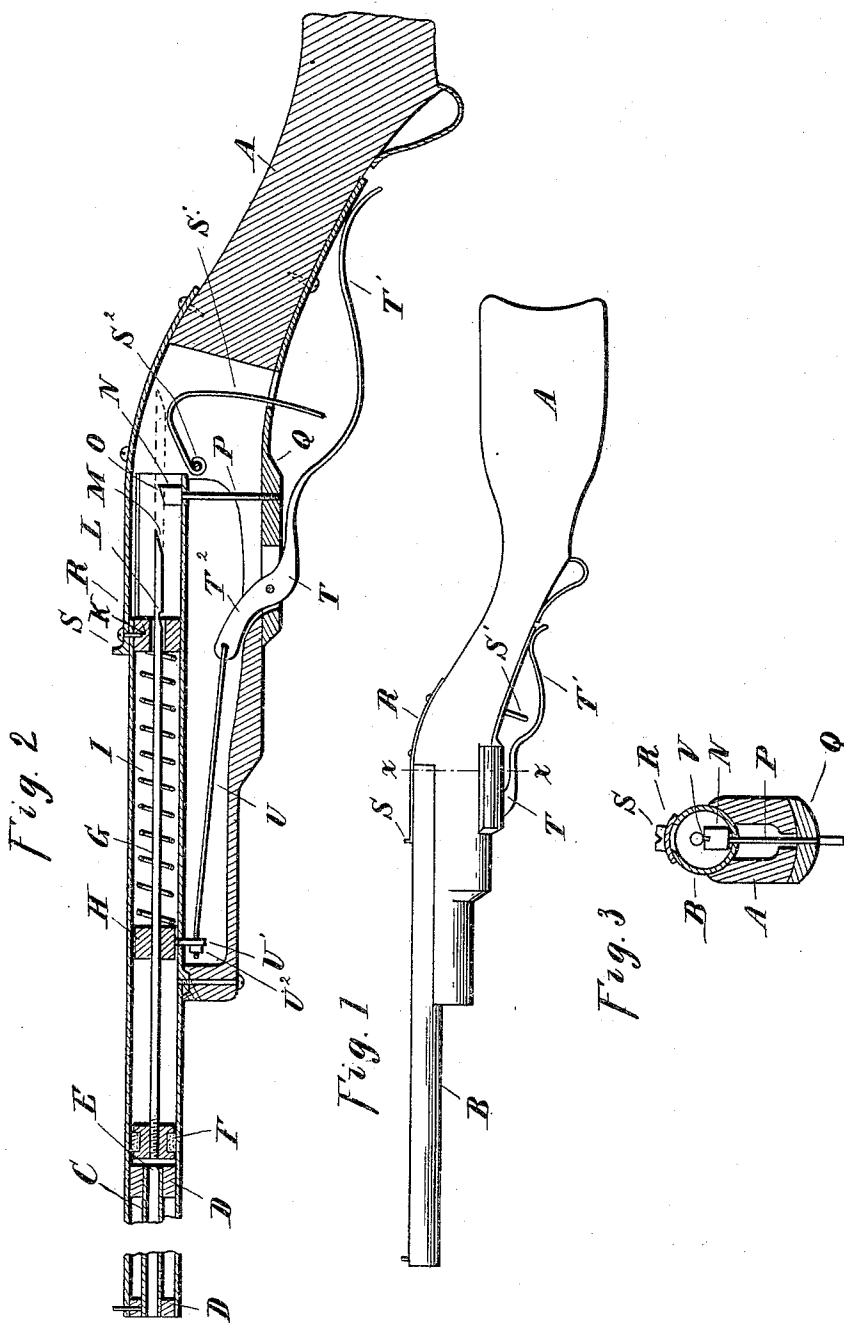


(No Model.)

H. H. PASSAGE.  
SPRING AIR GUN.

No. 446,711.

Patented Feb. 17, 1891.



Witnesses:  
P. M. Hulbert  
M. B. O'Gherty

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By M. S. Sprague  
Att'y.

# UNITED STATES PATENT OFFICE.

HIRAM H. PASSAGE, OF PLYMOUTH, MICHIGAN.

## SPRING AIR-GUN.

SPECIFICATION forming part of Letters Patent No. 446,711, dated February 17, 1891.

Application filed June 9, 1890. Serial No. 354,831. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM H. PASSAGE, a citizen of the United States, residing at Plymouth, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Spring Air-Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to new and useful improvements in spring air-guns; and the invention relates to the peculiar construction of the spring-compressing mechanism, and, further, to the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of my improved gun. Fig. 2 is a vertical central longitudinal section thereof, and Fig. 3 is a vertical cross-section on line  
a a.

