

No. 658,708.

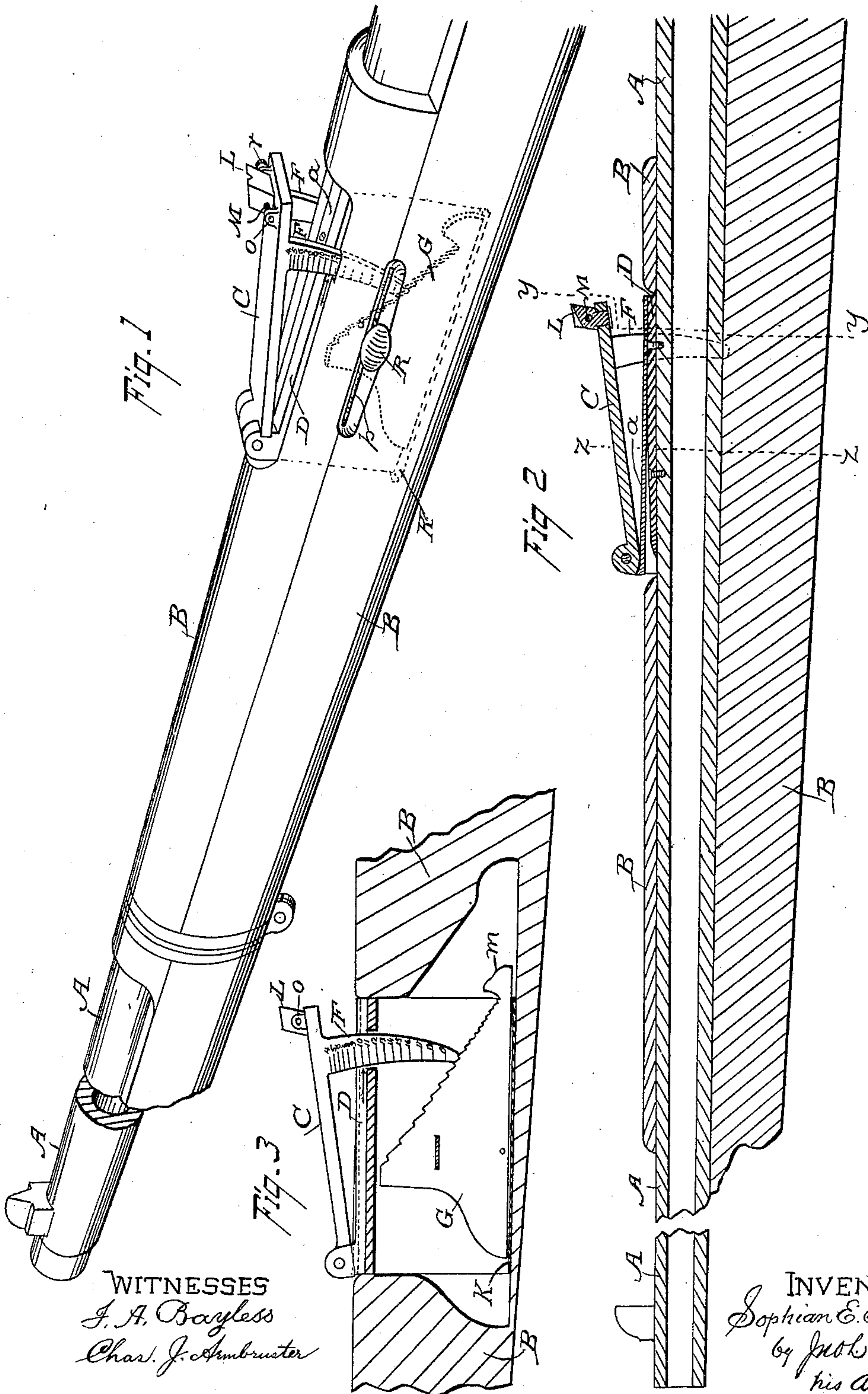
Patented Sept. 25, 1900.

