US 20080134561A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2008/0134561 A1

(43) Pub. Date: Jun. 12, 2008

Clouser

(54) SIGHTING SYSTEM

(76) Inventor: **Roger Clouser**, Baldwin City, KS (US)

Correspondence Address:
**HOVEY WILLIAMS LLP**
**10801 Mastin Blvd., Suite 1000**
**Overland Park, KS 66210**

(21) Appl. No.: **11/555,007**

(22) Filed: **Oct. 31, 2006**

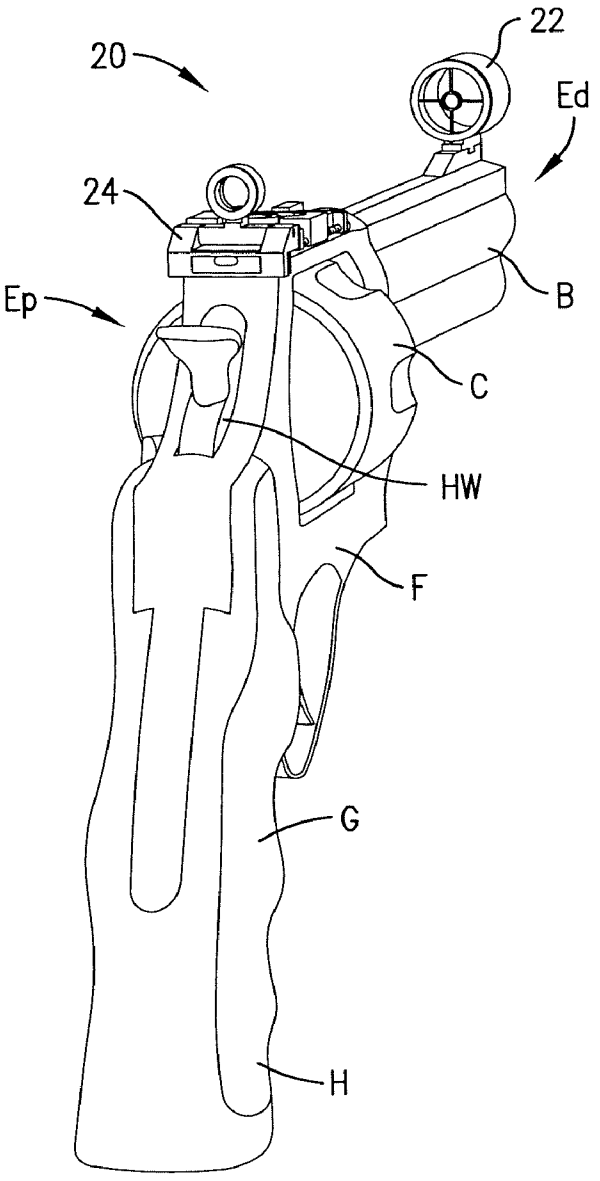
**Publication Classification**

(51) **Int. Cl.**
*F41G 1/38* (2006.01)

(52) **U.S. Cl.** ..... **42/113**; 42/127

(57) **ABSTRACT**

A sighting assembly is configured for use on a firearm in long-range sighting applications and broadly comprises proximal and distal sights. The sights present various sighting surfaces including at least a pair of complemental surfaces that, when viewed along a sighting direction, are opposed to one another. The distal sight presents a radially outer one of the opposed sighting surfaces and the proximal sight presents a radially inner one of the opposed sighting surfaces. The opposed surfaces cooperatively present at least one aiming window for accurately aligning the sights and viewing a target.



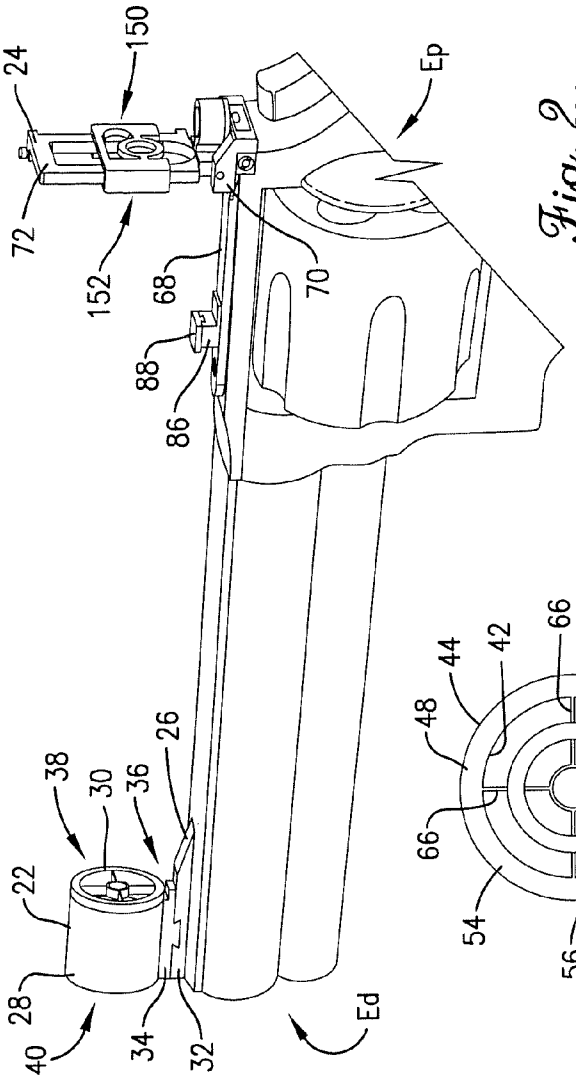



Fig. 2.

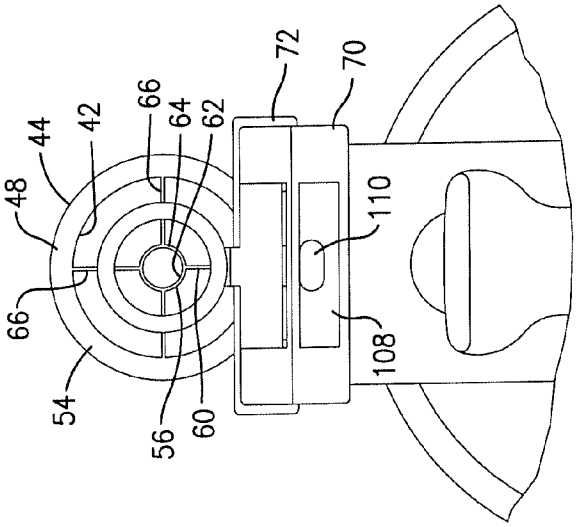



Fig. 3.

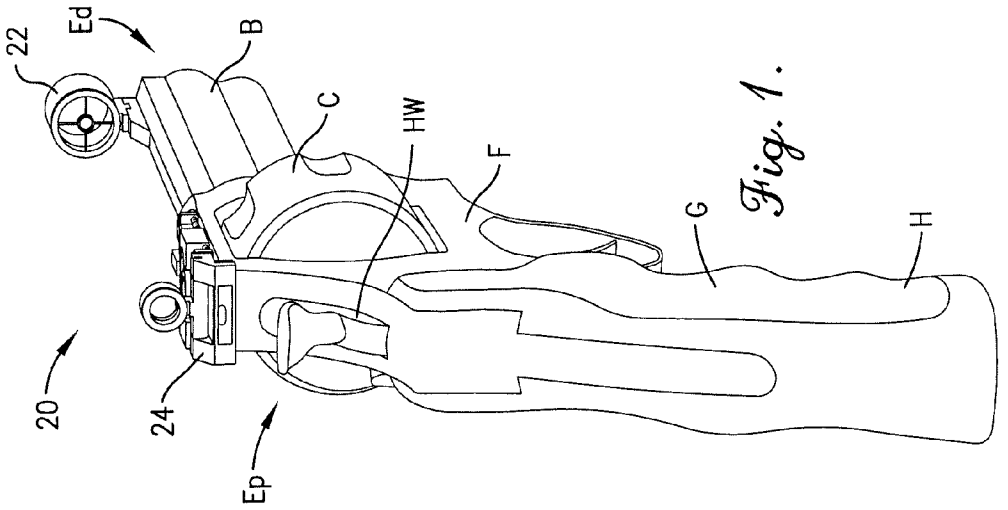
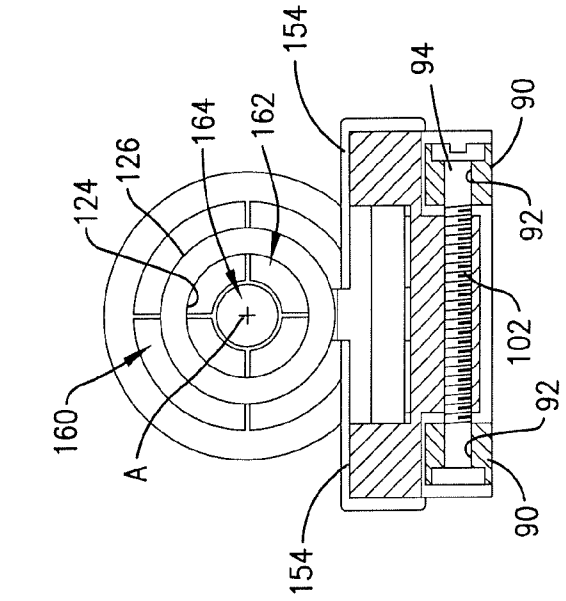



Fig. 1.

