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Freiling

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[54] **DETACHABLE REAR SIGHT FOR SHOTGUNS HAVING FLAT SIDED RECEIVERS**

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[51] **Int. Cl.** **F41g 1/10**

[58] **Field of Search** 33/233, 261, 242, 243, 33/244

[56] **References Cited**

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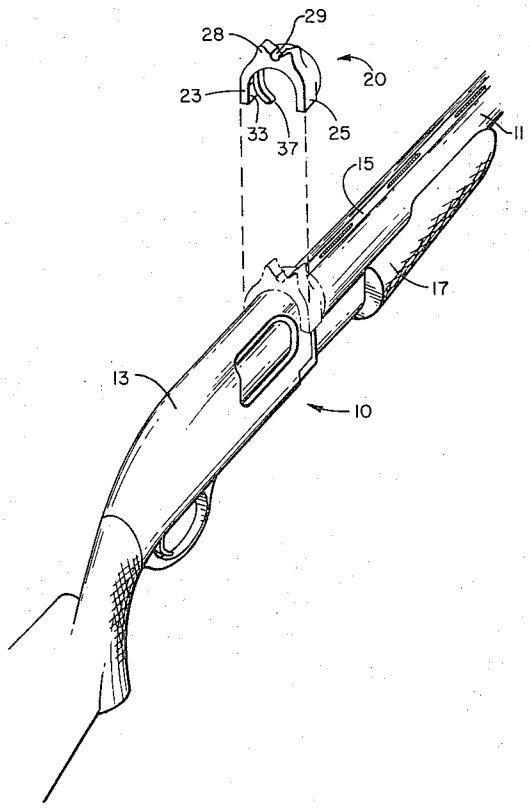
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[57] **ABSTRACT**

A readily detachable rear sight for single-barrel shotguns with flat-sided receivers includes a pair of resilient legs having flat interior surfaces which engage respective receiver sides and thereby prevent rotation of the sight. The sight is adapted to fit the shotgun at the juncture between the receiver and the barrel and includes, at its forward end, a resilient clip which engages the barrel. In projecting over the barrel from the top of the receiver the sight provides clearance for a barrel rib.