S. E. FISCHER.  
SIGHT FOR FIREARMS.

(Application filed Nov. 27, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES  
J. A. Bayless  
Chas. J. Ambuster

INVENTOR  
Sophian E. Fischer  
by J. H. Boone  
his Attorney

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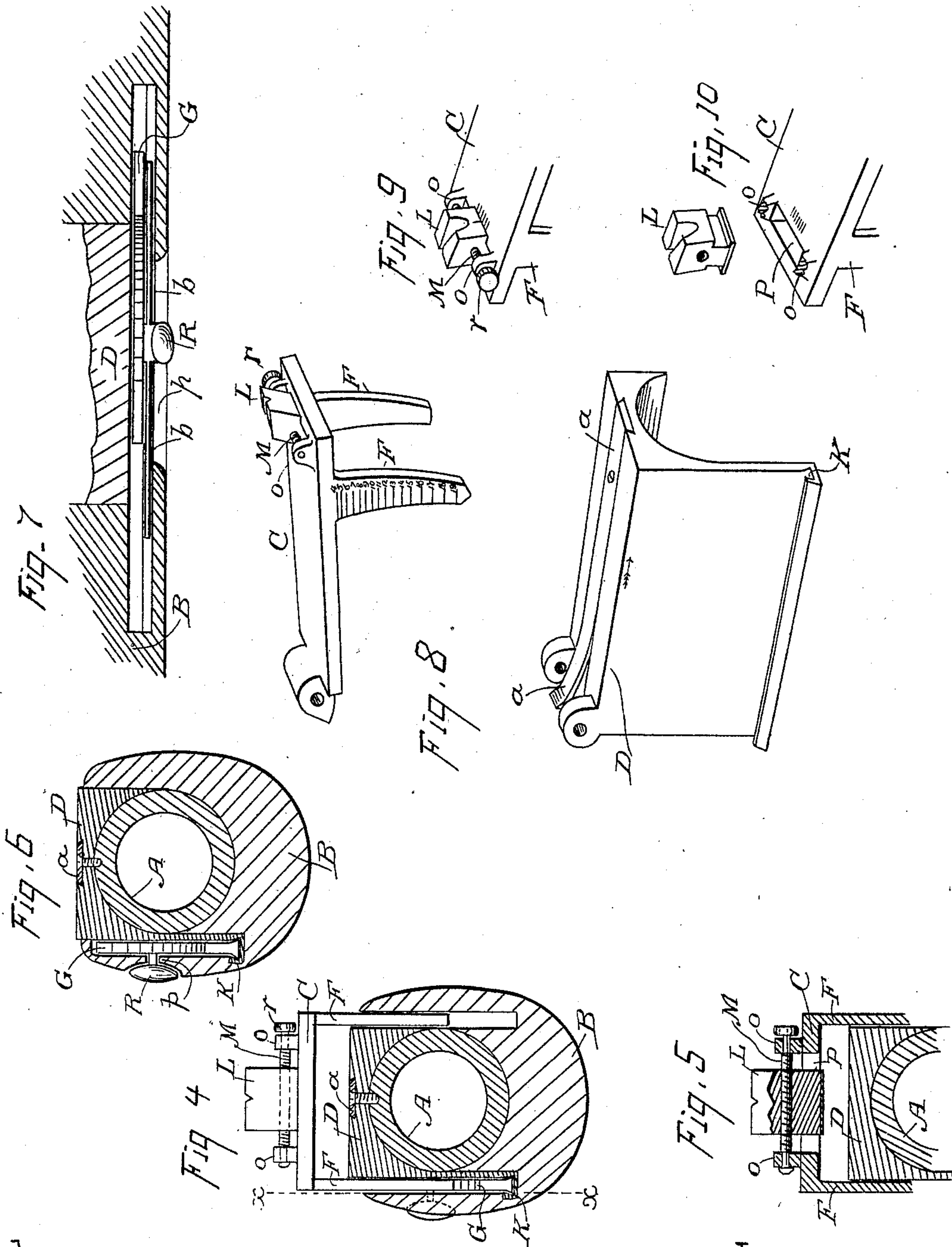
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his attorney



# UNITED STATES PATENT OFFICE.

SOPHIAN E. FISCHER, OF HAYWARD, CALIFORNIA, ASSIGNOR TO FISCHER & BENNETT, OF SAN FRANCISCO, CALIFORNIA.