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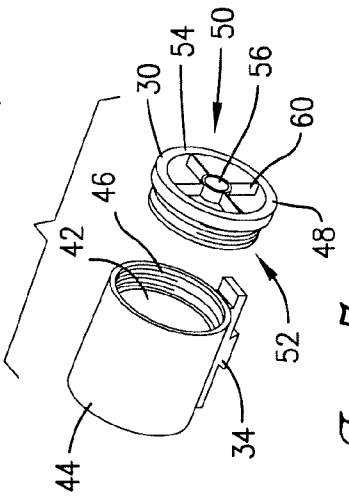


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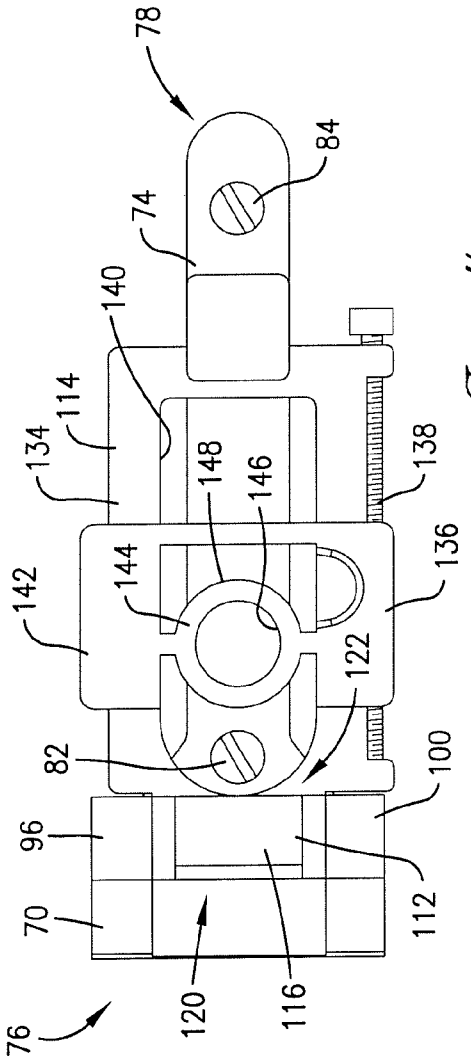


Fig. 4.

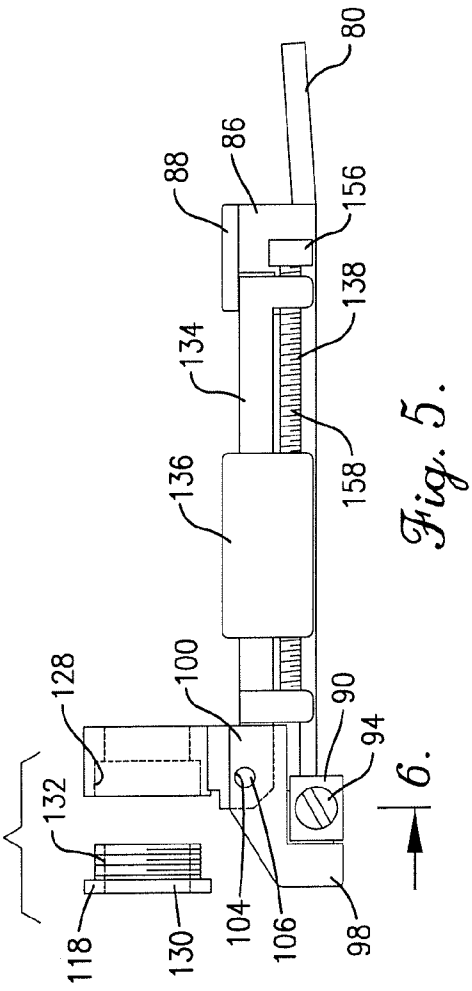


Fig. 5.

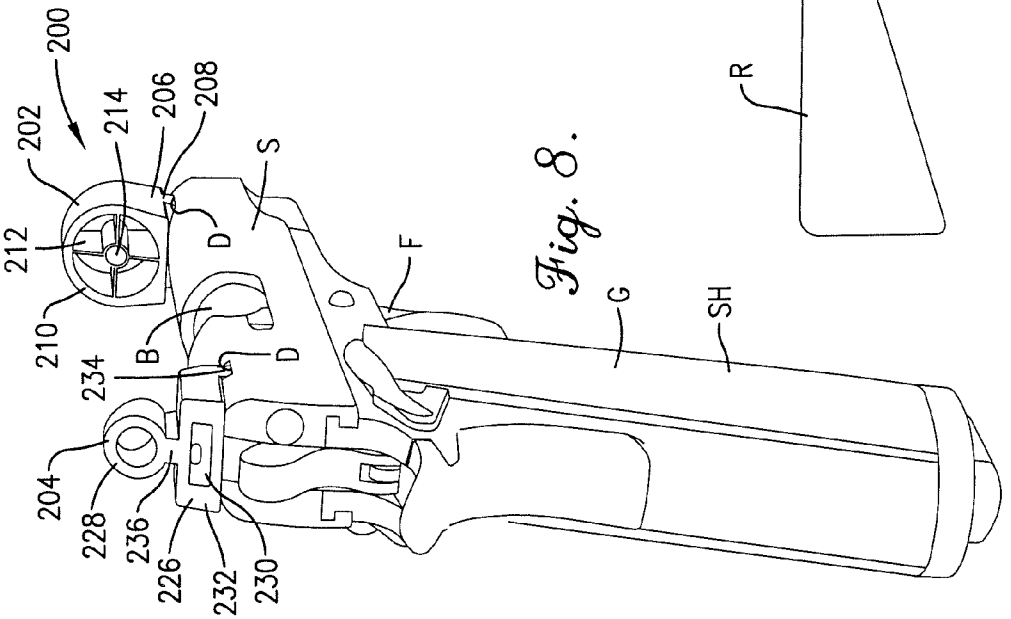


Fig. 8.

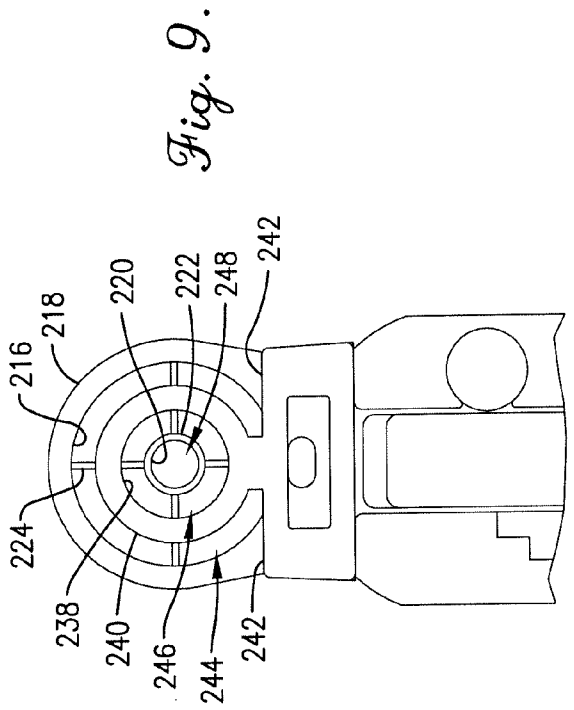


Fig. 9.

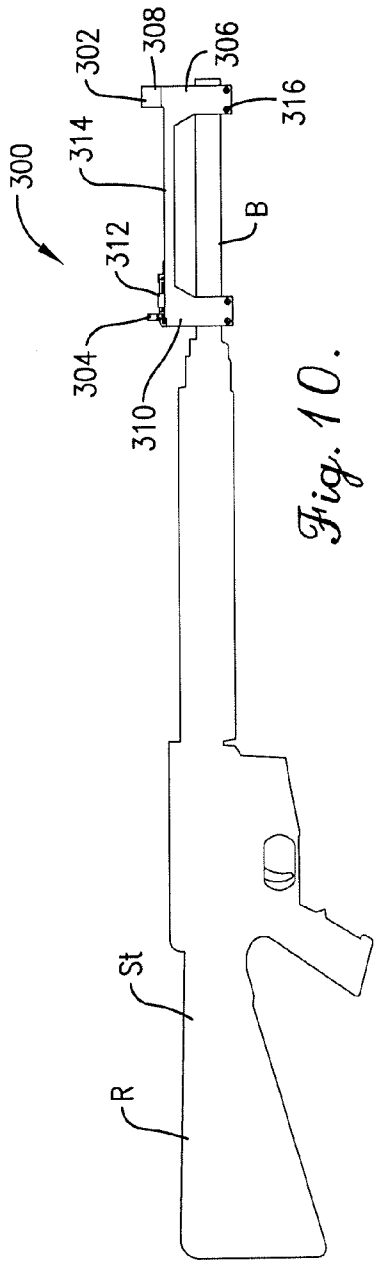


Fig. 10.

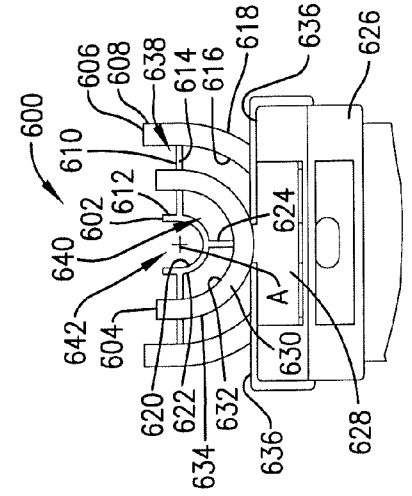


Fig. 13.