A is the stock.

B is the false barrel, in which is secured the true barrel C by means of plugs D at the ends.

25 The projectile is loaded by dropping it into the muzzle, and it is held in the tapering seat E at the inner end thereof.

F is the air-compressing piston secured upon the forward end of the piston-rod G.

30 The rod G is centrally secured in the guide-block H, which bears against the forward end of the spring I, the rear end of which bears against the stationary plug K, which is suitably apertured to form a guide-bearing for the piston-rod, which has the notch L formed on its under side and the inclined bearing M at its rear end.

N is a stationary bearing in the rear of the false barrel, having the forward-inclined face

40 O. This bearing I preferably make as the head of a screw, the body P of which passes through the barrel and through the stock and engages into the plate Q on the under side of the stock. In order to put this screw in position and adjust it vertically, I cut away the rear part of the upper side of the barrel B above this screw and secure thereon the breech-plate R, which forms a means for securing the rear end of the barrel to the stock, and upon its forward end is formed the hind  
50 sight S.

S' is the trigger, consisting, preferably, of a

bent wire pivoted at S'', the upper end thereof being about in line with the bearing N, while the lower end extends through the lower  
55 side of the stock and forms the finger-piece of the trigger.

Journalled in the plate Q is the spring-compressing lever T, which has the rearwardly-extended arm T', forming the trigger-guard, 60 and the forwardly-extending arm T'' extends into a suitable slot formed in the fore-arm of the stock. This arm T'' of the lever is connected with the plug H by means of the link U, which at its forward end slidably engages 65 with the downwardly-projecting arm U' upon the plug H and has the adjusting-nut U<sup>2</sup> at its forward end.

The parts being thus constructed, they are adapted to operate as follows: To load the gun, 70 the operator takes hold of the arm T' of the lever, turns it upon its pivot, thereby withdrawing the arm T<sup>2</sup> of the lever, and through the medium of the link U and the arm T' compresses the spring. As the block H is moved 75 backward by this action, the rod G is correspondingly moved, and the incline M upon the rear end thereof strikes the incline O upon the bearing N, which causes the rod to ride upon its upper edge until the notch L passes over 80 the bearing, when it engages therewith and locks the rod in its adjusted position with the spring compressed. The lever T may now be returned to its normal position, (shown in Fig. 1,) the link U sliding through its bearing in 85 the arm U'. The operator drops a shot in the barrel, which is seated, as before described, at the lower end thereof. By pulling upon the trigger the rod G is lifted from its engagement with the bar N and the spring is allowed 90 to act, compressing the air and discharging the projectile.

I provide the bearing N with the slot V to enable me to more readily secure it in position.

What I claim as my invention is—

95 1. In a spring air-gun, the combination, with the barrel and the spring-actuated piston and its rod, of a detent in said rod and bearing with which said detent engages and the trigger for disengaging said detent, substantially as described. 100

2. In a spring air-gun, the combination, with the barrel, the spring-actuated piston, and its rod, of the block H, secured centrally of

said rod, the spring I, the stationary block K, forming a guide for said rod, the detent on said rod, the stationary bearing N, and the trigger, substantially as described.

5 3. In a spring air-gun, the combination, with the spring-actuated piston and its rod, of the inclined bearing M, the detent L, the bearing N, having the inclined face O, and the trigger, substantially as described.

10 4. In a spring air-gun, the combination, with the barrel of a piston and its rod having a beveled end and a notch in its under side, of a movable block rigid on said rod, having an extension on its under side, a lever on the under side of the stock connected to said extension by a link, a stationary block having a  
15 central opening for the passage of the rod, a spring surrounding the rod and interposed between the stationary and movable blocks, a  
20 catch in the lower part of the barrel for engaging with the notch in the rod and holding

the spring in its compressed state, and means for disengaging said rod, substantially as described.

5. In a spring air-gun, the combination, with 25 the stock, barrel, and spring-actuated piston-rod in the barrel having a beveled end, of a catch having a threaded end passing through the barrel adjacent to its rear end and into the stock for uniting the barrel and stock, its 30 upper end formed with inclined upper face having a groove or kerf therein and located directly in the path of the rod, substantially as described.

In testimony whereof I affix my signature, 35 in presence of two witnesses, this 31st day of May, 1890.

HIRAM H. PASSAGE.

Witnesses:

J. R. RAUCH,  
E. P. LOMBARD.