

Oct. 5, 1937.

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2,094,705

SIGHT FOR FIREARMS

Filed Oct. 20, 1936

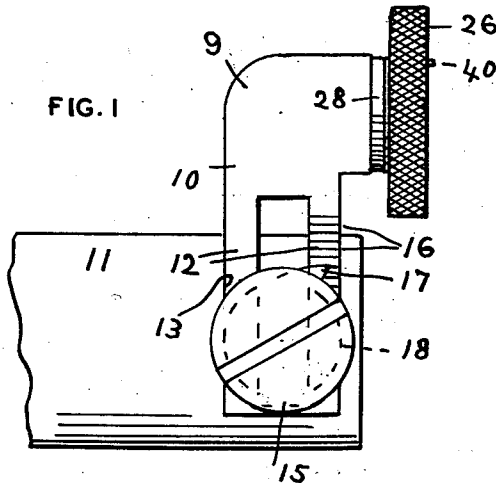


FIG. 1

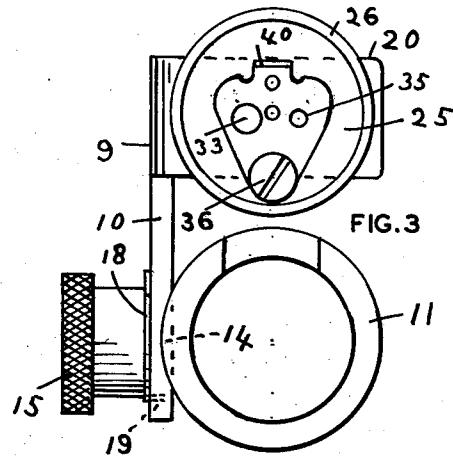


FIG. 3

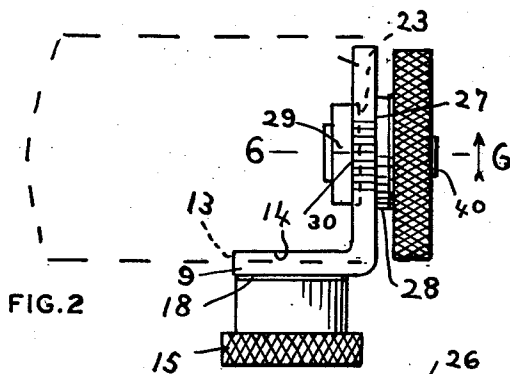


FIG. 2

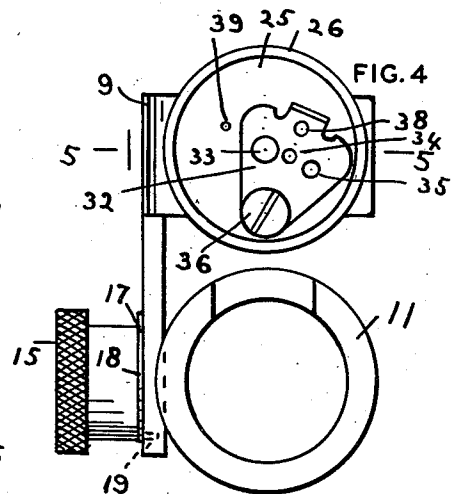


FIG. 4

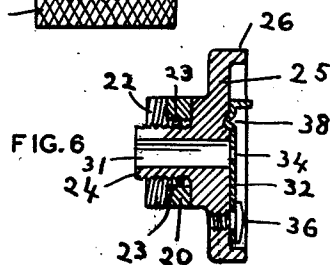


FIG. 6

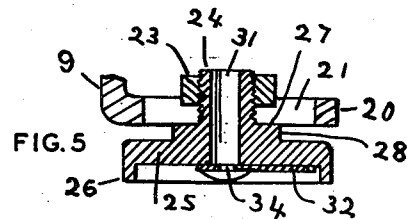


FIG. 5

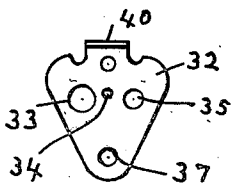


FIG. 7

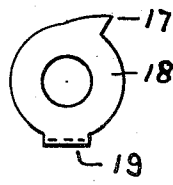


FIG. 8

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Patented Oct. 5, 1937

2,094,705

UNITED STATES PATENT OFFICE

2,094,705

SIGHT FOR FIREARMS

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Application October 20, 1936, Serial No. 106,620

2 Claims. (Cl. 33—56)

This invention relates to sights for firearms and more particularly to the rear sights for rifles.

The purpose of my present invention is to provide a firearm sight of new and improved construction and particularly to provide a sight device that is economical and simple in construction, readily assembled and attached to a rifle and not liable to get out of order nor be damaged in use; and which has convenient and practicable adjustments for windage, range and size of peep hole in the sight, any one of which adjustments can be changed by hand without affecting the other adjustments.