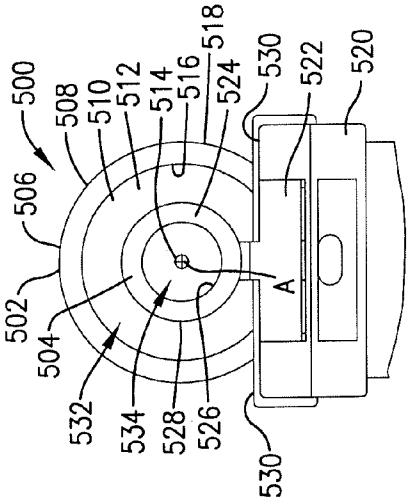


Fig. 12.

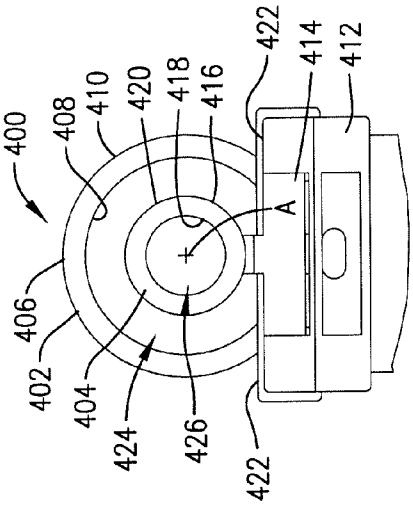


Fig. 11.

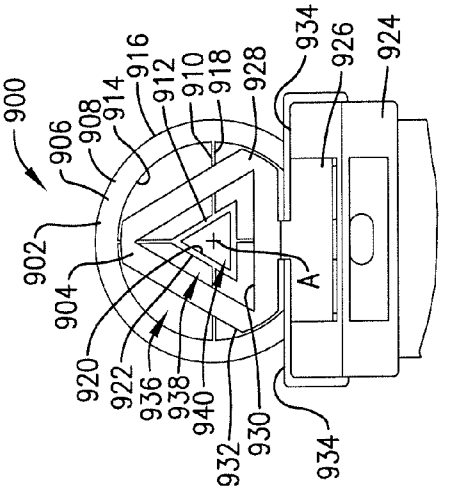


Fig. 16.

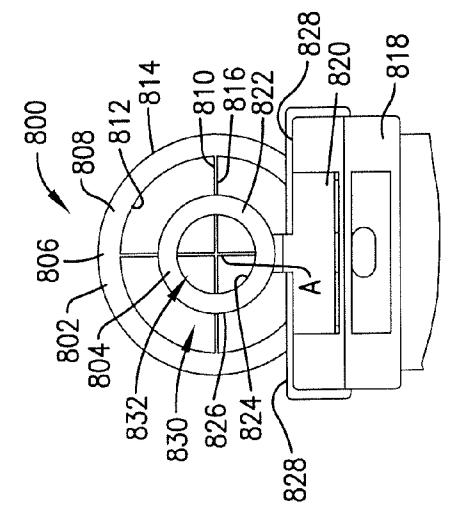


Fig. 15.

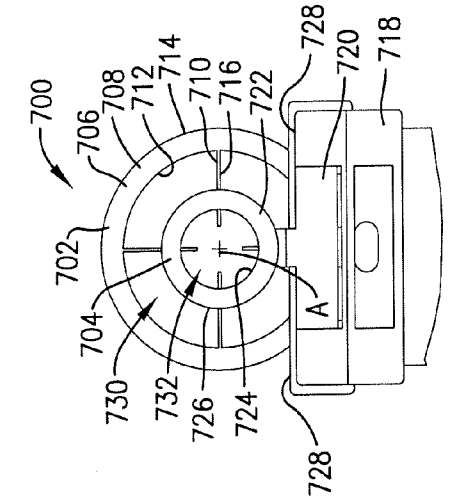


Fig. 14.

# SIGHTING SYSTEM

## BACKGROUND OF THE INVENTION

**[0001]** 1. Field of the Invention

**[0002]** The present invention relates generally to sighting systems for precisely aligning a device, such as a firearm or telescope, with a target. More specifically, embodiments of the present invention concern a firearm sighting system with proximal and distal sights that present a sight picture when viewed with complementally shaped surfaces.

**[0003]** 2. Discussion of Prior Art

**[0004]** Metallic gun sights, also known as "iron sights," are known in the art. Prior art metallic gun sights include peep sights and open sights. Both peep sights and open sights utilize a proximal or rear sight, i.e., nearest the user's eye, in cooperation with a distal or front sight, i.e., spaced along the firearm in a direction away from the user. Peep sights generally have an aperture in the rear sight and the front sight commonly includes a blade, a post and bead, a circle, or a circle and insert. The rear aperture is typically positioned close to the shooter's eye, which in the sight picture surrounds, and is larger than, the front sight. Open sights traditionally are post and notch, where the front sight is a post or blade and the rear sight includes a blade with a notch. The rear sight in open sights is typically viewed from a distance in operation.

**[0005]** All prior art metallic gun sights, including peep sights and open sights, are problematic and subject to several undesirable limitations. For example, open sights and peep sights lack precision for fine accuracy. The aiming references of open sights are limited to the two symmetrical blocks of light in the rear sight on either side of the front sight post, and the alignment of the top edges of the front blade with the rear sight. Peep sights include a rear sight with an aperture close to the shooter's eye, wherein the user looks through the aperture to view the front sight. Typically when viewed, the aperture provides a much larger sighting surface that encircles a relatively small sighting surface of the front sight. The substantial radial spacing between the sights when viewed provides an aiming reference that is imprecise. Furthermore, the centering of the front bead or blade inside the rear sight aperture provides the only aiming reference between the two sights.

**[0006]** Another limitation of prior art sights, including open sights and peep sights, is that they obscure the target during aiming. With respect to open sights, the user must cut the target, such as a black circle bulls eye, in half with the rear blade in order to aim at the center of the target. The solid rear blade necessarily obscures the user's view of at least half of the target when aiming perfectly at the center. The rear blade also obscures the target when the user has not yet acquired the target, e.g., where the target is spaced below the upper edge of the blade. The alternative method of aiming with an open sight is to float the entire target above the blade, which is an inherently imprecise way of aiming at the center of the target. Similarly, the rear sight of a peep sight commonly has large eye discs and relatively bulky metal close to the shooter's eye and face. During aiming, the rear sight substantially blocks the user's view of the target area except for the aperture. Thus, a rear sight obscures the target, particularly when the user has not yet acquired the target.

**[0007]** Yet another limitation of prior art sights is that the rear sight obscures the front sight. For example, the rear sight of an open sight necessarily obscures a large portion of the front sight when the sights are perfectly aligned. Prior to perfect alignment, the rear sight can easily entirely block the user's view of the front sight. Similarly, the rear sight of a peep sight can also obscure the front sight prior to alignment of the sights.

**[0008]** As mentioned, prior art rear sights, such as those of an open or peep sight, block a substantial part of the user's view. Consequently, prior art rear sights do not allow sufficient light to pass through to the user, particularly in low light conditions.

**[0009]** Thus, all prior art metallic gun sights continue to suffer from several basic problems: the sight picture to the shooter does not provide precise aiming references, prior art sights obscure the target and surrounding target areas, the rear sight obscures the front sight, and target acquisition is poor in low light. These limitations of prior art sights also tend to slow target acquisition. Accordingly, there is a need for an improved sighting system.

## SUMMARY OF THE INVENTION

**[0010]** The present invention provides a sighting assembly that does not suffer from the problems and limitations of the prior art gun sights set forth above.

**[0011]** A first aspect of the present invention concerns a firearm sighting assembly for facilitating aiming of a firearm at a target by a user. The firearm sighting assembly broadly includes proximal and distal sights configured for connection to the firearm to sight the target along a sighting direction. The proximal sight is connectable to the firearm closer to the user along the sighting direction than the distal sight. The distal sight presents a generally inward facing distal sighting surface that defines an opening. The proximal sight presents a generally outward facing proximal sighting surface. The proximal sighting surface is spaced within the opening when the target is viewed with the sights, such that the sighting surfaces present corresponding opposed sections when viewed. The proximal and distal sighting surfaces present respective radial dimensions measured relative to the sighting direction. The proximal sighting surface is radially smaller than the distal sighting surface along the corresponding opposed sections.

**[0012]** A second aspect of the present invention concerns a firearm assembly operable by a user to aim at a target. The firearm assembly broadly includes a firearm and a firearm sighting assembly. The firearm includes a muzzle end. The firearm sighting assembly facilitates aiming of the firearm at the target. The firearm sighting assembly includes proximal and distal sights connected to the firearm to sight the target along a sighting direction, with the distal sight being spaced closer to the muzzle end than the proximal sight. The distal sight presents a generally inward facing distal sighting surface that defines an opening. The proximal sight presents a generally outward facing proximal sighting surface. The proximal sighting surface is spaced within the opening when the target is viewed with the sights, such that the sighting surfaces present corresponding opposed sections when viewed. The proximal and distal sighting surfaces present respective radial dimensions measured relative to the sighting direction. The proximal sighting surface is radially smaller than the distal sighting surface along the corresponding opposed sections.

**[0013]** Other aspects and advantages of the present invention will be apparent from the following detailed description of the preferred embodiments and the accompanying drawing figures.