## SIGHT FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 658,708, dated September 25, 1900.

Application filed November 27, 1899. Serial No. 738,463. (No model.)

*To all whom it may concern:*

Be it known that I, SOPHIAN E. FISCHER, a citizen of the United States, residing at Hayward, in the county of Alameda, State of California, 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 said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention relates to an improved back-sight for firearms; and it consists of a novel mechanism and arrangement for elevating and lowering a hinged leaf-sight by a simple pressure of the thumb or finger while the gun is in firing position, thereby enabling the gunner to change the elevation of the sight without removing his eye from the mark.

My invention also includes a side adjustment of the sight-block by which it can be set to compensate for lateral interference with a point-blank range, all as hereinafter more fully described.

Referring to the accompanying drawings, Figure 1 is a perspective view of a gun barrel and stock, showing the sight and elevating device. Fig. 2 is a longitudinal section of the gun barrel and stock, showing the side guide of the sight in dotted lines. Fig. 3 is a section taken through the lines *xx* of Fig. 4. Fig. 4 is a sectional view of the rear end of the leaf-sight and sight-block, taken on the line *yy* of Fig. 2. Fig. 5 is a transverse section showing a rear view of sight-block and its adjustment. Fig. 6 is a transverse section on the line *zz*, Fig. 2, showing the elevator in its chamber. Fig. 7 is a longitudinal horizontal section of the elevator-chamber. Fig. 8 represents a perspective view of the leaf-sight and its base detached. Fig. 9 is a perspective view of the sight-block, and Fig. 10 is a perspective view of the sight-block detached.

Let A represent the gun-barrel, and B the wood covering or stock of the gun. The folding sight C is of the hinged-leaf pattern. It is hinged at its forward end by a knuckle-joint to the forward end of the base-piece D. The wood cover of the gun above the barrel

is cut away, so as to expose a section of the barrel, and the base-piece D is concaved on its under side, so as to fit snugly upon the barrel within the recess thus made, and it is held in place by screws, which fasten it to the barrel. The folding sight C lies flat upon the base-piece D when closed, and a spring is adapted to close it with the desired pressure. The spring which I prefer to use is a flat spring *a*, the rear end of which is secured to the rear end of the base, while its opposite or front end passes under the middle joint of the knuckle and is slightly curved upward, so as to press against the front projecting part of the knuckle in the manner that the back-spring of a pocket-knife presses upon the hinged joint of the blade. In this case the joint will consist of three parts, two of which are on the base-piece and the intermediate one on the folding leaf, as shown at Fig. 1.

On each side of the leaf C, preferably near its rear end, is a curved leg F, which extends downward alongside the barrel into a space formed between the barrel and wood stock. These legs serve to guide the leaf in its movement, and one of them, usually the one on the left-hand side of the gun, engages with the elevator, hereinafter described. These legs are curved on a radius corresponding with a circle drawn from the center of the knuckle-joint, on which the leaf moves. The elevator consists of a triangular plate G, the long or hypotenuse side of which is provided with inclined notches, as shown at Fig. 3. This plate is fitted to slide longitudinally in a narrow chamber or vertical pocket formed in the fore-end of the gun alongside the barrel and below the curved leg F. Its lower edge fits and slides in a metallic track K, and it has an enlargement or stop-block *m* at the base of the incline. The lower end of the curved leg F rides upon these notches, so that as the elevator-plate is moved forward or back the rear end of the leaf C of the folding sight is raised or lowered correspondingly, the spring *a* serving to lower the leaf as the leg descends the incline, while the enlargement *m* at the base of the incline limits the downward movement of the leg, while the upward movement is limited by the slot *p*, hereinafter described.