Further advantages and purposes will appear from the description herein.

Fig. 1 is a side elevation of a firearm sight embodying this invention as seen from the left hand side of a rifle of which only the adjacent rear part of the receiver or equivalent part is shown.

Fig. 2 is a top or plan view of the sight device shown in Fig. 1.

Fig. 3 is a rear view of the parts shown in Fig. 1, the sight plate being shown in central position.

Fig. 4 is a rear view similar to Fig. 3 but with the pivotally mounted sight plate swung to the right hand side to use a larger sight opening.

Fig. 5 is a horizontal sectional view of the sight device on line 5—5 of Fig. 4.

Fig. 6 is a vertical sectional view on line 6—6 of Fig. 2, the sight plate being in central position as in Fig. 3.

Figs. 7 and 8 are plan views respectively of the sight plate 32 and of the disk 18.

Referring to the drawing in a more particular description it will be seen that the sight device as a whole is mounted upon the desired part of the firearm as by having the vertical standard 10 of the angular shaped supporting bracket 9 attached to one side, (say the left hand side as shown in the drawing) of the rifle receiver or equivalent part 11 near its rear end.

The mounting of standard 10 of the supporting bracket 9 upon the receiver is preferably readily detachable and detachable and also readily adjustable vertically. This is accomplished by having the lower part of the vertical standard 10 in the form of two spaced legs 12 with the parallel outside edges of the legs closely but slidably fitting the shoulders 13 of a notch 14 formed in the side of the receiver 11. In the portion of this notch between the legs 12 there is provided in the receiver a horizontally disposed threaded hole into which fits the inner threaded end of a large headed cap screw 15 the head of which engages

the outer surfaces of the two legs 12 so that loosening the cap screw in obvious manner allows the whole bracket 9 to be adjusted vertically to the desired position for setting the sight for the desired range. Preferably the outer end of the head of the cap screw is enlarged and knurled so that it can be operated by the finger and thumb. Conveniently also the head of the cap screw may be provided with a slot which will receive a screw driver or more often the edge of a coin.

To aid in setting the sight for the desired range by this elevation of the standard 10 a series of spaced marks or notches 16 are provided upon the outer face of one of the legs 12, over or against which marks is located a pointer 17 projecting from a thin metal disk 18 which is held in position between the inner face of the head of the cap screw 15 and the outer face of the legs 12 by the shank of said cap screw going through a hole in the middle of said disk. The disk is held from rotation by means of a finger 19 on said disk which is bent inwardly to fit the space between the two legs of the standard.

The supporting bracket 9 at its upper part has a cross arm 20 extending at an angle to the standard 9 and extending transversely across and above the receiver 11. This cross arm is of appreciable width in a vertical plane and is provided with a horizontally disposed elongated slot 21, the upper and lower edges of which are parallel and are slidably engaged by upper and lower horizontal shoulders 22 on nut 23. This nut rests against the front face of the cross arm 20 and preferably its upper face is horizontal and on the same level as the upper face of the cross arm 20. The rear face of the nut 23 is cut away adjacent its top and bottom to form the horizontal shoulders already mentioned as slidably fitting the horizontal top and bottom faces of the slot 21. This arrangement without the use of any extra parts holds the said nut 23 in non-rotative position relative to the cross arm but allows the said nut to slide horizontally of the cross arm within the range of movement allowed by the nut and slot in the cross arm when the externally screw-threaded extension 24 upon the eye cup 25 and engaging said nut is loosened.

The eye cup 25 is preferably formed circular in shape and with a rearwardly extending flange 26 at its periphery. The peripheral face of this flange is preferably knurled so as to allow the eye cup to be rotated between the finger and thumb as said eye cup with its forwardly disposed extension 24 forms a cap screw for detachably and adjustably holding the said eye

cup in place upon the cross arm by the engagement of the said extension with the thread of the nut 23, it being understood that the forwardly facing surface 27 on the said eye cup rests against the rear face of the cross arm above and below its elongated slot. Preferably this surface 27 is provided on the front of a hub-like part 28 formed at the front of the eye cup and having about the same diameter as the vertical width of the cross arm 20 while the diameter of the eye cup proper is considerably greater than the said vertical width of the cross arm. This arrangement spaces the knurled flange on the eye cup slightly to the rear of the cross arm for greater convenience in adjusting the eye cup relative to the cross arm. By loosening the eye cup slightly relative to the nut 23 it will be seen that the eye cup can be shifted laterally of the fire arm viz. longitudinally of and along the said cross arm. For convenience in setting the eye cup to the desired position transversely of the fire arm by such adjustment there are provided a co-operating set of marks upon the upper face of the nut 23 and the upper face of the cross arm 20. These marks may conveniently consist of one cross mark 29 in the top surface of the nut 23 immediately above the axial center of said nut. On the upper edge of the cross arm there is provided a series of cross marks or small notches 30. In this way the user of the fire arm equipped with such a sight can adjust the sight to the desired amount for windage.

