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F. F. BURTON.
 REAR SIGHT FOR FIREARMS.
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1,039,896.

Patented Oct. 1, 1912.

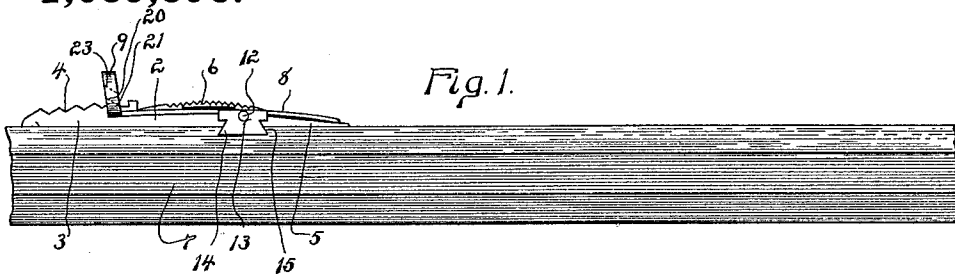


Fig. 1.

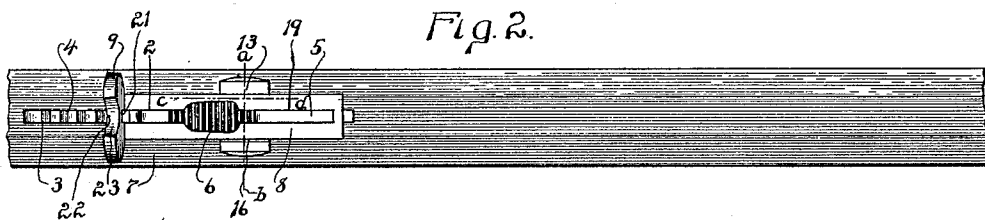


Fig. 2.

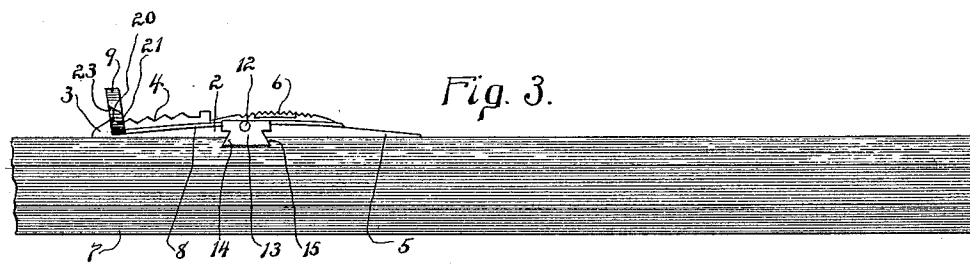


Fig. 3.

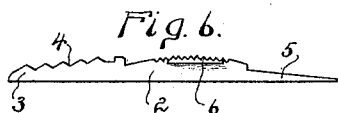


Fig. 6.

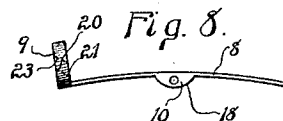


Fig. 8.



Fig. 7.

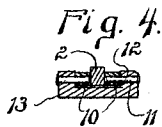


Fig. 4.

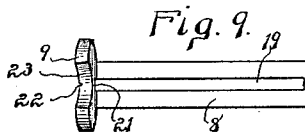


Fig. 9.

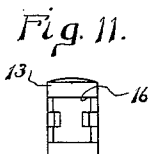


Fig. 11.

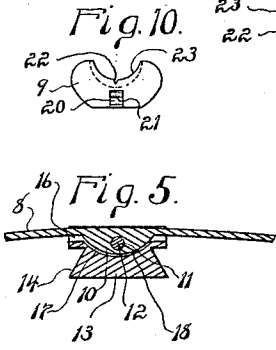


Fig. 10.

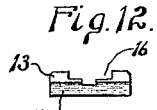


Fig. 12.

