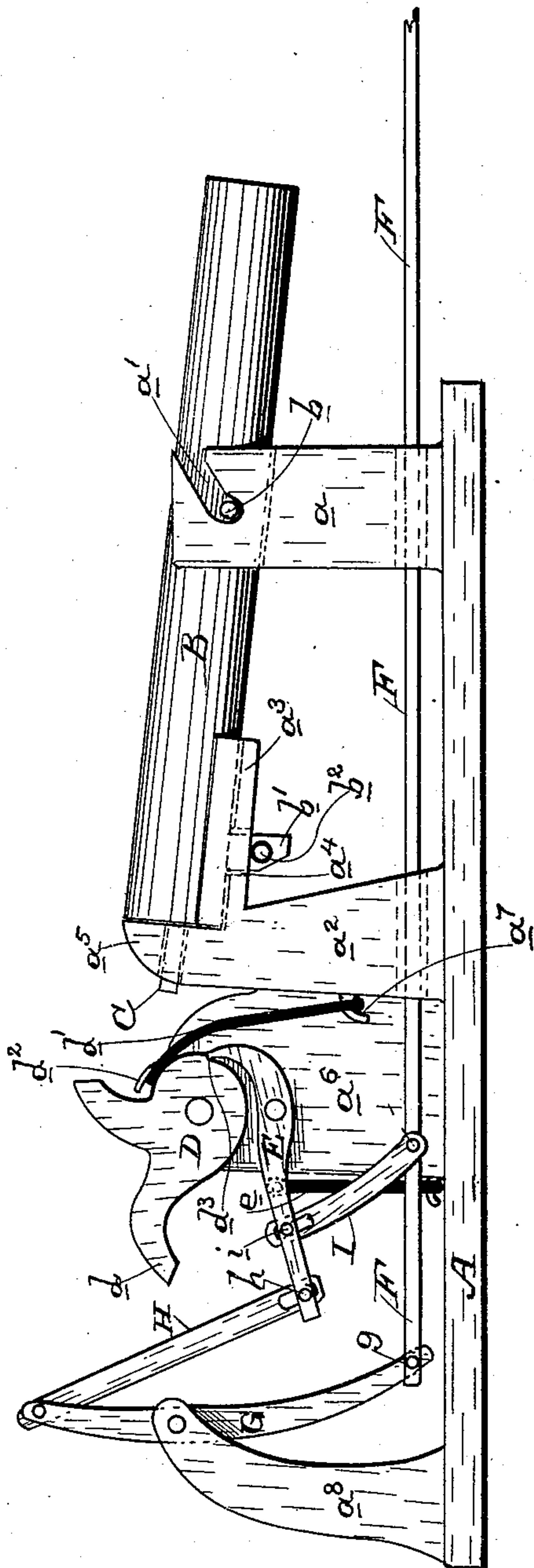


(No Model.)

J. W. ATKINSON.  
SPRING GUN.

No. 477,982.

Patented June 28, 1892.



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# UNITED STATES PATENT OFFICE.

JAMES W. ATKINSON, OF MILPITAS, CALIFORNIA.

## SPRING-GUN.

SPECIFICATION forming part of Letters Patent No. 477,982, dated June 28, 1892.

Application filed February 10, 1892. Serial No. 421,049. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. ATKINSON, a citizen of the United States, residing at Milpitas, Santa Clara county, State of California, have invented an Improvement in Animal-Guns; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of guns for killing burrowing animals—such as gophers—in which a forwardly-projecting trip-rod is employed to actuate the firing mechanism.

My invention consists in the novel arrangement and construction of the firing mechanism and of the barrel as I shall hereinafter fully describe, and specifically point out in the claims.

The objects of my invention are to provide for convenience in loading and absolute safety in handling and setting the firing mechanism and handling the gun while adjusting it in position.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a side elevation of my animal-gun.

A is the base-plate, from the forward end of which rises a forked standard  $a$ , provided with the trunnion-slots  $a'$ . Another standard  $a^2$  rises from plate A and has a support  $a^3$ , provided with a hole  $a^4$ , and the top of said standard forms the breech-block  $a^5$ .

B is the gun-barrel. It lies in the support  $a^3$  and in the forked front standard. It has side trunnions  $b$ , which fit in the slots  $a'$ . Its rear end or breech fits closely up to the breech-block  $a^5$ , and it has a downwardly-projecting lug  $b'$ , which passes down through the hole  $a^4$  and receives a cross-pin  $b^2$ , whereby the barrel is locked in position. By removing the pin  $b^2$  the barrel may be lifted, turning on its trunnions  $b$  and exposing its breech to receive the loaded shell or to permit the removal of an exploded one.

In the breech-block  $a^5$  is mounted the firing-pin C.

Rising from plate A is a standard  $a^6$ , which may be a part of standard  $a^2$  or independent, as desired. To this standard is pivoted the lock or hammer D, having a thumb-piece  $d$  for pulling it back. The hammer is thrown

down by a spring  $d'$ , which I prefer should be an elastic band, as shown, said band being secured to a lug  $d^2$  of the hammer and to a fixed pin or lug  $a^7$ , secured to the standard below. The base of the hammer has a trigger-notch  $d^3$ .

Pivoted to standard  $a^6$  is the trigger E, the forward end of which engages the notch  $d^3$  of the hammer and holds said hammer up when set. The trigger is held to its engagement with the notch of the hammer by means of a spring  $e$ , which I prefer to be an elastic band, as shown.

