Feb. 24, 1959 G. A. MARTINEK 2,874,504

SHOT GUN RIB SIGHT

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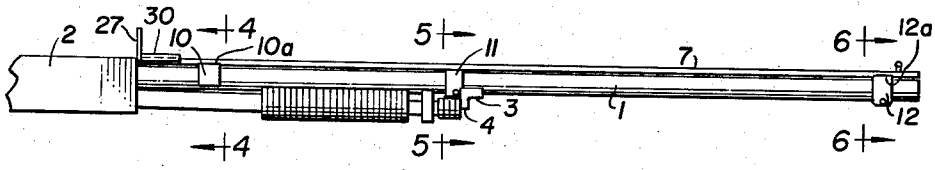


Fig. 1

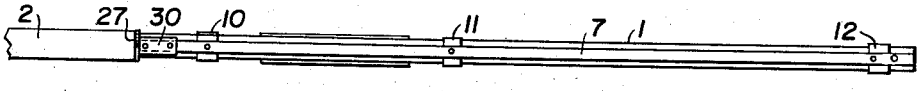


Fig. 2

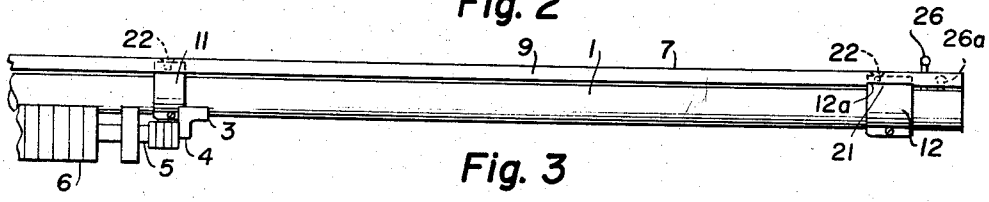


Fig. 3

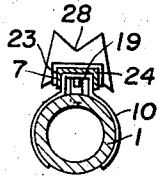


Fig. 4

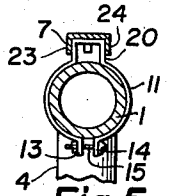


Fig. 5

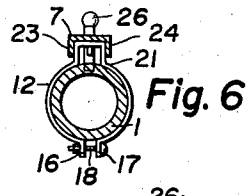


Fig. 6

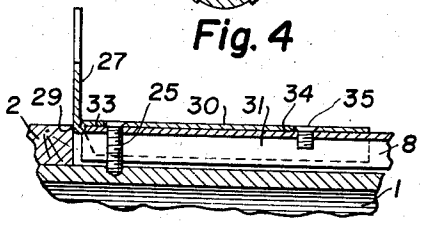


Fig. 7

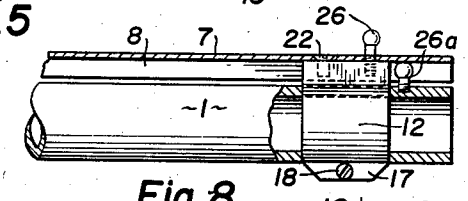


Fig. 8

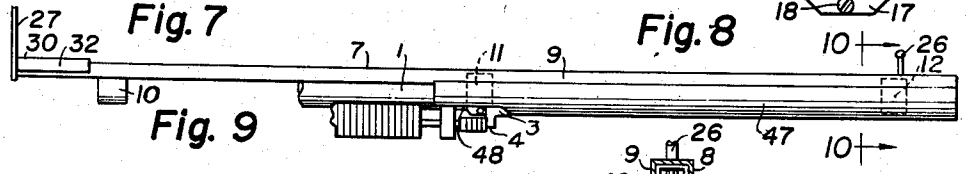


Fig. 9

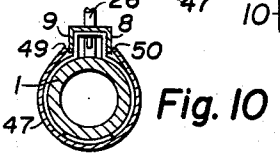


Fig. 10

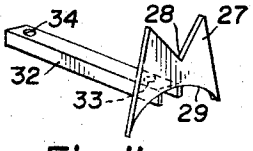


Fig. 11

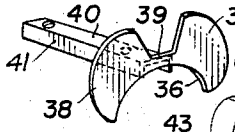


Fig. 12

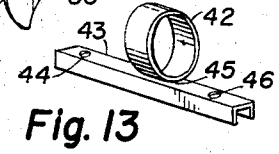


Fig. 13

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SHOT GUN RIB SIGHT

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Application February 24, 1956, Serial No. 567,683

7 Claims. (Cl. 42—76)

The present invention relates to guns and more particularly to gun sights for single barrel shot guns and to an improved assembly including a plurality of gun sights and a sleeve for protecting the barrel of the gun.

