

No Model.)

2 Sheets—Sheet 1

J. TURNER.

BREECH LOADING FIRE ARM.

No. 321,923

Patented July 7, 1885.

Fig. 1.

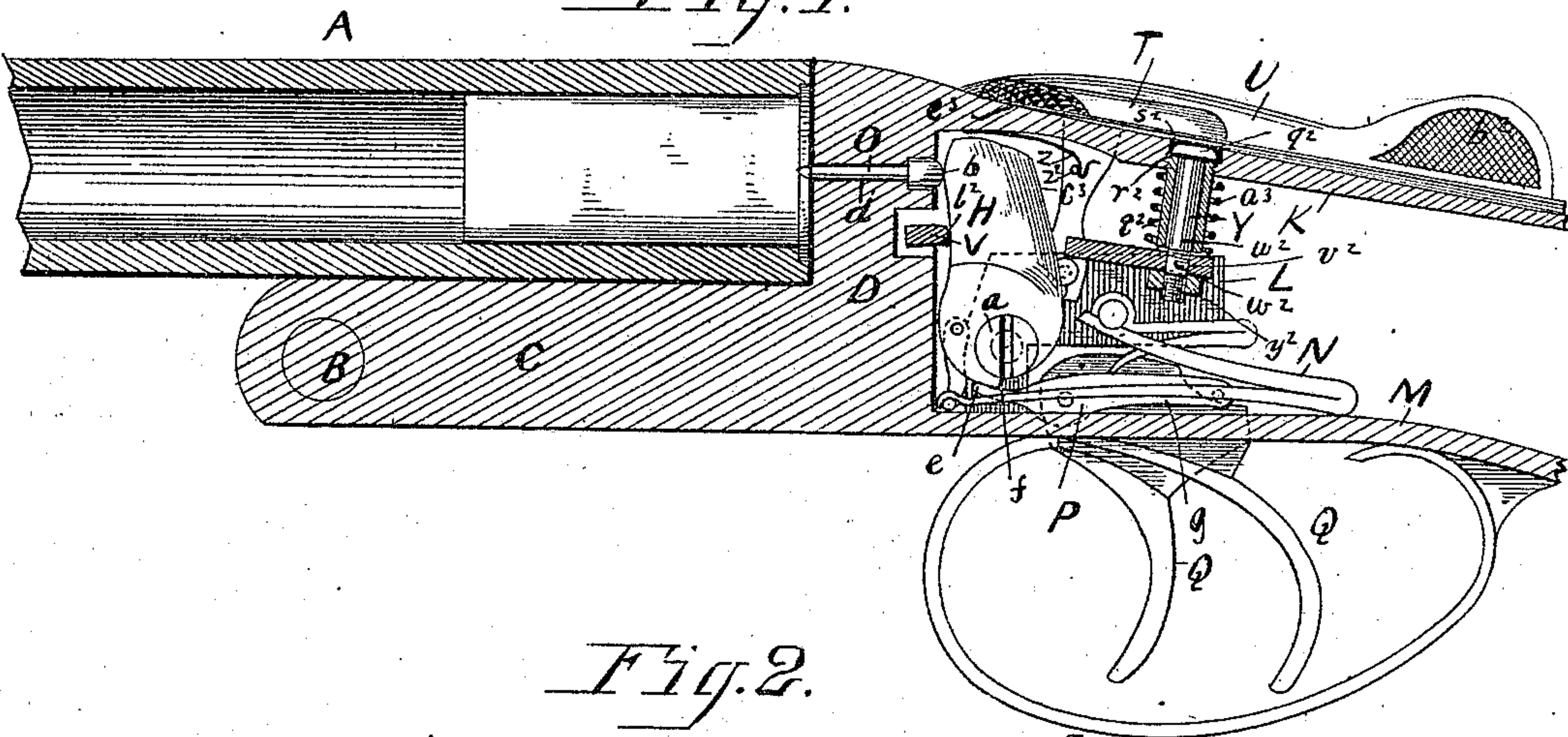


Fig. 2.

