No. 837,563. PATENTED DEC. 4, 1906.

B. E. HARTMANN.

SIGHT FOR FIREARMS.

APPLICATION FILED SEPT. 28, 1905.

Fig. 1.

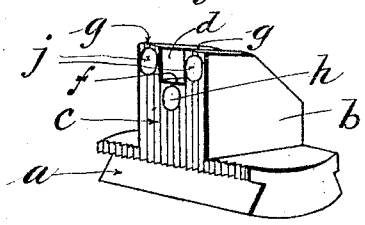

Fig. 3.

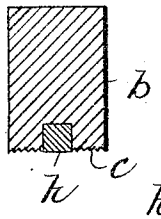

Fig. 2.

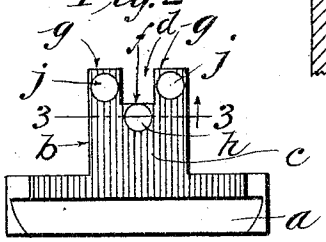

Fig. 4.

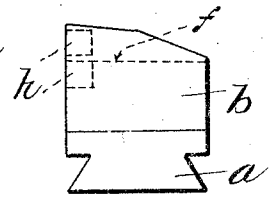

Fig. 7.

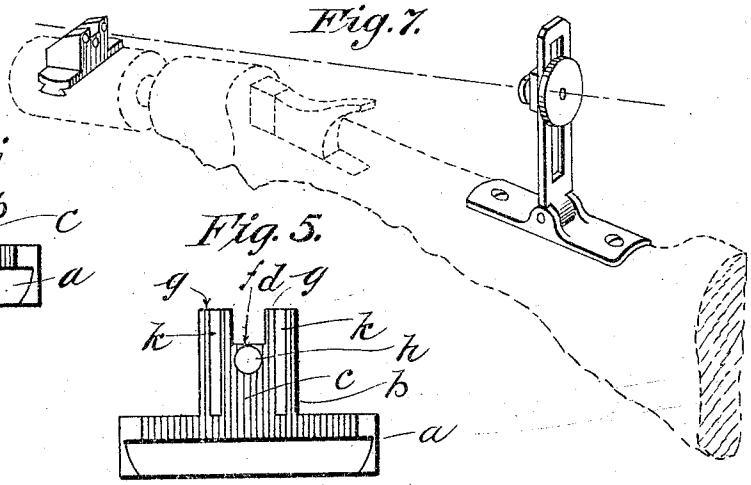

Fig. 6.

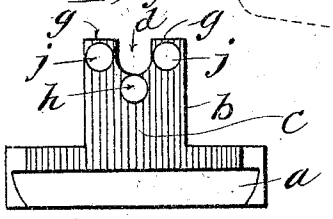

Fig. 5.

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UNITED STATES PATENT OFFICE.

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SIGHT FOR FIREARMS.

No. 837,563. Specification of Letters Patent. Patented Dec. 4, 1906.

Application filed September 28, 1905. Serial No. 280,447.

To all whom it may concern:

Be it known that I, BRUNO ERNEST HARTMANN, a citizen of the United States of America, residing at Greenfield, in the county of Franklin and State of Massachusetts, have invented new and useful Improvements in Sights for Firearms, of which the following is a specification.

This invention relates to gun-sights, and has for its object the improvement in the construction of a so-called "open sight," whereby a clearly-defined sighting-point may be brought to bear on the object aimed at without blurring, a further object of the invention being to associate with a sight embodying the above features means to assist the eye in holding the gun in the proper vertical plane; and having these ends in view the invention consists in locating a sighting-point about flush with the line which constitutes the bottom of a groove cut in the upper edge of the body of the sight, the latter thus being provided with a horn at each side of this groove, the area of the face of these horns bearing a certain proportion relative to the area of the groove, whereby all blurring is eliminated by the blotting out of the objects immediately contiguous to the object aimed at.

The sight is adapted primarily for the front sight of a rifle.

In the drawings forming part of this specification, Figure 1 is a perspective view of a sight constructed according to this invention. Fig. 2 is a front elevation of the same. Fig. 3 is a sectional view in the plane of line 3 3, Fig. 2. Fig. 4 is a side elevation of Fig. 2, and Fig. 5 is a front elevation showing a construction slightly different from that shown in Fig. 2 as regards means to assist the eye in properly alining the sight. Fig. 6 is a front elevation of a sight, showing a slight modification of the construction illustrated in Fig. 2. Fig. 7 is a perspective view showing the sight attached to the barrel of a firearm.

In carrying out this invention, the sight is made in block form having a beveled base portion *a*, whereby it may be secured to the barrel of a gun in the usual manner, and projecting above this base is a body portion *b*, preferably integral with the base and in the form of a rectangular block, the face *c* of which is vertical to the axis of the barrel on which the sight is fixed. Extending through this body portion in line with the axis of the barrel and cutting the upper border thereof is a groove *d*, preferably substantially rectangular in cross-section, to the end that the bottom of the groove may be a straight line, as *f*.