In rib sights which have heretofore been applied to single barrel shot guns, it is the practice to form the rib sight as an integral part of the gun or to provide external means on the gun to which the rib sight is secured. It is expensive, however, to form the rib sight as an integral part of the gun because in such case, the barrel of the gun must be turned off center and then machined down to leave the upstanding rib. During this process, a considerable amount of valuable metal is also wasted and no space is provided between the barrel and the rib sight through which air may flow for cooling the barrel of the gun after the gun is fired. To overcome this difficulty, means have been provided for attaching the rib sight to the barrel of the gun. In previous arrangements, such means usually require the brazing or soldering of parts to the gun which is not only expensive but the heat accompanying the brazing or soldering operation frequently draws the temper from the gun so that the parts are soft and easily bent and when attempts have been made to apply the rib sight by simple mechanical means, the rib sight frequently becomes displaced from a true line position, thus adversely affecting the firing accuracy of the gun.

In accordance with the present invention, improved means are provided for securing an assembly, including a rib sight, to a single barrel shot gun of any desired type, such as pump or single shot guns, in such a manner that a space is provided between the rib sight and the barrel of the gun through which air may flow for cooling the barrel of the gun after firing. I also provide an improved back sight which is arranged to engage the stock of the gun and which may be removably secured to the rib sight and to the barrel of the gun so that a plurality of different back sights may be provided, any one of which may be secured to the rib sight and to the barrel of the gun and consequently the gun may be easily provided with a back sight which is suitable for hunting particular types of game. I also provide an improved resilient sleeve for protecting the barrel of the gun which sleeve is associated with the rib sight and the barrel of the gun in such manner that it may be easily secured to and removed from the gun. The sleeve may be of any appropriate color for hunting particular game and it is contemplated that a plurality of such sleeves shall be supplied with each assembly so that a sleeve of an appropriate color may be utilized. My improved assembly is light in weight and the sights and sleeve may be readily secured to the gun without substantial modification of the gun.

It is therefore an object of the present invention to provide an improved rib sight for a single barrel shot gun which provides a true line between the stock of the gun and the target and in which simple and effective means are

provided for securing the rib sight in place upon the barrel of the gun.

Another object of the invention is to provide an improved back sight for attachment to the rib sight and to the barrel of the gun which back sight is easily applied to and removed from the rib sight and the barrel of the gun so that a back sight which is suitable for hunting a particular type of game may be applied to the gun.

A further object of my invention is to provide a single barrel shot gun having a rib sight and a protective split sleeve for the barrel of the gun which sleeve may be formed of a color suitable for hunting a particular type of game and which has oppositely disposed edges for engaging the rib sight to thereby prevent rocking movement of the rib sight on the barrel of the gun and which is formed of a resilient material so that it may be easily applied to and removed from the barrel of the gun.

My invention will be better understood by reference to the accompanying drawings in which:

Fig. 1 is a side elevational view of a single barrel shot gun with my improved sights secured thereto with parts of the gun being broken away;

Fig. 2 is a plan view of the gun shown in Fig. 1;

Fig. 3 is an enlarged side elevational view of the gun with my improved rib and head sights in place and with parts of the gun being shown broken away;

Figs. 4 and 5 are enlarged cross sectional views taken on planes passing through the lines 4—4 and 5—5, respectively, of Fig. 1, looking in the direction of the arrows with the pump and tube of the gun removed;

Fig. 6 is an enlarged cross sectional view taken on a plane passing through the line 6—6 of Fig. 1, looking in the direction of the arrows;

Fig. 7 is an enlarged cross sectional view of the barrel of a gun with the back sight in place and showing the back sight secured to the rib sight and to the barrel of the gun;

Fig. 8 is an enlarged cross sectional view of the rib sight, showing means for securing the rib sight to the barrel of the gun which barrel is shown partly broken away and with parts in elevation and parts in section;

Fig. 9 is an enlarged view of my improved assembly applied to the barrel of the gun with the barrel of the gun being shown broken away;

Fig. 10 is a cross sectional view taken on a plane passing through the line 10—10 of Fig. 9; and

Figs. 11, 12 and 13 are perspective views of back sights for the gun.

