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March 27, 1962 W. G. VARDARA 3,026,618

GUN SIGHT

Filed Feb. 9, 1961

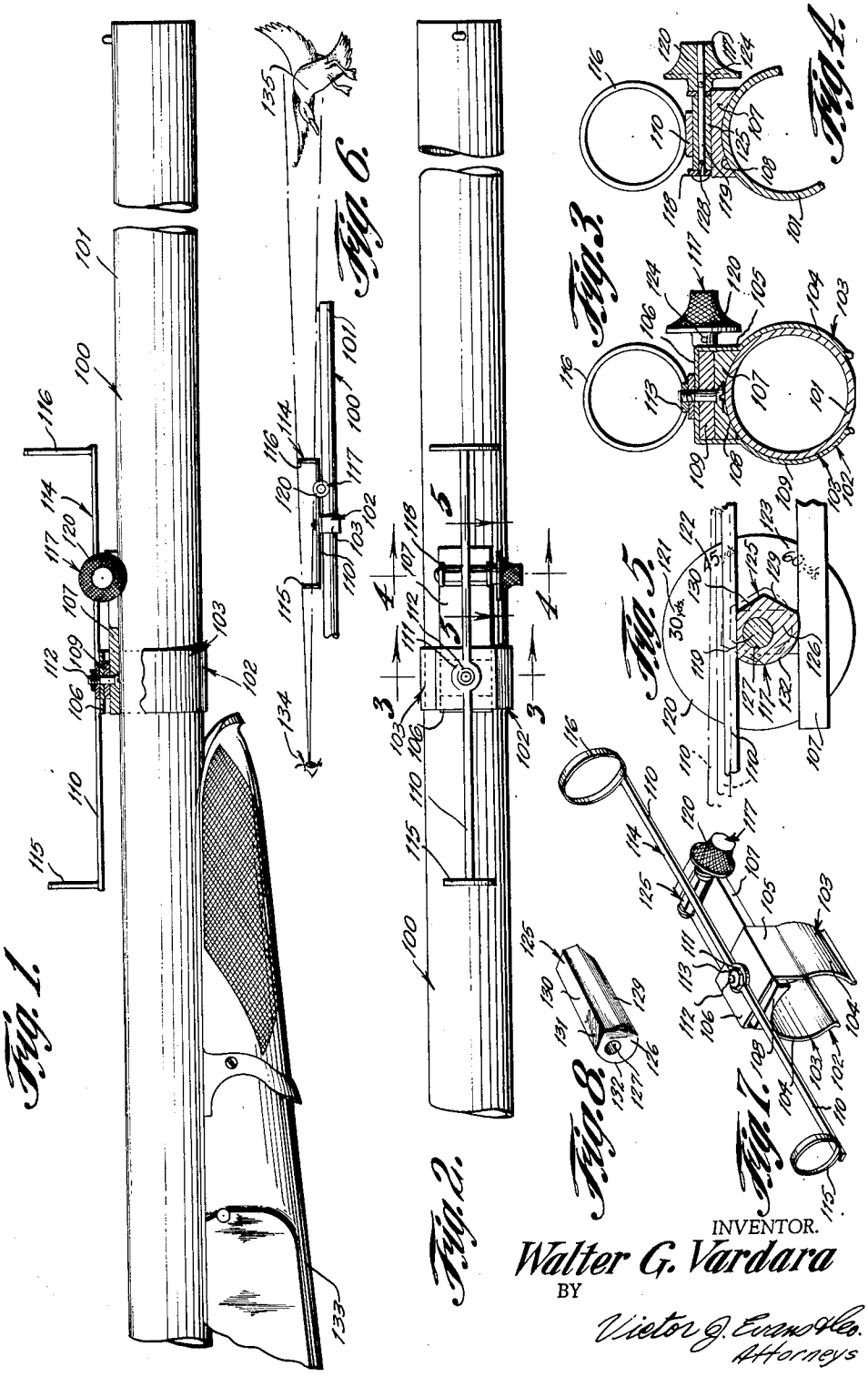


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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United States Patent Office 3,026,618 Patented Mar. 27, 1962

3,026,618

GUN SIGHT

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Filed Feb. 9, 1961, Ser. No. 88,178
5 Claims. (Cl. 33—58)

The present invention relates to a firearm such as a gun, and more particularly to an improved sight for such a firearm.

An object of the present invention is to provide an improved sight for a firearm such as a gun, and wherein the sight of the present invention will improve the accuracy and efficiency with which the firearm can be used.

Another object is to provide a gun sight which will help increase accuracy with which the gun can be used by facilitating the correct positioning of the stock at the shoulder, as well as helping to insure correct alignment of the gun barrel, the sight of the present invention being especially suitable for use with a gun such as a shot gun and wherein the gun sight is removable and embodies or includes a pair of rings of different diameters as well as a manually operable adjusting means for the gun sight.

