(No Model.)

F. W. DOBBEL.

SIGHT FOR FIREARMS.

No. 518,734. Patented Apr. 24, 1894.

Fig. 1.

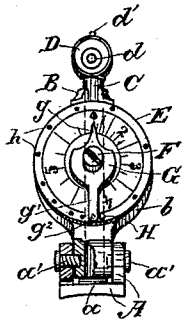


Fig. 2.

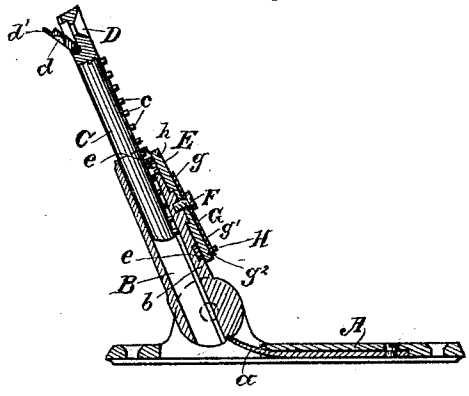
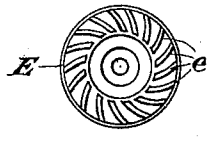


Fig. 3.



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SIGHT FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 518,734, dated April 24, 1894.

Application filed August 17, 1893. Serial No. 483,381. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. DOBBEL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Sights for Firearms; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of fire-arm sights, in which the sight is carried by a vertically adjustable stem which is seated in a hollow standard or barrel pivoted to a base which is secured to the gun.

My invention consists in the novel construction, arrangement and combination of the parts of the device which I shall hereinafter fully describe and specifically claim.

The general object of my invention is to provide a sight having a wide range of adjustment, and which can be easily and accurately operated.

Particular advantages of the several points of construction, whereby the general object is attained will appear in the course of the following description, and by reference to the accompanying drawings, in which—

Figure 1 is a front elevation of my sight. Fig. 2 is a vertical section of same. Fig. 3 is a view of the toothed face of the disk E.

A is a base which is adapted to be secured to the gun. In this is pivoted and controlled by a spring *a* in the usual manner, an upright barrel or hollow standard B, open at both ends, and in which is fitted and adapted to slide throughout the whole length thereof, the stem C which carries on its top the sight D. In order to provide for a maximum length of stem, and the greatest amount of adjustment, it will be observed that the stem C passes down through the hollow standard or barrel B throughout its entire length, and in order to avoid interference therewith, the pivot screws *a'* extend only partially into the base of the barrel or hollow standard, thereby leaving its interior free for the movement and passage of the stem up and down. The front of the hollow standard or barrel is formed with a bearing-plate *b*, through the upper portion of which project the teeth *c* which form the rack on the front of the stem C. To the face of this bearing-plate is fitted a rotary disk E, having a milled rim, whereby it may easily be operated. The inner surface of this disk is formed with teeth *e* which constitute it practically a pinion, said teeth engaging at the upper portion with the exposed teeth *c* forming the rack of the stem C. Therefore, by rotating the pinion disk, the stem C may be raised or lowered as desired. This pinion disk is secured to the bearing plate by means of a screw F, under the head of which is confined a washer G, the upper portion of which is formed into a pointer *g*, and the lower portion is formed into a spring finger *g'* having on the under surface of its extremity a small pin g^2. Upon the face of the pinion disk are delineated in suitable manner numbers beginning say, with zero, and continuing around the disk, here shown as ending with the number 5, and these numbers are at gradually increasing distances from each other, as they represent, beginning with the zero the point blank range, or up to fifty yards, and then the one hundred yards, the two hundred yards, and so on up to five hundred yards, their increasing distances being rendered necessary by the different elevations required for the different ranges. Around the face of the rim of the disk diametrically opposite each number, and divisions thereof, are the small sockets *h*, into which the pin g^2 on the under side of the spring finger *g'* is adapted to successively click as the pinion disk is rotated. Beside the zero socket of the disk is a pin H which is adapted to come in contact with the edge of the spring finger *g'*, and to form a stop limiting the rotation of the disk. The figures on the disk are so placed that when the zero is uppermost, and the pointer *g* of the washer is directed toward it, the sight stem will be down to its lowermost limit. Now, to raise it to the hundred yards range, the pinion is turned until the figure 1 comes opposite the pointer *g* and so likewise with two hundred yards and all the other ranges. Now, in this rotation of the disk, the small pin g^2 of the spring arm clicking successively in the small sockets *h* on the rim of the disk, gives positive assurance of the perfect ad-

justment of the sight to the range intended, without even the necessity of looking at the face of the disk.