4 Claims, 3 Drawing Figures



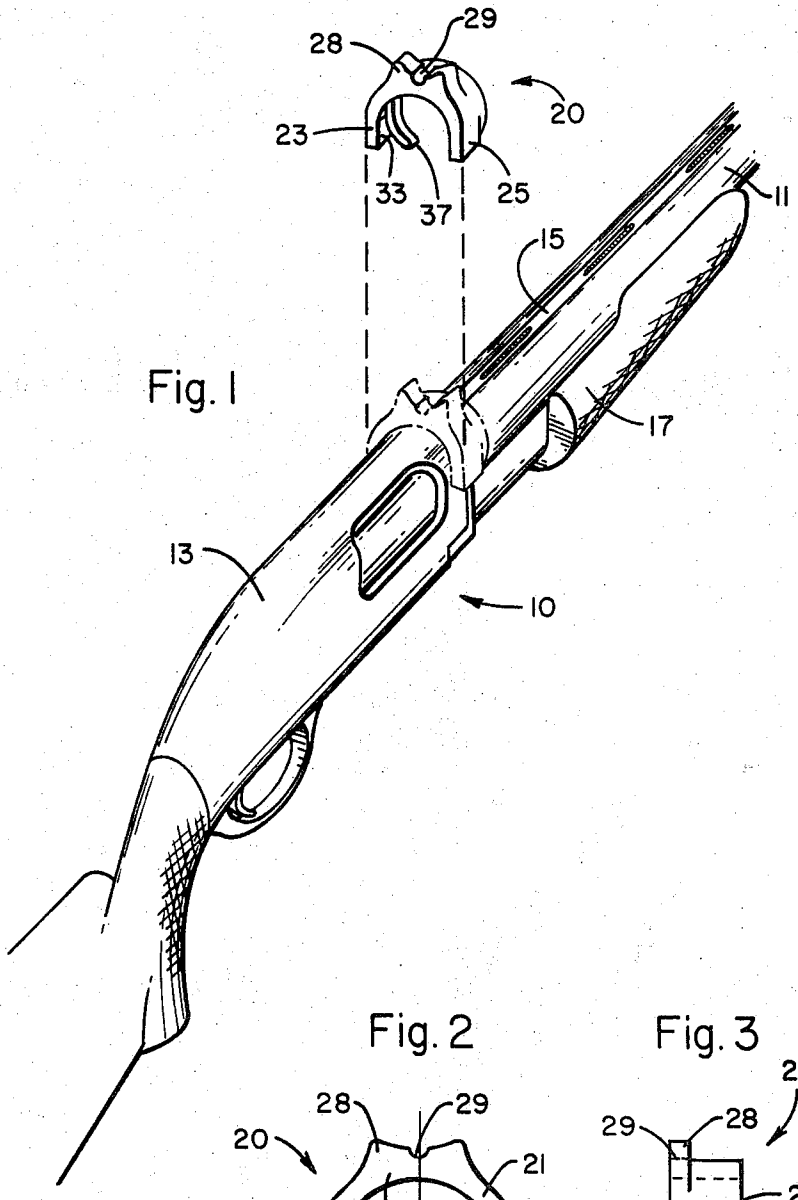


Fig. 1

Fig. 2

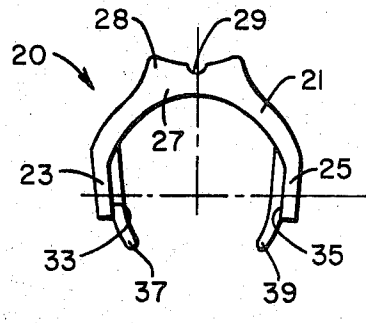
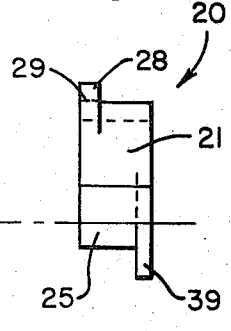


Fig. 3



DETACHABLE REAR SIGHT FOR SHOTGUNS HAVING FLAT SIDED RECEIVERS

BACKGROUND OF THE INVENTION

The present invention relates to improvements in detachable shotgun sights and, more particularly, to detachable rear sights for single-barrel shotguns having flat-sided receivers.

Shotguns are generally manufactured without rear sights because accurate sighting is not needed when conventional shot ammunition is employed. However, shotgun owners often utilize rifled slugs or similar ammunition which requires precision sighting. This would occur, for example, in the many states in which high power rifles are banned for purposes of hunting deer. It is therefore desirable to provide a detachable rear aiming point or sight, which can be aligned with the bead sight at the barrel of a shotgun muzzle, to permit accurate sighting of a target. Clearly such a detachable sight must be small to permit easy storage when not in use. In addition it must be quickly attached to the shotgun without the need for alignment adjustments. As a practical matter, the sight must also be inexpensive and should fit a wide variety of shotgun makes and models.

One prior art detachable sight may be either metal or plastic and includes a pair of arcuate legs which resiliently engage the gun barrel. The top of the sight is provided with a channel which engages the rib extending along the top of many shotgun barrels. The major disadvantage of this sight resides in the fact that it derives its lateral or rotational stability and its alignment accuracy from the rib-engaging channel. If the sight is employed with a shotgun having no barrel rib, the sight is capable of inadvertent rotation about the barrel. Moreover, absence of a barrel rib requires that the sight be carefully aligned each time it is attached to the gun.

It is therefore a primary object of the present invention to provide a detachable rear shotgun sight which does not require a barrel rib for proper positioning and for rotational stability.

It is another object of the present invention to provide an inexpensive, readily detachable rear shotgun sight which accurately and stably fits a wide variety of available shotguns.