The eye cup is provided with a sight aperture 31 which is placed at the center of the eye cup and extends axially through the eye cup proper, its hub 28 and its forward extension 24. Pivotaly mounted upon the rear face of the eye cup and within the recesses formed by the flange 26 there is provided the sight plate 32. This sight plate has a plurality of spaced, different sized sight openings as 33, 34 and 35. The sight plate is formed of spring metal as thin sheet metal, so formed and tensioned that when the said sight plate is pivotally fastened to the eye cup by the pivot screw 36 having its shank extend through a hole 37 in the sight plate into a suitable hole in the eye cup at a point remote from the central sight opening of said eye cup, the said sight plate will be yieldingly pressed against the rear face of the eye cup. As appears from the drawing the sight plate may conveniently be in the form of a heart-shaped or roughly triangular shaped piece of metal with the pivot hole 37 near the point of the heart and the different sized sight openings 33, 34 and 35 are in the middle portion of said plate spaced apart from each other and each one spaced from the pivot hole of said plate the same distance as the axis of said pivot screw 36 is from the center of the sight aperture or practically the axial center of the eye cup. It will then be obvious that by swinging the said sight plate any one of the said sight openings in the sight plate may be brought to register with the sight aperture through the eye cup. Suitable integral means are provided on the said sight plate and eye cup to hold the said plate selectively with any of the sight openings in registering position by the spring tension of said sight plate. Such means may consist of a small forwardly extending projection 38 provided upon the sight plate which will extend into any one of three small recesses 39 provided in the rear face of the eye cup. These recesses are a similar distance from the axis of the pivot screw 37 as is the projec-

tion 38 and they are so spaced across the rear face of the eye cup that the different ones are engaged by said projection when the sight plate is swung to have its sight openings in registering position with the central axis of the eye cup. Conveniently a rearwardly extending ear 40 is provided upon the edge of the sight plate at a point remote from the pivot screw 36 so that the user can readily swing the sight plate to its different positions by pushing said ear with the nail of a finger or thumb.

It will now be seen that the sight plate may be moved back and forth to any of its desired positions without interfering with the vertical adjustment of the sight device as a whole for range and without interfering in any way with the lateral adjustment of the eye cup for windage. Also it will be seen that either of those adjustments can be made without disturbing the other and without disturbing the adjustment of the sight plate upon the eye cup.

In the drawing the eye cup is illustrated in a position where the movable sight plate is in upright or vertical position as a whole when its central sight opening is being used and this is a convenient arrangement of the parts. It will be noticed however that if through variation in the manufacture or through wear of parts the eye cup will come to a tight position relative to the cross arm when the pivoting screw of the eye cup and the sight aperture of the eye cup are not in a vertical plane, there will be no interference with the manipulation of the sight plate. The sight plate can be swung to any of its positions no matter what the relative position of the pivot screw may be to the central sight aperture of the eye cup.

What I claim as new and desire to secure by Letters Patent is:

1. In a firearm sight, the combination of an attaching bracket having a cross arm located above the firearm and extending transversely thereof and having a slot therethrough, an eye cup mounted to the rear of said cross arm and having at its front side a centrally disposed, externally threaded extension projecting through the slot in said arm, said eye cup having a centrally located sight aperture extending through the eye cup and its extension, a nut engaging said eye cup extension and said cross arm for detachably holding the eye cup in place, a spring metal sight plate pivotally mounted on the rear face of the eye cup by a pivot spaced from the sight aperture, said plate having a plurality of different sized sight openings adapted to be selectively brought into line with the sight aperture in the eye cup by swinging said plate, and cooperating indentations and projections on the interengaging faces of said eye cup and sight plate for yieldingly holding the plate in adjusted position by the spring tension of said plate.

2. In a firearm sight, the combination of an attaching bracket having a cross arm located above the firearm and extending transversely thereof and having a horizontally elongated slot therethrough, an eye cup mounted to the rear of said cross arm and having at its front side a centrally disposed, externally threaded extension projecting through the slot in said arm, said eye cup having a centrally located sight aperture extending through the eye cup and its extension, a nut threaded on said eye cup extension and engaging the front of said cross arm for adjustably holding the eye cup in place along said cross arm, a spring metal sight plate pivotally mounted

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on the rear face of the eye cup by a pivot spaced from the sight aperture, said plate having a plurality of different sized sight openings adapted to be selectively brought into line with the sight
5 aperture in the eye cup by swinging said plate, and co-operating indentations and projections

on the interengaging faces of said eye cup and sight plate for yieldingly holding the plate in adjusted position by the spring tension of said plate.

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