Another object is to provide a device of the character described that may be utilized speedily and with precision by even inexperienced persons.

Further objects and advantages are to provide improved elements and arrangements thereof in a device of the character described that is economical to produce, durable in form, and condusive to the most economical use of materials and uniformity of members formed therefrom.

Still further objects and advantages will become apparent in the subsequent description in the specification.

In the drawings:

FIGURE 1 is a fragmentary side elevational view showing the gun sight of the present invention mounted on a gun barrel, and with parts broken away and in section.

FIGURE 2 is a fragmentary plan view illustrating the present invention.

FIGURE 3 is a sectional view taken on the line 3—3 of FIGURE 2.

FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 2.

FIGURE 5 is a sectional view taken on the line 5—5 of FIGURE 2.

FIGURE 6 is a fragmentary side elevational view illustrating the use of the present invention.

FIGURE 7 is a perspective view of the gun sight per se.

FIGURE 8 is a perspective view showing the cam which forms part of the elevating or adjusting mechanism.

Referring in detail to the drawings, attention is directed to FIGURE 1 for example wherein the numeral **100** indicates a portion of a conventional firearm which may be a shotgun, although it is to be understood that the present invention is not limited to any particular type of firearm since the sight of the present invention is adapted to be used on different types of firearms in addition to shot guns. The firearm **100** is shown to comprise a barrel **101**, and according to the present invention there is provided a gun sight which is indicated in its entirety by the numeral **114**.

The gun sight **114** embodies a holder or clamp which is indicated generally by the numeral **102**, and the clamp **102** is adapted to be detachably or releasably connected to the barrel **101** and as shown in the drawings the clamp **102** has a generally inverted U-shape configuration. Thus the clamp **102** includes spaced apart side portions **103** which each embody an arcuate section **104**, and arranged above the arcuate sections **104** are flattened sections **105** which are integrally joined or connected by a connecting portion **106**.

The numeral **107** indicates a base piece which has an end portion thereof interposed between the flat sections **105** of the side portions **103**, and as shown in FIGURE 3 for example the lower surface of the base piece **107** is adapted to be recessed arcuately as at **108** so as to permit the base piece **107** to snugly engage and conform to the configuration of the barrel **101**. Arranged above the base piece **107** is a spacer **109**, and the spacer **109** is interposed between the connecting portion **106** and the base piece **107**.

The gun sight **114** of the present invention further includes an elongated bar **110** which has its longitudinal axis arranged in alignment with or parallel with the longitudinal axis of the gun barrel **101**, and the bar **110** includes an intermediate enlarged or circular portion **111** that is arranged above the connecting portion **106**. A securing element or bolt **112** extends through the base piece **107**, through the spacer **109**, and through the connecting portion **106** and through the circular portion **111** for connecting these parts together, and a fastener or nut **113** is arranged in threaded engagement with the upper end of the securing element **112**, FIGURE 3.

As shown in FIGURE 7 for example, rear and front rings **115** and **116** are fixedly mounted on the ends of the bar **110**, and the front ring **116** is of greater diameter than the rear ring **115**, for a purpose to be later described.

Attention is further directed to the drawings wherein it will be seen that the gun sight of the present invention also embodies or includes a manually operable adjusting mechanism which is indicated generally by the numeral **117**, and the adjusting mechanism **117** comprises a pair of spaced parallel bearings **118** which extend upwardly from an end portion of the base piece **107** and which are secured thereto or formed integral therewith. A rod or shaft **119** is journaled between the bearings **118**, and a handle or manually operable knob **120** is affixed to the shaft **119** as at **124**. As shown in FIGURE 5 for example, indicia such as the indicia indicated by the numerals **121**, **122** and **123** are adapted to be arranged on the knob **120** so as to provide a visible indication in order to permit the adjusting mechanism **117** to be set accurately at the desired elevation or location.

The adjustment mechanism **117** further includes a rotary cam **125** which includes a body portion **126** that is provided with a longitudinally extending bore **127** for the projection therethrough of the shaft **119**, and the bore or opening **127** is arranged off-center with respect to the body member **126** as for example as shown in FIGURE 5 and in FIGURE 8. The body member **126** is adapted to be secured or affixed to the shaft **119** as at **128**. The outer periphery of the cam **125** is provided with a plurality of angularly arranged flat faces **129**, **130** and **131** as well as an arcuate surface **132**.

In FIGURE 1 the numeral **133** indicates a portion of the usual stock of the gun or firearm.

