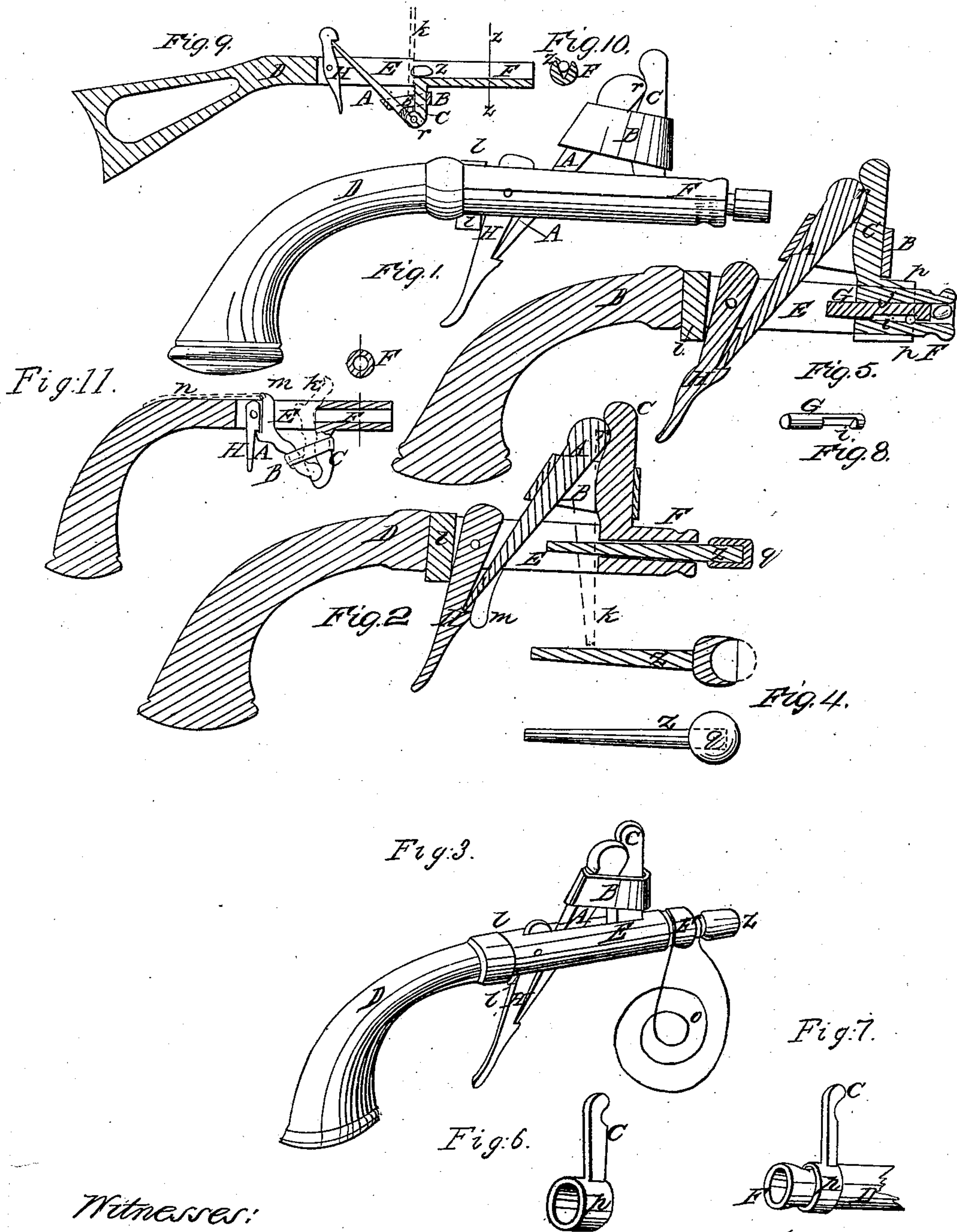


*E. Ripley,*  
*Spring Pistol,*  
*No 83,211,*  
*Patented Oct. 20, 1868.*



Witnesses:  
*George M. Mearns*  
*Austin F. Park*

Inventor:  
*Ezra Ripley*



# United States Patent Office.

EZRA RIPLEY, OF TROY, NEW YORK.

Letters Patent No. 83,211, dated October 20, 1868.

## TOY-PISTOL.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, EZRA RIPLEY, of the city of Troy, in the county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Toy-Pistols or Spring-Guns, of which the following is a full and exact description, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation,

Figure 2 a longitudinal section, and

Figure 3 a perspective view of a toy-pistol in which one form of my invention is embodied; and

Figure 4 a side view and section of projectiles for such pistol.

Figure 5 a longitudinal section, and

Figures 6, 7, and 8 perspective views of parts of a toy-pistol, showing another form of my invention.

Figure 11, a view of another form of my toy-pistol; and

Figure 9 is a longitudinal section, and

Figure 10 a cross-section, at the line  $z z$  in fig. 9, of a toy spring-gun, in which the distinguishing features of my invention are embodied.

Similar parts are marked by like letters in the different figures.

The primary part of my invention consists in the arrangement of a striking or percussive lever, A, a belt-spring, B, and a stud or support, C, for the belt-spring and lever, in combination with a suitable stock and projectile-holder, D E F, with or without a sliding follower, G, therein, in such manner, substantially as hereinafter described, as to constitute a very desirable, cheap, and effective device for shooting arrows, beans, shot, pellets, and other projectiles, for amusement; and a second part of my invention consists in the arrangement of a trigger or catch, H, in combination with the subject-matter of the aforesaid primary part of my invention, substantially as hereinafter set forth, so as to thereby facilitate the charging and discharging of the said shooting-device.

