No. 670,012. Patented Mar. 19, 1901.

J. C. BROUGHER.

SIGHT FOR FIREARMS.

(Application filed Jan. 17, 1901.)

(No Model.)

Fig. 1.

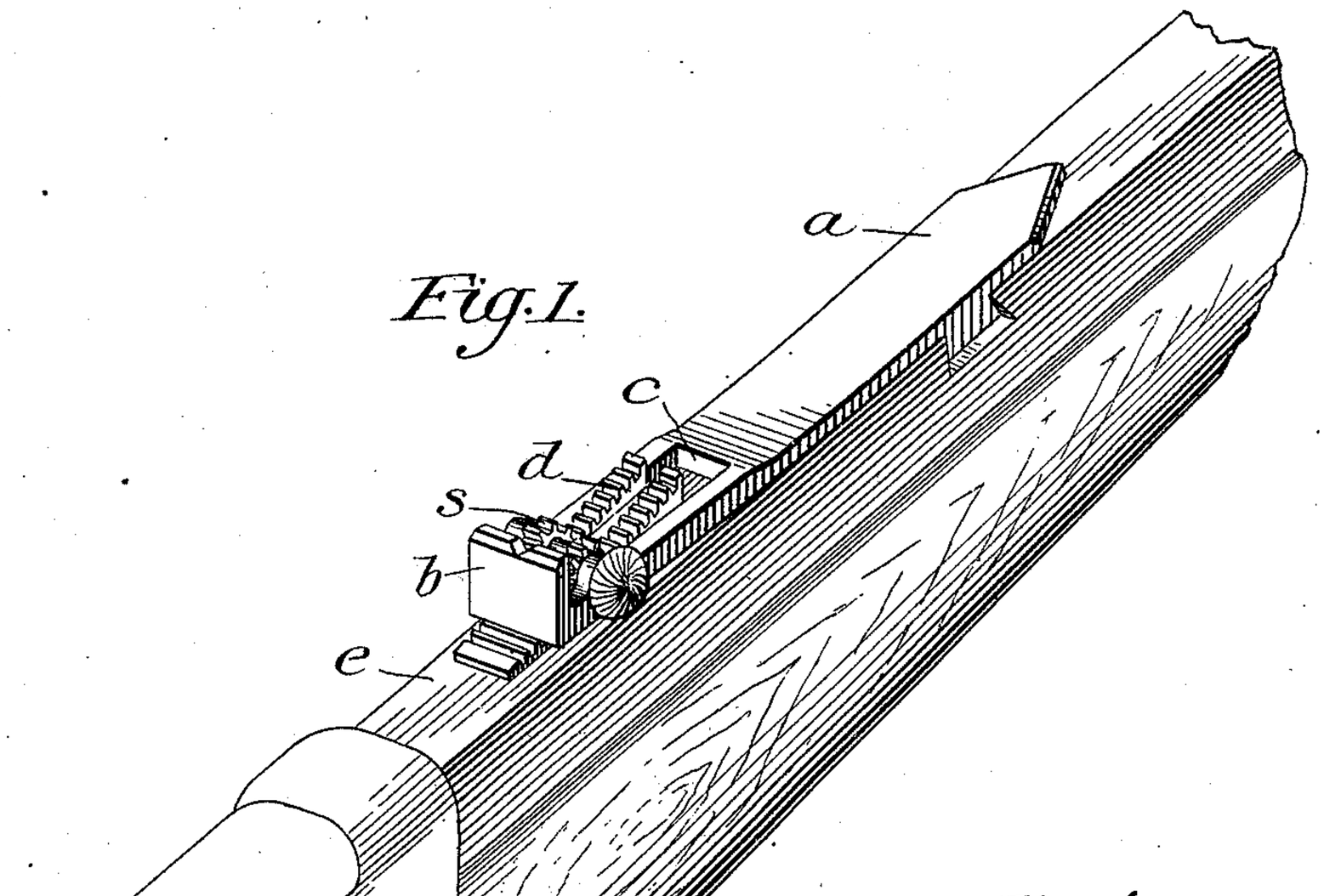


Fig. 4.