## BRIEF DESCRIPTION OF THE DRAWING FIGURES

**[0014]** Preferred embodiments of the invention are described in detail below with reference to the attached drawing figures, wherein:

**[0015]** FIG. **1** is a rear perspective view of a sighting assembly constructed in accordance with a preferred embodiment of the present invention and shown mounted on a revolver-type handgun with a proximal sight of the sighting assembly positioned for short range use;

**[0016]** FIG. **2** is side perspective view of the sighting assembly shown in FIG. **1**, showing the sighting assembly mounted on the handgun and illustrating a staff of the proximal sight in an upright sighting position for long range use;

**[0017]** FIG. **3** is a rear elevational view of the sighting assembly shown in FIGS. **1** and **2**, showing the staff in a lowered position and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0018]** FIG. **4** is a plan view of the proximal sight of the sighting assembly shown in FIGS. **1-3**, showing a shiftable sight element of the proximal sight slidably mounted on the staff,

**[0019]** FIG. **5** is a fragmentary side elevational view of the proximal sight shown in FIGS. **1-4**, showing a threaded insert removed from the remainder of the proximal sight;

**[0020]** FIG. **6** is a sectional view of the sighting system taken substantially along line **6-6** of FIG. **5**, showing a windage platform and a sight base of the proximal sight being attached to one another by a windage screw;

**[0021]** FIG. **7** is an exploded perspective view of a distal sight of the sighting assembly shown in FIGS. **1-6**, showing a threaded insert removed from the remainder of the distal sight;

**[0022]** FIG. **8** is a rear perspective view of a sighting assembly constructed in accordance with a second embodiment of the present invention and shown mounted on a semiautomatic handgun;

**[0023]** FIG. **9** is a rear elevational view of the sighting assembly shown in FIG. **8**, showing a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0024]** FIG. **10** is a side elevational view of a sighting assembly constructed in accordance with a third embodiment of the present invention and shown mounted on the barrel of a rifle (illustrated schematically);

**[0025]** FIG. **11** is a rear elevational view of a sighting assembly constructed in accordance with a fourth embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0026]** FIG. **12** is a rear elevational view of a sighting assembly constructed in accordance with a fifth embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0027]** FIG. **13** is a rear elevational view of a sighting assembly constructed in accordance with a sixth embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0028]** FIG. **14** is a rear elevational view of a sighting assembly constructed in accordance with a seventh embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown);

**[0029]** FIG. **15** is a rear elevational view of a sighting assembly constructed in accordance with a eighth embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown); and

**[0030]** FIG. **16** is a rear elevational view of a sighting assembly constructed in accordance with a ninth embodiment of the present invention and shown mounted on a handgun (shown in fragmentary) and illustrating a sight picture provided when viewing the sighting assembly along a sighting direction in order to aim the handgun at a target (not shown).

**[0031]** The drawing figures do not limit the present invention to the specific embodiments disclosed and described herein. The drawings are not necessarily to scale, emphasis instead being placed upon clearly illustrating the principles of the preferred embodiment.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0032]** FIG. **1** illustrates a sighting assembly **20** constructed in accordance with a preferred embodiment of the present invention and configured for mounting on a handgun H. As will be further detailed below, the illustrated sighting assembly **20** is particularly well suited for facilitating target acquisition in relatively long range applications where precise accuracy is valued. One such application is competitive long range target shooting, such as traditional bulls eyes at distances as far as one-thousand yards. Accordingly, the handgun H illustrated in FIG. **1** is suitable for such applications, such as a large caliber handgun. However, the principles of the present invention are not limited to any particular type of firearm and would equally apply to any weapon where a metal sight is utilized, such as a civilian or military handgun, rifle, shotgun, crossbow and the like. Furthermore, while the principles of the present invention are well suited for metallic gun sight applications, they can be equally applied to any device that needs to be precisely aligned with a location, such as a telescope.

**[0033]** The illustrated handgun H is a conventional Smith and Wesson revolver-type handgun and broadly includes a frame F, a grip G, a barrel B coupled to the frame F, and hardware HW associated with the frame F for firing ammunition through the barrel B. The frame F, barrel B, and hardware HW comprise the traditional components of any conventional handgun and accordingly will not be described in detail herein with the understanding that these components could be variously configured in any manner well known in the art. The illustrated hardware HW includes a revolving, multiple-chamber cylinder C with a hammer and trigger fir-

ing mechanism. The handgun H also presents a distal end Ed (i.e., the muzzle end of the handgun H spaced distally from the user) and a proximal end Ep (i.e., the breech end of the handgun H spaced proximally to the user).

**[0034]** Turning now to FIGS. **1-7**, the inventive sighting assembly **20** is configured to provide superior accuracy, faster target acquisition, and improved low light capability for a shooter aiming the firearm H at a target and broadly includes a muzzle sight **22** and a breech sight **24**. Perhaps as best shown in FIGS. **1**, **2**, and **7**, the illustrated muzzle sight **22** broadly includes a base **26**, a body **28** coupled to the base **26**, and an insert **30** removably coupled to the body **28**. The muzzle sight **22** is preferably comprised of SAE 4140 carbon steel. However, it is within the ambit of the present where the muzzle sight **22** is manufactured from other carbon steels, aluminum, stainless steel, or other suitable metallic or non-metallic materials.

**[0035]** In more detail, the base **26** is configured to mount on the handgun H atop the distal end Ed of the barrel B. In one manner well known in the art, the base **26** is attached to a ramp portion **32** of the barrel B and includes an inset portion **34** that is coupled to the ramp portion **32**. Each of the portions **32**,**34** include dovetail surfaces that are complementally shaped so as to be in interlocking engagement with one another. While the ramp portion **32** is preferably integrally formed with the barrel B, the principles of the present invention are applicable where the ramp portion **32** is otherwise affixed thereto, such as with screws, pins, weldment, or the like. The inset portion **34** interlocks with the ramp portion **32** and once interlocked, could be removably coupled thereto (e.g., by a press fit or pinned joint) or permanently coupled thereto (e.g., by a weldment). The illustrated inset **34** includes a stepped setoff **36** adjacent a proximate end of the inset portion **34**. The base **16** could be variously alternatively configured in any suitable manner known in the art. For example, the base **26** need not be a two-piece configuration. Additionally, the base **26** could be eliminated altogether, such as affixing the body **28** directly to the barrel B. However, if a base **26** is utilized, the base **26** is preferably coupled to the handgun H centered atop the barrel B adjacent the distal end Ed.

**[0036]** The body **28** is coupled to the base **26** and is configured to receive the insert **30** to cooperatively present proximal and distal open ends **38**,**40** of the muzzle sight **22** and internal and external sighting surfaces **42**,**44** that are preferably substantially coaxial between the ends **38**,**40**. As will be discussed, the surfaces **42**,**44** are configured for sighting a target. In more detail, the illustrated body **28** is preferably cylindrical and includes internal threads **46** adjacent the proximal end **38**. The insert **30** includes a cylindrical body **48** and presents a proximal end **50** and an externally threaded distal end **52**. While the bodies **28**,**48** are preferably cylindrical and, therefore, have a circular cross section, it is also within the ambit of the present invention where the bodies **28**,**48** have a cross section comprising other geometrical shapes, e.g., a semicircle, a polygon, or another suitable shape. Adjacent the end **50**, the insert **30** includes an outer circular element **54**, an inner circular element **56**, and cross hair portions **60** that are integrally formed with the body **48**. The inner element **56** is spaced within the outer circular element **54**, with cross hair portions **60** interconnecting the inner circular element **56** and the outer circular element **54**.

**[0037]** The inner circular element **56** presents internal and external sighting surfaces **62**,**64**, which are preferably coaxial. The cross hair portions **60** present sighting surfaces **66**. Similar to surfaces **42**,**44**, surfaces **62**,**64**,**66** are configured for sighting a target. As will be discussed in greater detail, surfaces **42**,**44**,**62**,**64**,**66** cooperate with surfaces of the breech sight **24** to define a sight picture of the sighting assembly **20**, i.e., a user's view of the silhouette formed by the sighting assembly **20** when aiming the handgun H at the target.

**[0038]** The insert **30** is threadably inserted within the body **28** so that the threaded distal end **52** is received by the internal threads **46**. The thickness of the outer circular element **54** is substantially the same as the thickness of the barrel-shaped body **28**. However, the principles of the present invention are equally applicable where the outer circular element **54** is thicker than the body **28** so as to present a correspondingly thicker circular silhouette form for the muzzle sight **22**. In this manner, the muzzle sight **22** is adjustable to accommodate several variables such as environmental conditions (e.g., lighting or terrain) and the user's visual acuity.

**[0039]** The illustrated breech sight **24** is a flip-up sight and is mounted adjacent the proximal end Ep. The breech sight **24** broadly includes an adjustable sight base **68**, a windage platform **70**, and a shiftable dual sight **72**. The sight base **68** is preferably comprised of spring steel and the remainder of the breech sight **24** is preferably comprised of SAE 4140 carbon steel. However, it is within the ambit of the present where the breech sight **24** is manufactured from other carbon steels, aluminum, stainless steel, or other suitable metallic or non-metallic materials.

**[0040]** Turning to FIGS. **4-7**, the sight base **68** includes an elongated bracket **74** with proximal and distal ends **76**,**78**. The bracket **74** includes an angled tab **80** adjacent the distal end **78**. Again, the bracket **74** is preferably made of spring steel and is, therefore, is elastically bendable. The bracket **74** further includes proximal and distal screws **82**,**84** received in corresponding holes (not shown) in the bracket **74** and which secure the bracket **74** to the handgun H. The distal screw **84** is threaded into the handgun H to position the angled tab **80** firmly against the handgun H. Preferably, the distal screw **84** is threaded fully into the handgun H. However, it is consistent with the principles of the present invention where the distal screw **84** is adjustably threaded into the handgun H.

