No. 707,000. Patented Aug. 12, 1902.

W. H. PEASE.

SPRING GUN.

(Application filed Feb. 10, 1902.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

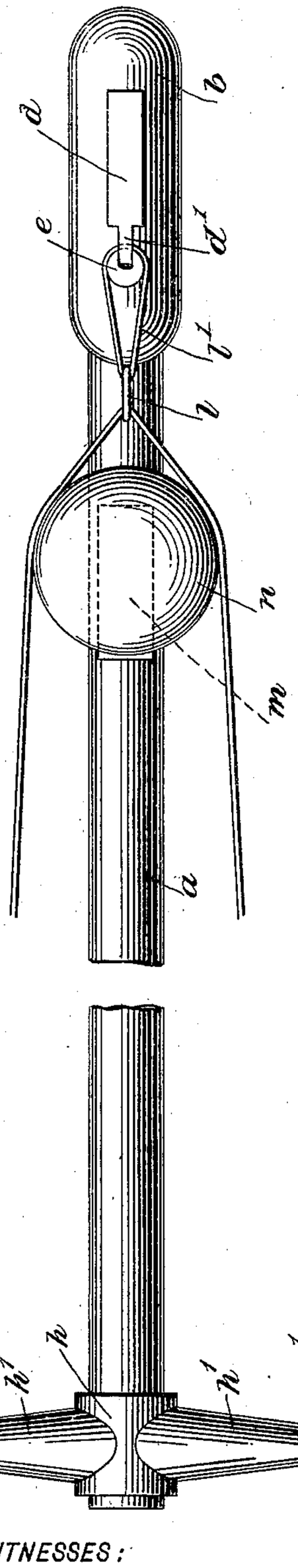
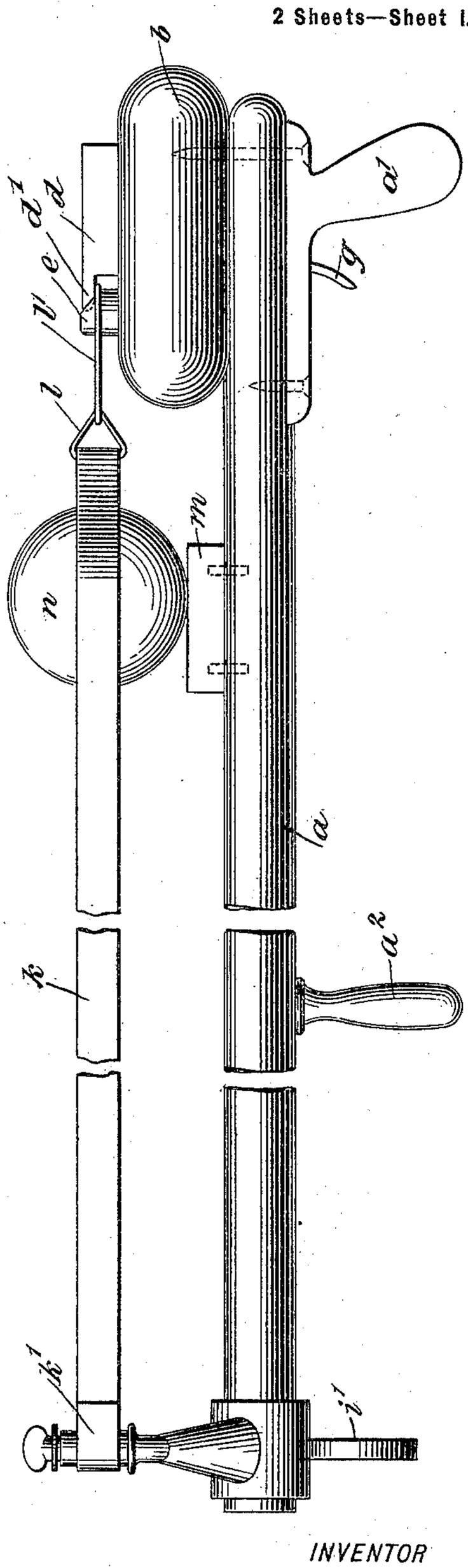


Fig. 2.



