

No. 745,657.

PATENTED DEC. 1, 1903.

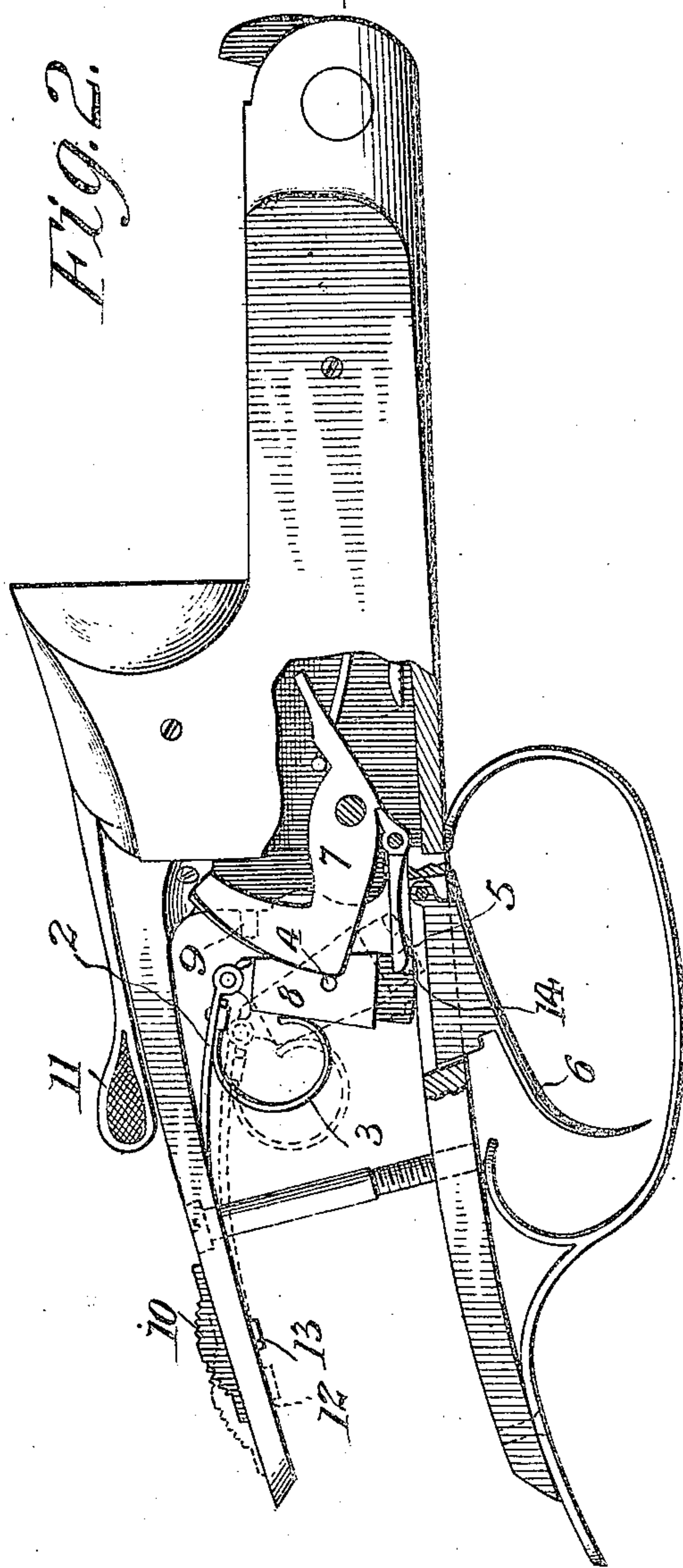
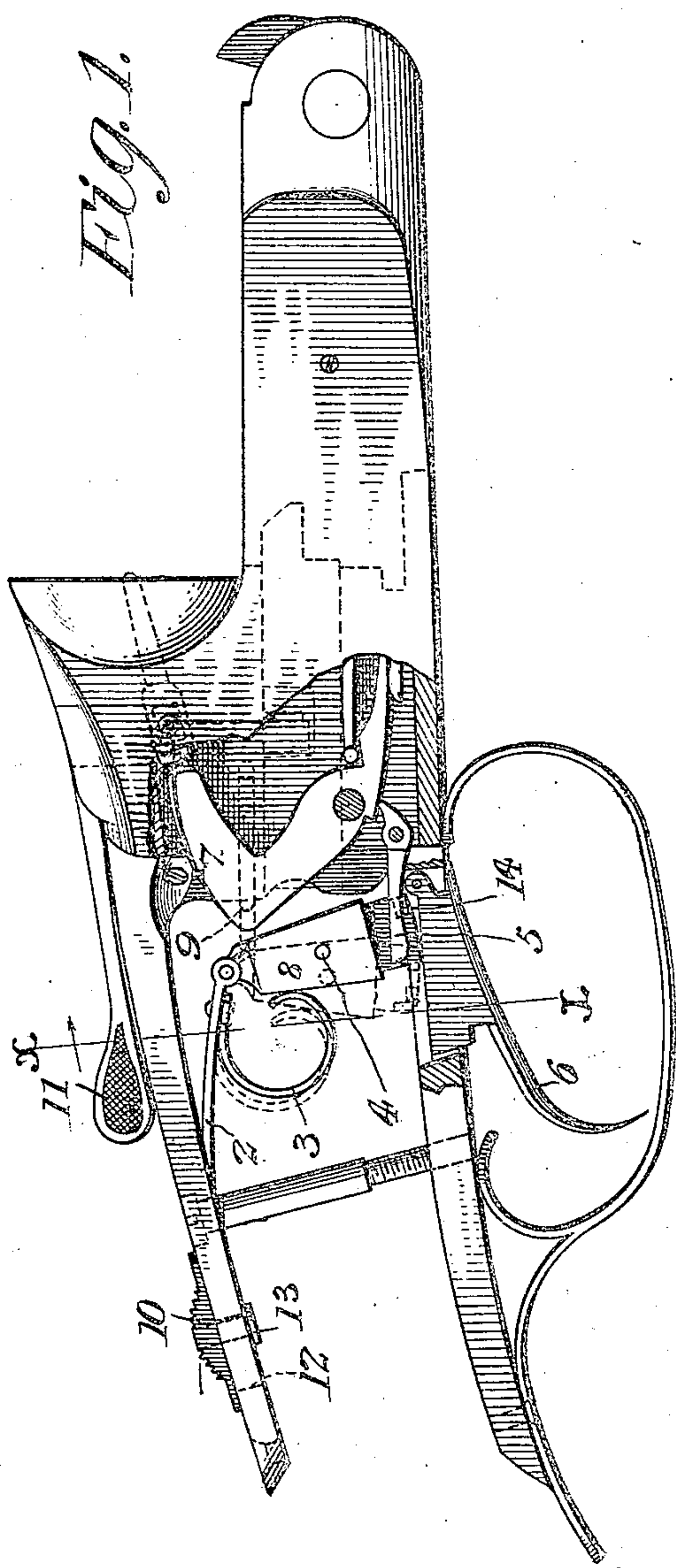
O. H. PEAK.