In some cases, if the stem C ought not, for the particular gun, come down to its full limit, it is then necessary only to loosen the screw F and turn the washer G slightly, so that its spring finger *g'* will move slightly to one side, whereupon the stop pin H of the disk, upon returning, will come in contact with the spring finger sooner, and will thereby limit the downward movement of the stem to the proper initial position. This arrangement of the operating pinion upon the face of the standard is advantageous in providing for the most convenient operation of the sight by the finger or thumb of the gunner without having to remove his hand from position on the stock. It is also advantageous in presenting to his sight the accurate adjustments to the several ranges.

The small sight *d* usually found within the socketed back of the main sight D is in my device hinged in the usual manner, but instead of having its finger-piece below where it is extremely inconvenient, I place it at the top, as shown at *d'*, and adapt it to enter a small notch in the top of the main sight, and to project above said sight whereby it is easy with the finger nail to throw it down out of the way, or return it to position in the main sight.

This construction of the sight, it will be seen, enables the stem to have the maximum length and the greatest amount of movement for the number of ranges.

Another decided advantage is the quickness with which the sight may be raised or lowered, thus presenting a marked improvement over those forms in which the adjustment is effected by a screw, and in the use of which screw, on account of its slow action, the necessity for adjustment often passes before the movement is effected.

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

1. A sight for fire-arms consisting of a barrel open at both ends and pivotally mounted at its lower so that it may be raised and lowered, a stem fitted therein throughout the length of the barrel having at its upper end a sight aperture, and on its face a series of teeth, a disk pivoted upon the bearing plate of the barrel and having its rear face provided with teeth adapted to engage the teeth on the stem, said disk having an annular exposed series of markings or graduations, and a pointer fixed upon the pivotal center of the disk, substantially as herein described.

2. A sight for fire-arms consisting of a base plate adapted to be secured to the gun, a hollow standard pivotally mounted upon the same upon pivots which enter the barrel partially whereby the center cavity of the latter is left clear for the movement of the stem, a sight stem slidable throughout the barrel and having its face provided with teeth, a disk pivoted upon the face of the barrel having its front face graduated in annular series and its rear face provided with teeth adapted to engage the teeth on the stem, and a pointer fixedly secured over the outer face of the disk.

3. In a sight for fire-arms, a hinged hollow barrel open throughout its length having the upper portion of its front face cut-away, a stem slidable within the barrel having teeth adapted to project through the cut-away portion of the barrel, a disk mounted to turn on the barrel having teeth on its rear face entering the cut-away portion of the barrel to engage the teeth on the stem, and a pointer over the exterior face of the disk and provided with means engaging said disk to indicate the adjustment of the disk, substantially as herein described.

4. In a sight for fire arms, the combination of a pivotally mounted hollow standard or barrel, a vertically movable sight stem therein, a rotary disk having markings around the periphery of its outer face denoting the several ranges, and having devices on its rear face engaging the stem to adjust it, and a fixed pointer, substantially as herein described.

5. In a sight for fire-arms having a standard or barrel and vertically adjustable sight stem, a graduated disk on the barrel having a series of sockets corresponding to the graduations, and a pointer having a spring finger adapted to successively click into the sockets to indicate the adjustment of the disk.

6. In a sight for fire-arms, the combination of a hollow standard or barrel, a vertically movable sight stem fitted thereto and having a rack, a rotatable pinion disk on the front of the standard and engaging the rack of the sight stem, said pinion having on its face, markings or graduations representing the several ranges, and an annular series of small sockets corresponding to said markings, and the fixed spring finger with its pin, on the face of the pinion disk and successively clicking into the sockets, substantially as herein described.

7. In a sight for fire-arms, the combination of a hollow standard or barrel, a vertically movable sight stem fitted thereto and having a rack, a rotatable pinion disk on the front of the standard and engaging the rack of the sight stem, said pinion having on its face, markings or graduations representing the several ranges, and an annular series of small sockets corresponding to said markings, and the washer on the face of the disk, having a pointer and a spring finger with its pin successively clicking into the sockets, substantially as herein described.

8. In a sight for fire-arms, the combination of a hollow standard or barrel, a vertically movable sight stem fitted thereto and having

a rack, a rotatable pinion disk on the front of the standard and engaging the rack of the sight stem, said pinion having on its face markings or graduations representing the several ranges, and an annular series of small sockets corresponding to said markings, the adjustable washer on the face of the disk having a pointer and a spring finger with a pin successively clicking into the sockets, and a stop pin on the pinion disk adapted to come in contact with the spring finger, substantially as herein described.

In witness whereof I have hereunto set my hand.

FREDERICK W. DOBBEL.

Witnesses:
S. H. NOURSE,
J. A. BAYLESS.