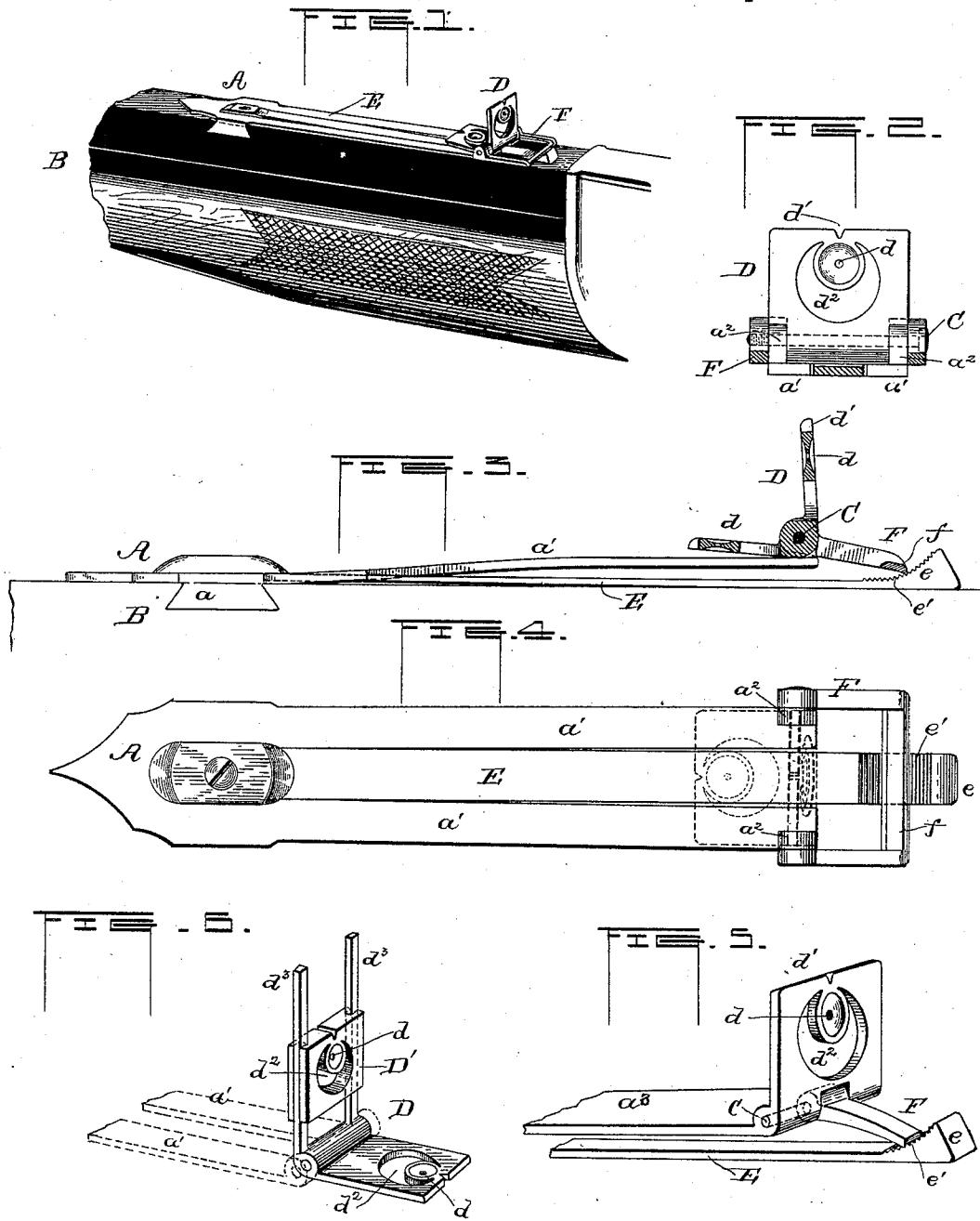


(No Model.)

W. L. MARBLE.
ADJUSTABLE GUN SIGHT.

No. 450,468.

Patented Apr. 14, 1891.



WITNESSES

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ADJUSTABLE GUN-SIGHT.

SPECIFICATION forming part of Letters Patent No. 450,468, dated April 14, 1891.

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To all whom it may concern:

Be it known that I, WEBSTER L. MARBLE, a citizen of the United States, residing at Gladstone, in the county of Delta and State of Michigan, have invented certain new and useful Improvements in Breech-Sights for Fire-Arms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to sights for fire-arms; and it consists in an improved middle or breech sight, as hereinafter set forth.

Its object is twofold, to wit: first to improve the sight itself, and, second, to improve the means for adjusting the sight vertically to give different elevations to the muzzle.

In the drawings, Figure 1 is a perspective view of my sight applied to the breech of a rifle-barrel. Fig. 2 is a rear elevation, partly in section, on an enlarged scale. Fig. 3 is a side elevation, partly in section. Fig. 4 is a top plan view, the sight being shown in dotted lines. Figs. 5 and 6 are modifications.

