United States Patent [19]

Krisay

[11] **3,875,675**

[45] **Apr. 8, 1975**

[54] **ALL WEATHER SCOPE MOUNTING BASE**

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[22] Filed: **Nov. 23, 1973**

[21] Appl. No.: **418,195**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 252,190, May 11, 1972, abandoned.

[52] **U.S. Cl.** **33/245**

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

[58] **Field of Search** 33/245, 247, 249, 250, 33/261

[56] **References Cited**

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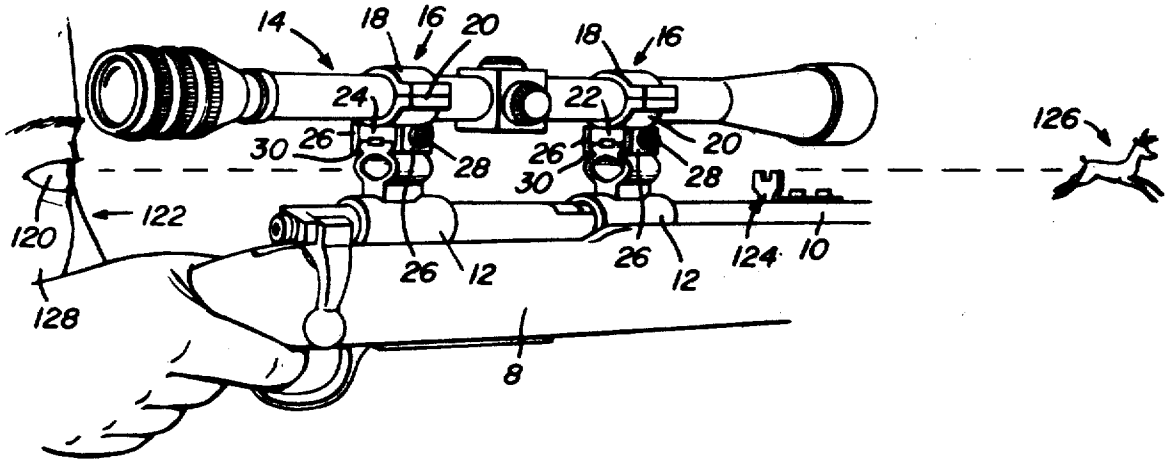
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Primary Examiner—Richard E. Aegerter
Assistant Examiner—Richard R. Stearns
Attorney, Agent, or Firm—Clarence A. O'Brien; Harvey B. Jacobson

[57] **ABSTRACT**

A scope mounting base for supporting attachable and detachable scope clamping and mounting rings such as are currently being used to accurately and reliably support a conventional scope atop the barrel of a sporting rifle has at least one telescope spacing, elevating and basing adapter mounted on the rifle barrel and coacting portions of the usual clamp-on-type scope mounting rings, and the like. The adapter embodies an elongated, substantially diamond-shaped open-bored see-through collar-type mount or base, whereby to permit selective aiming and feasible use of the customarily employed fixed sights prior to bringing in use the aforementioned telescope sight and zeroing in on the desired target.

