edge, and having a forward screw mounting hole **15** and rear screw mounting holes **16** for horizontal alignment with the corresponding forward screw hole **17** and rear screw holes **18** formed through the side receiver cover plate **19** of the rifle. In this type of rifle, the plate is secured to the side of the rifle by suitable screws extending through holes **17** and **18**. Here, those screws are removed and the same holes are used for fastening both the receiver plate and the bar to the side of the rifle by means of suitable matching screws **20** and **21**.

The forward, rifle engaging face of the bar may be suitably relieved at **22** to fit around the contours of the side or receiver area of the rifle.

The mounting also includes a forward and a rear ring-shaped clamp **24** and **25**, respectively, each identical in construction.

As illustrated in FIGS. **4** and **5**, the clamps comprise two parts, namely, a base part **26** having a half ring portion **27** and a lower base portion **28**, and a cover part **29** having a half ring portion **30**. The two parts are engaged together as shown in FIG. **5**, and secured by means of screw holes **31** in the upper and lower areas of the cover part aligned with screw holes **32** in the upper and lower areas of the base part through which small screws **33** are inserted.

The base forming portions **28** are arranged to rest upon the upper edge surface of the side mounting bar **14** and are provided with vertically axised screw holes **35** (see FIG. **5**).

The forward clamp is secured to the bar **14** by means of a vertical long screw **36** extending through a vertical hole **37** in the forward end of the bar, with the screw engaging into the hole **35** in the clamp. Thus, the for-

ward clamp may be pivoted about the vertical axis of the screw **36**.

The rear clamp is mounted for movement in an arcuate, horizontal direction. For this purpose, a hole **39** is drilled through the rear portion of the bar (see FIG. **8**), with the hole having an upper and a lower countersink portion **40** and **41**, respectively. Centered within the hole is a circular bushing **42** whose head **43** snuggly and rotatively fits within the upper countersink **41**, with its shank **44** fitting within the hole **39**. A screw receiving hole **45** is drilled through the bushing, but this hole is offset relative to the central axis of the bushing.

A screw **46** extends upwardly through the offset hole **45**, with the head **47** of the screw fitted within the lower countersink **41**, which is of a considerably greater diameter than the screw head **47**.

Thus, rotation of the bushing **42** moves the screw hole **45**, with the screw **46**, in an arcuate horizontal path so that the screw may be either aligned with the center line of the bar **14** or moved to one side or the other of that centerline, as the case may be.

To more positively lock the bushing against inadvertent movement, arcuate notches **48** are formed in its head **43** and the head **49** of a set screw **50** engages one of these notches. Thus, the bushing may be rotated into a number of positions, determined by the number of arcuate notches formed in it. The movement of the bushing moves the screw **46** as indicated by the double arrow **51** in FIG. **3**.

The screw **46** is engaged into the threaded hole **35** in the rear clamp and by tightening the screw, the clamp is fixed in position. This covers the bushing and the set screw so that neither of these may be tampered with while the clamp is in place. For further adjustment, the clamp is removed and the bushing adjusted and then the clamp is replaced again. Since this type of adjustment is not necessary often, the fact that the bushing adjustment is not readily accessible is not a difficult problem.

The telescopic sight is arranged through the ring clamps as shown in FIG. **1**, by removing the cover parts **29**, inserting the sight into the base parts **26** and then replacing the cover parts.

This construction completely eliminates the necessity of drilling accurately located screw mounting holes, which was required in the past, for attaching scope mounts to the rifle and, moreover, eliminates inadvertent loosening or shifting or misalignment of the scope relative to the rifle barrel.

Having fully described an operative embodiment of this invention, we now claim:

1. A telescopic sight mounting comprising:

a horizontally elongated, narrow, thin bar arranged on one long edge and adapted for fastening in face to face contact with the side face of a rifle in its receiver area;

a pair of ring-shaped clamps, each having a base portion arranged upon the upper long edge of the bar, with one clamp near the forward, relative to the rifle, end of the base and the other being near the rear end of the bar, with the two clamps being axially aligned for clamping a telescopic sight extending therethrough in substantially parallel alignment with the bar length and thus the rifle barrel;

each base portion having a vertical, downwardly opening, threaded screw receiving opening formed therein;

and a vertical opening extending through the bar near each end thereof and aligned with said base openings;

and a vertically arranged threaded screw extending upwards through each of the bar openings and being threadedly engaged into the respective base portion openings for thereby screw fastening said clamps directly upon the upper long edge of said bar;

and one of said bar openings being of a considerably greater diameter than its screw and being circular in cross section, and a circular bushing rotatably fitted within said one opening, and being substantially covered by its respective clamp base portion, with the bushing having a vertical hole extending therethrough and of a diameter to closely receive its screw, with the hole being parallel to but offset relative to the axis of said one opening, so that rotating said bushing within its opening offsets the screw extending through the bushing relative to the center line of said one opening,

wherein the vertical axis of the screw extending through the bushing, and also the clamp threadedly engaged therewith may be adjusted in a horizontal arcuate path, by rotating the bushing into varying positions when its clamp is disconnected from its screw to uncover the bushing, and re-engagement of its clamp and its screw thereby locks its clamp to the bar in such prearranged position and conceals the bushing.

2. A construction as defined in claim **1**, and said screws having heads counter-sunk into the lower edge of the bar, wherein the entire means for fastening the clamps to the bar are concealed by the clamp bases on the upper edge of the bar and the counter-sinking of the screw heads on the lower edge of the bar.

3. A construction as defined in claim **1**, and including a number of vertically arranged notches formed in the upper edge of said bushing, and a small set screw threadably fastened into the upper edge of the bar and partially engaging one of said notches for locking the bushing against rotation, the set screw being beneath and thus concealed by the base portion of its respective clamp.

4. A construction as defined in claim **1**, and including means for fastening the bar to the rifle, comprising screw holes horizontally extending through the bar and arranged in horizontal alignment with pre-existing screw holes used for screw fastening the rifle side receiver cover plate to the rifle, and screws of a length for extending through said aligned screw holes for consequently fastening both the bar and cover together to the rifle.

5. In a rifle having a side receiver cover plate formed with a number of horizontally axised screw receiving holes through which screws are inserted for fastening the plate to its adjacent rifle structure, and a telescopic sight mounting comprising a horizontally elongated, narrow, thin bar arranged on one long edge and adapted for fastening in face to face contact with the side receiver cover plate of a rifle; and a pair of ring-shaped clamps each having a base arranged upon the

upper long edge of the bar, with one clamp near the forward, relative to the rifle end of the bar and the other being near the rear end of the bar, with the two clamps being axially aligned for clamping a telescopic sight extending therethrough, in substantially parallel alignment with the bar length and thus the rifle barrel; the improvement comprising:

means for fastening the bar to the rifle, comprising screw holes horizontally extending through the bar and pre-arranged in horizontal alignment with a number of the receiver plate screw holes, and including screws of sufficient length for extending through said aligned screw holes in the bar and plate, replacing the original screws used for originally fastening the plate to the rifle structure, for consequently fastening both the bar and the cover plate together as a unit to the adjacent rifle structure.

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