While my improved assembly may be applied to single barrel shot guns of any desired type, such as pump or single shot guns, or to single barrel shot guns provided with a bolt or automatic loaders or with choke devices, for purposes of illustration, a commercial gun of a well known type is shown in the drawings including a barrel 1, a stock 2, and an angle-shaped bracket 3 having one arm connected to the barrel of the gun at approximately the mid portion of the barrel of the gun and a downwardly extending arm 4 which forms a support for one end of the tube 5 on which the pump 6 slides. As shown, the gun is provided with a break off or shoulder between the stock and the barrel.

In accordance with my invention, an improved rib sight 7 is provided and while the rib sight may assume various forms as disclosed more particularly in my copending application Ser. No. 431,477 filed in the United States Patent Office on May 21, 1955 and which has now matured into Patent No. 2,809,433, as shown in the drawing, it consists of a substantially U-shaped strip having a flat upper wall providing a planing surface and downwardly extending side walls 8 and 9, and simple and effective means are provided for securing the rib

sight to the barrel of the gun. For this purpose, a plurality of spaced split clamps 10, 11 and 12 are provided. As shown, clamp 10, which is arranged a short distance from the rear end of the rib sight, is shaped to conform to the surface of the barrel of the gun, clamp 11, which is arranged rearwardly of and engages bracket 3, is provided with cut-out portions to receive rear end portions of bracket 3 to prevent forward movement of the clamp upon the barrel of the gun and with curved side walls which conform to the surface of the barrel of the gun and terminate in downwardly extending lugs 13 and 14 which are secured together by suitable means, such as screws or bolts 15, to force the walls of clamp 11 firmly into engagement with the barrel of the gun, and clamp 12 which is arranged a short distance from the free end of the barrel of the gun has curved side walls which conform to the surface of the barrel of the gun and is provided with downwardly extending lugs 16 and 17 which are secured together by suitable means, such as a bolt or screw 18, to force the side walls of the clamp 12 firmly into engagement with the barrel of the gun.

In accordance with the present invention, the rib sight is arranged in spaced relation to the barrel of the gun through which space air may flow for cooling the barrel of the gun when it is fired. For this purpose, each of the clamps is provided with an inverted U-shaped portion 19, 20 and 21, respectively, to which the rib sight is secured by suitable means, such as screws 22, the heads of which are countersunk in the flat wall forming the planing surface of the rib sight, and to prevent rocking movement of the rib sight upon the barrel of the gun, the rib sight is provided with downwardly extending side walls 23 and 24 which conform in shape to and engage the side walls of the inverted U-shaped portions 19, 20 and 21, respectively, of the clamps, and to aid in preventing longitudinal movement of the rib sight relative to the clamps, recesses 10*a* and 12*a* are provided in the side walls of the rib sight as shown more particularly in Figs. 1 and 3, providing edges which snugly engage the opposite ends of clamps 10 and 12, respectively.

Means are also provided to connect the rear end of the rib sight to the barrel of the gun which also aids in preventing rocking movement of the rib sight on the barrel of the gun. For this purpose, a seated opening is arranged in the rear end portion of the barrel of the gun and a self threading screw 25 extending through the flat wall of the rib sight may be forced into the seat. The seated opening therefore constitutes the only modification that is made upon the barrel of the gun and consequently no welding, soldering, or brazing is required to fix the rib sight to the barrel of the gun.

A front or bead sight 26 is also provided which if desired may be inserted through an opening in the rib sight and threaded through an opening in clamp 12 or bead sight 26 may be inserted through an aperture in the rib sight and peened to the lower side of the rib sight. It will be noted that because the rib sight is of an inverted U-shape, the usual bead sight 26*a* will enter between the opposite sides of the rib sight on the gun which prevents rocking movement of the front portion of the rib sight. If desired, however, the head or bead sight 26*a* which is present in single barrel shot guns may be removed from its threaded aperture and my improved rib sight may be provided with an aperture in alignment with the threaded aperture in the gun and front or bead sight 26 may be inserted through the aperture in rib sight 7 and threaded into the aperture that is already present in the front portion of the barrel of the gun.