SINGLE TRIGGER MECHANISM FOR DOUBLE BARREL GUNS.

APPLICATION FILED FEB. 3, 1903.

NO. MODEL.

2 SHEETS—SHEET 1.



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PATENTED DEC. 1, 1903.

SINGLE TRIGGER MECHANISM FOR DOUBLE BARREL GUNS.

2 SHEETS—SHEET 2.

NO MODEL.

Fig. 3.

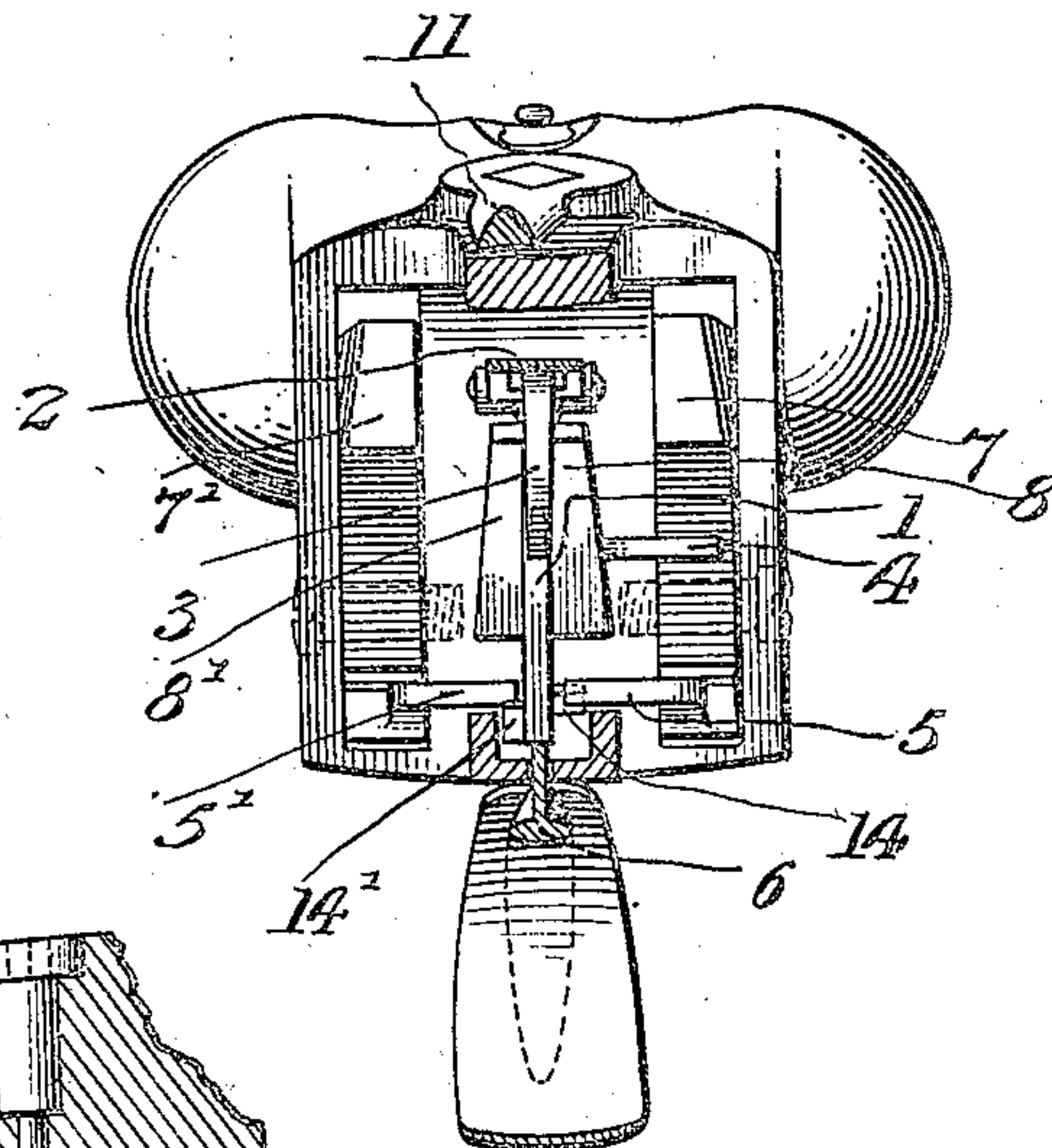


Fig. 6.