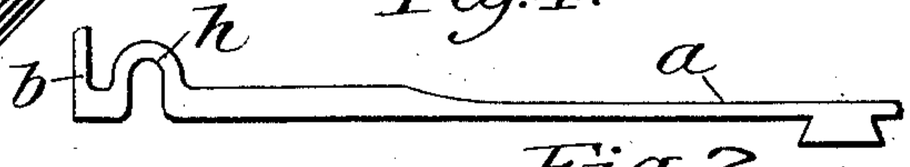


Fig. 2.

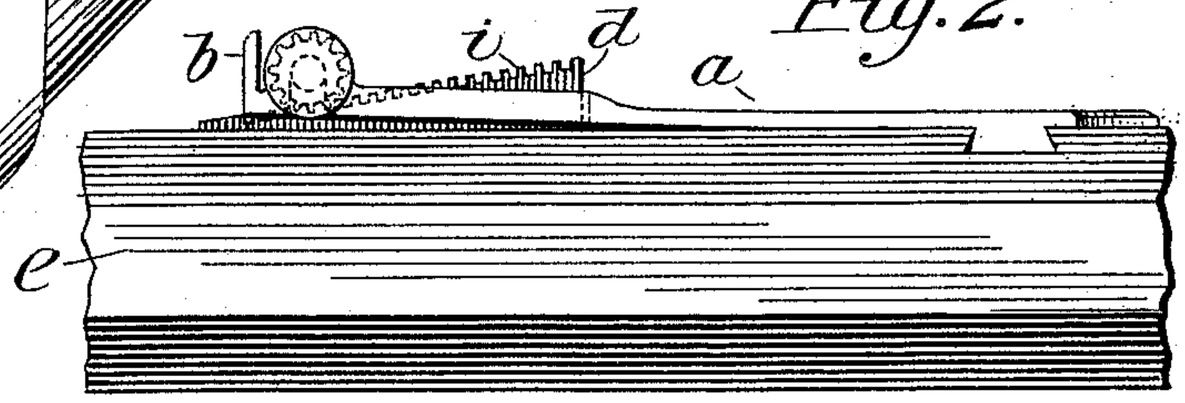
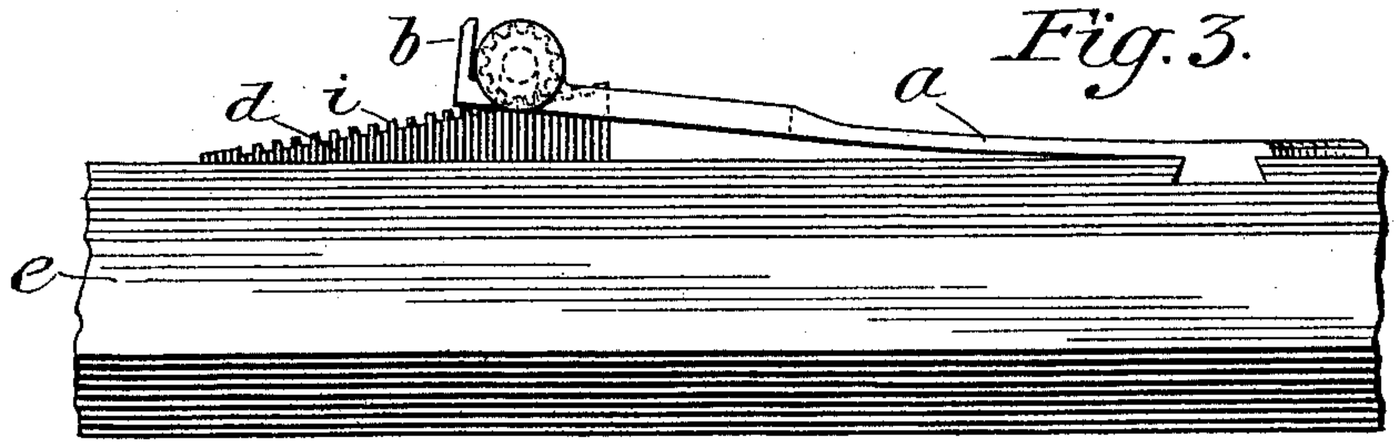


Fig. 3.