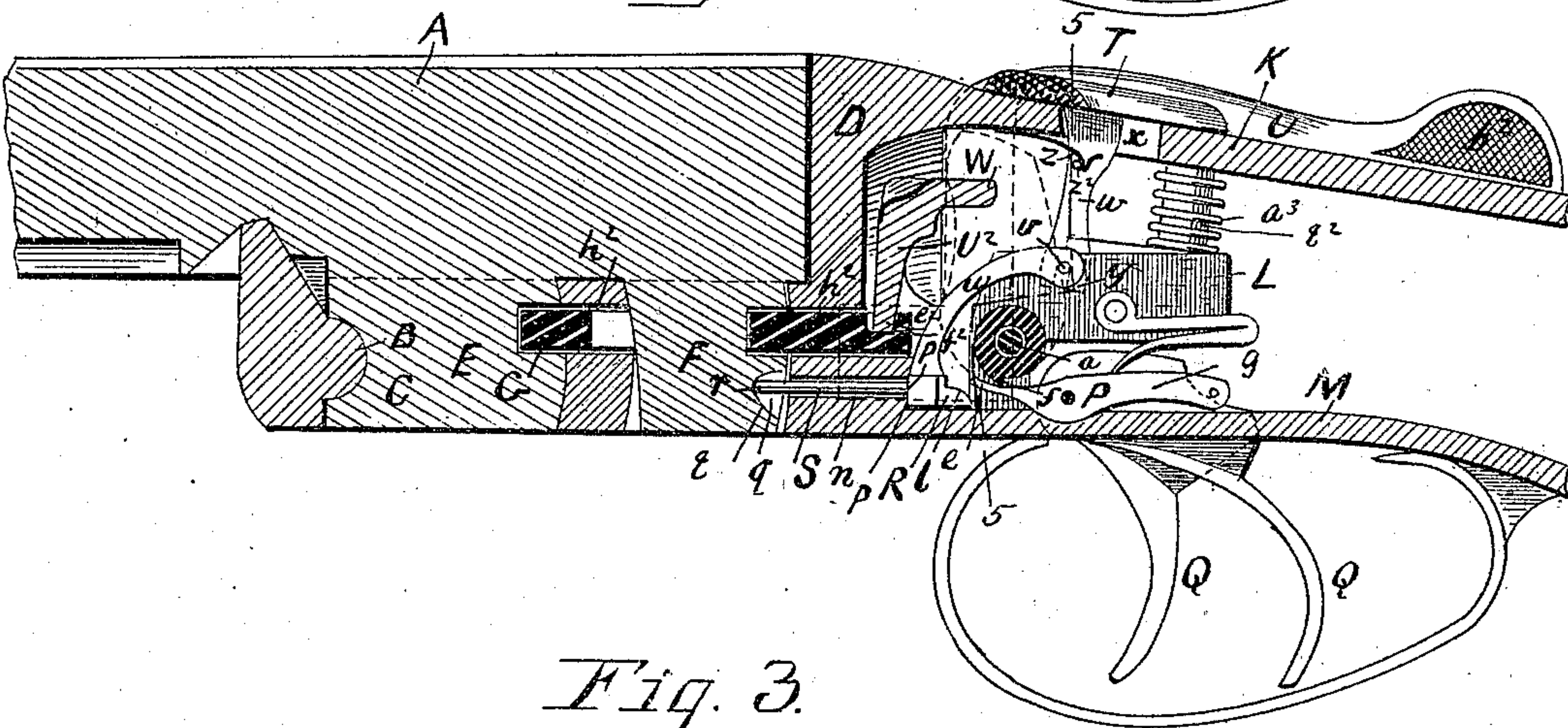
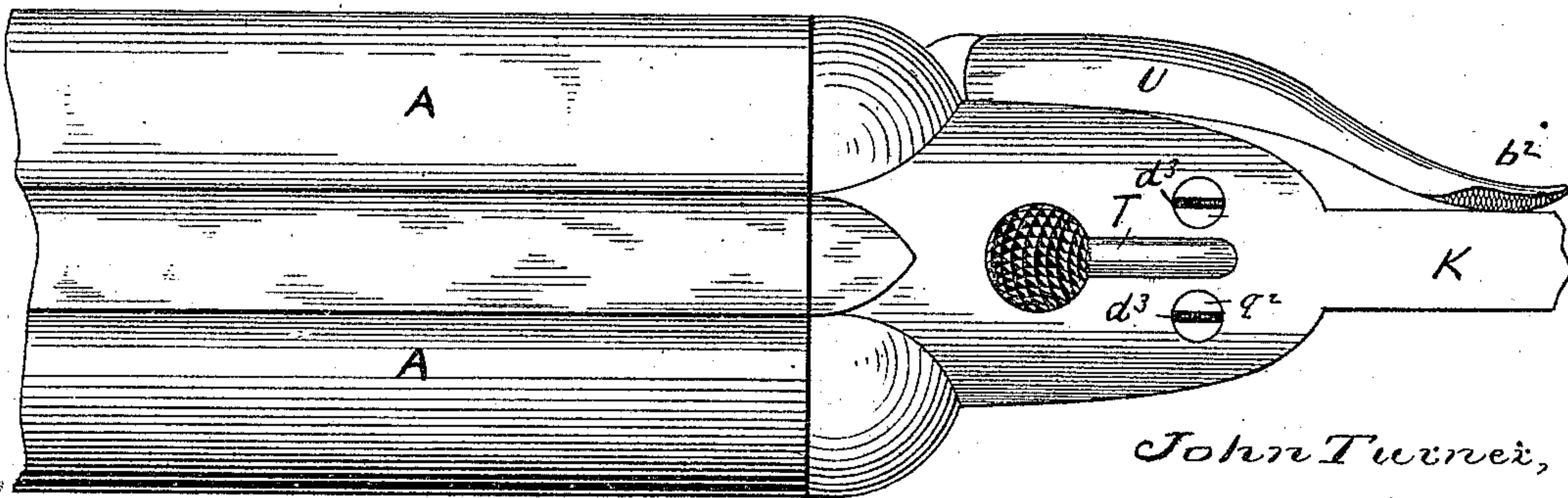