The base A of the sight is attached to the gun-barrel B by means of a flanged cross-piece a, fitting an undercut transverse groove in the barrel. The cross-piece is located at or near the forward end of the base, which consists of a flat plate of steel provided with two rearwardly-extending arms a' a'', lying along the top of the barrel. At the rear end of each arm, and preferably on its outer edge, is an upright ear a'', perforated transversely of the barrel to receive the pintle C, on which is hinged at its angle an L-shaped standard D, containing the sights. The width of the standard between the ears a'' is slightly greater than the normal distance between said ears, so that the arms a', being made of spring-steel, constantly exert a clamping effect upon the standard and hold it steadily, though not preventing it from being turned in either direction to bring one or the other of its parts into an upright position. Each part of the standard consists, preferably, of a square or rectangular plate, near the upper edge of which is drilled a peep-sight d. The object in using an L-shaped standard is to provide

for two sights of different sizes. Where but one sight is wanted, the standard may be fastened immovably to the arms a' or made integral therewith, as shown in Fig. 5. In the upper edge of the standard may be formed a notch d', as in the stationary sights customarily used, though this is not essential. Around the hole d the plate is countersunk, as shown, on one or both sides, and adjacent to the countersink the metal is cut out, forming one or more openings d'', extending on each side to a point above the horizontal line of the peep-sight. A convenient and ornamental shape for the opening is that of a lune, as shown, though it may be of any suitable configuration. The object of this opening d'' is to afford the marksman a clear view of the mark on both sides of and below the sight. In the ordinary solid breech-sights the mark is almost entirely hidden from view, which tends to impair the accuracy of the aim.

The stepped wedges heretofore in use for raising the breech-sight to get the proper elevation compel a considerable change in the position of the sight at each movement of the wedge, there being no provision for a gradual and delicate adjustment. I have invented a simple device for this purpose that enables the sight to be raised either very slightly or to a considerable extent, and in either case instantly, the sight being firmly held at any and every elevation.

Between the arms a' a'' is a strip of metal E, firmly secured at its front end to the plate A and at its rear end extending somewhat back of the ends of the arms. The end of this strip is preferably considerably thicker than the body of it, forming a head e, the upper face of which is preferably curved upwardly and has cut in it a series of fine transverse notches e', forming a ratchet.

Hinged to the arms a', preferably by means of the pintle C, passing through the ears a'', is a U-shaped pawl or dog F, the transverse portion of which is provided with a sharp edge f, adapted to engage with the notches e'. The length of the side portions of the pawl is such that when the arms a' a'' lie flat upon the gun-barrel the pawl rests with its edge f near the highest part of the ratchet, as shown in Fig. 1. Upon pushing the pawl down the ratchet, however, the rear ends of the arms

are raised in the manner illustrated in Fig. 3, the engagement of the pawl with the notches e' preventing the arms from falling. It is apparent from the drawings that this construction affords a very fine vertical adjustment of the sight, and yet that a considerable elevation can be instantly given to it by pushing the pawl to or near to the end of the ratchet. Upon freeing the pawl from the notches the resilience of the arms a' immediately brings them down upon the barrel again.

A modified form of pawl is shown in Fig. 5, which is especially recommended in case the standard D is made integral with the arms a' . Here the pawl is a single straight piece hinged to the middle of the standard. As shown in this figure, the arms a' may be consolidated into a single plate a^3 , if desired, and placed above the strip E.

The modified form of hinged standard shown in Fig. 6 illustrates another mode of vertically adjusting the sight. Here one of the plates containing the sight is made separate from the other and is arranged to slide upon two posts d^3 , projecting from the hub by which the standard is hinged to the ears a^2 . The posts are preferably chamfered off from within outwardly, and the flanges on the edges of the plate D' are compressed so as to somewhat embrace the posts, whereby the posts are prevented from separating. The posts stand normally a little closer together than the width of the plate, so that they must be sprung apart slightly to admit the plate between them. This gives them a clamping action on the plate that holds it steadily at any height and yet permits it to be moved readily. This sight can be instantly and noiselessly adjusted in case game is suddenly discovered at a distance. It can be used with the pawl-and-ratchet elevating devices, if desired. It is also evident that this sliding sight can be used independent of the plate A, the posts standing on a suitable base firmly secured to the barrel. So, too, a single immovable plate with the peep-sight d and opening d^2 can be substituted for the ordinary solid notched sight now used.

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

1. A breech-sight consisting of a plate having the peep-sight d and the lune-shaped opening d^2 extending nearly around said peep-sight on each side of and below it, substantially as described.

2. A breech-sight consisting of a plate secured to the barrel, and having rearwardly-extending arms and an L-shaped standard $6c$ containing the sights hinged between the arms, substantially as described.

3. The combination, with the plate A, having the arms $a' a'$ sprung slightly apart, of the L-shaped standard D, hinged between the arms and clamped thereby, substantially as described.

4. The combination, with the plate A, having the arms $a' a'$, of the L-shaped standard hinged thereto, one part of said standard carrying a sliding sight D' , substantially as described.

5. The combination, with the standard D, having the posts d^3 sprung slightly apart, of the sliding plate D' , containing a sight and received between the posts d^3 , substantially as described.

6. The combination, with the plate A, having an arm carrying the sight, of a strip E, having a ratchet e' , and a pawl hinged to the arm and adapted to engage with the ratchet, substantially as described.

7. The combination, with the plate A, having the arms a' , provided with ears a^2 , of the sight carried by said arms, the strip E, lying between the arms and having the notched head e , and the pawl F, hinged to the ears a^2 and having a sharp edge engaging with the notches, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WEBSTER L. MARBLE.

Witnesses:

GEO. H. SNYDER,
S. G. HOPKINS.