In accordance with the present invention, I also provide a back sight for the gun which may be removably secured in place and while the back sight may be of any desired form, as shown in Fig. 7 and in perspective in Fig. 11, a back sight of the V-shaped type is shown

which is provided with an upright portion 27 having a V-shaped slot 28 therein and means are provided for securing the back sight to the rib sight and to the gun. For this purpose, the upright portion of the back sight which engages the stock of the gun is provided with a reverse bend 29 and has an arm 30 which extends over the flat wall forming the planing surface of the rib sight which arm is provided with downwardly extending flanges 31 and 32 for engaging the side walls 8 and 9 of the rib sight 7 and while the back sight may be secured to the rib sight in any desirable manner, as shown in the drawings, the screw 25 which secures the rib sight to the gun also extends through a rear aperture 33 in the flat wall of the back sight and has its upper head countersunk therein to receive the head of the screw. The back sight is also provided with a forward aperture 34 arranged in spaced relation to aperture 33 through which a screw 35 extends which is threaded through an aperture in the flat wall of rib sight 7 and has its head countersunk in aperture 34. A back sight having a V-shaped recess therein is particularly desirable when the gun is to be used for rifle slug shooting.

It will of course be understood that when the screw 25 and the rib sight are removed, the back sight may also be removed and, if desired, either the back sight shown in Fig. 12 or the back sight shown in Fig. 13 may be easily assembled in place. The back sight shown in Fig. 12 has a central curved portion 36 for engagement with the stock of the barrel and spaced wings 37 and 38 which are separated by a straight connecting portion 39 which is slightly raised from but is in alignment with the planing surface of rib sight 7 and provides a regular sight for straight line shooting with no high or low on the target. For assembling the back sight shown in Fig. 12 of the drawing in place, it is provided with an arm 40 which may be formed integral with the curved portion 36 to provide a reverse bend in the manner shown in Fig. 7. The arm 40 is provided with side flanges 41 which engage the opposite side walls 8 and 9 of the rib sight 7 when the back sight is assembled in place on the gun and in this respect is similar to the back sight shown in Fig. 11.

Another form of back sight is illustrated in Fig. 13 which may be assembled upon the gun in place of the back sight shown in Fig. 11 when the gun is utilized for skeet shooting or for hunting upland game and fowl. As shown, the back sight 42 is circular or cylindrical in form and is connected to an arm 43 having downwardly extending side flanges for engagement with the side walls of the rib sight, one portion of which arm extends rearwardly from the sight 42 and is provided with a countersunk aperture 44 for receiving the screw 25 for attaching the arm to the rib sight 7 and to the barrel of the gun and the other portion 45 of which is provided with a countersunk aperture 46 which is spaced forwardly from back sight 42 for receiving the screw 35.

In my improved assembly, I also preferably provide a sleeve for the barrel portion of the gun. This feature is illustrated in Figs. 9 and 10 in which the sleeve is shown applied to the barrel of the gun. As illustrated, the sleeve 47 is formed of a split tube of a resilient material, such as Phosphor bronze or a copper alloy containing a small amount of beryllium, both of which are well known in the art, or it may be formed of a resilient plastic material, and is provided with a notch 48, the opposite edges of which engage bracket 3 to prevent any turning movement of the sleeve upon the barrel of the gun and the longitudinal edges 49 and 50 at the split portion of the sleeve engage the side flanges 8 and 9 of the rib sight and aid in maintaining the rib sight in vertical alignment relative to the barrel of the gun. Because the sleeve is formed of a resilient material, it may be sprung sufficiently when assembled in place to provide a comparatively tight engagement with the barrel of the gun and with the lower margins of side walls 8 and

9 of the rib sight when the tension upon the sleeve is released. When a sleeve is utilized, the downwardly extending lugs 16 and 17 and the bolt 18 on clamp 12 may be omitted to permit the sleeve to slide in close engagement with the barrel of the gun. It will be noted that sleeve 47 is comparatively long and extends between and beyond both clamps 11 and 12 and therefore serves to protect a comparatively large portion of the barrel of the gun.