Fig. 3.



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(No Model.)

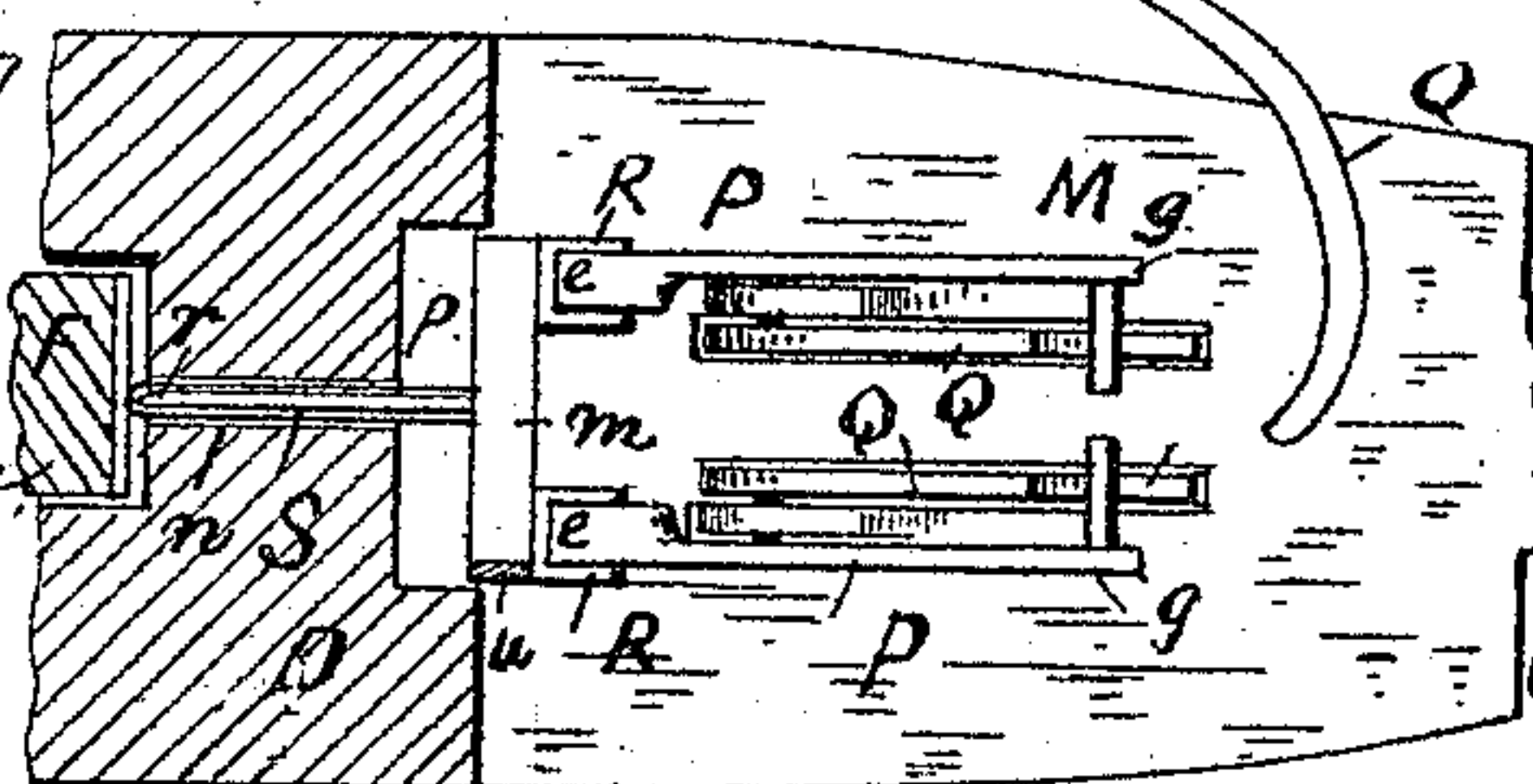