6 Claims, 9 Drawing Figures



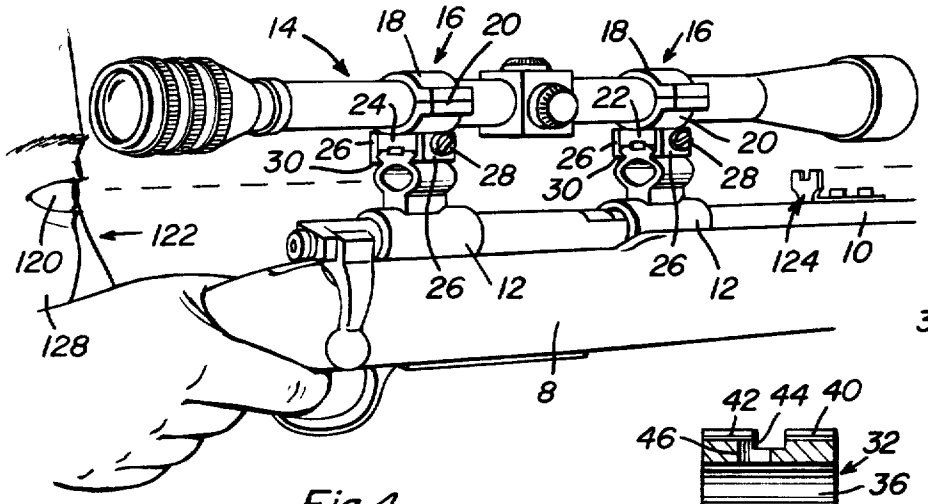


Fig. 1

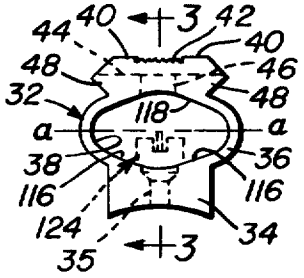


Fig. 2

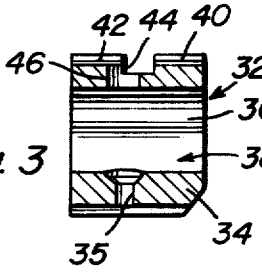


Fig. 3

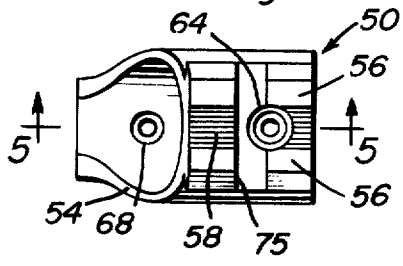


Fig. 4

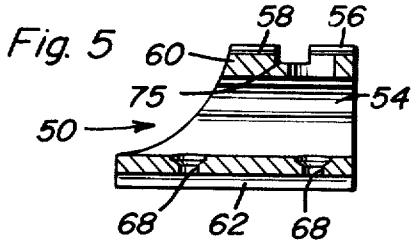


Fig. 5

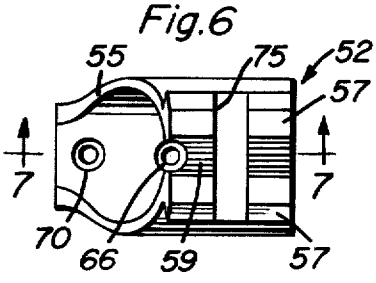


Fig. 6

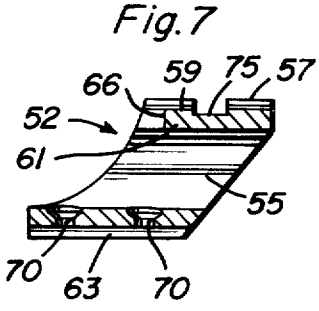


Fig. 7

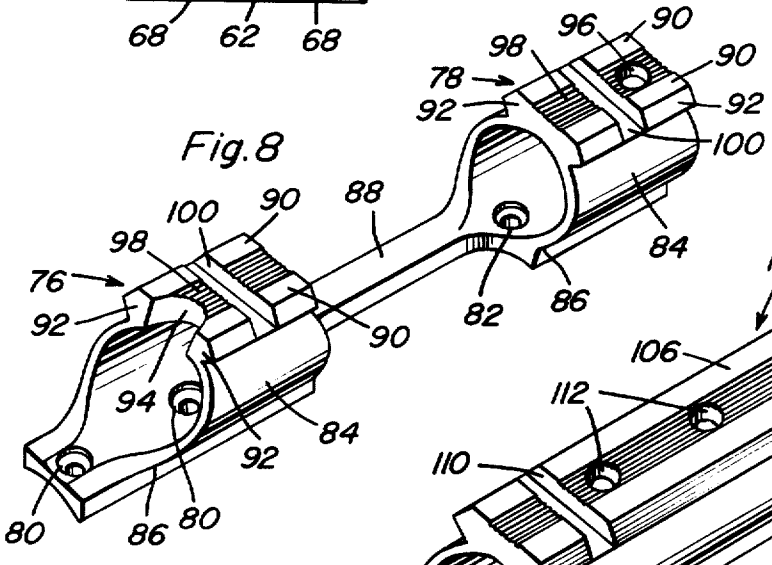


Fig. 8

Fig. 9

ALL WEATHER SCOPE MOUNTING BASE

CROSS-REFERENCE TO A RELATED APPLICATION

This is a continuation-in-part of my copending application Ser. No. 252,190, filed May 11, 1972, now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a unique concept which pertains, on the one hand, to the combination of a sporting rifle with its commonly employed component parts, scope, scope encompassing rings, and ring mounts, but has to do, more explicitly stated, to ring and scope elevating spacers or adapters which may not elevate the rings and scope, but take the form of collars and provide see-through mounting adapters atop which the rings are perched and so that the hunter is enabled to use the customary fixed sights preliminarily for general sighting and before switching to his telescopic sight for final zeroing in on an intended target.