Witnesses:
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SIGHT FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 670,012, dated March 19, 1901.

Application filed January 17, 1901. Serial No. 43,561. (No model.)

To all whom it may concern:

Be it known that I, JACOB C. BROUGHER, a citizen of the United States, residing at Opdyke, in the county of Jefferson and State of Illinois, 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.

The invention relates to sights for firearms, and especially to adjustable rear sights for rifles and other small-arms. It is illustrated in the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a perspective view of a portion of the rifle, showing the improved sight in place. Fig. 2 is a side elevation of a fragment of the barrel, showing one adjustment of the sight; and Fig. 3 is a similar elevation showing a different adjustment of the sight. Fig. 4 is a side elevation of the spring sight-plate.

Referring to the views, *a* denotes a spring sight-plate of the usual form, except as hereinafter explained. It has a rear upturned edge *b*, which is provided with the usual sighting-notch, and near its forward end on the under side it has the ordinary dovetailed projection, by means of which it is secured to the barrel in the usual way. In the rear portion of this plate there is cut a rectangular opening *c*, which extends from a point intermediate the end of the plate backwardly to the vertical flange *b*. The plate *a* is made of spring-steel for the purpose of elastically holding down upon the barrel the adjusting rack-plate *d*. This rack-plate is wedge-shaped, as best illustrated in Figs. 2 and 3 of the drawings. It is flat on its under side and rests loosely upon the top of the barrel *e* and is held in that position by the elasticity of the sight-plate *a*. The rack-plate *d* is preferably made a trifle longer than the notch *c* in the sight-plate, so as to prevent the same from accidental disconnection from the plate. It is of a width substantially the same as that of the opening *c*, so that it is steadied and guarded in its movements by the lateral walls of the opening. The upper surface of the plate is provided with gear-teeth *i*, and in order to permit the elevation and depression of the sight without interference by the forward end of the rack-plate the latter is grooved longitudinally in the center, as best shown in Fig. 1, so that no matter what the elevation of the sight may be an unobstructed view through the notch in the rear plate may be had. At its rear near the end plate *b* the sight-plate is provided with arched bearings *h* at each side of the slot *c*, near its rear end. These bearings receive the trunnions of an adjusting-pinion *s*, whose teeth mesh with the teeth on the upper surface of the rack-plate *d*. At one end, preferably the right-hand end, the pinion *s* is provided with a milled head, as shown in Fig. 1, whereby it may be revolved by the finger and thumb, and the central portion of the pinion *s* is cut away to correspond with the central groove or cut-away part of the rack-plate *d*, the object of this being to prevent the teeth of the pinion from interfering with the sight through the notch in the plate *b* when the sight is lowered.

It will be understood from the above description that the resilience of the sight-plate alone holds the rack-plate down upon the barrel and guides it in its movements to and fro. It will also be seen that the adjusting-pinion is held in its bearings *h* and in engagement with the teeth of the rack-plate by the same means, no provision being necessary for otherwise holding either of the parts in place. The easy removal of all parts of the sight is therefore provided for without at the same time sacrificing the steadiness of its connection or its capacity for quick and easy adjustment.

The construction being as thus described the operation of setting the sight at any particular elevation will be apparent. It is to be particularly noted that the adjusting-pinion retains its position with respect to the barrel and that the end *b* is raised or lowered by the travel of the wedge-shaped rack-plate underneath the pinion. It is also to be noted that no extraneous devices are necessary for holding the sight at any given adjustment, the resilience of the sight-plate being sufficient to

hold the pinion down upon the teeth of the rack-plate in any position to which the latter may be adjusted.

Having thus described the invention, what I claim and desire to secure is—

The combination, to form an adjustable sight for firearms, of the spring sight-plate *a*, secured at its front end to the barrel, and having its rear end free and provided with the opening *b*, the inclined rack-plate *c* inclosed in said opening and held in sliding contact with the barrel by the plate *a*, and the pinion *d*, the latter being journaled at the rear end of the plate *a*, and meshing with the teeth of the rack-plate *c*.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB C. BROUGHER.

Witnesses:
W. T. MOBLEY,
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