**[0041]** The proximal screw **82** is preferably adjustable to position the proximal end **76** vertically relative to the handgun H. With the proximal screw **82** removed and the distal screw **84** installed, the proximal end **76** is spaced from an uppermost surface of the handgun H, due to the configuration of the angled tab **80**. The installation of proximal screw **82** permits the proximal end **76** to be vertically repositioned at a distance from the uppermost surface from about zero inches to about 3/16 inch. The construction of the bracket **74** with spring steel permits the bracket **74** to elastically bend as the proximal screw **82** is threaded into the handgun H. As will be discussed, vertical positioning of the screw **82** permits selective vertical positioning of the dual sight **72**.

**[0042]** The sight base **68** further includes a pedestal **86** integrally formed with the bracket **74** adjacent the distal end **78** and a catch **88** slidably attached to an uppermost surface of the pedestal **86** (see FIG. **2**). The sight base also includes bosses **90** adjacent the proximal end **60** (see FIG. **6**), with coaxial holes **92** therethrough, and a windage screw **94** rotatably received within the holes **92** and configured to position the windage platform **70**, as will be discussed.

**[0043]** The windage platform **70** includes a body **96** that presents a lower base **98** and connectors **100** projecting from

the base **98**. The lower base **98** includes a threaded through-hole **102** for receiving the windage screw **94**, as will be discussed. Coaxial holes **104** extend through the connectors **100** to receive a pin **106**. The windage platform **70** further includes a spirit level **108** attached to and spaced within the body **96**. The spirit level **108** is similar to those known in the art and, in the usual manner, includes an outer shell preferably comprising a high-impact cast acrylic and contains a liquid and a gas bubble **110** floating in the liquid (see FIG. **3**). The spirit level **108** indicates orientation of the handgun H and is particularly suitable for repetitively positioning the handgun H prior to firing. It has been determined that such repeatability in firearm positioning is critical for maintaining accuracy in long range shooting applications, particularly with a handgun such as the illustrated handgun H.

**[0044]** The windage platform **70** is attached to the sight base **68** by extending the windage screw **94** through coaxial holes **92** and through-hole **102**. The windage screw **94** includes external threads that engage the internal threads of the through-hole **102**. Rotational movement of the windage screw **94** shifts the windage platform **70** relative to the sight base **68** laterally along the axis of the windage screw **94** and between the bosses **90**.

**[0045]** The dual sight **72** broadly includes a short-range sight **112** and a long-range sight **114** integrally attached to one another. The short-range sight **112** comprises a cylindrical body **116** similar to the body **28** and an insert **118**. The body **116** and insert **118** cooperatively present proximal and distal open ends **120**,**122** and internal and external sighting surfaces **124**,**126** that preferably substantially extend coaxially between the ends **120**,**122**. As will be discussed, the surfaces **124**,**126** are configured for sighting a target and present a substantially circular silhouette form that is configured to define part of the sight picture of the sighting assembly **20**.

**[0046]** The body **116** is cylindrical and includes internal threads **128** adjacent the proximal end **120**. The insert **118** is unitary and includes a circular element **130** and a threaded element **132**. The insert **118** is threadably inserted within the body **116**. In the illustrated embodiment, the thickness of the circular element **130** is substantially the same as the thickness of the cylindrical body **116**. However, the principles of the present invention are equally applicable where the circular element **130** is thicker than the body **116** so as to present a correspondingly thicker silhouette form for the breech sight **24**. In this manner, the breech sight **24** is adjustable to accommodate variable conditions as discussed previously with respect to the muzzle sight **22**.

**[0047]** The long-range sight **114** preferably includes a staff **134**, a shiftable sight **136**, and an elevation screw **138**. The staff **134** is a preferably unitary metallic plate and presents an opening **140**. The sight **136** is also preferably a unitary metallic plate and comprises a U-shaped frame **142** and a circular element **144** that is preferably fixed to and spaced within the frame **142**. The circular element **144** preferably includes internal and external sighting surfaces **146**,**148** that coaxially extend between proximal and distal ends **150**,**152** of the circular element (see FIG. **2**). Similar to surfaces **124**,**126**, surfaces **146**,**148** are also configured for sighting a target and present a substantially circular silhouette form that is configured to define part of the sight picture of the sighting assembly **20**.

**[0048]** In addition, the shiftable sight **136** and windage platform **70** present other sighting surfaces **154** (see FIG. **6**). However, the principles of the present invention are applicable where other portions of the sighting assembly **10** present sighting surfaces for sighting a target.

**[0049]** The sight **136** is preferably slidably mounted on the staff **134**. The elevation screw **138** includes a head **156** and a screw body **158** and is rotatably mounted on the staff **134**. The screw **138** also extends through a threaded bore (not shown) of the sight **136**. Thus, as the head **156** is rotated the sight **136** is shifted by the screw **138** in the corresponding direction along the staff **134**.

**[0050]** As previously mentioned, the short-range sight **112** is integrally fixed to the long-range sight **114**. In particular, the short-range sight **112** generally extends at a right angle to the long-range sight **114**, so that only one of the sights **112**, **114** is configured for use at a particular time.

**[0051]** The dual sight **72** is shiftably attached to the sight base **68** by the pin **106**. The dual sight **72** is shiftable relative to the sight base **68** about an axis of the pin **106** to position either the short-range sight **112** or the long-range sight **114** into an upright sighting position. When the short-range sight **112** is placed into the upright sighting position (see FIG. **5**), the long-range sight **114** is shifted into a lowered position and extends laterally along the bracket **74**, i.e., the short-range sighting configuration. Furthermore, the dual sight **72** is secured in this lowered position by shifting the catch **88** rearwardly into a staff engagement position (shown in FIG. **5**). To permit shifting of the short-range sight **112** out of the first sighting position, the catch **88** is configured to shift forwardly (as shown in FIG. **2**). Subsequently, the dual sight **72** is rotatable about the pin **106** in a generally rearward direction until the short-range sight **112** contacts the windage platform **70** and the long-range sight **114** is placed into the upright sighting position, i.e., a long-range sighting configuration. In the long-range configuration, the dual sight **72** is preferably frictionally held in place.

**[0052]** For relative lateral shifting between the sights **22**,**24**, i.e., windage adjustment, the windage platform **70** and windage screw **94** cooperate to shift the dual sight **72** relative to the sight base **68**. Thus, as the windage screw **94** is rotated, the windage platform **70** shifts relative to the sight base **68** laterally along the axis of the windage screw **94**. Consequently, the dual sight **72** is shifted by the windage platform **70** along the lateral axis and relative to the muzzle sight **22**.

**[0053]** As previously discussed, the sight base **68** is vertically adjustable by adjustment of the proximal screw **82**. Thus, in order to adjust the vertical position of the short-range sight **112** relative to the muzzle sight **22**, the proximal screw **82** is repositioned accordingly while the screw **84** remains fully threaded in the handgun H. For example, in order to raise the short-range sight **112**, the proximal screw **82** is threaded out of the handgun H and the distal screw **84** remains threaded in the handgun H.

**[0054]** For vertical adjustment of the long-range sight **114**, the sight base **68** can be repositioned by adjustment of the screw **82** as discussed. In addition, the shiftable sight **136** can be vertically adjusted by rotating the elevation screw **138**. Thus, either of the sights **112**,**114** are adjustable both vertically and laterally relative to the muzzle sight **22**.

**[0055]** Turning to FIGS. **3** and **6**, the sights **22**,**24** cooperatively form the illustrated sight picture when viewing the sighting assembly along a sighting direction or sighting axis A. As discussed previously, various sighting surfaces **42**,**44**, **62**,**64**,**66**,**124**,**126**,**146**,**148**,**154** are configured for sighting a target by presenting a sight picture. The sighting surfaces **42**,**44**,**62**,**64**,**66**,**124**,**126**,**146**,**148**,**154** present various radial

dimensions when measured from the sighting axis A. Preferably, at least some of the sighting surfaces **42**,**44**,**62**,**64**,**66**, **124**,**126**,**146**,**148**,**154** present corresponding opposed sections when the target is viewed along the sighting axis A with the sights **22**,**24**. More preferably, the opposed surface sections are preferably geometrically symmetrical with one another and are uniformly spaced apart. For example, arcuate sections of surfaces **42**,**126** that are adjacent to one another are both uniform circular arcs and are spaced from one another at a uniform radial distance measured from the sighting axis A. Most preferably, opposed surface sections are substantially coaxial to one another when viewed along the sighting axis A.

**[0056]** Preferably, surfaces **42**,**126** and surfaces **64**,**124** are also opposed to one another when a target is viewed along the sighting axis A with the short-range sight **112** in the upright sighting position. Surfaces **42**,**148** and surfaces **64**,**146** are also opposed to one another when a target is viewed along the sighting axis A with the long-range sight **114** in the sighting position. Again, the principles of the present invention are applicable where other portions of the sighting assembly **20** present sighting surfaces for sighting a target.