A slot *p* is made lengthwise of the gun-barrel through the wall of the chamber, and the wood is countersunk around this slot, as shown at Fig. 1. A roughened button *R* is connected with the sliding triangular plate *G* by a shank, which passes through the slot *p*, so that the plate can be moved along its track by pressing upon the button on the exterior of the stock. The countersink is made deep enough to protect the button and prevent its being interfered with by any object brushing against the stock. A metallic plate or strip *b* is secured to the shank of the button *R* inside the outer wall of the chamber, so as to move with the button, shank, and triangular plate. It fits close up against the inner wall of the chamber, so as to cover the slot *p* on the inside of the chamber at whatever point the shank is moved to, and thereby prevent the entrance of dust. I prefer to make the track *K* and inner wall of the pocket or chamber in one piece, as represented at Fig. 8. This track serves to insure an easy longitudinal movement of the sliding plate at all times regardless of the swelling of the wood by moisture. The curved leg on the opposite side of the barrel serves merely as a guide for the folding leaf as it moves up and down, and it is evident that the elevator could be placed upon either side of the barrel and the leg on the opposite side serve as a guide. The movement of the triangular plate *G* produces a click as the leg passes from one notch to the other, and the gunner can determine by counting the clicks what the elevation of the sight is even in the dark, or he can determine the elevation by feeling and counting the notches on the plate above the upper rim or shoulder of the stock. The leg, which is moved by the plate, is graduated on its exposed side to correspond with the notches in the elevator or plate, so that in case of doubt the elevation can also be read by examining the figures on the exposed portion of the leg.

The sight-block *L* is mounted on a horizontal screw *M* at the rear end of the leaf or folding sight *C*, which bears in studs *o* on either side of the block. A transverse slot *P* is made in the folding leaf *C* between the studs *o*, and the lower end of the block enters into and moves in the slot. A milled thumb-wheel *r* is secured to one end of the screw-shaft *M*, so that it can be turned by the thumb and finger to move the block laterally along the screw, and thereby carry the sight-notch to either side of the middle line of the gun. This enables the gunner to remedy defects of alinement whether caused by inaccuracy in the barrel or bore or by a breeze passing between the gunner and sighted object. Besides serving as a wind-gage it permits the correction of any deviation or drift of the projectile incident to the operation of the gun.

I thus provide a simple and convenient sight for long-range guns that can be adjust-

ed to any desired position while the gun is in the firing position and without removing the eye from the object. When it is in its depressed position, it is simply an ordinary sight, and no projecting parts interfere with the handling of the gun, while it is ready at any time to be adjusted to any desired elevation. A little familiarity with its use will enable any ordinary marksman to operate it readily and accurately without especial attention.

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

1. A quick-setting sight for firearms consisting of a hinged-leaf sight; a spring adapted to close the hinged leaf; a leg projecting downward from the leaf into a chamber in the fore-stock alongside the gun-barrel; a slide adapted to move lengthwise of the barrel inside said chamber; an inclined plane on the slide adapted to engage with the lower end of the leg, and means for moving the slide in its chamber, substantially as described.

2. In an adjustable back-sight for firearms, a hinged-leaf sight; a spring adapted to close or lower said sight; guiding-legs connected with the free end of the sight and passing down on each side of the barrel; a slidable notched triangular plate adapted to move in a pocket or chamber alongside the barrel and engage with one of the legs of the leaf, and a button connecting the plate through a slot in the wall of the chamber by which the plate is moved, substantially as described.

3. In an adjustable back-sight for firearms, a hinged folding-leaf sight; a spring adapted to close or lower said sight; guiding-legs connected with the leaf-sight and passing down on each side of the gun-barrel; a narrow pocket or chamber in the stock alongside the gun-barrel; a metallic track or lining in said chamber; a triangular notched plate adapted to slide on the track in said chamber so that its notched side will engage with one of the legs of the folding leaf, and means for moving the triangular plate in a line with the barrel of the gun, substantially as described.

4. In a back-sight for firearms having a notched triangular plate adapted to move in a pocket or chamber in the gun-stock alongside the barrel of the gun and engage with a leg depending from a hinged folding-leaf sight on top of the barrel; a slot in the wall of the chamber lengthwise of the gun-barrel; a countersink in the gun-stock around the slot, and a button fitting in the countersink and connected through the slot with the triangular plate, substantially as described.

In testimony whereof I have hereunto signed my name, in the presence of two witnesses, this 2d day of November, A. D. 1899.

SOPHIAN E. FISCHER.

Witnesses:

J. A. BAYLESS,

CHAS. J. ARMBRUSTER.