WITNESSES:

Edward Thorpe

F. B. Owens.

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ATTORNEYS

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Fig. 3,

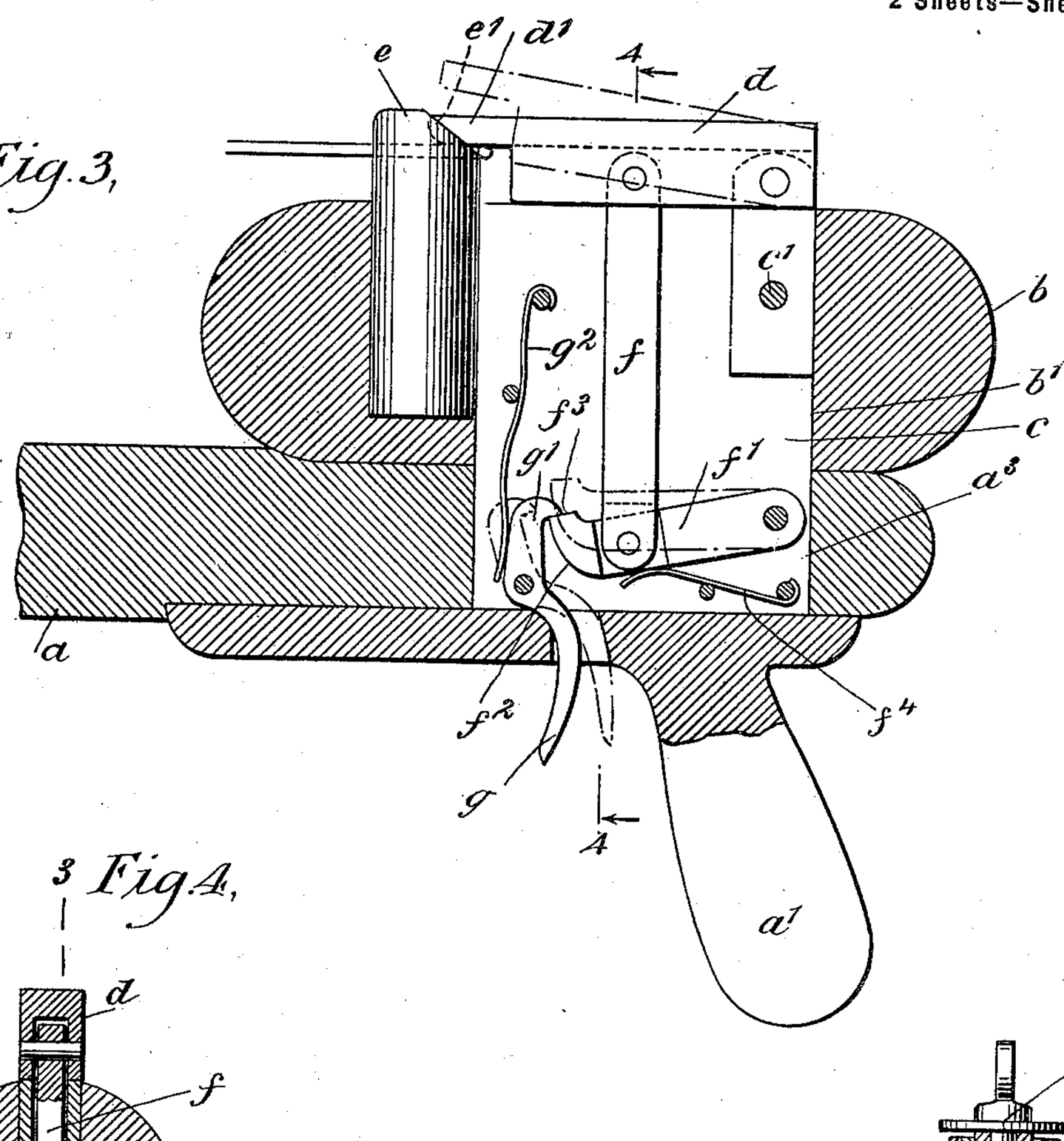