In carrying out this invention, I make the stock D in the general form of a pistol or gun, and, at the forward part, with a barrel or other suitable support, F, for holding any suitable projectile, Z, preparatory to and guiding it in its discharge.

In figs. 1, 2, 3, 5, 7, and 11, the holder F is in the form of a tube or barrel, and in figs. 9 and 10 in the shape of a trough open at both ends.

For shooting small balls or pellets, Z, figs. 5, 9, 10, I sometimes have, in the rear portion of the trough or barrel F, a freely-sliding follower, G, figs. 5 and 8, which, when moved back, shall extend out of the rear end of the trough or barrel, and allow a ball or pellet to be inserted in front of the follower, as shown in fig. 5, and which, by being struck forward by the percussive lever A, shall discharge the ball or pellet from the trough or barrel, while the follower shall be retained.

In figs. 5 and 8, the follower G has an oblong recess,

i, in one side, through which a fixed pin, j, in the barrel F extends, in fig. 5, so as to keep the follower in the barrel.

I also make the stock D with a slot or open space, E, directly back of the rear open end of, and lengthwise, or nearly so, with the barrel or projectile-holder F, and with a fixed lateral stud or projection, C, arranged in, or nearly in, the same plane as the slot or opening E in the stock.

I hinge, pivot, or fulcrum the lever A, at one end, to the stud or projection C, and extend that lever into or through the slot or opening E, and surround the said stud or projection and lever, together, by the belt-spring B, essentially as indicated by the aforesaid drawings, so that the said belt-spring shall constantly tend to hug or draw the lever A to or towards the stud, and to retain that lever in its proper plane of vibration, and so that the lever A can be readily drawn back away from the rear end of the barrel or projectile-holder F, as indicated in full lines in figs. 1, 2, 3, 5, 9, and 11, and there held, and suddenly let go, as may be desired, directly, by the hand or hands of a person using the gun or pistol, with or without the aid of a trigger-catch, H, and so that, when the lever A shall be thus drawn back, and suddenly released, the belt-spring B shall then, by its contractile force, throw the lever A forward instantly, or with a smart blow, against the rear end of any suitable arrow or projectile, Z, or projectile-follower, G, that shall then be in, and extend rearward beyond, the back end of the barrel or holder F, as indicated in figs. 2, 5, and 9, so as to thereby shoot out such arrow or projectile, or a pellet, in front of the follower.

In figs. 2, 9, and 11, the dotted lines at k indicate the position of the lever A at the end of its forward stroke.

I generally prefer to have a trigger, H, arranged in combination with the lever A, belt-spring B, stud C, and stock D, with its slot E, and projectile-holder F, in such manner that the trigger may engage with and hold fast the lever A, when the latter shall be drawn back, as indicated in full lines in figs. 1, 2, 3, 5, 9, and 11, preparatory to inserting and shooting off a ball, arrow, or other projectile.

In figs. 1, 2, 3, 5, and 11, the lever A will be released from the trigger H by pulling back the lower end of the trigger, and in fig. 9 by either pressing the upper end of the trigger backward, or the lower end forward.

In figs. 1, 2, 3, and 5, a piece of India rubber, l, presses the trigger a little forward, so that the lever A will be surely caught and held by the trigger upon simply drawing that lever back sufficiently.

In case no trigger shall be used, I shall sometimes round off the end of the lever A somewhat, as indicated at m in figs. 2 and 11, or attach a thumb-slip thereto, as represented at n in fig. 11, for convenience in holding back and releasing the striking-lever directly by hand.



In some cases, I connect the arrow or other projectile to the gun or pistol by a string or elastic cord, *o*, fig. 3, for convenience in recovering the arrow or projectile, and preventing its loss in shooting out-doors.

I commonly have the belt-spring B consist of a ring or section of a tube of India rubber, and generally prefer to cast the stud C and stock D E F in one piece, of cast-iron; but, in case the stock shall be of wood, I sometimes cast the stud C of iron, with a ferrule, *p*, fig. 6, which is fitted fast on the stock, as shown in figs. 5 and 7.

The above-described spring-gun or pistol is designed to be a harmless toy, but, by increasing the size and power of the belt-spring, and furnishing sharp-pointed arrows, it might become otherwise. I recommend the use of a light belt-spring, and arrows or projectiles having India-rubber points or balls, *q*, fig. 4, on the forward ends.

By reference to the drawings, it may be seen that the belt-spring B can be readily slipped off from and replaced around the lever A and stud C, and that the same gun or pistol can be quickly altered to one of greater or less power by simply changing the belt-spring

B for a stronger or a weaker one, or by placing the same belt-spring farther from or nearer to the fulcrum *r* of the striking-lever.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the striking-lever A, belt-spring B, and stud or support C, for the belt-spring and lever, with the stock D E and barrel or projectile-holder F, with or without a sliding follower, G, therein, all constructed and arranged to operate substantially as and for the purpose herein set forth.

Also, the combination of a trigger-catch, H, striking-lever A, belt-spring B, stud C, stock D E, and projectile-holder F, with or without a follower therein, all constructed and arranged to operate substantially as herein described.

In testimony whereof, I hereunto subscribe my name, this 8th day of September, 1868.

EZRA RIPLEY.

Witnesses:

GEORGE MACARDLE,  
AUSTIN F. PARK.