As will be hereinafter more clearly apparent the invention pertains to more than one embodiment and in fact has to do with several embodiments. An aspect of the concept pertains from one point of view to the aforementioned adapters or scope mounting adapters or bases which are interposed between the barrel of the gun itself and the customarily supported scope. On the other hand the essence of the invention would appear to reside with greater particularity in the scope mounting adapters or bases which lend themselves to use between sporting rifles of several different marketed types, and many and varying horizontal scopes and equally many and varying rings which are mounted on the scopes for purposes of anchoring the scope in one way or another atop the gun barrel.

2. Description of the Prior Art

It is a matter of common knowledge that scope mounts in which the rings are provided with see-through passages and which permit use of the customarily used fixed sights are of many and varied styles and types. For background purposes it should be kept in mind that prior art adaptations permit the user of a rifle to sight selectively by way of the customarily fixed peep sights or equivalent sights and scope sights. In prior art adaptations such devices have been employed so that an opening permits use of a peep sight such as is normally carried by a conventional rifle without removing the telescopic tube or sight. Then, too, there are adaptations in the prior art where mounting blocks are permanently affixed to the rifle in such a manner as to not interfere with normal utilization of the customarily fixed sights. One example of an adaptation is shown in a patent to Paul D. Williams, U.S. Pat. No. 3,671,000. Other adaptations are revealed in the mounting means for rifle telescopic sights in Irving Rubin et al., U.S. Pat. No. 3,463,430 and Jack Joseph, U.S. Pat. No. 3,555,687. Then, too, and if desired, for further background purposes reference could be made to Jessie T. Ivy, U.S. Pat. No. 2,763,930, or another patent to Jessie T. Ivy, U.S. Pat. No. 2,743,526. Other prior art devices could, but need not here be cited.

SUMMARY OF THE INVENTION

It is an object of the invention, stated in general terms, to improve upon and reduce the number of parts entering into the combination and also the scope mounting adapters or bases, not only increasing the efficiency of the structure as a whole, but also rendering the same less costly to manufacture and to otherwise simplify factors of assembling and sale.

Another object of the invention is to structurally, functionally and in other ways improve upon the aforementioned prior patents and, in doing so, to provide an adaptation which will meet with the requirements and economies of manufacturers, will be endorsed by wholesalers and retailers and will meet the purposes of users of rifles, particularly sporting rifles.

Briefly, an aspect of the invention pertains to a scope ring spacing, elevating and mounting adapter or base characterized by an open bore see-through rifle scope mounting collar; that is, a collar which has a bottom side provided with means designed and expressly adapted to be based and detachably fastened atop a fixed component accessibly carried by the rifle barrel and embodying a top side having basing and seating means on which clamping means constituting a part of a companion ring or clamp can be perched, attachably and clampingly seated, said basing and seating means having a pair of like ribs marginally provided with longitudinal outstanding and keying as well as assembling knife-like edges.

The collar is advantageously provided with walls defining an elongated substantially diamond-shaped opening. Two pairs of the walls are arranged with each pair joined to and extending from one another toward a longest axis of the opening to form a V-portion. One of the V-portions functions to draw an eye of a shooter to the center of associated fixed rifle sights, while the length of the longest axis permits a wide view of moving game, and the like.

More explicitly, adapter means is characterized by an integral elongated block capable of being positioned firmly flatwise and lengthwise atop an underlying rifle barrel stock supported mounting sleeve. The block has bolt holes therein for reception and retention of headed hold-down and anchoring bolts. The top side of the adapter has a lengthwise centralized channel and a median open-ended channel-shaped groove which extends at right angles to and crosses the channel, the available spaces being susceptible of assisting users in coping with friction and taking care of adjustments which are sometimes necessary for greater accuracy.

Also, and somewhat by way of introduction, it may be specified here that the scope mounting adapter or base has been found, as experience has shown, to accommodate 1 inch and equivalent top mount rings. It functions to detach the scope quickly under field conditions and can utilize open sights without removing, or detaching, the scope. In fact it well serves the purposes for which it has been evolved, produced, and successfully used.

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.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in perspective showing a fragmentary portion of a rifle provided with a scope arranged in ele-

vated usable position, the mounting rings for the scope, and interposed see-through adapters which are in operative position between the underlying fixed sleeves and the cleat-equipped base portions of the aforementioned scope rings.