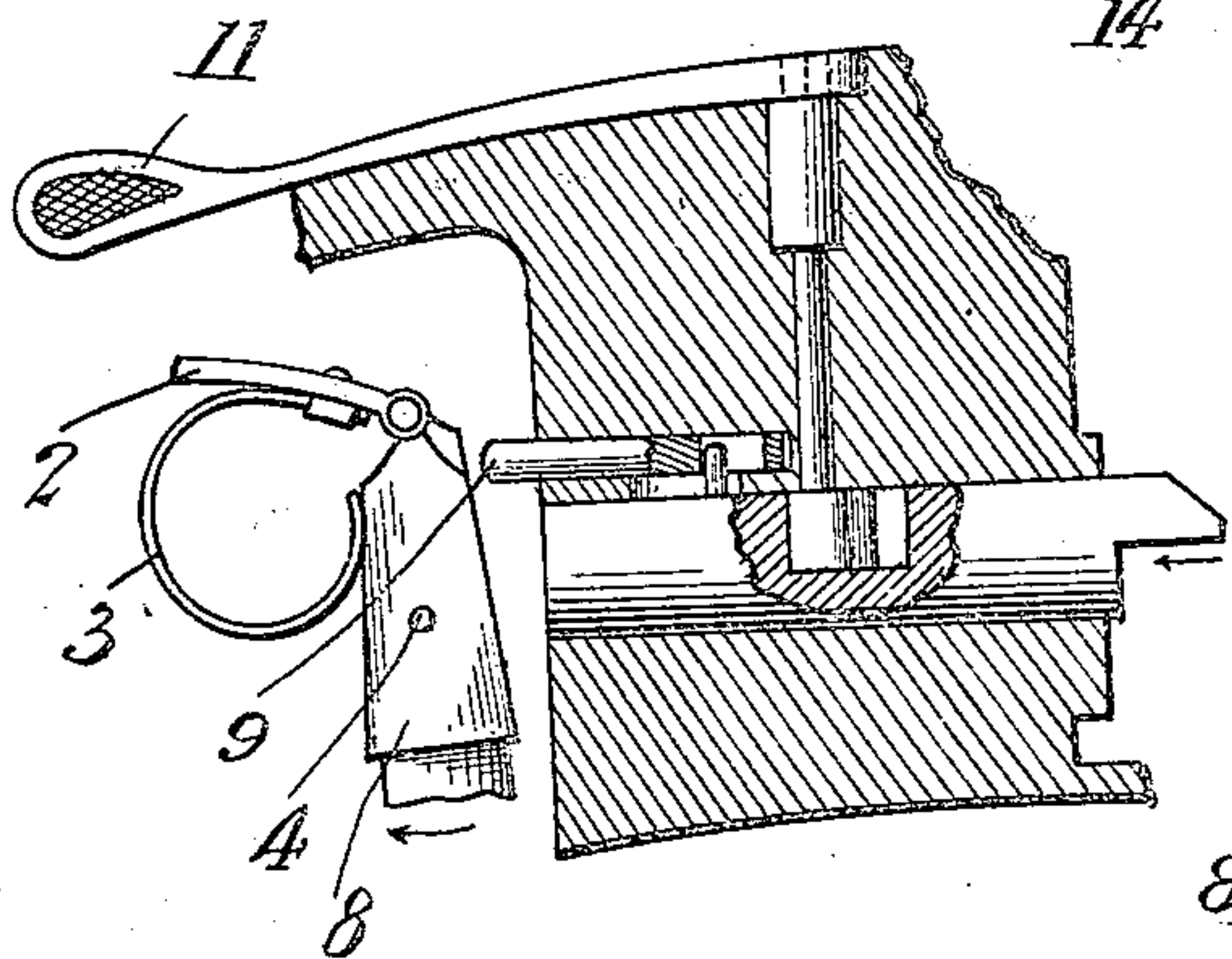


Fig. 4.