If the sleeve is formed of resilient metal, it may be painted any desirable color or if it is formed of a resilient plastic material, the plastic material itself may be formed of the desired color. For instance the sleeve may be blue for general use to blend with the metal of which the barrel is formed and because the sleeve is comparatively inexpensive, a plurality of sleeves, each having a different color, may be provided for each hunter. For instance, when hunting ducks or geese, the sleeve may be brown to blend with marsh grass. The sleeve when thus colored does not have as much light reflectivity as the metal of the barrel of the gun and therefore does not serve as a warning to the ducks or geese that a hunter may be present. For deer hunting, the sleeve may be colored red to provide a protection for the hunter in woods or forests. The sleeve also serves to protect the barrel of the gun from being scratched or nicked, and also serves to protect the hunter from possible injury in the event of an accidental blow out of the barrel during firing. When a light coat of oil or grease is applied to the barrel of the gun, the sleeve also prevents the oil or grease from being displaced during the handling of the gun.

What is claimed is:

1. In a shot gun having a single barrel and a bracket extending downwardly from its lower portion at a substantial distance from its free end, a pair of spaced split clamps, one of which is arranged rearwardly of said bracket and is provided with a cut-out portion to receive a portion of said bracket to prevent forward movement of the clamp upon the barrel of the gun, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the side walls of each of the clamps terminating in a substantially straight free end portion which extends below the barrel of the gun, releasable means for securing the free end portions of each of said clamps together to cause the curved walls of each clamp to firmly engage the barrel of the gun, and each of said clamps having a raised portion extending upwardly from said barrel which raised portion is substantially in the shape of an inverted U and includes a flat upper wall, a rib sight extending substantially the entire length of said barrel, means for securing the rib sight to the flat upper wall portion of each of said clamps and the raised portion of each of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, and means extending through the rear end portion of the rib sight and engaging the barrel of the gun for securing the rear portion of the rib sight to the barrel of the gun.

2. In a shot gun having a single barrel and a bracket extending downwardly from its lower portion at a substantial distance from its free end, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged rearwardly of said bracket and is provided with a cut-out to receive a portion of said bracket to prevent forward movement of the clamp upon the barrel of the gun, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the side walls of each of said clamps terminating in substantially straight free end portions which extend below the barrel of the gun, releasable means associated with each of said clamps for securing the free end portion of each of said clamps

together to cause the curved walls of each clamp to firmly engage the barrel of the gun and each of said clamps having a raised portion extending upwardly from the barrel of the gun, which raised portion is substantially in the shape of an inverted U and includes a flat upper wall and spaced side walls a rib sight extending substantially the entire length of said barrel, said rib sight having a flat upper surface for engaging the upper flat wall of each clamp and downwardly extending side walls for engaging the upwardly extending side walls of said clamps and the side walls of said rib sight being provided with cut-out portions adjacent each of said clamps, the edges of which engage the clamps for preventing longitudinal movement of the rib sight relative to said clamps, and the raised portion of each of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, means for securing the rib sight to the flat upper wall of each of said clamps, and means extending through the rib sight and engaging the rear end portion of the barrel of the gun for preventing longitudinal movement of the rib sight relative to the barrel of the gun.

3. In a shot gun having a single barrel, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged intermediate the ends of said barrel, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the side walls of each clamp terminating in free end portions which extend below the barrel of the gun, releasable means associated with each of said clamps for securing the free end portions of each clamp together to cause the curved side walls of each clamp to firmly engage the barrel of the gun and each of said clamps having a raised portion extending upwardly from the barrel of the gun which raised portion is substantially in the shape of an inverted U and includes a flat upper wall and spaced side walls, a rib sight extending substantially the entire length of said barrel, said rib sight having a flat upper wall resting upon and secured to the upper walls of said clamps and downwardly extending side walls for engaging the upwardly extending side walls of said clamps, and the raised portions of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, a rear sight having an arm extending forwardly from its lower portion, said arm being provided with a flat upper wall which engages the flat upper wall of said rib sight and downwardly extending side flanges engaging the side walls of the rib sight, and easily removable means extending through the upper flat wall of said arm and the flat wall of the rib sight and engaging the rear portion of said gun for securing the rear sight and the rib sight to the barrel of the gun.