Fig. 4,

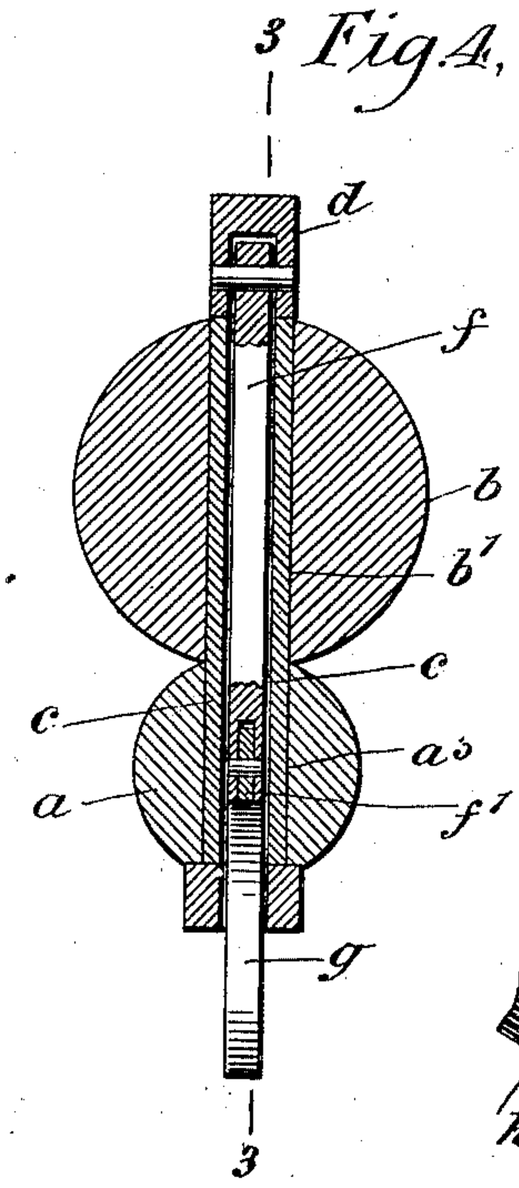
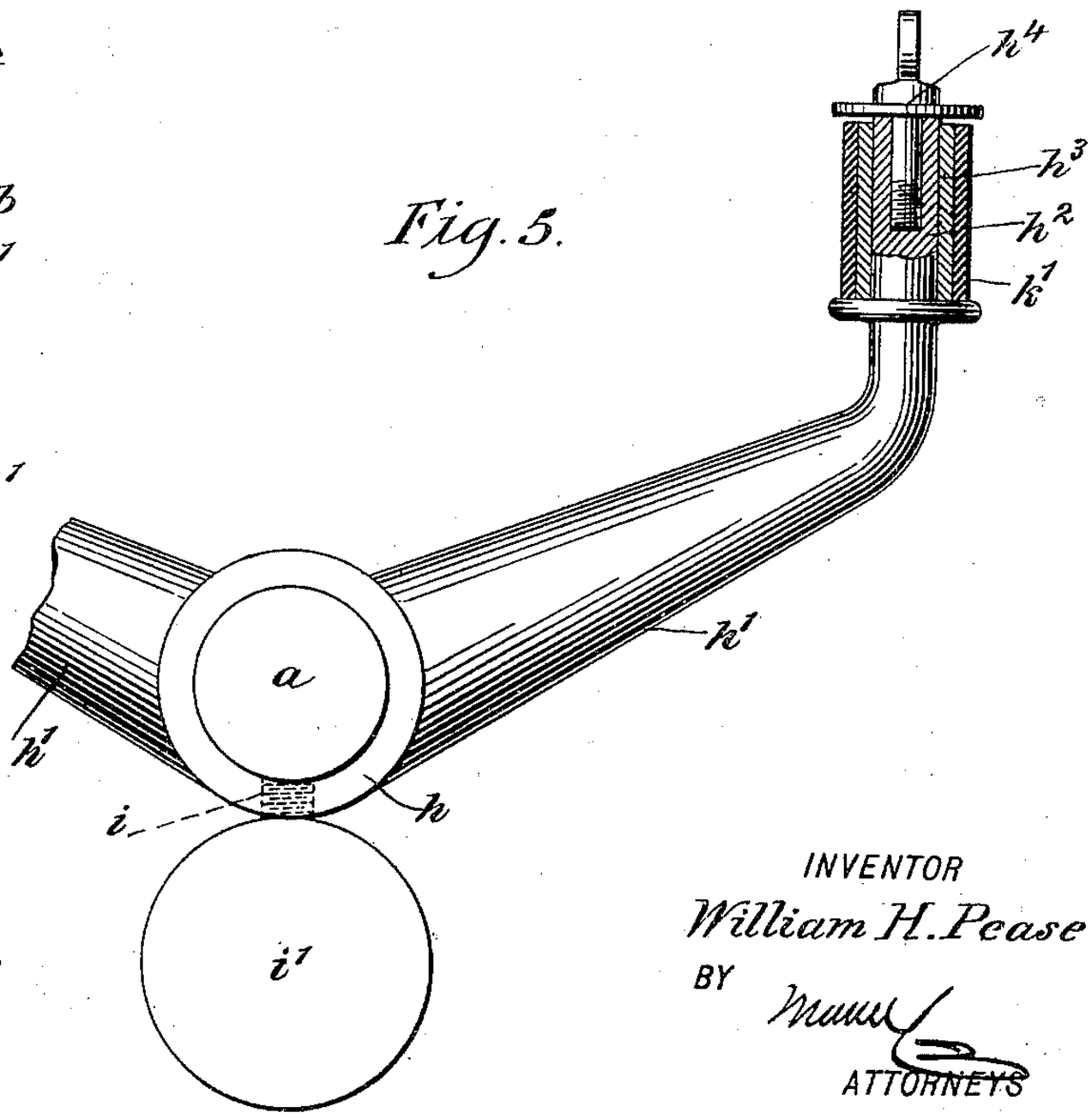


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY PEASE, OF JOLIET, ILLINOIS.

