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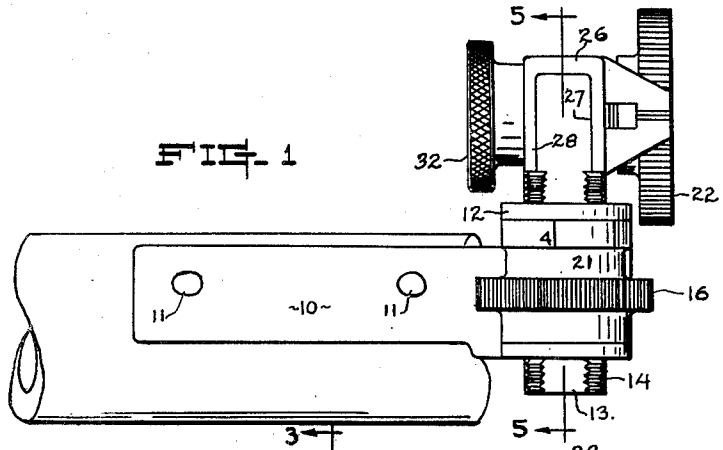
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July 24, 1951 W. F. COBB 2,561,909

ADJUSTABLE GUN SIGHT

Filed Jan. 10, 1948

FIG. 1



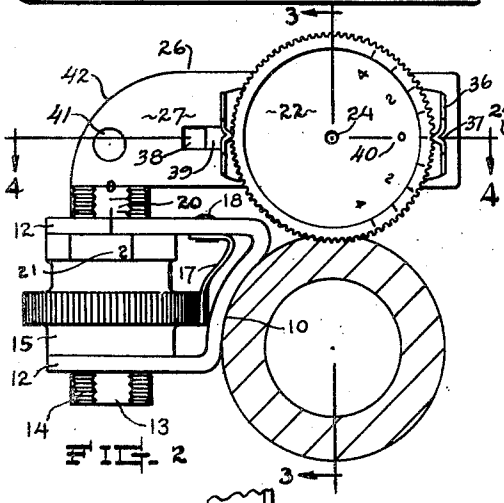


FIG. 2

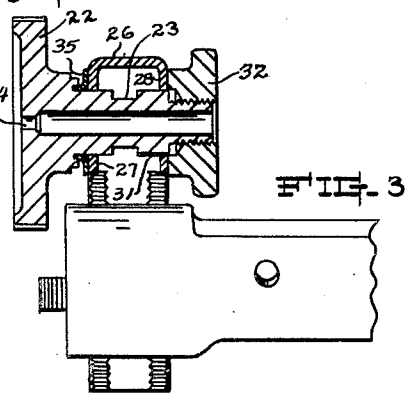


FIG. 3

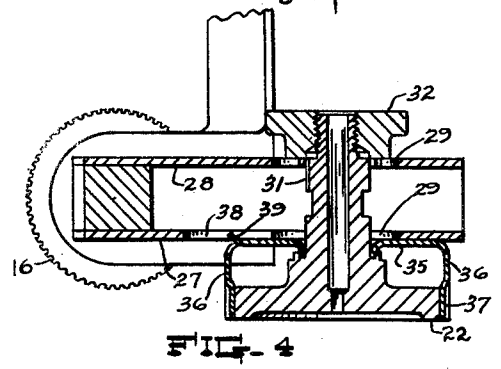


FIG. 4

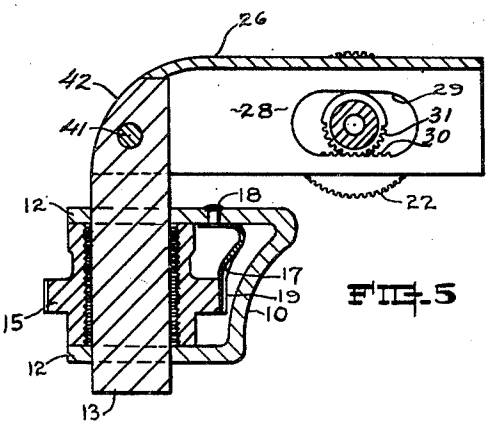


FIG. 5

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ADJUSTABLE GUN SIGHT

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Application January 10, 1948, Serial No. 1,640

5 Claims. (Cl. 33—56)

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This invention relates to gun sights and more particularly to the type used on fire arms, such as rifles.

At the present time, gun sights which are capable of precision adjustment for both elevation and windage are relatively complicated, and are particularly costly to manufacture. The cheapest sights of this type available sell at a price way out of proportion to the cost of many small caliber rifles, in some instances the cost of the sight exceeding fifty percent of the cost of the gun.