FIG. 2 is a view on a suitably enlarged scale showing an end view of one of the adapters of FIG. 1.

FIG. 3 is a sectional view taken along the line 3—3 of FIG. 2.

FIG. 4 is a top plan view showing a modified embodiment of the base mount according to the present invention.

FIG. 5 is a sectional view taken generally along the line 5—5 of FIG. 4.

FIG. 6 is a top plan view of yet another embodiment of a base mount according to the present invention.

FIG. 7 is a sectional view taken generally along the line 7—7 of FIG. 6.

FIG. 8 is a perspective view showing a fourth modification of a base mount according to the present invention.

FIG. 9 is a perspective view similar to FIG. 8, but showing a fifth embodiment of a base adapter according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Attention is directed first to the form of the invention appearing in FIGS. 1 to 3, inclusive, and more particularly to FIG. 1 wherein the stock of the sporting rifle is denoted by the numeral 8, the barrel being denoted at 10 and the customarily used sleeve-like members, denoted at 12. Similarly performing devices which are carried by a rifle barrel vary in construction, but the sleeve types shown are popularly in use. The telescope, or scope, is of a conventional type and is denoted, generally stated, by the numeral 14. It will be noted that the encompassing rings for the scope are longitudinally spaced and are of duplicate construction, and it may simplify the description by merely referring to a single ring and in fact to a single scope mounting adapter or base which is interposed between the ring and the underlying and associated sleeve 12.

It is to be understood that although rings have been illustrated as connecting the scope to the base mounts, other conventional arrangements, such as clamps mounted on the scope, may be employed if desired.

Considering first the ring, it is a generally common sectional type and is denoted, as an entity, by the numeral 16. The semi-circular upper cap portion of ring 16 is denoted at 18, and the concavo-convex cradle portion thereof is denoted at 20. The opposite end portions of portions 18 and 20 are provided with lugs which are bolted or otherwise secured together. A central underneath surface portion of the cradle section 20 is provided with an elongated block 22 which has a central clearance groove or channel extending therethrough and open at its ends as denoted generally at 24 toward the left in FIG. 1. The longitudinal sides of this block are equipped with duplicate spaced parallel cleats or clips 26 which are held in place by an assembling and retaining screw 28 whose kerf is available and is capable of being turned or adjusted by using a suitable instrument or pocket coin as the case may be. It will be noted that the lower marginal edge of each cleat has a turned-in or toed-in flange 30 which is appropriately beveled for clenching, assembling and retaining purposes, as is substantially self-evident from FIG. 1. The complemental scope ring, spacing, elevating and mounting adapter or base is interposed as shown in FIG. 1 between the associated and supporting sleeve 12 and the bottom of the grooved block 22, and is cooperable with the turned-in flanges 30 which, in cooperation with the cleats or clips 26, define opposed oriented longitudinal keyways. The adapter has a body which takes the form of a collar 32 which is of the one-piece construction shown particularly in FIGS. 2 and 3. The lower or bottom convex portion of this adapter is fashioned into and provides an elongated block-like base 34 which has suitably shaped bolt holes 35 therein as brought out with particularity in FIGS. 2 and 3. It will be noticed that the bore, opening, or passage in the main body portion 36, that is the passage 38, is elongated, substantially diamond-shaped and is open at its respective ends. The left- and right-hand ends are straight across as is seen in FIG. 3. The diametrically opposite upper basing or plate portion of the adapter is fashioned into and provides a pair of like flat-faced coplanar seating ribs 40 which serve to stabilize the surface portions of the block 22 which cooperate therewith. There is a portion in-between ribs 40 which is fashioned into and provides an open-ended friction-reducing space or channel which is denoted at 42 in FIGS. 2 and 3. With further respect to FIGS. 2 and 3 it will be noticed that there is a median transverse open-ended anti-friction channel which is also provided as at 44 and which in conjunction with the channel 42 assists in making certain and sometimes necessary adjustments. Further, channel 44 receives the conventional downwardly extending element (not shown) associated with screw 28 of a standard scope clamp, and thus prevents forward and backward motion of scope 14 relative to the rifle. It will be further noted that there is a non-threaded hole 46 provided in both FIGS. 2 and 3 and which is in alignment with one of the bolt holes 35 to permit a screwdriver or the like to be inserted therethrough to obtain access to the bolt hole 35 whenever necessary or desired. More particularly it should be noted that the longitudinal outstanding edge portions of ribs 40 are provided with substantially V-shaped overhanging members 48 which constitute keys and which are fittingly conformingly retained in the aforementioned coacting keyways as evident in FIG. 1. When the screws 28 are tightened up and the cleats 26 are fastened in place the turned-in flanges 30 engage beneath the inclined surfaces of the outstanding or overhanging ribs 48 to provide the interlocking and clamping association brought out with requisite clarity in FIG. 1.

