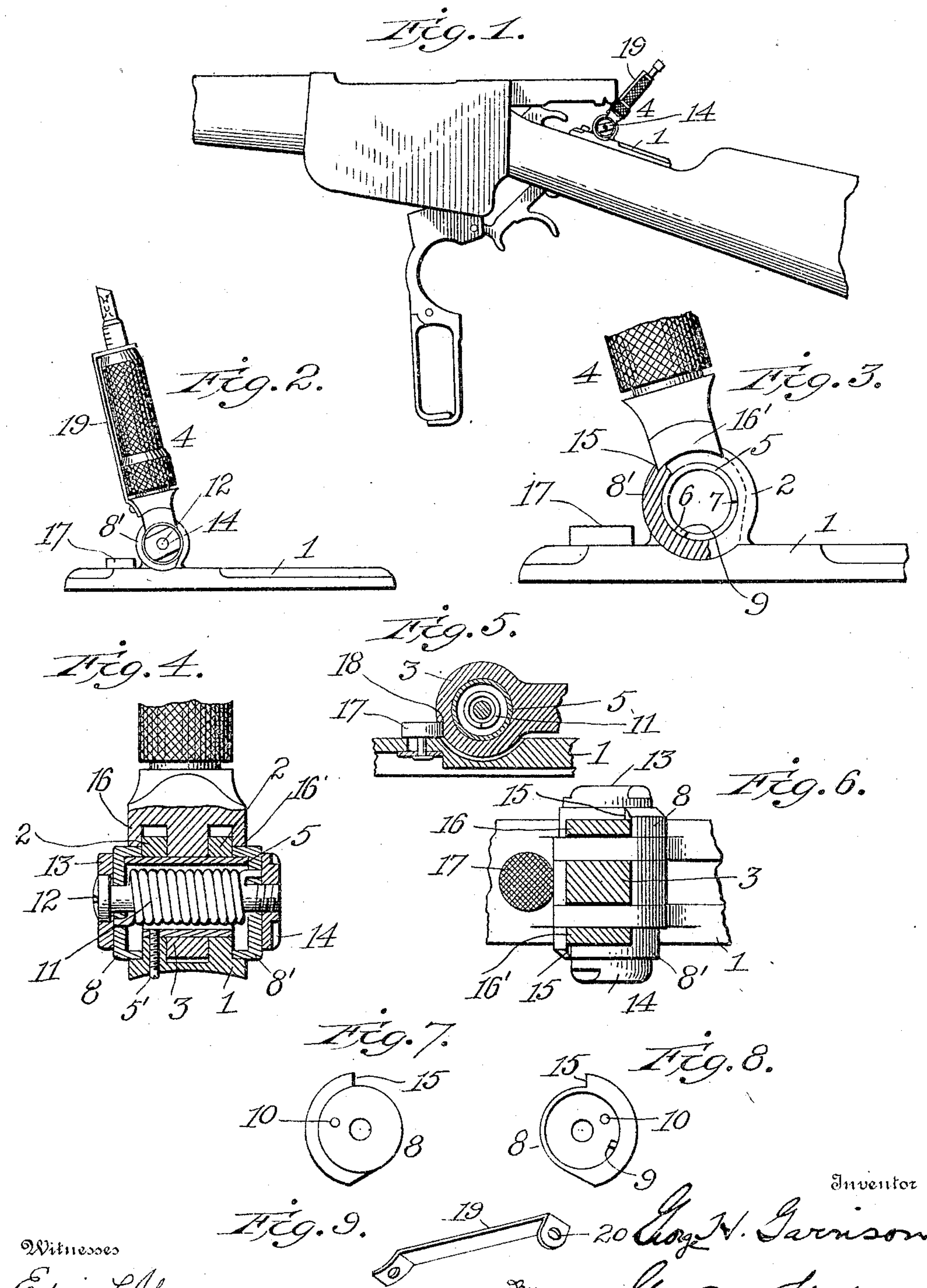


G. H. GARRISON.
FLEXIBLE REAR SIGHT FOR FIREARMS.
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UNITED STATES PATENT OFFICE.

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FLEXIBLE REAR SIGHT FOR FIREARMS.

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To all whom it may concern:

Be it known that I, GEORGE H. GARRISON, a citizen of the United States, residing at Gladstone, in the county of Delta and State of Michigan, have invented new and useful Improvements in Flexible Rear Sights for Firearms, of which the following is a specification.

This invention relates to rear sights for firearms; and its object is to provide a sight which will automatically return to its normal position in case it is turned down in either direction by coming in contact with the person of the gunner, the branch of a tree, or the like. With the ordinary hinged rear sight such an accident folds the sight down upon the gun-stock, so that it is useless in case a quick shot is necessary; but with my improved sight the instant the deflecting force is removed the sight returns to its upright position ready for immediate use.