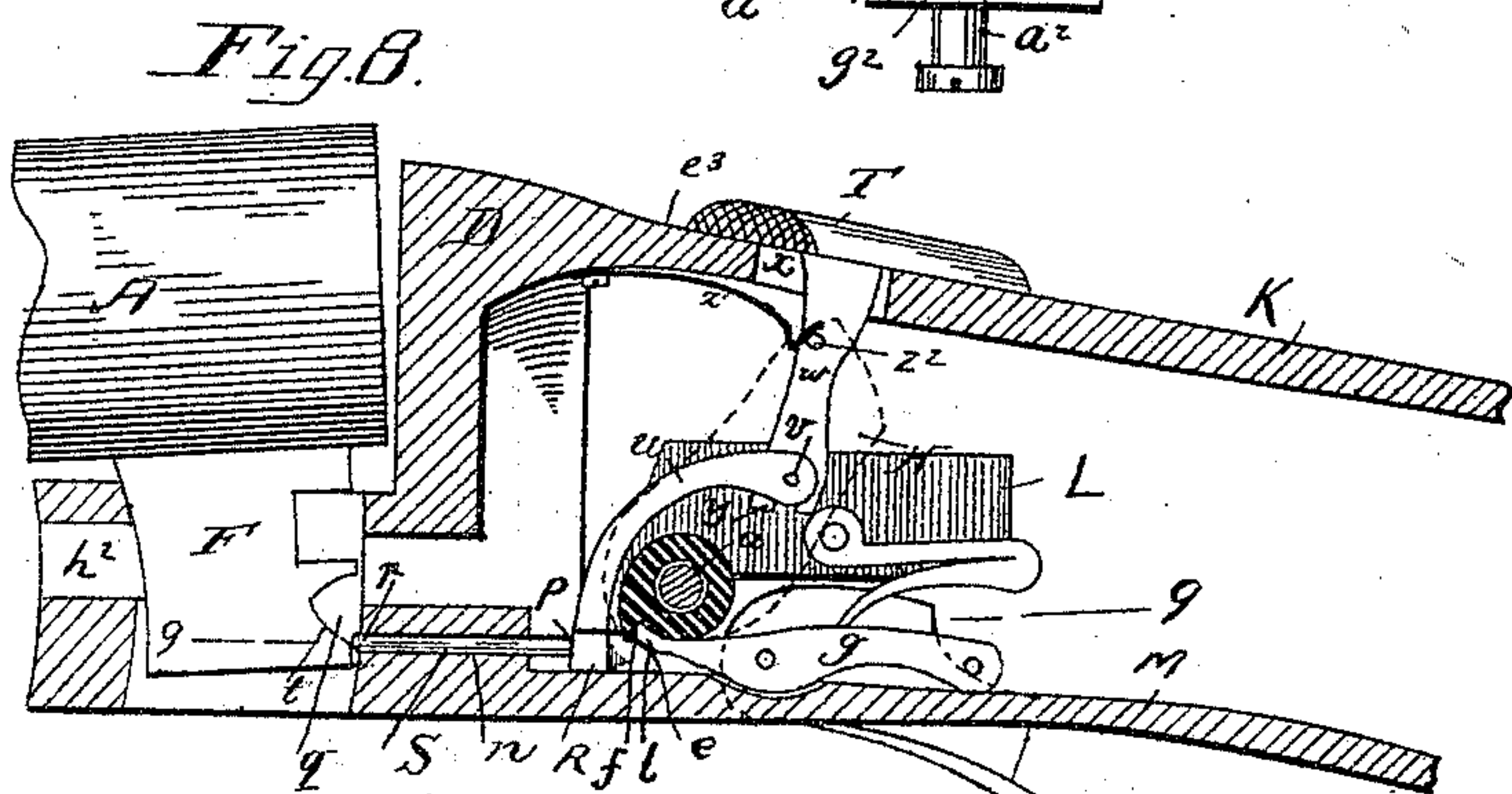
