May 15, 1923.

1,455,071

J. M. BROWNING

REAR SIGHT FOR FIREARMS

Filed May 13, 1922

Fig. 2

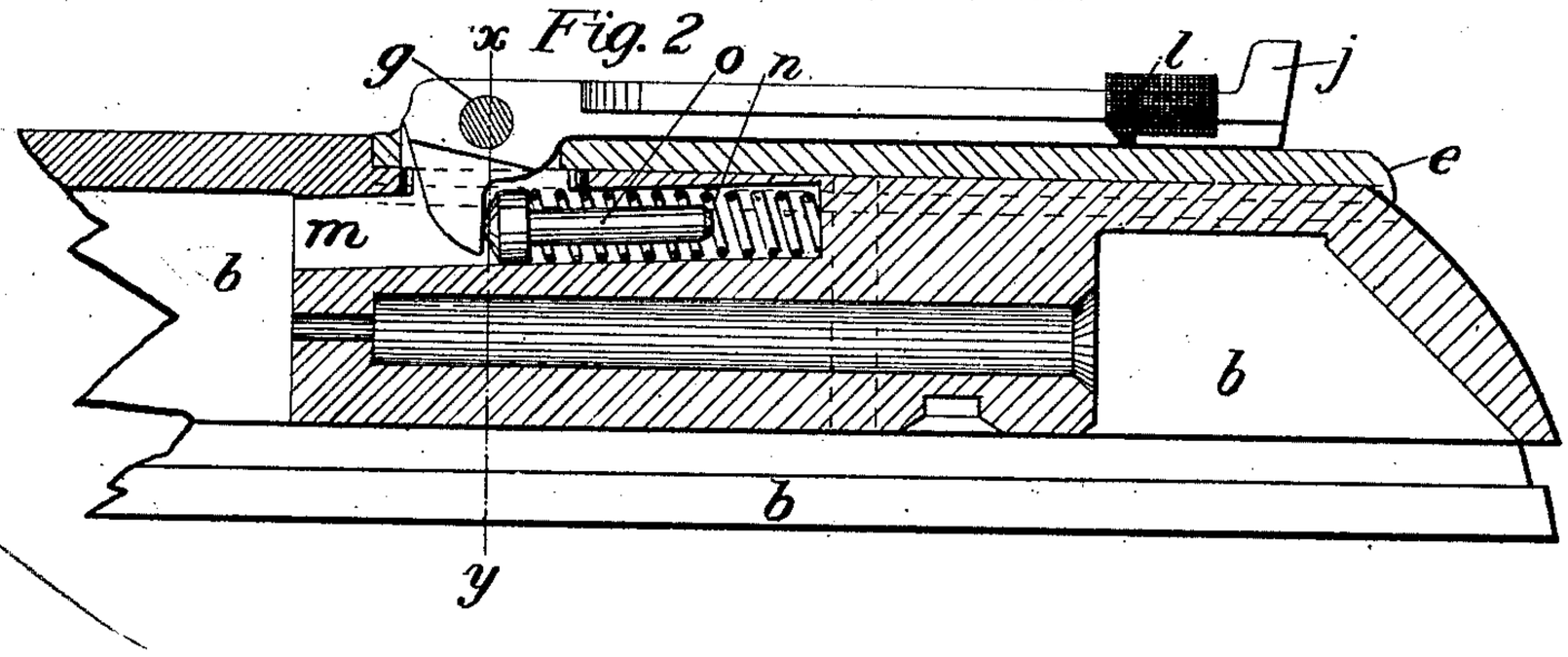


Fig. 1

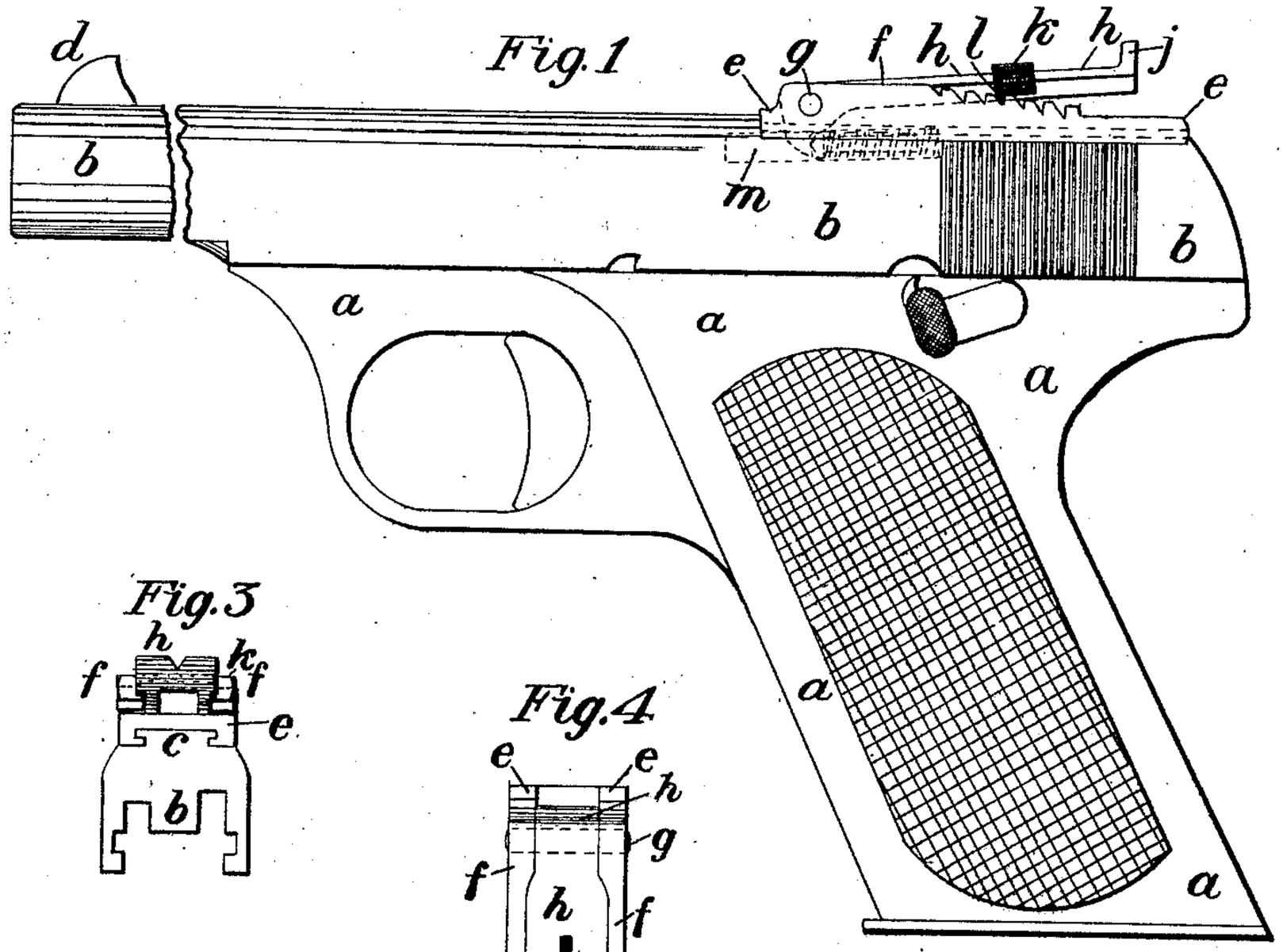


Fig. 3

Fig. 4

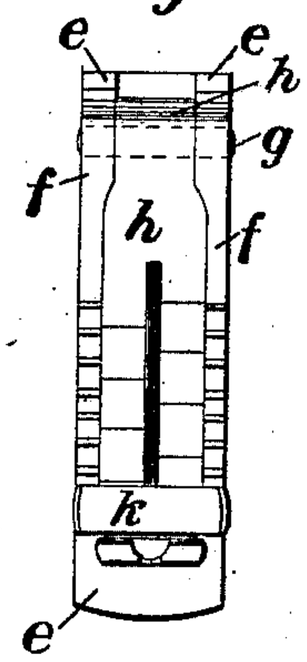
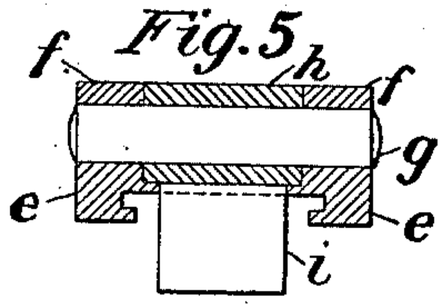


Fig. 5



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Patented May 15, 1923. 1,455,071

UNITED STATES PATENT OFFICE.

JOHN M. BROWNING, OF OGDEN, UTAH.

REAR SIGHT FOR FIREARMS.

Application filed May 13, 1922. Serial No. 560,757.

To all whom it may concern:

Be it known that I, JOHN M. BROWNING, a citizen of the United States, residing in Ogden, in the county of Weber and State of Utah, have invented certain new and useful Improvements in Rear Sights for Firearms, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

The invention generally relates to adjustable rear sights for pistols, and it specially relates to the rear sights for automatic pistols which, when fired rapidly, are exposed to a succession of violent shocks due to their recoil after each shot.