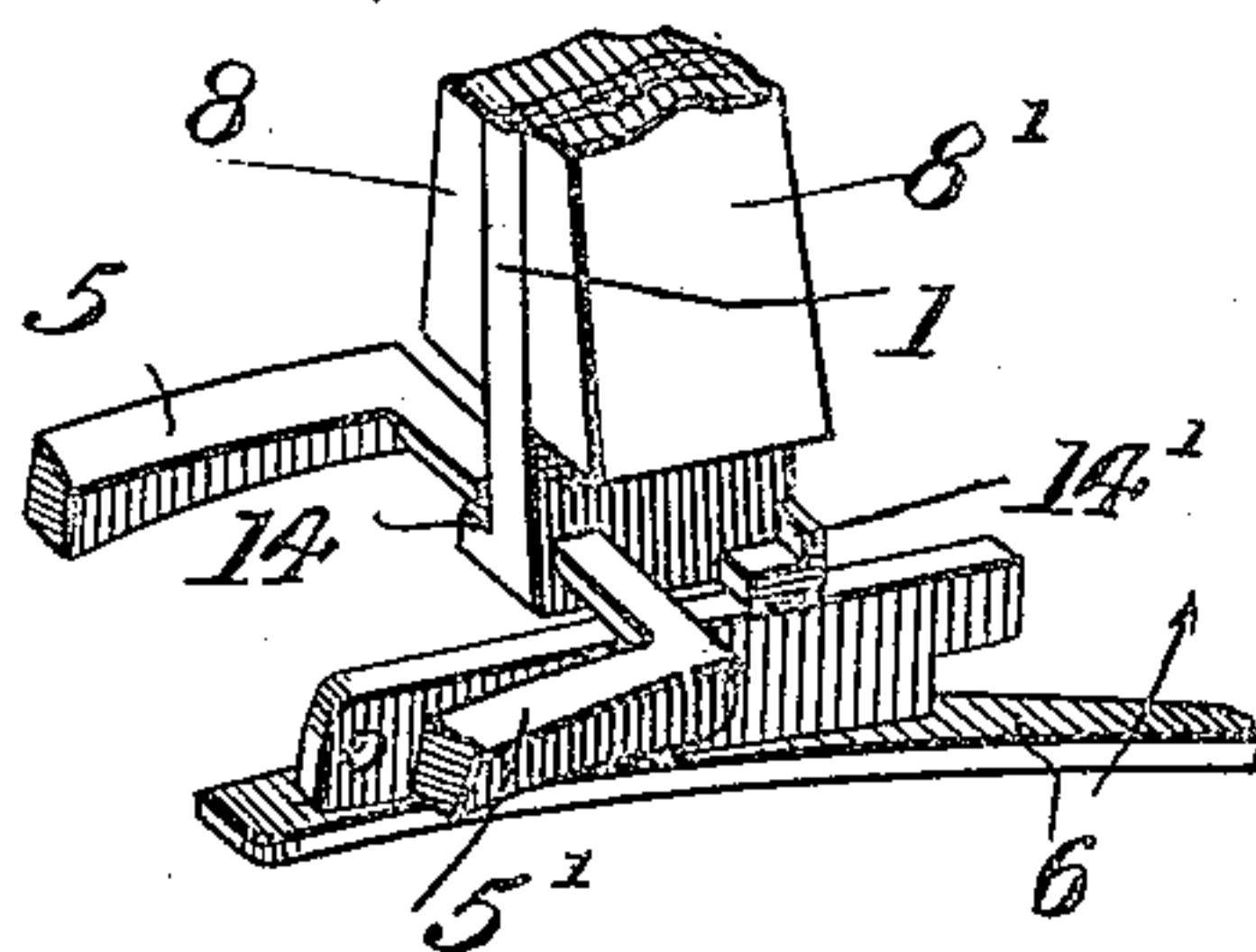