Witnesses
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UNITED STATES PATENT OFFICE.

FRANK F. BURTON, OF EAST HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER RE-
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REAR SIGHT FOR FIREARMS.

1,039,896.

Specification of Letters Patent.

Patented Oct. 1, 1912.

Application filed July 1, 1912. Serial No. 706,857.

To all whom it may concern:

Be it known that I, FRANK F. BURTON, a citizen of the United States, residing at East Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Rear Sights for Firearms; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a broken view in side elevation of a rifle barrel provided with a rear sight constructed in accordance with my invention, and set for the longest range. Fig. 2 a plan view thereof. Fig. 3 a view corresponding to Fig. 1 but showing the sight set for the shortest range. Fig. 4 a view of the sight in transverse section on the line *a—b* of Fig. 2. Fig. 5 a view of the sight in longitudinal section on the line *c—d* of Fig. 2, and drawn on an enlarged scale. Fig. 6 a detached view in side elevation of the elevator. Fig. 7 a plan view thereof. Fig. 8 a detached view in side elevation of the sight-spring and carrier. Fig. 9 a plan view thereof. Fig. 10 a view thereof in rear elevation. Fig. 11 a detached plan view of the sight-base. Fig. 12 a view thereof in rear elevation.

My invention relates to an improvement in adjustable rear sights for firearms, the object being to produce a convenient and effective adjustable rear sight having a wide range of adjustment, and constructed with particular reference to lengthwise compactness to adapt it to be located relatively close to the receiver of the arm, and hence relatively far from the front sight, which is a great advantage from the standpoint of accuracy of shooting.

With these ends in view, my invention consists in an adjustable rear sight for firearms, having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention as herein shown, I employ a longitudinally movable elevator 2 having its tapering rear end 3 formed in its upper edge with a series of range-notches 4 declining in inclination from front to rear, and having its forward

end shaped to form a wedge-like finger 5 tapering from rear to front and constituting a compensating finger, as will be described later on. The upper edge of the body 2 of the elevator is enlarged and corrugated to form a finger grip 6 by means of which the elevator is forced from rear to front, and vice versa, in adjusting the sight to different ranges. The said elevator is interposed between the top of the gun-barrel 7 on which its lower edge rides back and forth, and a longitudinally bowed sight-spring 8 which is furnished at its rear end with a leaf-like carrier 9 and provided midway of its length with a depending rounded bearing-lug 10 having a transverse bore 11 for the reception of a pivot 12 by means of which the said sight-seeing is pivotally mounted in a sight-base 13 having a dovetail 14 fitting into an undercut slot 15 extending transversely across the barrel 7 at a point near the rear end thereof. The said sight-base 13 is formed in its upper face with a longitudinally arranged slot 16 adapted in width to receive the sight-spring 8 and having its bottom wall rounded as at 17 for the reception of the rounded lower face 18 of the depending lug 10 aforesaid.

The sight-spring 8 is itself formed, as clearly shown in Fig. 9, with a central longitudinal slot 19 which is shorter than the over-all length of the elevator which when interposed between the gun-barrel and the said spring rises through the said slot so as to expose its central portion and hence its finger-grip 6 by means of which it is manually operated. The slot 19 being shorter than the elevator, the front and rear ends thereof extend under and project beyond the ends of the spring in all adjustments of the elevator. Thus the wedge-like compensating finger 5 at the front end of the elevator extends forward under the front end of the spring 8 in all adjustments of the elevator, and the notched rear end of the elevator extends rearward under the rear end of the spring 8, and hence under the leaf-like carrier 9 of the sight, in all adjustments of the elevator. The said carrier 9 is formed in its lower edge with a notch 20 containing a tooth 21 to co-act with the range-notches 4 in the rear end of the elevator. The said carrier 9 is also formed with a sight-notch 22 formed in the center of a beveled semi-circular clearance-notch 23.