It is within the purview of the concept to make the collars slightly dished at one end, as shown in the modified forms appearing in FIGS. 4 to 7. Both ends are slanted in the embodiment shown in FIGS. 6 and 7, as can be seen in FIG. 7, for permitting clearance for shell ejection. That is, for permitting a rifle cartridge being ejected to clear the adapter. Here the adapters or mountings are conveniently denoted by the numerals 50 and 52, and the body portion is of the shape shown at 54 and 55, the open-ended bore again being a substantially elongated diamond shape in cross-sectional shape. In addition to providing ejection clearance, adapter 52 can be turned 180° about its base as desired for proper eye relief. Due to the symmetrical nature of the scope attachment structure this turning will not re-

duce the anchoring strength of the scope mounting on the adapter. Thus, two spans are possible between a pair of adapters, and proper eye relief is obtainable regardless of the location of the adjustment turret on the scope. Further, for example, an adapter **50** and an adapter **52** may be used together on the same rifle. Hereagain the central top portion of the body is provided with an open-ended channel for reducing friction as at **56** and **57**. The two flattened spaced parallel keying ribs are denoted at **58** and **59** and are keyed in place in the same manner illustrated in FIG. **1**. The longest axis of the elongated opening cross section is transverse of these ribs. The top portions here are conveniently designated at **60**, and the diametrically opposite bottom portion is fashioned into a suitable block **62** and **63**. The screw access hole and cutout are designated **64** and **66**, respectively, while assembling and setscrew holes are here designated by the numerals **68** and **70**. V-shaped knife-edged ribs are fittingly associated with the keyways into which they are interfitted, while transverse channels **75** are provided as above. It is believed that a consideration of FIGS. **4–7** conjointly will enable the reader to understand the construction of these modifications, and how they are comparable with the basically similar adaptation appearing for example in FIGS. **1** to **3**.

As to the modification appearing in FIG. **8**, this is basically the same as the adaptations already described and can be briefly referred to as comprising duplicate left and right adapters **76** and **78**, there being bolt holes at **80** in the adapter **76** and a single bolt hole **82** in the adapter **78**. In either instance, the body portion **84** is preferably of cross section, and the bottom portion thereof is suitably mounted as at **86** on an end portion of a uniting or connecting bar **88**. As shown in FIG. **8**, connecting bar **88** is arranged only at one side of adapters **76** and **78** for providing suitable clearance to extract a cartridge (not shown) from an associated rifle. The top construction is the same as the above embodiments in that the flat surfaced V-shaped ribs are provided at **90** with the knife edge portions overhanging as at **92** to provide the desired keying result. A piloting bolt cutout is denoted at **94** at the left, and a hole at **96** at the right. The central groove or channel is denoted in both instances as at **98** and the cross channel or groove is denoted conveniently at **100**. The only difference here is that the two adapters **76, 78** are linked or united by the aforementioned connecting bar **88** which may be of any suitable length and cross section.

FIG. **9** of the drawings shows a modified embodiment **102** which is similar to the embodiment of FIG. **8**, but having a continuous body **104** completely enclosing the base mount to improve the all-weather capabilities thereof. Ribs **106** are arranged longitudinally of body **104**, and form a channel **108** between them. Transverse channels **110** complete scope mounting arrangements similar to those described above. Screw access holes **112** are arranged opposite screw holes (not shown) provided in base portion **114**.

It is to be understood that the centralized channels **42, 58, 59, 98** and **108** of all the embodiments may be provided with the illustrated friction increasing, longitudinal ridges or serrations if desired.