The invention has as an object a rear gun sight which may be quickly and conveniently adjusted for both elevation and windage, and which embodies a particularly rugged and durable structure and which is, at the same time, particularly economical to manufacture.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a side elevational view of a sight embodying my invention and showing a contiguous portion of a gun barrel.

Figure 2 is an end elevational view looking to the left, Figure 1.

Figure 3 is a view taken on line 3—3, Figure 2, with the gun barrel omitted.

Figure 4 is a view taken on line 4—4, Figure 2.

Figure 5 is a view taken on line 5—5, Figure 1.

The sight, as a whole, includes a mounting bracket 10 adapted to be secured to the barrel, receiver, or other part of the gun, as by screws 11. This bracket is formed at its rear end with laterally projecting spaced apart ears 12 formed with square apertures to slidably receive a square spindle 13, the corner edges of which are threaded, as at 14, and are engaged by an internally threaded sleeve nut 15 interposed between the ear portions 12 whereby, upon rotation of the nut, the spindle 13 is adjusted vertically. A detent spring 17 is secured to one of the ears 12, as by a rivet 18. The depending portion of the spring is formed with a rib 19 yieldingly engaging the notches in the portion 16 of the nut. The spring 17 thus yieldingly restrains the nut from rotative movement. Because of the relatively large diameter of the portion 16 and the number of notches thereon, the spindle can be conveniently adjusted with high precision. This adjustment for elevation being in the nature of

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one-eighth of an inch for one hundred yards. The nut is graduated, as at 21, to indicate the extent of its rotatable movement, and the rear side of the spindle 13 is graduated, as at 20, to indicate the vertical adjustment of the spindle by the nut. These graduations being conveniently observed while the gun is held in normal shooting position.

The sight member comprises a sight disk 22 formed with an elongated hub portion 23. The disk and the hub are bored axially to provide a peep aperture 24. This sight member is mounted in a sight carrier or frame 26 fixedly secured at one end to the upper end of the spindle 13, with the frame extending transversely across the gun. The frame may be an integral part of the spindle, but preferably it consists of an inverted channel structure U shaped in cross section formed with a depending front side 27, and a rear side 28. The depending sides 27, 28, are formed with elongated apertures or slots 29 arranged in alinement and which form spaced apart bearing slots for the hub portion 23 of the sight member, the hub extending transversely through the channel structure, see Figure 3. One wall of one of the slots 29, as the bottom wall of the slot in the rear side 28, is formed with a gear rack 30, and the rear portion of the hub 23 is formed with a pinion section 31 arranged in mesh with the rack 30. Accordingly, when the sight member is rotated, the pinion and rack structure is cooperable to effect transverse movement of the sight for windage adjustment.

The rear end of the hub 23 extends through the rear wall 28 of the sight frame and is threaded to receive a nut 32 which, when tightened, forms a lock to hold the sight member in adjusted position and upon removal of the nut 32, the sight member may be quickly and conveniently removed from the frame 26.

Means is provided to yieldingly restrain the sight member against rotation, this means comprising a flat spring plate 35 apertured to receive the hub 23, the plate being interposed between the disk 22 and the front wall 27 of the frame. The ends of the plate 35 are bent outwardly to form wings 36 having ribs 37 engaging the knurled or notched periphery of the disk 22. The front side 27 of the frame is formed with a slot 38 extending to the left, Figures 2 and 4, from the bearing slot 29. The plate 35 is formed with a tab or projection 39 positioned in the slot 38 and which functions to retain the plate from rotation relative to the frame 26. The plate 35 is formed of sheet spring metal and the wings 36

frictionally engage the peripheral edge of the disk 22, thus restraining it against rotative movement. The front face of the disk, which serve as an eye piece, is provided with a zero line, indicated at 40, and with graduations extending circumferentially from either side of the line. The contiguous rib 37 serves as an indicating point for these graduations, whereby the lateral adjustment of the eye piece, or sight member, in either direction is indicated at all times.

The upper end of the spindle 13 is machined off on its forward and rear sides to receive the channel structure of the sight frame, the frame being attached thereto as by a pin 41, or by welding. The upper portion of the spindle and the end of the channel member are rounded on a radius indicated at 42, Figures 2 and 5, to enhance the appearance of the device.

The sight herein described, while providing precision adjustments for both elevation and windage, is particularly rugged and durable, and can be manufactured at a cost making the sight available for use on low priced guns.