The invention consists in a hinged rear sight having a spring acting to retain it in an upright position, but permitting it to yield either forward or backward, as the case may be, when it strikes against an object. A suitable lock is provided for keeping it folded down on the gun-stock when desired.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a gun, showing my improved sight applied thereto. Fig. 2 is a side elevation of the sight on a larger scale. Fig. 3 is a partial side elevation partly in section and on a still larger scale. Fig. 4 is a central longitudinal section through the hub of the sight. Fig. 5 is a cross-section. Fig. 6 is a sectional plan view on the line 6 6, Fig. 4. Fig. 7 is an end view of one of the caps. Fig. 8 is an inside view of the same. Fig. 9 is a perspective view of a guard.

On the base-plate 1 are parallel ears 2, between which is received the knuckle 3 on the lower end of the upright 4. A cylinder 5 is forced through the ears, in which it has a rigid fit, and it may be fixed in position by a set-screw 5'. The knuckle turns easily on the cylinder. The ends of the cylinder project beyond the ears, and a portion of each end is cut away, as shown in Fig. 3, leaving two abutments 6 and 7 at the ends of the cut-away portion. A cap 8 8' is placed over each end of the cylinder. Projecting from the inside of the rim of each cap is a pin 9, which lies between the abutments 6 7, and thus limits the rotary movement of the cap by abutting against said abutments at each end of said

movement. In each cap is a hole 10 to receive the end of a helical spring 11, which is housed inside the cylinder. The caps are held in place by a bolt 12, which passes through a washer 13, preferably countersunk to admit the head of the bolt, and is provided at the other end with a nut 14.

On the outside of each cap is a radial projection, preferably a shoulder 15, formed by a thickened portion of the rim of the cap. When the two caps are in place, these shoulders face in opposite directions, as shown in Fig. 6. The upright 4 has a lug 16 16' on each side which abuts at one end against the adjacent shoulder 15, the tension of the spring 11 being sufficient to keep these parts in close contact.

The operation is as follows: Suppose the parts to be in the position shown in Figs. 2, 3, and 6. If now the upright is moved to the right, the lug 16 will cause the cap 8 to rotate with it, in a clockwise direction in Fig. 3; but the cap 8' cannot rotate any farther in this direction, because it is prevented by its pin 9 abutting against the abutment 6. The cap 8' therefore holds one end of the spring stationary, while the other end of said spring is carried around with the cap 8. This puts an increased tension on said spring, so that when the upright is let go the spring instantly returns it to its normal position, the cap 8 rotating backward with it until its pin 9 strikes the abutment 6 at that end of the cylinder and stops it. Now if the upright is swung over in the other direction—that is, to the left in Figs. 2 and 3—the cap 8 will be held stationary by its pin 9 and the cap 8' will be rotated by the lug 16', thereby putting a tension on the spring that will return the upright to its normal position when released.

A lock is provided to hold the sight folded down when desired. This is preferably a slidable button 17, mounted on the base and adapted to engage with a shoulder or projection 18 in or on the knuckle 3 when the upright is turned down, as shown in Fig. 5.

In some classes of firearms the breech-bolt slides out so far that the ordinary rear sight cannot be used. My improved sight is applicable to such guns, as shown in Fig. 1, since the deflection of the sight when the breech-bolt strikes it in the act of loading is immaterial, the sight returning to normal position when the breech-bolt is closed. In order to protect the sight from injury when used in

this location, I provide a guard 19, consisting of a strip of sheet metal lying along the front of the upright and secured thereto at its lower end. The top of the guard may be bent at right angles and provided with a hole 20 to permit the stem of the sight to pass through it.

It will be seen that my invention provides a rear sight for firearms, having means for holding it yieldably in a normal position and permitting it to yield either forward or backward from said normal position in case of necessity.

Having thus described my invention, what I claim is—

1. A rear sight for firearms, comprising a base, an upright hinged thereto on a transverse axis, a helical spring concentric with said axis, and rotatable members to which the ends of said spring are respectively secured, said members engaging with opposite sides of said upright.

2. A rear sight for firearms, comprising a base, having ears, an upright having a knuckle hinged to said ears on a transverse axis, a helical spring passing through said ears and knuckle, means for holding the ends of said spring, and means whereby the movement of the upright in either direction from a normal position puts a tension on said spring.

3. A rear sight for firearms, comprising a base, a transverse cylinder fixed therein, an upright hinged on said cylinder, a spring housed in said cylinder, abutments for re-

straining the ends of said spring, and connections between the upright and the ends of said spring.

4. A rear sight for firearms, comprising a base, a cylinder fixed therein, an upright hinged on said cylinder, a spring housed in said cylinder, caps for said cylinder to which the ends of said spring are secured, means for limiting the relative angular movement of the caps and cylinder, and connections between the upright and the caps.

5. A rear sight for firearms, comprising a base, a cylinder fixed therein and provided with abutments, an upright hinged on said cylinder, a spring housed in said cylinder, caps for said cylinder having internal pins to cooperate with said abutments and serving to hold the ends of the spring, outside projections on said caps, and lugs on said upright engaging with said projections.

6. A rear sight for firearms, comprising a base, an upright having a knuckle hinged thereto, a shoulder on said knuckle, a spring for keeping said upright yieldably in normal position, and a button slidable on the base for engaging with said shoulder when the upright is folded down.

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

GEORGE H. GARRISON.

Witnesses:

ELMER BEACH,
W. L. MARBLE.