Attention is directed to FIGURE 6 of the drawings wherein there is illustrated diagrammatically or schematically the use of the present invention wherein the numeral **134** illustrates the position of the shooter's eye with relation to the gun sight **114** of the present invention, and the numeral **135** indicates a member such as a duck or the like which is adapted to be sighted through the rings **115** and **116**, so as to facilitate shooting of such a duck or the like as indicated by the numeral **135** when the trigger of the firearm **100** is manually actuated in the usual manner.

It will therefore be seen that according to the present invention there has been provided a sight for firearms such as guns and wherein the sight will improve accuracy of a gun on which it is mounted or being used, and the gun sight of the present invention is a precision

instrument or device which can be used when shooting targets, hunting or the like so that faster, easier and more accurate aim will be possible. The gun sight of the present invention is of rugged and sturdy construction and is provided with the adjustment mechanism **117** that permits fine adjustment or control. The device is ruggedly constructed so that it will not be effected by shots or the like, and with the parts arranged as shown in the drawings it will be seen that the gun sight **114** is adapted to be mounted on the barrel such as the barrel **101** of a gun that may be a shot gun as indicated by the numeral **100**, and the bar **110** is aligned with the barrel **101**. As shown in FIGURE 6 when aiming at an article or member such as duck **135**, the shooter's eye as indicated by the numeral **134** will have a line of vision through the rear and front rings **115** and **116** which will permit a member such as the member **135** to be accurately sighted or aligned so that when the gun is fired greater accuracy will be possible.

The gun sight **114** includes the clamp **102** which may be made of a suitable material such as springy metal, a suitable plastic or the like, and the clamp **102** is constructed so that it will snugly fit on the barrel **101** in order to hold the gun sight stationary in its desired position. The clamp **102** includes the side portions **103** that have the arcuate sections **104** which snugly engage the sides of the barrel **101**, and there is further provided the base piece **107** which has the arcuate lower surface **108** that conforms to the configuration of the upper portion of the barrel **101**. The bar **110** has a portion thereof arranged in engagement with the movable or rotary cam **125**, and since the cam **125** is affixed to the shaft **119** as at **128**, it will be seen that by manually turning or rotating the knob **120**, different of the flat faces or cam surfaces **129**, **130** or **131** can be positioned in engagement with the lower front portion of the bar **110**. The bore **127** in the cam **125** is off-center as for example as shown in FIGURE 5 so that as the cam **125** is rotated by the knob **120**, the various cam faces **129**, **130** or **131** can move into engagement with the lower surface of the bar **110** so as to elevate or raise the bar **110** different elevations or positions above the base piece **107** in order to permit raising or lowering of the front ring **116** and this construction provides a means for regulating the gun sight as desired or required. Indicia or scale markings as indicated by the numerals **121**, **122** and **123** are adapted to be suitably imprinted or arranged on the knob **120** and this indicia is adapted to be calibrated or arranged to coincide with the various cam faces **131**, **130** and **129** so that the user can accurately set the gun sight for a particular range or shot pattern.

The base piece **107** will remain stationary above the barrel **101**, but as previously stated upon manual rotation of the knob **120**, the front portion of the bar **110** that is arranged forwardly of the securing element **112** can flex up or down about the pin **112** as the cam **125** is rotated by the knob **120**, and this provides the adjusting means. The cam is connected to the rod **119**, and the rod **119** is suitably journaled between bearings or lugs **118** that may be secured to or formed integral with the stationary base piece **107**.

The parts can be cade of any suitable material and in different shapes or sizes.

The mechanism **117** constitutes or provides a sight elevator.

It is well known that when hunting for example, a hunter will often miss a bird or animal as for example when a shotgun is quickly raised and fired, even though the target may be close and the shot apparently easy to make, and some of the reasons for such unnecessary misses or failures are incorrect positioning of the stock at the shoulder, incorrect alignment of the gun barrel, and just looking at the bird or animal instead of sighting it. The removable gun sight of the present invention is constructed and provided for eliminating such disappointing situations.

The sight of the present invention includes the two rings **115** and **116** which may be arranged a suitable distance apart such as four inches apart, and the ring **115** may be seven-sixteenths of an inch in diameter, while the ring **116** may be one-half inch in diameter approximately. The smaller ring **115** is closer to the eye as indicated by the numeral **134** in FIGURE 6, and these rings are firmly attached to the bar or member **110**, and the member **110** is suitably riveted or otherwise affixed to the flexible holder or clamp **102**. The member or base piece **107** is also firmly affixed to the clamp **102**, and the eccentric sight elevation adjustment **117** is arranged as shown in the drawings, and this elevator is adapted to have three positions for thirty, forty-five and sixty yards, the elevator being provided with the handle or knob **120**.