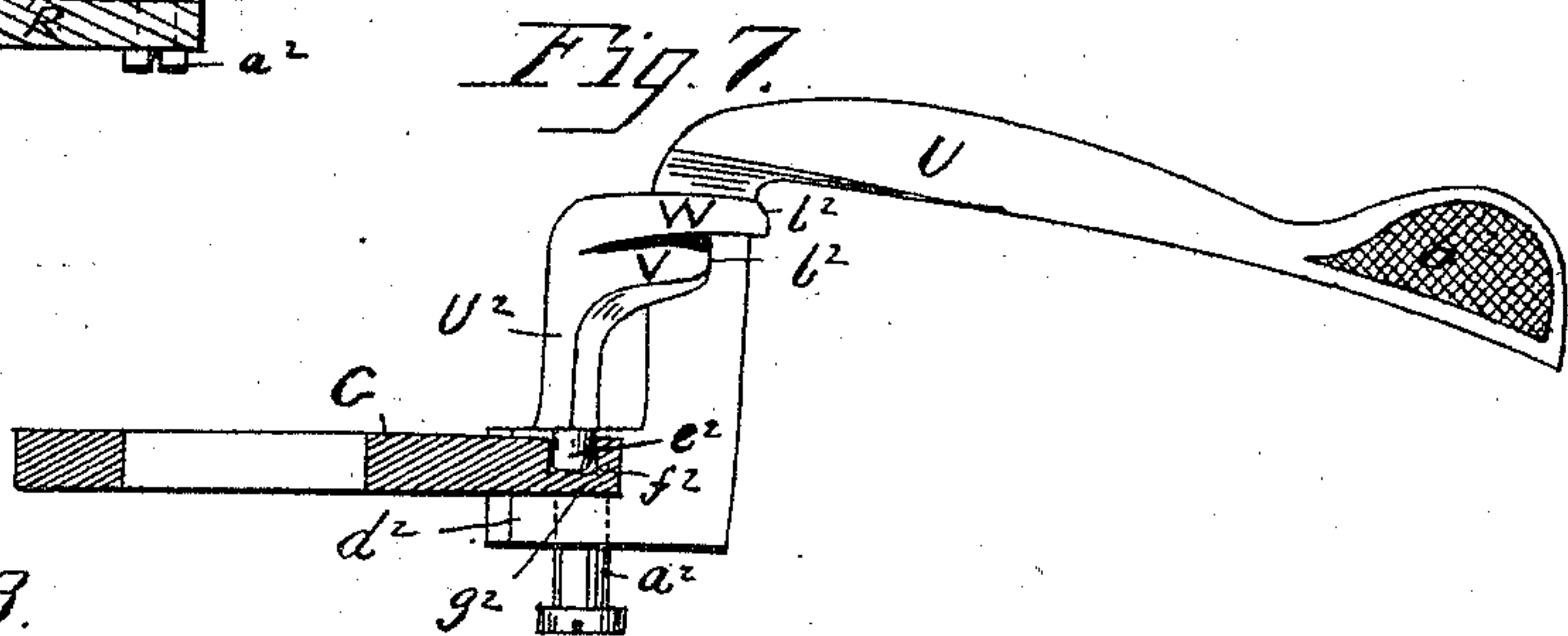
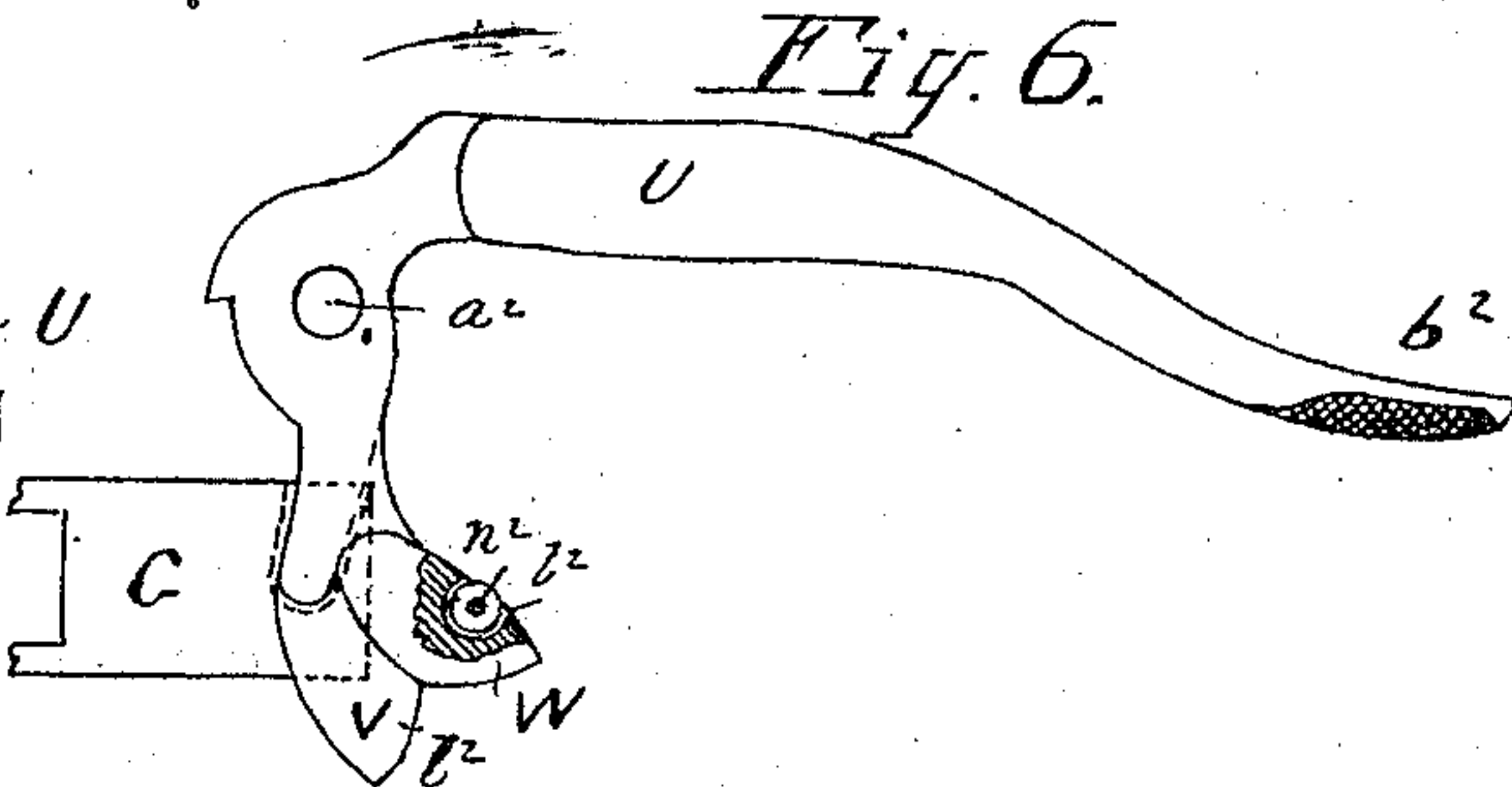