**[0057]** When a target is viewed along the sighting axis A with the short-range sight **112** in the upright sighting position, the sighting surfaces **42**,**66**,**126**,**154** preferably cooperatively form a plurality of outer aiming windows **160**, and sighting surfaces **64**,**66**,**124** preferably cooperatively form a plurality of inner aiming windows **162**. When the target is viewed along the sighting axis A with the long-range sight **114** in the upright sighting position, sighting surfaces **42**,**66**,**148**,**154** preferably cooperatively form the outer aiming windows **160**, and sighting surfaces **64**,**66**,**146** preferably cooperatively form the inner aiming windows **162**. Furthermore, a central aiming window **164** is defined by the internal sighting surface **50***b*. The term aiming window, as used herein, refers to one or more sighting surfaces that entirely bound, i.e., that form a boundary around, a continuous viewing space as the sighting surface(s) are viewed along a sighting direction. Furthermore, aiming windows **160**,**162** are compound aiming windows. The term compound aiming window, as used herein, refers to two or more sighting surfaces that entirely bound and thereby define a continuous viewing space as the sighting surfaces are viewed along a sighting direction. While the illustrated embodiment preferably includes various aiming windows, it is also within the ambit of the present invention where other types of openings or apertures are formed by one or more of the above referenced sighting surfaces.

**[0058]** Thus, the sights **22**,**24** preferably present a sight picture or silhouette form comprising three (3) substantially concentric circles. Furthermore, the sight picture includes perpendicular cross hairs that extend from the outermost circle to the innermost circle. More preferably, the breech sight **24** provides the intermediate circle of the three circles. That is, the muzzle sight **22** presents the innermost and outermost circles with the breech sight **24** presenting a circle that is spaced within the outermost circle and itself encircles the innermost circle. This configuration of sighting surfaces between the sights **22**,**24** provides a highly animated sight picture, i.e, a sight picture that attracts the user's attention. While the illustrated embodiment preferably includes these coaxial geometric surfaces, the principles of the present invention are equally applicable where the sighting assembly **20** includes other forms and configurations of geometric surfaces.

**[0059]** In the illustrated embodiment, an upper pair of the aiming windows **160**, all of the aiming windows **162**, and central aiming window **164** each have an corresponding axis of symmetry about which the respective aiming window **160**, **162**,**164** is symmetrical. Also, the upper pair of aiming windows **160**, the lower pair of aiming windows **162**, as well as any pair of the aiming windows **162** are each symmetrical with respect to one another. The uniformity of the aiming windows **106**,**162**,**164** and the concentric arrangement of geometrical shapes permits a vivid sight picture while minimally visually obstructing the user's view of the intended target. In other words, the large number of aiming windows **160**,**162**,**164** and their proximity to one another effectively provide pixel-type blocks of light or segmented views of the target that a user can visually synthesize into a collective view of the target. While the illustrated embodiment preferably includes aiming windows **160**,**162**,**164** to create this vivid sight picture, the principles of the present invention are applicable where a large number of other types of apertures or openings are grouped together to provide a sight picture.

**[0060]** Furthermore, the use of concentric, closely-spaced sighting surfaces creates narrow aiming windows that precisely indicate any misalignment of the sights **22**,**24** to the user. For example, the aiming windows **160**,**162**,**164** present an unobstructed space for viewing a target with at least one width dimension transverse to any axis of misalignment. Preferably, the width dimension is shorter than a length dimension of the window **160**,**162**,**164**, although the principles of the present invention are applicable where the width has the same or larger dimension than the length. For a compound aiming window, as discussed above, such a width dimension decreases in length as misalignment about the axis increases. As the width dimension of the aiming window during perfect alignment is made smaller, slight changes in the width dimension due to misalignment become more visually pronounced. Therefore, the illustrated sighting assembly **10** is preferably designed with narrow compound aiming windows that provide a noticeable visual indication of even slight misalignment between sights **22**,**24**.

**[0061]** While the sighting assembly **20** does not include optical magnification therein, the principles of the present invention are applicable where a magnification lens is included in one or both of the sights **22**,**24** either permanently, e.g., within the respective body **28**,**116**,**144** or selectively, e.g., as part of the corresponding insert **30**,**118**.

**[0062]** In operation, the handgun H is preferably held by a user so that the illustrated sighting assembly **20** is positioned from the user at a sight relief distance of about eighteen (**18**) inches. The sight relief distance is the distance from the user's eye to the most proximal sight, i.e., the breech sight **24**. The user can selectively shift the dual sight **72** into either a long-range or short-range configuration (i.e., with either the long-range sight **114** or the short-range sight **112** in the upright sighting position). The sights **22**,**24** are configured to be viewed so as to be coaxial with one another to define the sighting axis A and thereby provide a sight picture as discussed above. The spirit level **108** is operable to provide an indication of handgun orientation to the user.

**[0063]** Turning to FIGS. **8**-**16**, alternative preferred embodiments of the present invention are depicted. For the sake of brevity, the remaining description will focus primarily on the differences of these alternative embodiments from the preferred embodiment described above.

**[0064]** Initially turning to FIGS. **8** and **9**, an alternative sighting assembly **200** is constructed in accordance with a second embodiment of the present invention. The illustrated sighting assembly **200** is mounted onto a semiautomatic handgun SH. The illustrated handgun SH is a semiautomatic M1911 government model. It is also within the ambit of the present invention where the sighting assembly **200** is used on firearms other than the handgun SH. The handgun SH includes a grip G, frame F, barrel B, and slide S. The slide S presents a pair of dovetail grooves D that extend transversely to the length of the barrel B.

**[0065]** The sighting assembly **200** broadly includes an alternative muzzle sight **202** and an alternative breech sight **204**. The muzzle sight **202** includes a substantially unitary body **206**. The body **206** presents a dovetail-shaped base element **208** that interlocks with the complemental dovetail groove D. The body **206** also preferably includes an outer cylindrical element **210**, a cross hair element **212**, and an inner cylindrical element **214** that are integrally formed with one another and with the base element **208**. The outer cylindrical element **210** presents internal and external sighting surfaces **216**,**218**. The inner cylindrical element **214** presents internal and external sighting surfaces **220**,**222**. The cross hair element **212** presents sighting surface **224**.

**[0066]** The breech sight **204** includes a base **226**, a cylindrical body **228**, and a spirit level **230**. The base **226** comprises a platform portion **232**, a dovetail portion **234** that projects below the platform portion **232** and interlocks with the complemental dovetail groove D, and a stem portion **236** that supports the cylindrical body **228**. The cylindrical body **228** is unitary and presents internal and external sighting surfaces **238**,**240**. The base **226** presents sighting surfaces **242**. When a target is viewed along the sighting direction, the sighting surfaces **216**,**224**,**240**,**242** preferably cooperatively form a plurality of outer aiming windows **244** and sighting surfaces **222**,**224**,**238** preferably cooperatively form a plurality of inner aiming windows **246**. Muzzle sight **202** presents a central aiming window **248**.

**[0067]** Turning to FIG. **10**, an alternative sighting assembly **300** is constructed in accordance with a third embodiment of the present invention. In the illustrated embodiment, a rifle R includes a stock St and a barrel B. The sighting assembly **300** broadly includes distal and proximal sights **302**,**304**. The distal sight **302** includes a base **306** and a cylindrical body **308**. The proximal sight **304** includes a base **310** and a dual sight **312** shiftably mounted to the base **310**. The bases **306**, **310** are integrally formed with a bridging element **314** and are thereby fixed to one another. The bases **306**,**310** are attached to the barrel B with fasteners **316**. The illustrated sighting assembly **300** is mounted on the barrel B adjacent a distal end Ed. With a butt end of the stock St positioned against the user's shoulder and the sighting assembly **300** spaced adjacent the distal end Ed, the sight relief distance is preferably about 18 inches. However, the principles of the present invention are applicable where the sight relief distance is greater or lesser than 18 inches.

**[0068]** Turning to FIG. **11**, an alternative sighting assembly **400** is constructed in accordance with a fourth embodiment of the present invention. The sighting assembly **400** broadly includes distal and proximal sights **402**,**404**. The distal sight **402** includes a cylindrical body **406** with internal and external sighting surfaces **408**,**410**. The proximal sight **404** includes a base **412** and a sight **414** with a cylindrical body **416**. The cylindrical body **416** presents internal and external sighting surfaces **418**,**420** and the base **412** presents sighting surfaces **422**. In the illustrated embodiment, the sights **402**,**404** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **408**,**420**,**422** cooperatively define an outer aiming window **424**. Sighting surface **418** defines an inner aiming window **426**.

**[0069]** Turning to FIG. **12**, an alternative sighting assembly **500** is constructed in accordance with a fifth embodiment of the present invention. The sighting assembly **500** broadly includes distal and proximal sights **502**,**504**. The distal sight **502** includes a cylindrical body **506** with an outer circular element **508** and an inner element **510**. The inner element **510** includes a transparent element **512** with a dot **514** centrally positioned thereon, such that the inner element **510** comprises a reticle. The circular element **508** presents internal and external sighting surfaces **516**,**518**. The proximal sight **504** includes a base **520** and a sight **522** with a cylindrical body **524**. The cylindrical body **524** presents internal and external sighting surfaces **526**,**528** and the base **520** presents sighting surfaces **530**. In the illustrated embodiment, the sights **502**, **504** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **516**,**528**,**530** cooperatively define an outer aiming window **532**, and sighting surface **526** and dot **514** cooperatively define an inner aiming window **534**.