It is essential that the area of the face of the two horns *g g*, which results from the cutting of the groove *d* through the sight, should bear a certain relation to the cross-sectional area of the groove *d* or rather to the width of the groove, to the end that as the line of vision extends through the groove to the object aimed at the face of these horns may blot out a certain area each side of and below the object aimed at, for it is only by thus blotting out objects near the object aimed at that the base-line *f* of the sight can be brought to bear on that object without blurring. Furthermore, in order to provide a base-line of sufficient length to be of any effective use and to permit the eye to take in the object aimed at the groove *d* must be relatively a wide one. It therefore becomes necessary to locate a sighting-point centrally of that line in order to aline the axis of the barrel with the object aimed at; but this sighting-point, if it should project above said base-line, would blur when brought to bear on an object at a distance; but if of a different color from the face of the sight and if located in that face in a position substantially tangent to or not extending above said base-line the latter will not blur nor will the point blur, and thus located, if the sighting-point (indicated by *h*) is even quite large, the center of the base-line will be clearly indicated. By making the sighting-point *h* of a relatively large area and in the form of a circular plug driven into a socket in the body of the sight it constitutes a very fine sighting-point, because of the fact that the upper edge of the plug where it is substantially tangent to the base-line *f* will be very clearly defined. The preferred form of sight, therefore, is that in which the area of the horn on each side of the sighting-groove *d* shall be substantially equal to the cross-sectional area of the groove, the latter being preferably of rectangular form in order to provide a suitable base-line, (though the latter is not absolutely essential,) for the sight is operative if made in the form shown in Fig. 6, in which the sighting-groove is practically semicircular in cross-section.

In all cases it is preferable that the two

guide-points *j* of a contrasting color be located in the face of the horns *g* or some like guide points or lines, as shown in Fig. 5, whereby the eye may have a line, real or imaginary, to aid it in the adjustment of the gun in the suitable vertical plane, and in shooting it is very easy to effect this alinement by drawing an imaginary line through two guide-points *j j*, and thus adjusting the arm; but, as stated, the preferred construction is to cut a groove *d* which is rectangular in cross-section, as thereby the vertical borders may serve to effect this alinement independently of the guide points or lines. It is in any event desirable to associate with the sight constructed as described, having a sighting-point located centrally of a base-line, two guide points or lines like the points *j* or the lines *k* in Fig. 5, for the reason that in the woods or toward evening, when it is dark, if these guide-points and the sighting-point be made of some contrasting color relative to the face of the sight it makes it much easier to locate the object aimed at than when the face is left unprovided with these guiding-points, for as these points are located on the sight the object aimed at can be located between them and the immediately contiguous area near the object aimed at is blotted out by the broad faces of the horns and the body below the sighting line or point.

This sight is constructed to be used near the muzzle only, and as used near the muzzle it is used in connection with the aperture rear sight.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A muzzle gun-sight in combination with a rear aperture-sight consisting of a body having a substantially rectangular groove in the upper border thereof whereby a horizontal sighting-line is provided, this groove resulting in the formation of a horn on each side thereof, a piece of material of a different color from that of the sight being located centrally of said horizontal sighting-line flush with the same, and like pieces being located in the same horizontal plane in each horn of the sight above said sighting-line.

2. A gun-sight consisting of a body having a substantially rectangular groove in the upper border thereof whereby a horizontal sighting-line is provided, this groove resulting in the formation of a horn on each side thereof, a piece of material of a different color from that of the sight being located centrally of said horizontal sighting-line about flush with the same, and parallel bars of like material being located in the vertical center of each horn at right angles to said sighting-line.

3. A muzzle gun-sight in combination with a rear aperture-sight consisting of a body portion adapted for attachment to the barrel, a longitudinal rectangular groove in the upper portion of the body and having its side and bottom dimensions substantially equal, whereby an unbroken horizontal sighting-line with a large surface is provided, the groove resulting in the formation of a horn on each side thereof, a piece of material of different color than the body portion and located centrally of the horizontal sighting-line and flush with the same, and also a piece of material of different color than the body portion being located in each horn midway of the width of the same whereby accuracy in sighting the arm in both horizontal and vertical positions is obtained.

4. A muzzle gun-sight for use with a rear aperture-sight consisting of a body having a channel therein parallel with the bore of the gun whereby a sighting base-line having an unbroken surface is provided, said channel resulting in the formation of a horn on each side thereof and having an area substantially equal to that of the channel in cross-section, a piece of material different in color from the sight-body being embedded in each horn in the same horizontal plane and above the sighting-line, and another piece of like characteristics being embedded in the body of the sight midway between the pieces in the horns and substantially flush with the sighting-line.

5. In combination with the barrel and tubular rear sight of a firearm, a muzzle-sight comprising the following elements to wit: a base-piece having a longitudinal groove in the upper side thereof and providing horn portions on the opposite sides of the groove substantially the same in dimensions as the area of the groove, pieces of material different in color than the body portion and located centrally of the horizontal sighting-line of the groove and flush with the same, pieces of material different in color than the aforementioned piece, also embedded in the body portion and in each horn thereof, and midway of the width of the same whereby accuracy of sighting the arm in both horizontal and vertical positions through the rear tubular aperture is attained, as described.

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