SUMMARY OF THE INVENTION

I have noted that a rather large number of available single-barrel shotguns have flat-sided receivers. Moreover, on most of those shotguns having barrel ribs, the ribs extend no further above the barrel than the upper surface of the receiver. I have therefore provided a detachable rear sight which engages both the receiver and the barrel at the juncture between the two in such a way as to be unaffected by the presence of a barrel rib. The sight includes a pair of slightly toed-in opposing legs having flat interior surfaces which resiliently engage the flat-sided receiver therebetween. The forward end of the sight slightly overlaps the barrel and is in the form of a spring-clip having curved legs adapted to resiliently fit around and engage the barrel. The uppermost portion of the overlapping forward end of the sight projects from the receiver over the top of the barrel, providing clearance for a barrel rib.

The spring-clip provides secure attachment to the gun barrel. The flat-surfaced legs, by virtue of their engagement with the flat receiver sides, prevent rotation of the sight about the barrel and assures accurate positioning immediately upon attachment.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and still further objects, features and advantages of the present invention will become apparent upon consideration of the following detailed description of one specific embodiment thereof, especially when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a view in perspective of a shotgun, illustratinng the manner in which the gun sight of the present invention attaches to the shot gun;

FIG. 2 is an end view in plan of the gun sight of the present invention; and

FIG. 3 is a side view in plan of the gun sight of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring specifically to FIG. 1 of the accompanying drawing, there is illustrated a single barrel shotgun **10** of the type with which my gun sight **20** is used. The shotgun **10** is a conventional, commonly-sold shotgun and may be of the pump gun (as illustrated), or semi-automatic, type. A barrel **11** projects forwardly from a receiver **13** and may include a sighting rib **15** extending along the length of the barrel. Sighting rib **15** is conventional and may be hollow, solid or ventilated as is well known. Importantly for purposes of the present invention, the vertical height of rib **15** is no greater than the difference in height between barrel **11** and receiver **13.** More specifically, the forward end of receiver **13,** at which the rearward end of barrel **11** terminates, defines a shoulder which extends vertically above the height of the barrel. The sight of the present invention is intended for those shotguns either having no rib or having ribs which extend no higher than the aforementioned shoulder.

Receiver **13** is of the flat-sided type, meaning that its vertical sides are straight rather than curved. This too is a requirement for the shotguns with which gun sight **20** is to be utilized.

Referring to FIGS. **2** and **3,** the rear gun sight **20** of the present invention is preferably formed as a one-piece molded plastic unit having sufficient resiliency and strength to serve the functions described below. A typical suitable material is fiberglas re-enforced nylon. Sight **20** includes a generally U-shaped body member **21** which is inverted when in use so that its rear legs **23, 25** project generally downward from the generally arcuate connecting portion **27.** The actual sight is in the form of a semi-circular (or similarly configured) notch **29** which is adapted to be aligned with the usual bead sight (not illustrated) provided at the muzzle end of most shotguns. Notch **29** is defined in a raised section **28** projecting upwardly from the outer surface of connecting section **27.**

The inner surfaces **33, 35** of legs **23, 25,** respectively, are flat and toe-in (i.e. - converge) slightly toward one another. The distance between inner surfaces **33** and **35** at their closest point is slightly less than the width of standard flat-sided shotgun receivers, such as receiver **13** in FIG. **1.** Legs **23** and **25** are sufficiently resilient to be spread apart as the sight is slid over the top of receiver **13** (as illustrated in FIG. **1**). The flat inner surfaces **33, 35** then resiliently engage respective flat

sides of the receiver and assure proper positioning of body **21** and notch **29**.