It will be readily understood from the foregoing that when the elevator 2 is slid forward, the wedge-like finger 5 at its forward end will rock the sight-spring 8 on its pivot 12, lifting the forward end of the said spring and increasing its tension, while the rear end of the spring 8 will be decreased in tension by the forward movement under it of the rear end of the elevator which tapers from front to rear. On the other hand, when the elevator is slid from front to rear, the tension of the forward end of the spring 8 will be reduced, while the tension of its rear end will be increased. The pitch of the compensating finger 5 of the elevator is made to compensate for the pitch of the range-notches 4 thereof, so that the tension of the sight-spring is equalized and made the same in any portion of the adjustable elevator so that the spring will exert the same hold or restraint in any one of the longitudinal adjustments thereof, and therefore at any range. The advantage of this construction is that the elevator 2 may be pushed with equal ease into position for shooting at the highest range, for shooting at the lowest range, and for shooting at intermediate ranges. It will be understood, of course, that when the elevator 2 is pushed rearward, the carrier 9 will be lifted for shooting at long range, while by pushing the elevator forward the carrier 9 will be depressed for shooting at short range. By pivoting the sight-spring 8 between its ends so as to have a slight rocking movement, and employing an elevator projecting at its ends beyond the ends of the spring, I am enabled to reduce the length of the sight to the minimum which permits me to locate the entire device relatively near the rear end of the barrel, and therefore relatively far from the front sight which is a great advantage in so far as it secures a high degree of accuracy in shooting.

I claim:—

1. In an adjustable rear sight for fire-arms, the combination with a sight-spring adapted to have a slight rocking movement, of a longitudinally movable elevator provided at one end with an inclined series of range-notches and at its opposite end with a wedge-like compensating finger of opposite inclination, the respective ends of the elevator co-acting with the respective ends of the sight-spring for rocking the same.

2. In an adjustable rear sight for fire-arms, the combination with a sight-spring adapted to have a slight rocking movement on a point between its ends, of a longitudinally movable elevator furnished at its rear end with an inclined series of range-notches,

and at its forward end with an oppositely inclined wedge-like compensating finger, the said ends of the elevator co-acting with the ends of the sight-spring for rocking the same upon its pivotal point.

3. In an adjustable rear sight for fire-arms, the combination with a sight-spring adapted to rock upon a pivotal point between its ends, of a longitudinally movable elevator furnished at its one end with a series of range-notches and at its opposite end with an inclined wedge-like compensating finger, and between its ends with a finger-piece, the respective ends of the elevator co-acting with the respective ends of the sight-spring for rocking the same upon its pivotal point.

4. In an adjustable rear sight for fire-arms, the combination with a sight-spring pivotally mounted between its ends to have a slight rocking movement, and formed with a longitudinal slot; of an elevator adapted to be interposed between the gun-barrel and the said sight-spring and projecting under and beyond the opposite ends of the latter.

5. In an adjustable rear sight for fire-arms, the combination with a sight-base adapted to be mounted on a gun-barrel, of a sight-spring pivotally mounted between its ends in the said base, formed with a longitudinal slot and furnished at its rear end with a carrier; and a longitudinally movable elevator interposed between the gun-barrel and the said sight-spring and made longer than the latter for extending under and beyond the front and rear ends thereof, the said elevator being formed at one end with an inclined series of range-notches, and at its opposite end with a compensating finger and rising through the said slot.

6. In an adjustable rear sight for fire-arms, the combination with a sight-base, of a sight-spring provided with a depending lug for being pivotally mounted in the said base in which the spring has rocking movement, formed with a longitudinal slot and provided at its rear end with an upwardly extending carrier; of a longitudinally movable elevator longer than the said spring, entering the slot thereof and extending at its ends under and beyond the ends thereof, and formed at one end with an inclined series of range-notches and at its opposite ends with a compensating finger.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRANK F. BURTON.

Witnesses:

THOMAS C. JOHNSON,
ARTHUR W. EARLE.