**[0070]** Turning to FIG. **13**, an alternative sighting assembly **600** is constructed in accordance with a sixth embodiment of the present invention. The sighting assembly **600** broadly includes distal and proximal sights **602**,**604**. The distal sight **602** includes a body **606** including an outer semicylindrical element **608** and an inner element **610** with a semicylindrical portion **612** and a cross hair portion **614**. The outer semicylindrical element **608** presents internal and external sighting surfaces **616**,**618**. The semicylindrical portion **612** presents internal and external sighting surfaces **620**,**622**. The cross hair portion **614** presents sighting surfaces **624**. The proximal sight **604** includes a base **626** and a sight **628** with a semicylindrical body **630**. The semicylindrical body **630** presents internal and external sighting surfaces **632**,**634** and the base **626** presents sighting surfaces **636**. In the illustrated embodiment, the sights **602**,**604** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **616**,**624**,**634**,**636** cooperatively define outer aiming windows **638**, and sighting surfaces **622**,**624**,**632** cooperatively define inner aiming windows **640**. The internal sighting surface **620** defines a central opening **642**.

**[0071]** Turning to FIG. **14**, an alternative sighting assembly **700** is constructed in accordance with a seventh embodiment of the present invention. The sighting assembly **700** broadly includes distal and proximal sights **702**,**704**. The distal sight **702** includes a body **706** including an outer cylindrical element **708** and inner cross hair elements **710**. The outer cylindrical element **708** presents internal and external sighting surfaces **712**,**714**. The cross hair elements **710** present sighting surfaces **716**. The proximal sight **704** includes a base **718** and a sight **720** with a cylindrical body **722**. The cylindrical body **722** presents internal and external sighting surfaces **724**,**726** and the base **718** presents sighting surfaces **728**. In the illustrated embodiment, the sights **702**,**704** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **712**, **716**,**726**,**728** cooperatively define outer aiming windows **730**,

and sighting surfaces **724**,**716** cooperatively define an inner aiming window **732**, with the cross hair elements **710** extending within the surface **724** but being spaced from the axis A.

**[0072]** Turning to FIG. **15**, an alternative sighting assembly **800** is constructed in accordance with a eighth embodiment of the present invention. The sighting assembly **800** broadly includes distal and proximal sights **802**,**804**. The distal sight **802** includes a body **806** including an outer cylindrical element **808** and interconnected inner cross hair elements **810**. The outer cylindrical element **808** presents internal and external sighting surfaces **812**,**814**. The cross hair elements **810** present sighting surfaces **816**. The proximal sight **804** includes a base **818** and a sight **820** with a cylindrical body **822**. The cylindrical body **822** presents internal and external sighting surfaces **824**,**826** and the base **818** presents sighting surfaces **828**. In the illustrated embodiment, the sights **802**, **804** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **812**,**816**,**826**,**828** cooperatively define outer aiming windows **830**, and sighting surfaces **824**,**816** cooperatively define inner aiming windows **832**.

**[0073]** Turning to FIG. **16**, an alternative sighting assembly **900** is constructed in accordance with a ninth embodiment of the present invention. The sighting assembly **900** broadly includes distal and proximal sights **902**,**904**. The distal sight **902** includes a body **906** including an outer cylindrical element **908**, inner cross hair elements **910**, and a triangular tube element **912** having a substantially triangular cross section. The outer cylindrical element **908** presents internal and external sighting surfaces **914**,**916**. The cross hair elements **910** present sighting surfaces **918**. The triangular tube element **912** presents internal and external sighting surfaces **920**,**922**. The proximal sight **904** includes a base **924** and a sight **926** with a triangular tube body **928** having a substantially triangular cross section. The triangular tube body **928** presents internal and external sighting surfaces **930**,**932** and the base **924** presents sighting surfaces **934**. In the illustrated embodiment, the sights **902**,**904** have central axes that are coaxial with a sighting axis A. When a target is viewed along the sighting axis A, the sighting surfaces **914**,**918**,**932**,**934** cooperatively define outer aiming windows **936**, and sighting surfaces **918**,**922**,**930** cooperatively define inner aiming windows **938**. Internal sighting surface **920** defines a central aiming window **940**.

**[0074]** The preferred forms of the invention described above are to be used as illustration only, and should not be utilized in a limiting sense in interpreting the scope of the present invention. Obvious modifications to the exemplary embodiments, as hereinabove set forth, could be readily made by those skilled in the art without departing from the spirit of the present invention.

**[0075]** The inventor hereby states his intent to rely on the Doctrine of Equivalents to deter-mine and assess the reasonably fair scope of the present invention as pertains to any apparatus not materially departing from but outside the literal scope of the invention as set forth in the following claims.

What is claimed is:

**1**. A firearm sighting assembly for facilitating aiming of a firearm at a target by a user, the firearm sighting assembly comprising:

proximal and distal sights configured for connection to the firearm to sight the target along a sighting direction, with the proximal sight being connectable to the firearm closer to the user along the sighting direction than the distal sight,

said distal sight presenting a generally inward facing distal sighting surface that defines an opening,

said proximal sight presenting a generally outward facing proximal sighting surface,

said proximal sighting surface being spaced within the opening when the target is viewed with the sights, such that the sighting surfaces present corresponding opposed sections when viewed,

said proximal and distal sighting surfaces presenting respective radial dimensions measured relative to the sighting direction,

said proximal sighting surface being radially smaller than the distal sighting surface along the corresponding opposed sections.

**2**. The firearm sighting assembly as claimed in claim **1**,

said corresponding opposed sections of the sighting surfaces being geometrically symmetrical so as to be uniformly spaced apart.

**3**. The firearm sighting assembly as claimed in claim **2**,

said corresponding opposed sections extending at least partly in a horizontal direction to present an upper one of the sections and a lower one of the sections, wherein the opposed sections cooperatively present an aiming window that facilitates vertical aiming of the firearm.

**4**. The firearm sighting assembly as claimed in claim **2**,

said corresponding opposed sections of the sighting surfaces being substantially coaxial along the sighting direction.

**5**. The firearm sighting assembly as claimed in claim **2**,

said distal and proximal sighting surfaces being geometrically symmetrical.

**6**. The firearm sighting assembly as claimed in claim **5**,

said distal and proximal sighting surfaces being substantially circular.

**7**. The firearm sighting assembly as claimed in claim **1**,

said proximal sighting surface presenting an uppermost margin located along the respective opposed section,

said opposed section defined by the distal sighting surface being spaced above the uppermost margin.

**8**. The firearm sighting assembly as claimed in claim **1**,

said corresponding opposed sections presenting respective central axes that are substantially aligned along the sighting direction.

**9**. The firearm sighting assembly as claimed in claim **8**,

said corresponding opposed sections being spaced above and below the aligned central axes.

**10**. The firearm sighting assembly as claimed in claim **1**,

said proximal and distal sighting surfaces defining a boundary when the target is viewed with the sights that endlessly surrounds an internal viewing space to present an aiming window for aiming at the target,

said corresponding opposed sections at least partly defining the boundary.

**11**. The firearm sighting assembly as claimed in claim **10**,

said aiming window presenting a length and a thickness that is substantially uniform along the length, with the thickness being shorter than the length.

**12**. The firearm sighting assembly as claimed in claim **10**,

said aiming window having an axis of symmetry.

13. The firearm sighting assembly as claimed in claim 10, said corresponding opposed sections of the sighting surfaces cooperatively presenting a plurality of aiming windows for aiming at the target.

14. The firearm sighting assembly as claimed in claim 13, at least two of said aiming windows being substantially symmetrical with one another.

15. The firearm sighting assembly as claimed in claim 1, said proximal sight presenting a second generally inward facing proximal sighting surface that defines a second opening.

16. The firearm sighting assembly as claimed in claim 15, said distal sight comprising inner and outer elements, said outer element forming the distal sighting surface, said inner element being spaced within the outer element.

17. The firearm sighting assembly as claimed in claim 16, said inner element presenting a second generally outward facing distal sighting surface, said second distal sighting surface being spaced within the second opening when a target is viewed with the sights, such that the second sighting surfaces present corresponding opposite sections when viewed, said second sighting surfaces presenting respective radial dimensions measured relative to the sighting direction, said second distal sighting surface being radially smaller than the second proximal sighting surface along the corresponding opposite sections.

18. The firearm sighting assembly as claimed in claim 17, said opposed and opposite sections cooperatively presenting a plurality of aiming windows.

19. The firearm sighting assembly as claimed in claim 18, said plurality of aiming windows comprising at least eight aiming windows.

20. The firearm sighting assembly as claimed in claim 19, said plurality of aiming windows comprising nine aiming windows.

21. The firearm sighting assembly as claimed in claim 17, said corresponding opposite sections of the second sighting surfaces being geometrically symmetrical so as to be uniformly spaced apart.

22. The firearm sighting assembly as claimed in claim 21, said corresponding opposite sections of the second sighting surfaces extending at least partly in a horizontal direction to present an upper one of the sections and a lower one of the sections, wherein the opposite sections cooperatively present an aiming window that facilitates vertical aiming of the firearm.

23. The firearm sighting assembly as claimed in claim 21, said corresponding opposite sections of the second sighting surfaces being substantially coaxial along the sighting direction.

24. The firearm sighting assembly as claimed in claim 21, said second distal and proximal sighting surfaces being geometrically symmetrical.

25. The firearm sighting assembly as claimed in claim 24, said second distal and proximal sighting surfaces being substantially arcuate.

26. The firearm sighting assembly as claimed in claim 24, said second distal and proximal sighting surfaces being polygonal.

27. The firearm sighting assembly as claimed in claim 17, said second distal sighting surface presenting an uppermost margin located along the respective opposite section, said opposite section defined by the second proximal sighting surface being spaced above the uppermost margin.

28. The firearm sighting assembly as claimed in claim 17, said corresponding opposite sections presenting respective central axes that are substantially aligned along the sighting direction.