4. A shot gun having a single barrel provided with a seated opening at its rear end portion, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged intermediate the ends of said barrel, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the side walls of each clamp terminating in substantially straight free end portions which extend below the barrel of the gun, releasable means associated with the free end portions of each of said clamps for securing the free portions of each clamp togethed to cause the curved side walls of each clamp to firmly engage the barrel of the gun and each of said clamps having a raised portion extending upwardly from the barrel of the gun which raised portion is substantially in the shape of an inverted U and includes a flat upper wall and spaced side walls, a rib sight extending substantially the entire length of said barrel, said rib sight

having an aperture in proximity to its rear end, a flat upper wall, and downwardly extending side walls for engaging the upwardly extending side walls of each of said clamps, and the raised portions of each of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, means for securing the rib sight to said clamps, a rear sight having an arm extending forwardly from its lower portion which is provided with an aperture in alignment with the aperture in the rib sight, and a screw extending through the aligned apertures in the rear sight and the rib sight and being threaded into the seated opening at the rear end of the barrel of the gun for securing the rear sight and the rib sight to the barrel of the gun.

5. In a shot gun having a single barrel and a stock extending upwardly from the rear end of the barrel, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged intermediate the ends of said barrel, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the curved side walls of each clamp terminating in substantially straight free end portions which extend below the barrel of the gun, releasable means asociated with each of said clamps for securing the free end portions of each clamp together to cause the curved side walls of each clamp to firmly engage the barrel of the gun and each of said clamps having a raised portion extending upwardly from the barrel of the gun, each of which raised portions has a flat upper wall and spaced side walls, a rib sight extending substantially the entire length of said barrel, said rib sight having a flat upper wall resting upon and secured to the upper flat walls of said clamps and downwardly extending side walls for engaging the upwardly extending side walls of said clamp, and the raised portions of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, a rear sight having its lower portion engaging the stock of said gun and extending upwardly relative thereto and an arm extending forwardly from its lower portion which arm is provided with a flat upper wall engaging the flat wall of the rib sight and downwardly extending flanges engaging the side walls of the rib sight, and easily removable means extending through the flat wall of the rib sight and the flat wall of the arm of the rear sight and engaging the rear portion of the barrel of the gun for securing the rear sight and the rib sight to the barrel of the gun.

6. In a gun having a single barrel, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged intermediate the ends of said barrel, each of said clamps having a pair of curved side walls which conform to the curvature of the barrel of the gun and the curved side walls of each of said clamps terminating in a substantially straight free end portion which extends below the barrel of the gun, releasable means associated with the free end portions of each of said clamps for securing them together to cause the curved walls of each clamp to firmly engage the barrel of the gun, and each of said clamps being provided with a raised portion extending upwardly from said barrel which raised portion is substantially in the shape of an inverted U and includes a flat upper wall and spaced side walls, a rib sight extending substantially the entire length of the barrel of the gun, means extending through the rib sight and the upper wall of each of said clamps for securing the rib sight to the flat upper wall portion of each of said clamps and the raised portions of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, and means extending through the rear portion of the rib sight and engaging the barrel of the gun for securing the rear portion of the rib sight to the barrel of the gun.

7. In a shot gun having a single barrel and a bracket extending downwardly from approximately the mid portion of the barrel of the gun, first and second split clamps, the first clamp being arranged adjacent the free end portion of the barrel of the gun and the second clamp being arranged rearwardly of and in engagement with said bracket and each of said clamps having curved side walls conforming to the curvature of the barrel of the gun and a raised portion which is substantially in the shape of an inverted U and includes an upper flat wall and downwardly extending side walls, a rib sight having a planing surface in engagement with the upper wall of the raised portion of each of said clamps and side walls in engagement with the respective side walls of the clamps, and a slidable resilient sleeve for protecting the barrel of the gun which sleeve surrounds the first clamp and the upper portion of the second clamp and extends from substantially the free end portion of the barrel to and beyond the second clamp and is provided with a notch at its inner lower portion for receiving the upper portion of said bracket and the lower portion of the second clamp and said sleeve being slit longitudinally at its upper portion to provide longitudinally extending edges which engage the lower margins of the side walls of said rib sight and prevent rocking movement of said rib sight upon the raised portions of said clamps.

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