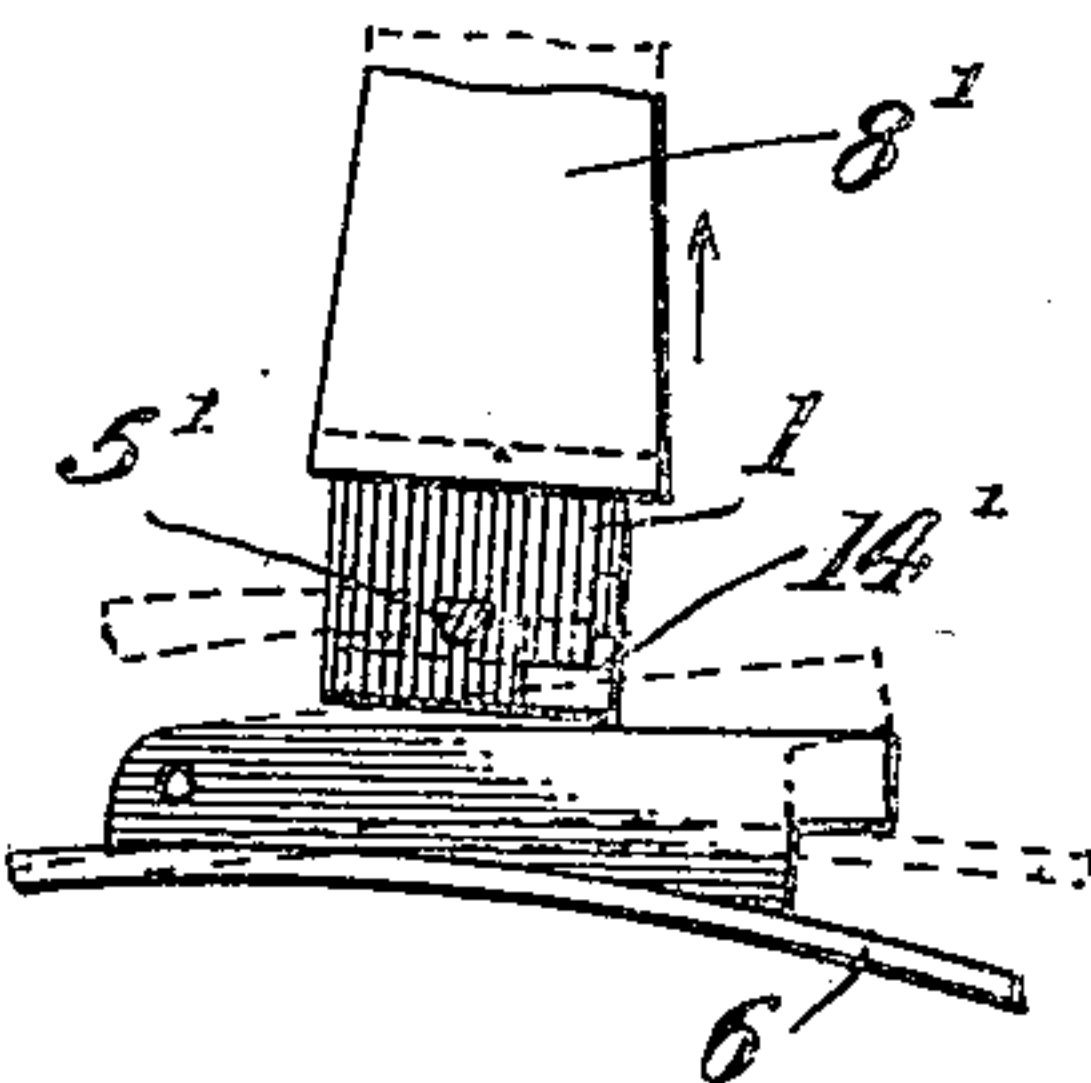