The following is a description of the function or operation of the sight. The sight is adapted to be clipped on the barrel of a shotgun in perfect alignment with the barrel and located on the barrel in such a position that only one ring can be seen when the shotgun is in true alignment with the eye and the target. Thus, when the hunter observes an average size bird such as a mallard duck or the like completely within one circle, it is time to pull the trigger. The sight can be raised or lowered for three different distances depending on the type of hunting. Also, the sight can be of one or double barrel type and can be made entirely out of plastic materials or the like. The sizes of the rings, the distance between the rings, and the elevator distances are adapted to be determined experimentally for the particular use to which the present invention is being utilized.

It will now be clear that there is provided a device which accomplishes the objectives heretofore set forth. While the invention has been disclosed in its preferred form, it is to be understood that the specific embodiment thereof as described and illustrated herein is not to be considered in a limited sense as there may be other forms or modifications of the invention which should also be construed, within the scope of the appended claims.

What is claimed is:

1. A sight for a firearm of the type that includes a barrel, said sight embodying a clamp detachably engaging said barrel and said clamp including spaced apart side portions which each include an arcuate section, flat sections above said arcuate sections and said flat sections being interconnected by a connecting portion, a base piece having an end portion thereof interposed between the flat sections of said side portions, a spacer positioned between said base piece and connecting portion, an elongated bar including an intermediate circular portion arranged above said connecting portion, said bar having its longitudinal axis parallel to the longtiudinal axis of said barrel, a securing element extending through said circular portion, through said connecting portion, through said spacer and through said base piece, spaced parallel front and rear rings fixedly mounted on the upper end portions of said bar, a manually operable adjustable elevator comprising bearings projecting upwardly from the front portion of said base piece and affixed thereto, a shaft journaled between said bearings, a knob affixed to one end of said shaft and said knob having indicia thereon, and a cam arranged below said bar and said cam being interposed between said bearings and affixed to said shaft, said cam being provided with an off-center arranged longitudinally extending bore for the projection therethrough of said shaft, and said cam being provided with a plurality of angularly arranged flat faces on the outer periphery thereof.

2. The structure as defined in claim 1 wherein the lower surface of said base piece is arcuately recessed for snugly engaging the top of the barrel.

3. A sight for a firearm of the type that includes a barrel, said sight embodying a clamp detachably engag-

ing said barrel and said clamp including spaced apart side portions which each include an arcuate section, flat sections above said arcuate sections and said flat sections being interconnected by a connecting portion, a base piece having an end portion thereof interposed between the flat sections of said side portions, a spacer positioned between said base piece and connecting portion, an elongated bar including an intermediate circular portion arranged above said connecting portion, said bar having its longitudinal axis parallel to the longitudinal axis of said barrel, a securing element extending through said circular portion, through said connecting portion, through said spacer and through said base piece, spaced parallel front and rear rings fixedly mounted on the upper end portions of said bar, a manually operable adjustable elevator comprising bearings projecting upwardly from the front portion of said base piece and affixed thereto, a shaft journaled between said bearings, a knob affixed to one end of said shaft and said knob having indicia thereon, and a cam arranged below said bar and said cam being interposed between said bearings and affixed to said shaft, said cam being provided with an off-center arranged longitudinally extending bore for the projection therethrough of said shaft, and said cam being provided with a plurality of angularly arranged flat faces on the outer periphery thereof, the lower surface of said base piece being arcuately recessed for snugly engaging the top of the barrel, and said front ring being of greater diameter than said rear ring.

4. In a gun sight, a clamp providing a holder and said clamp including spaced apart side portions which each include an arcuate section, spaced parallel flat sections above said arcuate sections and said flat sections being interconnected by a connecting portion, a base piece having an end portion thereof interposed between the flat sections of said side portions, the lower surface of said base piece being arcuately recessed, a spacer positioned between said base piece and connecting portion, an elongated bar including an intermediate circular portion arranged above said connecting portion, a securing element extending through said circular portion, connecting portion, spacer and base piece, front and rear spaced parallel rings fixedly mounted on the upper end portions of said bar, said front ring being of greater diameter than said rear ring, a manually operable adjustable elevator including bearings projecting upwardly from said front portion of said base piece and affixed thereto, a shaft journaled between said bearings, a knob affixed to one end of said shaft and said knob having indicia thereon, and a cam arranged below said bar and said cam being interposed between said pair of bearings and being affixed to said shaft, and said cam including an off-center arranged longitudinally extending bore for the projection therethrough of said shaft, said cam having on its outer periphery a plurality of flat faces that are arranged angularly with respect to each other.

5. In a gun sight for a firearm having a barrel, a clamp releasably engaging the barrel of the firearm, a bar connected to said clamp and arranged in alignment with said barrel, front and rear rings affixed to the ends of said bar and said front ring being of greater diameter than said rear ring, a base piece connected to said clamp and said base piece projecting forwardly from said clamp, and a manually operable adjustable elevator supported by said base piece and said elevator including a movable cam arranged in engagement with the lower front portion of said bar.

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