The main object of the invention is to provide for an automatic pistol an adjustable rear sight the movements of which will be cushioned so as to minimize the shocks of recoil when the pistol is fired, and thereby prevent the sight from being thrown out of adjustment.

The special object is to provide means for securely attaching an adjustable rear sight to a recoiling part of an automatic pistol in such manner that on firing the shocks of recoil will not loosen said attachment.

Another object is to provide on an automatic pistol a securely but lengthwise movably attached rear sight, which carries an adjustable part, with cushioning means between said movable sight and said pistol for preventing said adjustable part from being thrown out of its adjustment by the shock of recoil.

These objects are attained by a rear sight of simple and practical construction, having few parts inexpensive of manufacture, but efficient and not liable to get out of order.

The embodiment of the improvements represented in the accompanying drawings is an adjustable rear sight attached to the recoiling breech-slide of a well known magazine-pistol of my invention.

In the accompanying drawings, Fig. 1 is a side elevation of an automatic magazine-pistol with my improved rear sight attached to the top of the breech-slide near the rear end of same, and with the front sight fixed near the forward end of said breech-slide; a portion of said breech-slide between the two sights being broken away.

Fig. 2 represents, an a greatly enlarged scale, a vertical longitudinal section of the rear portion of the breech-slide, with the improved rear sight attached thereto.

Fig. 3 represents a rear end view of the breech-slide, on the same scale as that of Fig. 1, with the rear sight attached upon said breech-slide.

Fig. 4 represents a plan view of the adjustable rear sight, detached, seen from above.

Fig. 5 represents a transverse section of the rear sight by a vertical plane, at the line *x*—*y* of Fig. 2, as seen from the rear.

Similar letters refer to similar parts throughout the several views.

The letter *a* denotes the frame, and *b* the breech-slide of an antomatic pistol vertically confined upon the frame by the usual interlocking longitudinal ribs and grooves which also serve to guide the breech-slide *b* in its lengthwise reciprocations upon the frame *a*.

The top of the breech-slide is provided with a longitudinal rib *c* extending from its rear end to its forward end, and said rib is T-shaped in cross section, its top extending beyond its lower portion on each side. Securely fixed in the breech-slide *b* near the forward end is the front sight *d*, and the base-plate *e* of the rear sight is mounted upon the rear portion of the rib *c* said base-plate *e* having a coresponding longitudinal T-shaped slot in its under side. Near its front end the base-plate *e* extends upward to form on each side a longitudinal rib *f* in the forward portion of which the transverse pivot-pin *g* is seated which serves the purpose of pivotally attaching the adjustable sight-leaf *h* to the base-plate *e*.

At some distance in rear of the pivot-pin *g* the two ribs *f*, *f* being reduced in width, leave a somewhat wider longitudinal opening between them and the adjustable sight-leaf *h*, being correspondingly widened, fills in its lowest folded-down position this wider space. Movably attached to the sight-leaf *h* is the sight-slide *k* with its projecting knurled ends adapted to be grasped and its lower edges extended inward below the undercut sides of the sight-leaf *h*. The rearward movement of the sight-slide *k* is limited by a transverse upward projection *j* on the rear end of the sight-leaf *h*, and in said projection *j* a central V-shaped sighting notch is cut through which the front-sight *d* may be seen in aiming the pistol.

The ribs *f*, *f* on the sides of the base-plate *e* from their forward highest portion incline rearward and downward to the front of the sight-slide *k* in its rearmost position,

and are provided with a series of V-shaped transverse recesses, and the sight-slide *k* has on each side a corresponding V-shaped downward projection *l*, to engage any one of the said recesses in the ribs *f*, *f*, by which arrangement the sight-leaf *h* may be at will raised from its lowest rear position to its highest forward position, or to any of the intermediate positions.

The upper surface of the sight-leaf *h*, between the ribs *f*, *f*, is divided into two parts by a strong central longitudinal line, and on each side of this line a series of transverse graduation lines is cut, see Fig. 4, with spaces between the lines for numerals to indicate the range for which the sight-leaf *h* is raised when the downward projections, *l*, *l* of the sight-slide *k* rest in any of the series of recesses in the ribs.

The entire construction of the sight as far as described is the usual well-known one and does not need further explanation.

In Fig. 5 the central portion of the sight-leaf *h* pivotally attached to the base-plate *e* between the ribs *f*, *f* by the pivot pin *g*, carries a strong transverse downwardly projecting tongue *i* which extends through a slot in the base-plate *e* and through a corresponding slot in the top of the breech-slide *b* into a longitudinal hole *m* in the upper portion of the breech-slide *b;* the rear portion of this hole *m* provides the seat for the spiral spring *n* and for the piston-pin *o*, the enlarged forward portion of which rests against the rear face of the tongue *i*, whereby the tension of the spring *n*, transmitted through the piston *o* to the tougue *i*, tends to turn it on its pivot in forward direction, and thereby also tends to turn the sight-leaf *h* in rearward and downward direction, and at the same time tends to yieldingly hold the base-plate *e* and with it the entire rear sight in the forward position.