Fig. 5.



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UNITED STATES PATENT OFFICE.

ORIN H. PEAK, OF PARSONS, KANSAS.

SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS.

SPECIFICATION forming part of Letters Patent No. 745,657, dated December 1, 1903.

Application filed February 3, 1903. Serial No. 141,735. (No model.)

To all whom it may concern:

Be it known that I, ORIN H. PEAK, a citizen of the United States, residing at Parsons, in the county of Labette and State of Kansas, have invented a new and useful Single Trigger for Double-Barrel Shotguns, of which the following is a specification.

My invention relates to single-trigger mechanisms for double-barrel firearms; and it consists in the construction and combination of parts hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a view in side elevation of the locks of a double-barrel hammerless gun provided with a single-trigger mechanism constructed in accordance with my invention, parts of the frame of the locks being broken away to show the relations of the working parts of the locks. In this view the plungers are shown in the position assumed when both barrels of the gun have been fired, and the sear-actuator is shown in solid lines in the position which it takes when both barrels have been fired, while in dotted lines it is shown in the position which it takes when the gun is broken for reloading. Fig. 2 is a view in side elevation showing the hammers cocked and showing in dotted lines the position of the sear-actuator when the shifter-button is moved rearward. Fig. 3 is a transverse section along the line X X of Fig. 1. Fig. 4 is a detail view showing, on a larger scale, in perspective the relation of the sear-actuator to the sears when the parts of the mechanism are in the position shown in solid lines in Fig. 2. Fig. 5 is a detail view, in side elevation, showing the position of safety taken by the sear-actuator when the shifter-button 10 lies midway between its extreme forward and rearward positions. Fig. 6 is a detail view in section showing the construction of the pin by means of which the sear-actuator is moved backward when the gun is broken.

The objects of my invention are, first, to produce a single-trigger mechanism for double-barrel guns by means of which the gunner will be enabled to use the two barrels alternately, using either one first, as he may desire, or use either barrel; second, to simplify the construction of single-trigger mechanisms and reduce the number of parts, and, third,

to obviate completely all danger of firing the second barrel prematurely.

Referring to the drawings, 1 represents a plate of steel made in the shape of a truncated triangle and having its apex directed upward, which I call the "reverser." The sear-actuator 1 is pivotally mounted at the end of a flat piece of steel 2 and is normally thrown forward by means of a spring 3, which may be formed of wire and provided with one or more coils, or may, as shown, consist of a bent leaf.

4 represents a steel pin rigidly mounted in the sear-actuator 1 and extending through two weights 8 8', which are mounted, one on each side, on the reverser 1. Upon the right the pin 4 extends far enough beyond the weight 8 to lie behind the hammer or tumbler 7, by which it is adapted to be engaged when the hammer is cocked by "breaking" the gun.

5 5' are sears of the ordinary form and are provided with suitable sear-springs. (Not shown.)

6 is the trigger, which is mounted immediately below the sear-actuator 1 and is to be normally depressed by means of the usual spring. (Not shown.)

7 7' are the two hammers or tumblers, which are of the usual construction.

8 8' are weights, preferably of lead, secured to the sear-actuator 1, whose function will be hereinafter explained.

