F. C. CHADWICK.

SIGHT FOR FIREARMS.

APPLICATION FILED OCT. 15, 1910.

1,004,241. Patented Sept. 26, 1911.

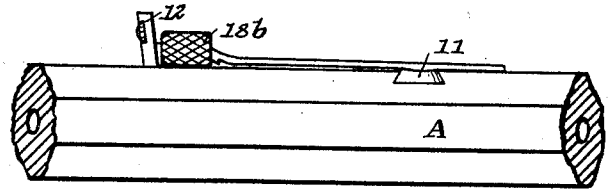

Fig. 1.

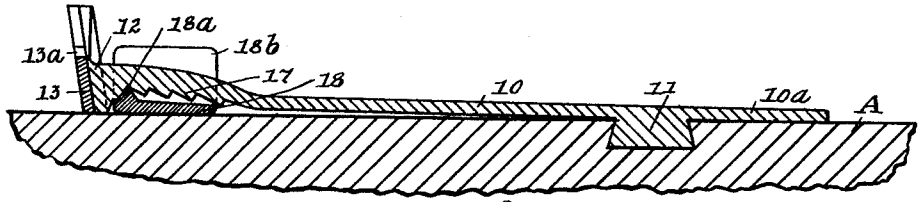

Fig. 2.

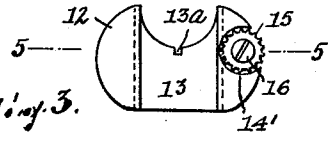

Fig. 3.

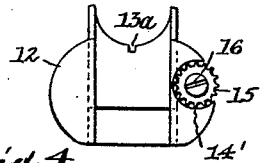

Fig. 4.

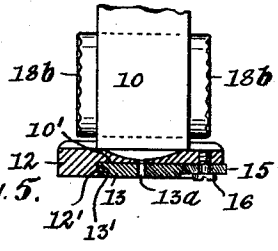

Fig. 5.

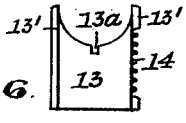

Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANCIS C. CHADWICK, OF UTICA, NEW YORK, ASSIGNOR TO SAVAGE ARMS COMPANY, OF UTICA, NEW YORK, A CORPORATION OF NEW YORK.

SIGHT FOR FIREARMS.

1,004,241. Specification of Letters Patent. **Patented Sept. 26, 1911.**

Application filed October 15, 1910. Serial No. 587,201.

To all whom it may concern:

Be it known that I, FRANCIS C. CHADWICK, a citizen of the United States, residing in Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Sights for Firearms; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

The object of my present invention is to provide an improved sight for fire arms, which, while of the general character of some of those heretofore provided, is simple in construction, cheap to manufacture, more readily and accurately adjusted, and better calculated to meet the requirements of such a device.

Figure 1 shows a side elevation of a short section of a rifle barrel, with the sight in position thereon. Fig. 2 shows on an enlarged scale a longitudinal sectional view along the central vertical line of the sight, in connection with a section of the barrel. Fig. 3 is an end view of the sight as seen from the rear or head end, with the sight notch plate adjusted to its lowest position. Fig. 4 is a similar view with the sight notch plate adjusted to its most elevated position or nearly so. Fig. 5 is a cross sectional view taken on line 5—5 of Fig. 3, in connection with a plan view of some of the adjacent portions of the sight. Fig. 6 is a detailed view showing the adjustable sight notch plate independently, and removed from the other parts.

Referring to the reference letters and figures in a more particular description, 10 indicates the spring leaf body of the sight, which, adjacent to one end, is provided with a dove-tail base or securing piece 11 adapted to be inserted in a transverse dove-tail recess in the top of the barrel A in the usual manner of this class of sights. The leaf 10 may be provided with a forward extension 10^a having a bearing on the barrel which aids in securing the sight against the pressure employed in flexing the spring portion 10. At the rear end of the spring leaf 10 there is provided a head piece 12 preferably of a general oval shape, as seen from the rear, cut out in the top and provided with a substantially vertical slideway 10′ in its face having opposed grooves 12′, in which freely slide vertically the flanges 13′ of a sight notch plate 13. This plate in addition to being provided with the usual sight notch 13^a has one of its flanges 13′ comprising a rack of teeth 14, preferably as fine teeth as can be readily produced.

15 is a toothed gear pinion located in a suitable recess 14′ in one side of the head 12 and arranged to mesh with the rack 14 on one side of its periphery and project a little beyond the edge of the head 12 as to the opposite portion of its periphery. This pinion is mounted on a headed screw 16 tapped into the head 12. When the screw is loosened slightly the pinion 15 may be rotated and the sight notch plate 13 adjusted up or down in its slide more or less within the limits of its movement.

In adjusting the sight notch plate 13, the operator may employ the pinion 15 by running his finger over the projecting peripheral portion thereof. This arrangement allows the sight plate to be minutely adjusted and re-adjusted and secured at any desired point of adjustment by tightening the screw 16. It might be noted that, if the head of the screw engaged directly on the edge of the sight notch plate, it would be liable to injure and indent the plate, and it would be difficult thereafter to secure an adjustment where the screw engaged very close to a previously made indentation. In the device herein shown, the screw engages the pinion always in the same way, and, no matter if it is excessively tightened, no mutilations of the parts which would interfere with the accurate adjustment thereof can occur.

On the under side of the leaf 10 adjacent to the head 12 there is provided an inclined rack of teeth 17. Slidingly mounted on top of the barrel is an elevation block 18 having a single tooth 18^a adapted to engage with the rack of teeth 17 or in the depressions between the several teeth of this rack; the tooth 18^a adjoins the rear end of the block 18 and the front end thereof is of such thickness that it always approximately contacts with the under side of the spring leaf 10, whereby the block, which is thus held from tilting, is movable with greater facility and accuracy of adjustment than it otherwise

would be. Both the teeth of the rack 17 and the tooth 18[a] will preferably be doubly inclined, whereby the block 18 may be shifted in either direction along the rack 17 by the application of sufficient force to the block 18. The elevation block 18 rests and slides on the top of the barrel as its support, and is provided on each side of the leaf 10 with ears 18[b], which serve to retain the block from displacement laterally and as plates which may be grasped by the operator in shifting the position of the block 18. The outer faces of these ears 18[b] will preferably be serrated or milled.

It is evident that when the block 18 is forced forwardly along the barrel, on account of the inclination of the rack 17, the rear head end of the sight will be lifted and forced upwardly against the tension of the spring 10, and when forced rearwardly the head will be moved downwardly by the tension of the leaf, and at all times the block and leaf will be held against any rattling or looseness on account of the tension of the leaf. When viewed from the rear, the ears 18[b] are concealed, and there is nothing to distract the attention.

What I claim as new and desire to secure by Letters Patent is:—

A sight for fire-arms having a head formed with a vertical slideway having opposed grooves, a sight notch plate mounted to slide in the slideway, its lateral edges being engaged in said grooves, a pinion journaled in the head in the plane of the plate and at one side of the slideway and having its periphery entering the slideway, said plate having rack teeth on the side thereof adjoining the pinion and meshing with the latter, and a headed screw arranged in the head and affording a journal and securing means for the pinion, said pinion having a limited part of its periphery substantially opposite the plate exposed and the remainder thereof housed in the head, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand, this 11th day of Oct., 1910.

FRANCIS C. CHADWICK.

Witnesses:
Jos. G. Sliker,
A. C. Barker.