No. 613,240. Patented Nov. 1, 1898.

B. BURTON.

GUN SIGHT.

(Application filed Aug. 12, 1897.)

(No Model.)

Fig. I.

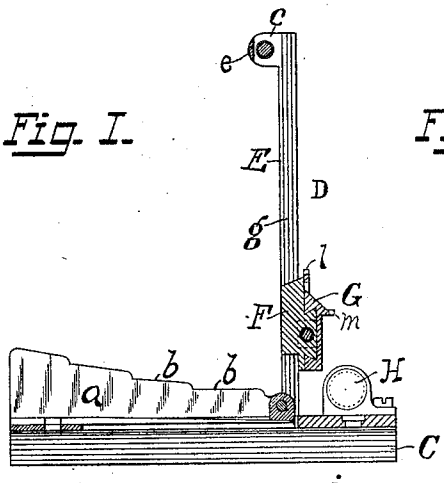


Fig. II.

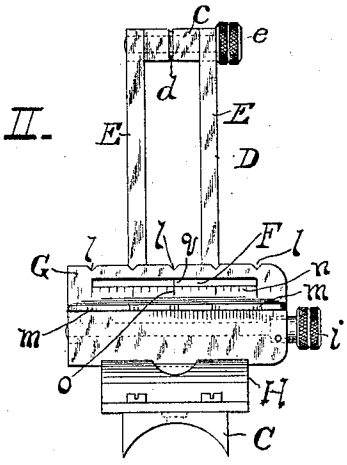


Fig. III.

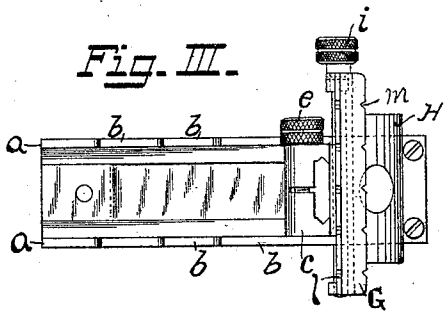


Fig. IV.

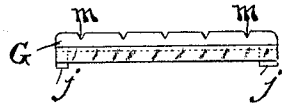


Fig. V.



Fig. VI.

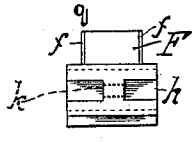


Fig. VII.

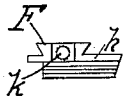
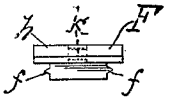


Fig. VIII.



WITNESSES:

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Chas. W. Thomas

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UNITED STATES PATENT OFFICE.

BETHEL BURTON, OF NEW YORK, N. Y.

GUN-SIGHT.

SPECIFICATION forming part of Letters Patent No. 613,240, dated November 1, 1898.

Application filed August 12, 1897. Serial No. 648,012. (No model.)

To all whom it may concern:

Be it known that I, BETHEL BURTON, a citizen of the United States of America, and a resident of New York, (Brooklyn,) in the county of Kings and State of New York, have invented a certain new and useful Improvement in Firearms, of which the following is a specification.

This invention relates to gun-sights.

The object of the invention is to produce a rear sight which will permit a wide adjustment with extreme accuracy and which will readily indicate the perpendicular position of the sight relatively to the bore of the gun.

To this end the invention consists in certain constructions and combinations, as hereinafter stated and claimed.

Figure 1 is a vertical central section of the sight elevated. Fig. 2 is an elevation of the elevated sight, looking toward muzzle of gun. Fig. 3 is a top plan of the sight. Fig. 4 is an edge view of the notched sight-plate which acts as a wind-gage. Fig. 5 is an end view of the plate seen in Fig. 4. Fig. 6 is a plan view, Fig. 7 an edge view, and Fig. 8 an end view, of the vertical slide of the sight.

Similar letters represent like parts in all the figures.

The body C of the back sight is made concave on its under side and adapted to be screwed to the gun-barrel and is provided with two vertical parallel sides *a a*, notched on their upper edges to form graded steps or rests *b*, as shown in Figs. 1 and 3.

D is a leaf pivoted to the body C back of the sides *a* and narrower in width than the space between said sides, so as to enable said leaf to drop between the sides. The inside of the leaf D is grooved longitudinally at *g* in substantially V shape, but not completely through its ends, thus leaving two longitudinal pieces E E and cross-pieces uniting the pieces E E at each end. The cross-piece *c*, at the outer end of the leaf D, has a deep transverse slit *d* extending through said cross-piece in the longitudinal line of the leaf D and to a considerable extent, but not entirely, through the cross-piece. A thumb-screw *e* passes longitudinally through the cross-piece *c* and across the slit *d*. This screw *e* is journaled so as to have only rotary movement, and thus upon its rotation causes the sides of the slit *d* to separate or come together, as is common in opening and closing some kinds of vises, ruling-pens, and other implements by means of a set-screw operating in one direction and the spring action of the material operating in the other direction. A slight tension or distortion of the bars of the leaf is sufficient to bind the slide.