What I claim is:

1. A gun sight comprising a mounting bracket adapted to be secured to the side of the gun and having integral laterally extending ears spaced apart vertically and formed with alined apertures, a spindle slidably mounted in said apertures for vertical movement therein, means operable to effect vertical adjustment of said spindle, a sight frame member fixedly secured at one end to the upper end of the spindle and extending radially from the axis of said spindle over the gun, said sight frame comprising an inverted channel member U shaped in cross section, the depending spaced apart side walls of which are formed intermediate their ends with alined bearing slots extending lengthwise of said member, an apertured sight piece having an elongated hub portion positioned in said slots and extending therethrough, one of said slots being formed with toothed portions providing a gear rack, said hub portion being provided with a pinion arranged in mesh with said rack and being cooperable upon rotation of the sight member to effect movement thereof in said slots toward and from said spindle, and means yieldingly restraining rotative movement of said sight member.

2. A gun sight comprising a mounting bracket adapted to be secured to the side of the gun and having integral laterally extending ears spaced apart vertically and formed with aligned apertures, a spindle slidably mounted in said apertures for vertical movement therein, the upper end portion of said spindle being formed on opposite forward and rear sides with flat shouldered surfaces, an inverted U-shaped frame member having the spaced apart depending sides thereof engaging said flat surfaces and with the lowered edges of said sides positioned on the shouldered portions of said surfaces, said frame being fixedly secured to the upper end of the spindle and extending radially from the axis thereof transversely of the gun, the depending spaced apart side walls of said frame being formed intermediate their ends with alined bearing slots extending lengthwise of said member, an apertured sight piece having an elongated hub portion positioned in said slots, one of said slots being formed with toothed portions providing a gear rack, said hub portion being provided with a pinion arranged in mesh with said rack and being cooperable upon rotation of the sight member to effect movement thereof in said slots toward and from said spindle, and means yieldingly restraining rotative movement of said sight member.

3. A gun sight comprising an elongated mounting bracket, the bracket adjacent one end thereof having laterally outwardly extending spaced ears, the said ears being integral with opposite end side portions of the said bracket and each having an opening therein and which openings are in alinement, a threaded spindle mounted vertically in the said apertures of the bracket ears and having an upper and lower end portion, the upper end portion of the spindle having an elongated frame fixedly attached at one end thereto with the frame extending laterally across the said ears and the end portion of the said bracket, the frame being substantially inverted U shaped in cross section and including a closed top and oppositely disposed spaced side walls and having the unattached end thereof and bottom open, the said side walls of the frame each being provided with similarly formed elongated slots, the end of each of the slots terminating inwardly of the ends of the said frame, a sight member having a peep opening therein and including a shaft portion disposed in and through the said slots in the frame, and means to adjustably maintain the sight portion in the frame whereby the same can be adjusted transversely with respect to the frame, and means disposed between said ears and engageable with the screw threaded spindle so that the latter can be vertically adjusted for elevation and carrying therewith the said U shaped frame and sight member carried thereby.

4. A gun sight comprising an elongated mounting bracket adapted to be secured to the side of the gun and having integral vertically spaced apart ears extending laterally outwardly from the gun, said ears being formed with alined square apertures, a vertically arranged spindle square in cross section slidably mounted in said apertures and having threads formed on the corner portions thereof, a nut positioned between said ears and threaded on the spindle for effecting vertical adjustment of the same in said bracket, the upper end portion of said spindle having an elongated frame fixedly attached at one end thereto with the frame extending radially from the axis of the spindle across said ears and the gun, said frame being substantially inverted U shaped in cross section and including a closed top and oppositely disposed spaced side walls, said side walls of the frame each being provided with an elongated slot, said slots being arranged intermediate the ends of the frame and being arranged in alinement, a sight member having a peep opening therethrough and including a hub portion disposed in and extending through said slots, one of said slots being formed with a toothed rack portion and said hub portion of the sight member being provided with a pinion engaging said rack and being cooperable upon rotation of the sight member to effect movement thereof in said slots toward and from said spindle, and means yieldingly restraining rotative movement of said sight member.

5. A gun sight comprising a mounting bracket adapted to be secured to the side of the gun and having integral laterally extending ears spaced apart vertically and formed with alined apertures, a spindle slidably mounted in said apertures for vertical movement therein, means operable to effect vertical adjustment of said spindle, a sight frame member fixedly secured at one end

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to the upper end of the spindle and extending radially from the axis of said spindle over the gun, said sight frame comprising an inverted channel member U shaped in cross section, the depending spaced apart side walls of which are formed intermediate their ends with alined bearing slots extending lengthwise of said member, an apertured sight piece having an elongated hub portion positioned in said slots and extending therethrough, one of said slots being formed with toothed portions providing a gear rack, said hub portion being provided with a pinion arranged in mesh with said rack and being cooperable upon rotation of the sight member to effect movement thereof in said slots toward and from said spindle, a U-shaped spring member formed with a central aperture to receive the hub portion of said sight member and having its leg portions yieldingly engaging the periphery of the sight member, and said spring member having a projection positioned in the slot in the adjacent depending side of said channel member.

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