29. The firearm sighting assembly as claimed in claim 28, said corresponding opposite sections being spaced above and below the aligned central axes.

30. The firearm sighting assembly as claimed in claim 17, said second proximal and distal sighting surfaces defining a boundary when the target is viewed with the sights that endlessly surrounds an internal viewing space to present an aiming window for aiming at the target, said corresponding opposite sections at least partly defining the boundary.

31. The firearm sighting assembly as claimed in claim 30, said aiming window presenting a length and a thickness that is substantially uniform along the length, with the thickness being shorter than the length.

32. The firearm sighting assembly as claimed in claim 30, said aiming window having an axis of symmetry.

33. The firearm sighting assembly as claimed in claim 30, said second distal and proximal sighting surfaces cooperatively presenting a plurality of aiming windows for aiming at the target.

34. The firearm sighting assembly as claimed in claim 33, at least two of said plurality of aiming windows being substantially symmetrical with one another.

35. The firearm sighting assembly as claimed in claim 17, said distal sight including cross hairs interconnecting the inner and outer elements.

36. The firearm sighting assembly as claimed in claim 17, said inner element presenting a third generally inward facing distal sighting surface spaced coaxially within the second distal sighting surface, said third distal sighting surface defining a third opening for aiming at the target.

37. The firearm sighting assembly as claimed in claim 36, said distal and proximal sighting surfaces being geometrically symmetrical.

38. The firearm sighting assembly as claimed in claim 37, said distal and proximal sighting surfaces being substantially circular.

39. The firearm sighting assembly as claimed in claim 1, said sights being spaced from one another at a sight radius distance from about 4 inches to about 8 inches.

40. The firearm sighting assembly as claimed in claim 39, said sights being spaced from one another at a sight radius distance of about 5 inches.

41. The firearm sighting assembly as claimed in claim 1, said proximal sight further including a spirit level.

42. The firearm sighting assembly as claimed in claim 1, said distal sight including cross hairs.

43. The firearm sighting assembly as claimed in claim 42, said proximal sight presenting a second generally inward facing proximal sighting surface that defines a second opening, said cross hairs extending into the second opening.

44. A firearm assembly operable by a user to aim at a target, the firearm assembly comprising:

a firearm including a muzzle end; and

a firearm sighting assembly for facilitating aiming of the firearm at the target,

said firearm sighting assembly including proximal and distal sights connected to the firearm to sight the target along a sighting direction, with the distal sight being spaced closer to the muzzle end than the proximal sight,
said distal sight presenting a generally inward facing distal sighting surface that defines an opening,
said proximal sight presenting a generally outward facing proximal sighting surface,
said proximal sighting surface being spaced within the opening when the target is viewed with the sights, such that the sighting surfaces present corresponding opposed sections when viewed,
said proximal and distal sighting surfaces presenting respective radial dimensions measured relative to the sighting direction,
said proximal sighting surface being radially smaller than the distal sighting surface along the corresponding opposed sections.

**45**. The firearm assembly as claimed in claim **44**,
said corresponding opposed sections of the sighting surfaces being geometrically symmetrical so as to be uniformly spaced apart.

**46**. The firearm assembly as claimed in claim **45**,
said corresponding opposed sections extending at least partly in a horizontal direction to present an upper one of the sections and a lower one of the sections, wherein the opposed sections cooperatively present an aiming window that facilitates vertical aiming of the firearm.

**47**. The firearm assembly as claimed in claim **45**,
said corresponding opposed sections of the sighting surfaces being substantially coaxial along the sighting direction.

**48**. The firearm assembly as claimed in claim **45**,
said distal and proximal sighting surfaces being geometrically symmetrical.

**49**. The firearm assembly as claimed in claim **48**,
said distal and proximal sighting surfaces being substantially circular.

**50**. The firearm assembly as claimed in claim **44**,
said proximal sighting surface presenting an uppermost margin located along the respective opposed section,
said opposed section defined by the distal sighting surface being spaced above the uppermost margin.

**51**. The firearm assembly as claimed in claim **44**,
said corresponding opposed sections presenting respective central axes that are substantially aligned along the sighting direction.

**52**. The firearm assembly as claimed in claim **51**,
said corresponding opposed sections being spaced above and below the aligned central axes.

**53**. The firearm assembly as claimed in claim **44**,
said proximal and distal sighting surfaces defining a boundary when the target is viewed with the sights that endlessly surrounds an internal viewing space to present an aiming window for aiming at the target,
said corresponding opposed sections at least partly defining the boundary.

**54**. The firearm assembly as claimed in claim **53**,
said aiming window presenting a length and a thickness that is substantially uniform along the length, with the thickness being shorter than the length.

**55**. The firearm assembly as claimed in claim **53**,
said aiming window having an axis of symmetry.

**56**. The firearm assembly as claimed in claim **53**,
said corresponding opposed sections of the sighting surfaces cooperatively presenting a plurality of aiming windows for aiming at the target.

**57**. The firearm assembly as claimed in claim **56**,
at least two of said aiming windows being substantially symmetrical with one another.

**58**. The firearm assembly as claimed in claim **44**,
said proximal sight presenting a second generally inward facing proximal sighting surface that defines a second opening.

**59**. The firearm assembly as claimed in claim **58**,
said distal sight comprising inner and outer elements,
said outer element forming the distal sighting surface,
said inner element being spaced within the outer element.

**60**. The firearm assembly as claimed in claim **59**,
said inner element presenting a second generally outward facing distal sighting surface,
said second distal sighting surface being spaced within the second opening when a target is viewed with the sights, such that the second sighting surfaces present corresponding opposite sections when viewed,
said second sighting surfaces presenting respective radial dimensions measured relative to the sighting direction,
said second distal sighting surface being radially smaller than the second proximal sighting surface along the corresponding opposite sections.

**61**. The firearm assembly as claimed in claim **60**,
said opposed and opposite sections cooperatively presenting a plurality of aiming windows.

**62**. The firearm assembly as claimed in claim **61**,
said plurality of aiming windows comprising at least eight aiming windows.

**63**. The firearm assembly as claimed in claim **62**,
said plurality of aiming windows comprising nine aiming windows.

**64**. The firearm assembly as claimed in claim **60**,
said corresponding opposite sections of the second sighting surfaces being geometrically symmetrical so as to be uniformly spaced apart.

**65**. The firearm assembly as claimed in claim **64**,
said corresponding opposite sections of the second sighting surfaces extending at least partly in a horizontal direction to present an upper one of the sections and a lower one of the sections, wherein the opposite sections cooperatively present an aiming window that facilitates vertical aiming of the firearm.

**66**. The firearm assembly as claimed in claim **64**,
said corresponding opposite sections of the second sighting surfaces being substantially coaxial along the sighting direction.

**67**. The firearm assembly as claimed in claim **64**,
said second distal and proximal sighting surfaces being geometrically symmetrical.

**68**. The firearm assembly as claimed in claim **67**,
said second distal and proximal sighting surfaces being substantially arcuate.

**69**. The firearm assembly as claimed in claim **64**,
said second distal and proximal sighting surfaces being polygonal.

**70**. The firearm assembly as claimed in claim **60**,
said second distal sighting surface presenting an uppermost margin located along the respective opposite section,

said opposite section defined by the second proximal sighting surface being spaced above the uppermost margin.

**71**. The firearm assembly as claimed in claim **60**,

said corresponding opposite sections presenting respective central axes that are substantially aligned along the sighting direction.

**72**. The firearm assembly as claimed in claim **71**,

said corresponding opposite sections being spaced above and below the aligned central axes.

**73**. The firearm assembly as claimed in claim **60**,

said second proximal and distal sighting surfaces defining a boundary when the target is viewed with the sights that endlessly surrounds an internal viewing space to present an aiming window for aiming at the target,

said corresponding opposite sections at least partly defining the boundary.

**74**. The firearm assembly as claimed in claim **73**,

said aiming window presenting a length and a thickness that is substantially uniform along the length, with the thickness being shorter than the length.

**75**. The firearm assembly as claimed in claim **73**,

said aiming window having an axis of symmetry.

**76**. The firearm assembly as claimed in claim **73**,

said second distal and proximal sighting surfaces cooperatively presenting a plurality of aiming windows for aiming at the target.

**77**. The firearm assembly as claimed in claim **76**,

at least two of said plurality of aiming windows being substantially symmetrical with one another.

**78**. The firearm assembly as claimed in claim **60**,

said distal sight including cross hairs interconnecting the inner and outer elements.

**79**. The firearm assembly as claimed in claim **60**,

said inner element presenting a third generally inward facing distal sighting surface spaced coaxially within the second distal sighting surface,

said third distal sighting surface defining a third opening for aiming at the target.

**80**. The firearm assembly as claimed in claim **79**,

said distal and proximal sighting surfaces being geometrically symmetrical.

**81**. The firearm assembly as claimed in claim **80**,

said distal and proximal sighting surfaces being substantially circular.

**82**. The firearm assembly as claimed in claim **44**,

said sights being spaced from one another at a sight radius distance from about 4 inches to about 8 inches.

**83**. The firearm assembly as claimed in claim **82**,

said sights being spaced from one another at a sight radius distance of about 5 inches.

**84**. The firearm assembly as claimed in claim **44**,

said proximal sight further including a spirit level.

**85**. The firearm assembly as claimed in claim **44**,

said distal sight including cross hairs.

**86**. The firearm assembly as claimed in claim **85**,

said proximal sight presenting a second generally inward facing proximal sighting surface that defines a second opening,

said cross hairs extending into the second opening.

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