SPRING-GUN.

SPECIFICATION forming part of Letters Patent No. 707,000, dated August 12, 1902.

Application filed February 10, 1902. Serial No. 93,361. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY PEASE, a citizen of the United States, and a resident of Joliet, in the county of Will and State of Illinois, have invented a new and Improved Spring-Gun, of which the following is a full, clear, and exact description.

This invention relates to a device for throwing a projectile by the power of a rubber band or other elastic structure. It is useful in many connections, as will be apparent, and it is especially intended for use in playing a game which I have devised and named "high ball."

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the invention. Fig. 2 is a side elevation thereof. Fig. 3 is a section on the line 3 3 of Fig. 4. Fig. 4 is a section on the line 4 4 of Fig. 3, and Fig. 5 is a fragmentary sectional elevation of the fork.

a indicates the barrel or body of the gun, which may be of any length desired, according to the purpose to which the device is put. This device is provided with a handle a' at its inner end and a handle a^2 at a point intermediate its ends, so that the gun may be held in both hands and aimed in the usual manner. The barrel a is formed (see Fig. 3) with a cavity a^3 at its rear end, and mounted over this part of the barrel is a breech-block b, having a cavity b', registering with the cavity a^3. Located in these cavities a^3 and b' are two plates c, forming a case, and fastened between these plates c within the casing is a stud c'. On this stud is pivoted an inverted channel-iron keeper d, the pivot being at the rear end of the keeper, so that the keeper may swing upward from the position shown by full lines in Fig. 4 to that illustrated by dotted lines. The keeper is provided at its front end with a stud or tongue d', which is adapted to engage a stop-post e, fastened in the breech-block b just forward of the cavity b'. The stop-post e is provided with a cavity e' in its upper end, and in this cavity the tongue d' is adapted to fit when the keeper is in operative position.

Pivotally connected with the keeper d is a link f, which extends downward and is pivoted to a trigger-arm f'. This trigger-arm is pivoted within the casing formed by the plates c, the pivot being at the rear end of the trigger-arm, and the front end of the trigger-arm is formed with a rounding surface f^2 and a square surface f^3 for coöperation with the trigger g. This trigger is pivoted within the casing c and projects downward alongside of the handle a'. The inner or upper end of the trigger g is formed with a rounding hook g'. f^4 indicates a spring tending to throw upward the trigger-arm f', and g^2 indicates a spring tending to throw backward the upper end of the trigger. When the parts are in the position shown by full lines in Fig. 3, the trigger g will hold the keeper d in active position; but when the trigger is pulled rearward the hook g' is disengaged from the arm f' and the spring f^4 is allowed to throw the keeper upward. To return the parts to locked position, the keeper d should be pulled downward. This will throw down the arm f' and cause its curved surface f^2 to ride over the rounding hook g' of the trigger g and throw the trigger back, so that the hook thereof may again engage the square surface f^3 of the arm f'.

At the front end of the barrel a a collar h is fastened by a set-screw i, this set-screw being provided with an enlarged flattened head i', preferably circular in form and adapted not only to permit the easy manipulation of the set-screw i, but also to furnish a part to be engaged by the foot of the operator to facilitate the setting or loading of the gun, as will be fully explained hereinafter. The collar h carries two oppositely-projecting arms h', these parts h and h' forming the fork of the gun and the arms h' terminating in upwardly-projected extremities h^2. Mounted loosely on the extremities h^2 of the arms h' are sleeves h^3, held in place by set-screws and washers h^4. k indicates a rubber band or other elastic structure. This band is preferably formed of an integral section of material bent at its middle, so that its end portions may be engaged with the fork of the gun.