F is a slide having parallel guides *f f* engaging with guideways *g g* on the inside of the pieces E E, so that said slide F may slide longitudinally within the leaf D. The leaf D may be turned up or down, and when so turned will be held by a spring, as usual. The slide F may be adjusted to any position on the pieces E E and will be held to any desired position by the tightening of thumb-screw *e*.

G is a horizontal wind-gage having a dovetailed sliding connection with a front portion *h* of the slide F to enable said wind-gage to be slid horizontally or at right angles to the movement of the slide F on the leaf D. A thumb-screw *i* is journaled in bearings *j j* at the end of the gage G, so as to have no longitudinal movement in said gage, and said screw passes through and engages with an internal screw *k* on the front portion *h* of the slide F to enable the gage G to be carefully and finely adjusted with relation to the slide F. The upper edge of the gage G is provided with a series of notched sights *l*, and a backwardly-extending flange from the gage G is provided with notched sights *m* in line with the sights *l*. The gage G also has a scale *n* with its principal marks in line with the notches *l* and *m*, the zero-mark *o* being the center one and in line with the middle notches. The gage G is also slotted longitudinally between its upper edge and its backwardly-extending flange to enable the marksman to determine when in regulating the gage any particular mark on the same is in line with the mark *q*. If the zero-mark *o* and the mark *q* are in line, the central notch *l* (see Fig. 2) will give a sight parallel with the barrel, while the other notches *l* will give a sight obliquely with the barrel. If any of the other marks of the scale *n* are in line with the mark *q*, the central notch or middle sight will give a sight at an angle with the barrel. The object of having other notches besides the cen-

tral one is to allow the sight to be taken at any position on either side of the uprights E when the central notch is covered by one of said uprights.

When the range is not very long, the leaf D is turned down, so that the lateral extensions of the slide F rest upon one of the steps *b* of the body C, said slide being slid up the leaf D to enable it to rest upon the proper step. The higher the step on which it rests the longer the range. In such case the sights *m* are used, as they will then be virtually vertical or extending upward from the gun. If it be desired to fire at a longer range than the steps *b* provide for, the leaf is raised, as shown in Figs. 1 and 2, and the slide F, with the gage G, is moved upward until the desired point has been reached on the leaf D, which is determined by experimental firing, when the screw *e* is turned, drawing the two bars E closer together and binding the slide F and wind-gage G in place. The sights *l* are then used. Loosening the screw *e* will cause the bars E to separate sufficiently to permit the slide F and wind-gage G to drop or be readily slid down to the bottom of the leaf D.

H is an ordinary spirit-level screwed to the body C to insure the gun being placed in a level position.

The spirit-level is secured to the base or body C of the sight, the tube of the level extending crosswise of the sight-body, so that the bubble will be in the middle of the tube when the central vertical line between the bars E E of the sight is perpendicular to the vertical axis of the gun. It is well understood by marksmen that a slight twist of the gun to one side causes inaccuracy in the shooting. The level located as described makes an effectual guard against such an error. The bubble in the sight is always visible to the marksman when the gun is leveled no matter what the position of the folding leaf or of the wind-gage.

Sights have been made in which the entire leaf was moved sidewise as a wind-gage. This is objectionable, as it is frequently desirable to maintain a central or zero point and yet permit an angular sighting, as is done by the multiple notches in the wind-gage.

What I claim is—

1. In a gun-sight the combination with the base-piece adapted for attachment to the barrel, of a leaf hinged to the base-piece as usual, and consisting of parallel arms having resilient connection at their free ends outside of the plane in which they extend, a screw for drawing said arms together, and a sliding sight-piece arranged between the arms and adapted to be clamped and held thereby in adjusted position.

2. In a sight for firearms the combination with the base-piece adapted for attachment to the barrel, of a leaf hinged to the base-piece as usual, and consisting of two parallel arms connected at their free or swinging ends by a transverse resilient bar lying outside of the plane in which the arms extend, a clamping-screw for drawing said parallel arms together, and a sliding sight-piece arranged between said arms and adapted to be clamped and held thereby in adjusted position.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 24th day of July, 1897.

BETHEL BURTON.

Witnesses:
EUGENIE A. PERSIDES,
GEO. W. EISENBAUN.