The openings such as **38** are provided with two pairs of walls **116** and **118**, as best seen in FIG. **2** of the drawings. The walls of each pair **116, 118** join and extend from one another toward the longest axis *a—a* of the opening, and form opposed V-portions opening toward one another and symmetrical about axis *a—a*. The V-portion formed by pair of walls **116**, arranged closest to the base of the mount, draws the eye **120** (FIG. **1**) of a shooter **122** to the center of the fixed sight **124**, while the V-portion formed by pair of walls **118**, arranged closest to the scope clamping structure, gives maximum high over the rifle sights. Axis *a—a* provides a horizontal width sufficient to give a wide view of game **126** in motion, with the elongated configuration permitting a vertical dimension of the opening sufficiently low to the rifle so the shooter will not have to take his face **128**, or cheek, off the rifle stock and can use his face as an anchoring point. Thus, the great advantage of an opening according to the present invention can be readily appreciated.

The height of the various adapters may vary to accommodate different size scopes. For example, a higher ring adapter may be used with a 40 mm scope than with a 32 mm scope. Thus, high and low rings, and even extension rings, may be provided that will selectively mount on a single rifle model.

It will be evident from the above description and from the drawing that the invention permits satisfactory utilization of so-called standard or conventional top detachable mount rings, such as for instance, Weaver, Tasco, Swift, Universal Co., and the like. With the construction shown one can mount a variety of detachable rings and extension rings on the all weather see-through type base mount and can utilize high or low rings, can employ rings which are common on most sporting rifles, making it unnecessary to buy a complete unit. One can detach the see-through base plate or adapter and mount the scope back of the standard blocks using rings which were attached on the rifle which was originally bought or rings to attach on the see-through base mount. Then, too, the construction is such as to enable the user to detach the scope under field conditions by simply using an appropriate coin. Detachment and attachment of the scope can be attained without readjusting the scope and one can set the rings with the scope having the see-through base plate on more than one rifle switching the scope back and forth on several rifles. In fact, one can use the scope or open sight simply by moving the head. Wide horizontal and vertical viewing with the aid of the open sight is attainable.

The specific embodiments disclosed in my copending application Ser. No. 252,190, are hereby incorporated herein.

It is believed that a careful consideration of the views of the drawing will enable the reader to obtain a clear understanding of the invention and the features and advantages which are inherent therein. Under the circumstances, a more extended description is believed to be unnecessary.

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 scope ring mounting adapter for supporting attachable and detachable scope mounting rings atop a

longitudinally extending barrel of a rifle, comprising, in combination:

a. a generally ring-shaped body provided with an opening, said opening being a substantially elongated diamond-shape in transverse cross section and having the longest axis therefor arranged transversely across the rifle;

b. means for detachably fastening the body to a barrel of a rifle, with the opening being arranged for permitting use of other sights of the rifle; and

c. means for seating a scope mounting clamp on the body, the means for seating and the means for fastening each having a respective center of symmetry relative to the extent of the rifle barrel, with the center of symmetry of the means for seating being arranged offset from the center of symmetry of the means for fastening and permitting reversal of the adapter on the rifle barrel so as to provide eye relief for a shooter, and the means for seating including a centralized channel arrangeable transverse of the extent of the rifle barrel for receiving a downwardly extending member of the scope clamp and preventing forward and rearward motion of a scope relative to the rifle.

2. A structure as defined in claim **1**, wherein the means for seating includes a pair of spaced, parallel ribs arranged substantially V-shaped in transverse cross section, each rib having a flat seating and stabilizing surface coplanar with the same surface of the other rib and an inclined surface extending away from the flat surface and the other rib, said centralized channel arranged transverse of the ribs, the longest axis of the opening being arranged transverse of the ribs, and a centralized longitudinal open-ended channel separating said ribs.

3. A structure as defined in claim **2**, wherein the means for fastening is characterized by an integral elongated block capable of being positioned firmly flatwise and lengthwise atop an underlying rifle barrel stock-supported mounting sleeve, said block having bolt holes therein for reception and retention of headed hold-down and anchoring bolts, and a side of the body opposed to the block and having the centralized channel and provided with at least one readily usable screwdriver inserting hole aligned with an associated bolt accommodating hole.

4. The structure defined in and according to claim **1**, and, in combination, a second scope clamp spacing, elevating and scope mounting adapter constructed substantially as the first-named adapter, the respective means for fastening being joined and united by an elongated linking and securing bar.

5. A structure as defined in claim **1**, wherein said substantially elongated diamond-shape opening comprises two pairs of walls defining the opening, each pair of walls arranged joined to and extending from one another toward the longest axis and forming opposed V-portions.

6. The structure defined in and according to claim **5**, and, in combination, a second scope clamp spacing, elevating and scope mounting adapter constructed substantially as the first-named adapter, the respective means for fastening being joined and united by an elongated linking and securing bar.

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