9 is a pin slidably mounted in a way provided in the lock-frame between the two plungers and operated by means of the snap-lever 11 on top of the gun.

10 is a small plate or button mounted on top of the gun to the rear of the snap-lever 11, and having a short to-and-fro movement, which is limited by the length of a slot 12, through which passes the pin 13, which connects the steel strip 2 with the button 10.

Upon the right-hand side of the sear-actuator 1 I provide at the lower forward corner the small lug 14; and upon the left-hand side at the lower rear corner I provide a small lug 14', whose purpose will afterward appear. The lug 14' is made, preferably, in the form of a right angle, as shown, and the vertical portion of the right angle serves as a stop, as will presently be explained.

The operation of my single-trigger mechanism is as follows: Let it be assumed that the parts are in the position shown in Fig. 1, the hammers being down and the sear-actuator thrown forward. In order to cock the hammers, the gun is broken in the usual way by swinging the snap-lever 11 to the right with the thumb and forcing the muzzle of the barrels downward. When the snap-lever is swung to the right to break the gun, the pin 9 is forced backward against the sear-actuator 1, which is carried back to the position shown in Fig. 2, and the pin 4 is thus moved far enough back to allow the hammer 7 to clear it when the hammer is brought to a full-cock, as shown in Fig. 2. The gun is now loaded and the breech closed. The snap-lever 11 swings back to its normal position and the pin 9 is free to move forward when struck by the sear-actuator 1. Let it be assumed that it is desired to fire the right barrel first. This is accomplished by merely pulling the trigger 6 when the parts are in position shown in Fig. 2. The lug 14 is then immediately under the lug at the end of the sear 5, and when the trigger is pulled the sear-actuator 1 is carried up against the downward pressure of the strip of steel 2, carrying the lug 14 with it, and by the engagement of said lug 14 with the lug at the end of the sear 5 the sear is lifted and the hammer 7 released. As the hammer 7 goes forward the extension of the pin 4, which had been in engagement with the hammer, is released and the spring 3 forces the sear-actuator 1 forward until the vertical portion of the lug 14' contacts with the end of the sear 5'. The horizontal portion of the lug 14' then lies immediately under the lug at the end of the sear 5', and when the trigger is again pulled the resulting upward movement of the sear-actuator 1 and lug 14' causes the lifting of the sear 5' and the release of the hammer 7', which fires the left barrel of the gun.

If it is desired to fire the left barrel before the right, the button 10 is moved backward with the thumb to the end of its slot. This draws the upper end of the sear-actuator 1 backward to the position shown in dotted lines in Fig. 2, and as the pin 4 is held in contact with the hammer 7 by the action of the spring 3 it forms a pivot on which the reverser is swung. Consequently the lower end of the reverser swings forward, as shown in dotted lines in Fig. 2, until the lug 14 is no longer in position to engage the sear 5, but instead the lug 14' is brought into position to engage the sear 5'. When the parts are in this position, it is obvious that a pull upon the trigger will fire the left barrel.

From the two foregoing paragraphs it will be seen that if the button 10 is forward a pull upon the trigger when both hammers are cocked will fire the right barrel and when the button 10 is pushed back a pull on the trigger will fire the left barrel. The gunner, therefore, is enabled to fire either barrel at

will, and if he desires to use either barrel exclusively it is only necessary after firing to break the gun, which will cock the hammer of the barrel which had been fired, thus putting both hammers in condition for firing, as they were before. If after discharging the left barrel first the gunner desires to fire the right barrel, the parts will be thrown into proper position by merely pushing the button 10 forward. As the hammer 7 is still cocked, the pin 4 lying in contact therewith forms a pivot on which the sear-actuator turns from the position shown in dotted lines in Fig. 2 into that shown in full lines and the lug 14 is brought into position to engage the sear 5'.