F is the trip-rod. It lies just above the base-plate and is supported in sockets or guides, whereby it may have a longitudinal movement. Its forward end projects beyond the end of the barrel, and to it a bait may be attached. Its rear end has a double connection with the trigger, as follows: To a standard  $a^8$ , rising from the rear end of the base-plate, is pivoted a lever G, the lower end of which at  $g$  is connected with the rear end of the trip-rod F. To its upper end is connected a link H, the lower end of which is connected at  $h$  to the rear end of the trigger. Connected to the trip-rod F at a point forward of its rear end is a link I, the upper end of which is connected at  $i$  to the trigger at a point forward of its rear end. The points of connection of the links H and I with the trigger are sliding ones, formed by passing the pivot-pins through elongated slots in the link ends, as shown, the objects of such connections being to avoid any interference between the actions of these links, as they operate independently to trip the trigger. Now it will be seen that if the trip-rod F be pulled upon it will through the lever G and link H lift the rear end of the trigger, thereby throwing down its forward end and causing it to release the hammer. In this movement the link I presents no interference, as the pivot-pin connecting it with the trigger will simply move up in its slot. Conversely, when the trip-rod is pushed upon it will through the link I force upwardly the rear end of the trigger, thereby causing it to trip the hammer, and in this movement the link H does not interfere, because of its slotted connection with the trigger.

The operation of my gun is as follows: The loading of the barrel is accomplished as I have



heretofore described. The device is then placed in position at the mouth of the burrow, and not until it is in position is any attempt made to set the firing mechanism.

5 When it has been adjusted to proper position, the hammer is carefully and easily drawn back and is held back by the engagement of the trigger with it. This movement of the hammer, acting through the trigger and the connecting-levers, sets the trip-rod F in proper position for operation. It will be seen that great safety is the result of the absence of any necessity of setting the gun before being placed in position. In those guns in which a heavy spring-controlled firing-rod is employed it is necessary to set this rod while holding the gun in the hands because of the difficulty of setting it while in position. After such a gun is set it is a difficult matter to adjust it in position without firing it, for the trip mechanism must necessarily be delicate and the least touch of the trip-rod in setting the gun in place is sufficient to fire it; but in my gun after the barrel is loaded and the hammer is still down on the firing-pin the gun is perfectly safe and may be accurately adjusted to position and only after it is in position need the hammer be set. This setting of the hammer on account of the arrangement of parts is an easy matter and a perfectly safe one. Now when the gopher or other animal approaches the mouth of the burrow it will either throw the dirt against the trip-rod or otherwise come in contact with it, by which it will push it, or it will seize the bait and pull the rod. In either case it will trip the firing mechanism and shoot the gun.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an animal-gun, the combination of a base-plate having the forked and slotted standard and a second standard having in its top a support and a breech-block with firing-pin, the gun-barrel mounted in the support and forked standard and having side trunnions fitting the slots of the latter, and a lug with locking-pin for holding it in the support, a pivoted hammer, said mechanism comprising a longitudinally-moving trip-rod and links interposed between the same and the trigger for operating the latter upon either the forward or rear movement of the trip-rod, and a tripping mechanism for operating said hammer, substantially as herein described.

2. In an animal-gun, and in combination with its barrel and spring-controlled hammer,

the spring-controlled trigger for holding and tripping the hammer, the longitudinally-moving trip-rod extending forwardly beyond the barrel, and the links connecting said trip-rod with the trigger, one of said links operating to trip the trigger upon either a forward or rear movement of the trip-rod, substantially as herein described.

3. In an animal-gun, and in combination with its barrel and spring-controlled hammer, the spring-controlled trigger for holding and tripping the hammer, the longitudinally-movable trip-rod extending forwardly beyond the barrel, the pivoted lever G, connected with the rear end of the trip-rod, the link H, connecting the other end of the lever G with the rear end of the trigger, and the link I, connecting said trip-rod with said trigger, whereby the trigger is tripped upon either movement of the trip-rod, substantially as herein described.

4. In an animal-gun, and in combination with its barrel and spring-controlled hammer, the spring-controlled trigger for holding and tripping the hammer, the longitudinally-movable trip-rod extending forwardly beyond the barrel, the pivoted lever G, connected with the rear end of the trip-rod, the link H, connecting said lever with the trigger, the link I, connecting the trip-rod directly with the trigger, and the sliding connections between said links and trigger, whereby they operate thereon without interference to trip the hammer upon either movement of the rod, substantially as herein described.

5. An animal-gun consisting of a base-plate having suitable standards rising therefrom, a barrel pivoted in one of said standards and removably locked in another, whereby its breech may be exposed and covered, a firing-pin, a hammer pivoted to a standard of a base-plate and having a spring controlling it, a trigger pivoted to said standard, engaging the hammer and having a spring controlling it, a longitudinally-movable trip-rod extending forwardly of the barrel, a pivoted vertical lever at the rear of the base-plate, having its lower end connected with the trip-rod, and the links H and I, connecting the lever and trip-rod, respectively, with the trigger, substantially as herein described.

In witness whereof I have hereunto set my hand.

JAMES W. ATKINSON.

Witnesses:

W. L. JACKSON,  
C. L. WITTEN.