This engagement is effected by means of leather or other strips k', passed around the sleeves h^3 and fastened to the ends of the band k. The intermediate or bent portion of the band k is adapted to be drawn backward when the gun is loaded, as shown in Figs. 1 and 2. For this purpose the band is fitted with an eye l, having a cord or the like l' engaged therewith. This cord is adapted to be placed over the stop-post e and held by the keeper d. When, however, the keeper is raised, the cord l' rides over the rounding upper end of the keeper stop-post and the band k is released. m indicates a table-block which is fastened on top of the barrel a directly in front of the breech-block b, and n indicates the ball or projectile which is thrown from the gun, the table-block m serving as a rest for the ball when the gun is loaded.

In operating the device it is more convenient to point the barrel downward and place one foot on the head i' of the set-screw i. Then by grasping the band k it may be drawn backward and the cord l' engaged with the stop-post e. Then the keeper d should be thrown downward and the projectile n placed on the table-block m, whereupon the gun is ready for firing. The projectile may be thrown into the air at any angle, and owing to the mechanism provided the parts may be quickly and effectively operated and the projectile carefully aimed at the desired point. The device is especially adapted for throwing a ball high into the air and causing it to take an arching course.

Various changes in the form and details of my invention may be resorted to at will without departing from the spirit of my invention. Hence I consider myself entitled to all forms of the invention as may lie within the intent of my claims.

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

1. A spring-gun, comprising a barrel or body, projecting devices, a fork on the barrel and connected to the projecting devices, the fork having a collar fitted on the barrel to mount it, and a set-screw working in the collar, and having an enlarged head forming a foothold for facilitating the setting operation.

2. A spring-gun, comprising a barrel or body, a fork attached to the end thereof, sleeves mounted loosely on the ends of the fork, an elastic structure connected to the sleeves, and fastening devices entered into the ends of the fork and having portions lying over the sleeves to hold them in place.

3. A spring-gun, comprising a barrel or body, a collar mounted thereon, means for fastening the collar in place, said means also having a projected portion serving as a foothold in setting the gun, arms carried by the collar, said collar and arms forming a fork, sleeves mounted loosely on the ends of the arms, an elastic structure connected to the sleeves, and means for releasably holding the elastic structure.

4. A spring-gun, comprising a barrel or body, an elastic structure connected with the end portion of the body, a stop on the other end portion of the body, a keeper for holding the elastic structure engaged with the stop, and devices for actuating the keeper, the said stop having a rounding surface with a cavity therein, and the keeper having a tongue working in the cavity in the manner specified.

5. A spring-gun, comprising a barrel or body, an elastic structure connected with one end portion of the body, a stop on the other end portion of the body, a keeper for holding the elastic structure engaged with the stop, devices for actuating the keeper, the said actuating devices comprising a trigger-arm connected with the keeper, a trigger releasably holding the trigger-arm, and a spring connected with the parts and tending to release the keeper.

6. A spring-gun, comprising a barrel or body, an elastic structure connected with one end portion of the body, a stop on the other end portion of the body, a keeper for holding the elastic structure engaged with the stop, devices for actuating the keeper, the said actuating device comprising a trigger-arm, a link connecting said arm with the keeper, a spring tending to release the keeper, and a trigger releasably engaging the trigger-arm.

7. A spring-gun, comprising a barrel or body, an elastic structure connected with one end portion of the body, a stop on the other end portion of the body, a keeper for holding the elastic structure engaged with the stop, devices for actuating the keeper, the said actuating device comprising a trigger-arm, a link connecting said arm with the keeper, a spring tending to release the keeper, and a trigger releasably engaging the trigger-arm, the trigger-arm having a rounding end terminating in a square portion and the trigger having a hook coacting with the rounding end and square portion of the trigger.

8. A spring-gun, having a body part with a cavity therein, an elastic structure connected with the body part, casing-plates fitted in the cavity in the body to form a chamber between them, and means for releasably holding the elastic structure, said means including the inverted channel-iron keeper arranged on the top edges of the casing-plates, and the actuating devices arranged within said chamber.

9. A spring-gun having a body, an elastic structure, means for releasably holding said structure and actuating devices for said means, the actuating devices comprising a trigger-arm, a connection between the trigger-arm and the said holding means, a trigger working with the trigger-arm, and a spring actuating the parts normally to release the holding means.

10. A spring-gun having a body, an elastic structure, means for releasably holding said structure and actuating devices for said means, the actuating devices comprising a trigger-arm, a connection between the trigger-arm and the said holding means, a trigger working with the trigger-arm, and a spring actuating the parts normally to release the holding means, the trigger-arm having a rounding surface terminating in a square portion, and the trigger having a hook coacting with said rounding surface and square part of the trigger-arm.

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

WILLIAM HENRY PEASE.

Witnesses:

H. O. WILLIAMS,

CHAS. G. PEARCE.