It is well known to gunners generally that owing to a spasmodic action of muscles there is after each discharge of the gun an involuntary second pull upon the trigger. This pull is made unconsciously, and it seems practically impossible by effort of will to avoid it, and if provision is not made to prevent such an occurrence this involuntary pull will cause the discharge of the second barrel in a double-barrel gun of the single-trigger type. In my trigger mechanism this involuntary discharge of the second barrel is completely obviated in the following manner: After the discharge of the right barrel of the gun there is a recoil of the gun against the shoulder of the gunner, which is followed immediately by a forward movement of the gun due to the elasticity of the tissues of the gunner's shoulder. During the recoil the inertia of the sear-actuator supplemented by that of the weights attached thereto causes the sear-actuator to move forward so that the lug 14' lies beneath the lug at the end of the sear 5', and if the involuntary pull upon the trigger occurred during the recoil the left barrel of the gun might accidentally be discharged thereby. When the forward movement of the gun due to its rebound from the shoulder of the gunner occurs, the inertia of the sear-actuator supplemented by that of the weights attached thereto causes it to swing back slightly, so that the lug 14' is carried from beneath the lug at the end of sear 5', and the involuntary pull upon the trigger which now occurs cannot cause the discharge of the left barrel of the gun, because the upward movement of the sear-actuator resulting from a pull on the trigger at this time cannot affect the position of sear 5'. If the weights 8 8' were not attached to the sear-actuator, its inertia would not be sufficient to cause it to swing backward upon the rebound of the gun with sufficient momentum to overcome the pressure exerted upon it by the spring 3 at the rear thereof; but by providing the weights 8 8' and making them sufficiently heavy the pressure of spring 3 is effectively overcome at the proper time and the involuntary pull upon the trigger which always follows the discharge of one barrel of the gun is made ineffective upon the remaining barrel. When the left barrel is fired first, there is no danger of accidental

discharge of the right barrel, for the reason that the lug 14 is too far forward to engage the lug on the sear 5.

The use of the weights 8 8' to prevent premature firing of the left barrel of the gun after firing the right barrel is of especial value, because there is no mechanism which can possibly get out of order and the action of the weights is absolutely positive and automatic.

The lugs provided at the ends of the sears 5 and 5' are made small to permit the adjustment of the sear-actuator to a position of safety, as shown in Fig. 5, this adjustment being obtained by setting the shifter-button 10 at a point midway between its extreme forward and rearward position. As will be seen from an inspection of Fig. 5, when the sear-actuator is in this position the lug 14 is too far forward to engage the lug on the sear 5, and the lug 14' is not far enough forward to engage the lug on the end of the sear 5'. Consequently any pull upon the trigger when the sear-actuator is in this position will not cause the discharge of either barrel of the gun, because the upward movement of the reverser which would result from a pull upon the trigger does not bring either the lug 14 or the lug 14' into contact with the sear which it is adapted to operate.

Having now fully described the construction and operation of my improved single-trigger mechanism for double-barrel firearms, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the hammers, sears, and controlling-springs of a plurality of gun-locks of a single trigger, a spring above said trigger, a movable member carrying a lug for each sear pivotally mounted on said spring and adapted to be operated by the trigger, and means whereby the movable member is automatically shifted after the discharge of one barrel to a position in which it may become operative to discharge another.

2. The combination with the hammers, sears, and controlling-springs of a plurality of gun-locks of a single trigger, a movable member carrying a lug for each sear and adapted to be operated by the trigger, a spring on which said movable member is pivotally mounted and a second spring attached

to the first-mentioned spring and adapted to shift said movable member automatically after firing one barrel to the position for firing another.

3. The combination with the hammers, sears, and controlling-springs of a plurality of gun-locks, of a single trigger, a movable member provided with a lug for each sear and adapted to be operated by the trigger, and means whereby the movable member may be placed in position for firing any one of the barrels, or in position such that none of said barrels can be discharged.

4. The combination with the hammers, sears, and controlling-springs of a plurality of gun-locks, of a single trigger, a movable member provided with a lug for each sear and adapted to be operated by the trigger, a sliding support upon which the movable member is mounted, and means for sliding said support to shift the position of the movable member to enable the gunner to fire any barrel at will.

5. The combination with the hammers, sears, and controlling-springs, of a plurality of gun-locks, of a single trigger, a pivoted member provided with a lug for each sear and adapted to be operated by the trigger, a pin rigidly mounted on said movable member, and adapted to engage with one of the hammers, when it is cocked, and prevent the forward movement of the movable member, and a spring which tends to force the movable member forward.

6. The combination with the hammers, sears, and controlling-springs of a plurality of gun-locks, of a single trigger, a movable member provided with a lug for each sear and adapted to be operated by said trigger, a slidable member upon which said movable member is pivoted, a pin projecting laterally from said movable member and adapted to contact with one of said hammers and form a pivot on which said movable member may be swung by sliding the support upon which said movable member is hung.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ORIN H. PEAK.

Witnesses:

C. H. HOWLETT,
H. L. BENEDICT.