As is clearly indicated in Fig. 2, the front end of the slot in the top of the breech-slide *b*, coincides with that of the slot in the base-plate *e*, so that there may be a rotary movement of the sight-leaf *h* and its tongue on the pivot-pin *g*, but there cannot be any longitudinal movement in forward direction of either the sight-leaf or of the base-plate *e;* however, the rear end of the vertical slot in the breech-slide *b* is located considerably further to the rear than that of the slot in the base-plate *e*, and this enables the base-plate *e* and the entire rear sight to be moved to the rear of a certain distance.

When the piston is fired the breech-slide recoils upon the frame supported in the shooter's hand grasping the grip, then the recoil of the breech-slide is stopped and the rear sight, under its momentum, tends to move further rearwad upon the breech-slide. When several shots are fired in rapid succession the base-plate *e* and with it the entire rear sight are exposed to violent shock liable to loosen the attachment of the sight and to disturb the adjustment of its movable parts.

The spring *n* and piston *o* by their connection through the tongue *i* with the base-plate *e* serve to cushion the shocks, to yieldingly hold the base-plate *e* in place and after each shot to return it to its proper forward position, and also at the same time to yieldingly hold the pivoted sight-leaf in its adjusted position by preventing it from being turned upward and forward by the shocks.

An automatic pistol is therefore adapted to be fired rapidly and yet with great accuracy, by being provided with the hereinbefore described rear sight and its cushioning device.

What I claim is:

1. In a rear sight for automatic pistols having a recoiling breech-slide, the combination of a recoil-actuated breech-slide, a base-plate lengthwise movably attached on said breech-slide, and a spring mounted in said breech slide and holding said base-plate yieldingly in its attachment on said breech-slide.

2. In a rear sight for automatic pistols having a recoiling breech-slide, the combination of a recoil-actuated breech slide, a base-plate lengthwise movably attached on said breech-slide, said base-plate carrying a projection extending inward into said breech-slide, and a spring in said breech-slide acting on said projection to hold said base-plate yieldingly in its attachment on said breech-slide.

3. A rear sight for automatic pistols having a recoiling breech-slide, comprising a breech-slide, a base-plate movably attached to the breech-slide of said pistol, a leaf pivoted to said base-plate and having a projection extending into said breech-slide and a piston yieldingly slidable within said breech-slide and acting on said projection for yieldingly securing said base-plate on said breech-slide.

4. A rear sight for automatic pistols having a recoiling breech-slide, comprising a breech-slide, a base-plate movably attached to said breech-slide, a leaf pivoted to said base-plate and having a projection extending into the breech-slide, and a piston yieldingly slidable within said breech-slide and acting on said projection for yieldingly securing said base-plate on said breech-slide and yieldingly holding said leaf adjusted on said base-plate.

5. A rear sight for automatic pistols having a recoiling breech-slide, comprising a breech-slide, a base-plate movably attached to said breech-slide and having on its sides recesses, a leaf pivoted to said base-plate and carrying a sight-slide adapted for engagement with said recesses, said leaf having a projection extending into

the breech-slide, and a spring-actuated piston yieldingly slidable within said breech-slide and acting on said projection for yieldingly securing said base-plate on said breech-slide and yieldingly holding said leaf and said sight-slide adjusted on said base-plate.

6. In a rear sight for automatic pistols having a recoiling breech-slide, the combination of a recoil-actuated breech-slide, a base-plate lengthwise movably attached on said breech-slide, and means within said breech-slide for yieldingly holding said base-plate in its attachment on said breech-slide.

7. In a rear sight for automatic pistols having a recoiling breech-slide, the combination of a breech-slide, a base-plate movably attached on said breech-slide, and a spring-pressed member within said breech-slide, said base-plate and said member co-operating to hold the base-plate yieldingly on said breech-slide.

8. A rear sight for automatic pistols having a recoiling breech-slide, comprising a breech-slide, a base-plate movably attached to said breech-slide, an adjustable sight-leaf pivoted to said base-plate, and a member yieldingly slidable within said breech-slide, said sight-leaf and said member co-operating to yieldingly secure said base-plate on said breech-slide and to yieldingly hold said sight-leaf adjusted on said base-plate.

This specification signed and witnessed this 4th day of May, A. D. 1922.

JOHN M. BROWNING.

In the presence of—
C. J. EHBETS,
A. L. ULRICH.