Legs **23, 25** extend in width from the rearward end to just short of the forward end of body **21** where a spring clip is defined by a pair of thin resilient forward legs **37, 39**. Forward legs **37, 39** are thinner, longer and closer together than legs **23** and **25** and are adapted to resiliently engage barrel **11** as illustrated in FIG. **1**. By virtue of their greater length legs **37** and **39** extend further around curved barrel **11** than legs **23** and **25** extend around flat-sided receiver **13**. Further, forward legs **37, 39** not only toe-in slightly but are curved at their ends to assure some engagement proximate the underportion of the barrel. Legs **37** and **39** are also resilient to permit them to be spread apart as they are slid over the barrel.

As illustrated in FIG. **1**, sight **20** is adapted to fit on shotgun **10** at the juncture between barrel **11** and receiver **13**. Legs **23** and **25** engage the flat receiver sides and prevent inadvertent rotation of the sight as well as assuring proper positioning of notch **29** relative to the bead sight at the muzzle end of the barrel. Forward legs **37** and **39** provide firm engagement about barrel **11** and assure that the sight is not lost due to inadvertent jostling of the shotgun.

Due to its resiliency sight **20** is easily attached and detached from a shotgun. Its relatively small size and one-piece configuration permits it to be easily stored in a hunter's pocket when not in use. The plastic material employed assures that the spring clip formed by forward legs **37, 39** will not scratch the gun barrel or injure the bluing.

The pump gun illustrated in FIG. **1** has its forearm wood **17** terminated well forward of receiver **13**. In some semi-automatic shotguns, however, the forearm wood extends back to just short of the receiver near the centerline of the barrel. Sight **20** can be employed with such a shotgun, without interferring with the actuating mechanism beneath the barrel, because the spring clip formed by relatively narrow legs **37, 39** fits in the small space between the forearm wood and the receiver. The sight thus has applicability to a wide variety of presently available shotguns of the flat-sided receiver type.

At the forward end of the sight, arcuate section **27** joins spring clip legs **37, 39** and projects forwardly over the gun barrel. The inner wall of connecting section **27** is adapted to fit over the top of receiver **13**, so that the forward portion which extends over the barrel is actually spaced from the barrel. This space provides clearance for rib **15**, regardless of the type of rib as long as it does not extend higher above the barrel than the receiver. In most available ribbed shotguns the rib does not extend above the receiver. The sight is thus versatile in its applicability to ribbed and non-ribbed shotguns. Moreover, the sight does not depend on the presence of a rib for its alignment accuracy and positional stability. Rather, these functions are provided by the flat surfaces **33, 35** which engage the flat receiver sides to assure proper alignment and stability. The slight toe-in or convergence (approximately 5°) of rear legs **23** and **25**, combined with the spring action of the forward legs **37** and **39**, assure positive clamping of the sight to both the receiver and the barrel; yet only a small portion of the sight extends along the barrel.

While I have described and illustrated one specific embodiment of my invention, it will be clear that variations of the details of construction which are specifically illustrated and described may be resorted to without departing from the true spirit and scope of the invention as defined in the appended claims.

I claim:

1. A detachable rear sight for a single-barrel shotgun having a flat-sided receiver joined at a junction to the curved single barrel, said sight comprising: a generally U-shaped body member arranged to snap-fit over the top of said shotgun at said junction in inverted U position; said body member including a pair of resilient sides arranged to extend downwardly along the sides of said shotgun and a connecting piece joining said sides and arranged to sit atop the shotgun; said resilient sides each having an interior surface with a portion forward of said junction contoured to resiliently engage said barrel between said sides, and a portion rearward of said junction contiguous with said forward portion and having a flat contour matched to the flat sides of said receiver; the sides of said body member being slightly toed to permit resilient engagement of said receiver between the rearward portions of said sides; and said connecting piece having an outer surface contoured to define a sighting notch.

2. The detachable rear sight according to claim **1** wherein said rearward portion is substantially wider in a direction along the shotgun length than said forward portion.

3. The detachable rear sight according to claim **2** wherein a portion of said connecting piece adapted to be positioned over said barrel is contoured to be spaced from said barrel to provide clearance of a sighting rib located atop said barrel.

4. The detachable rear sight according to claim **1** molded as an integral unit from plastic material.

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