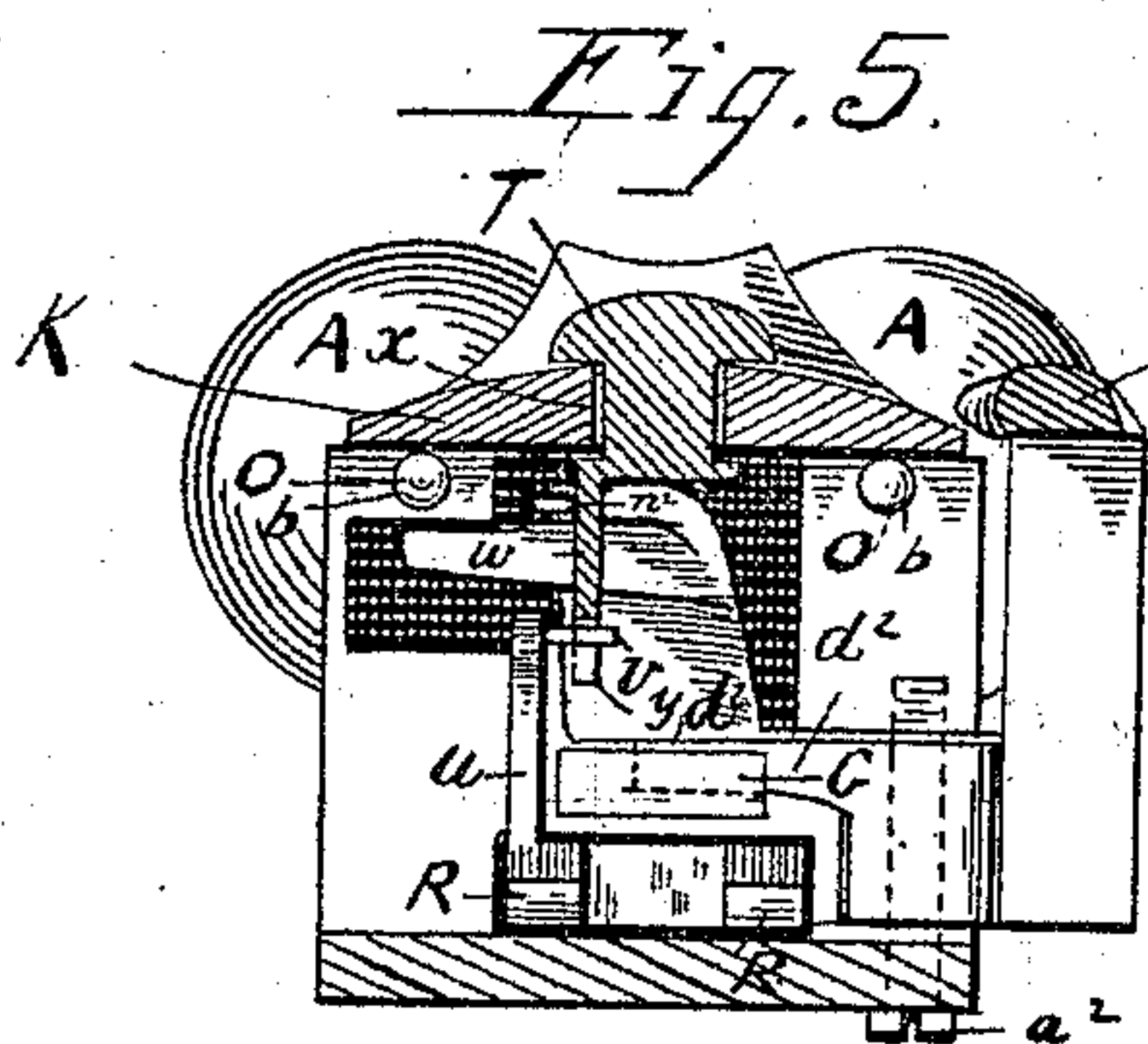
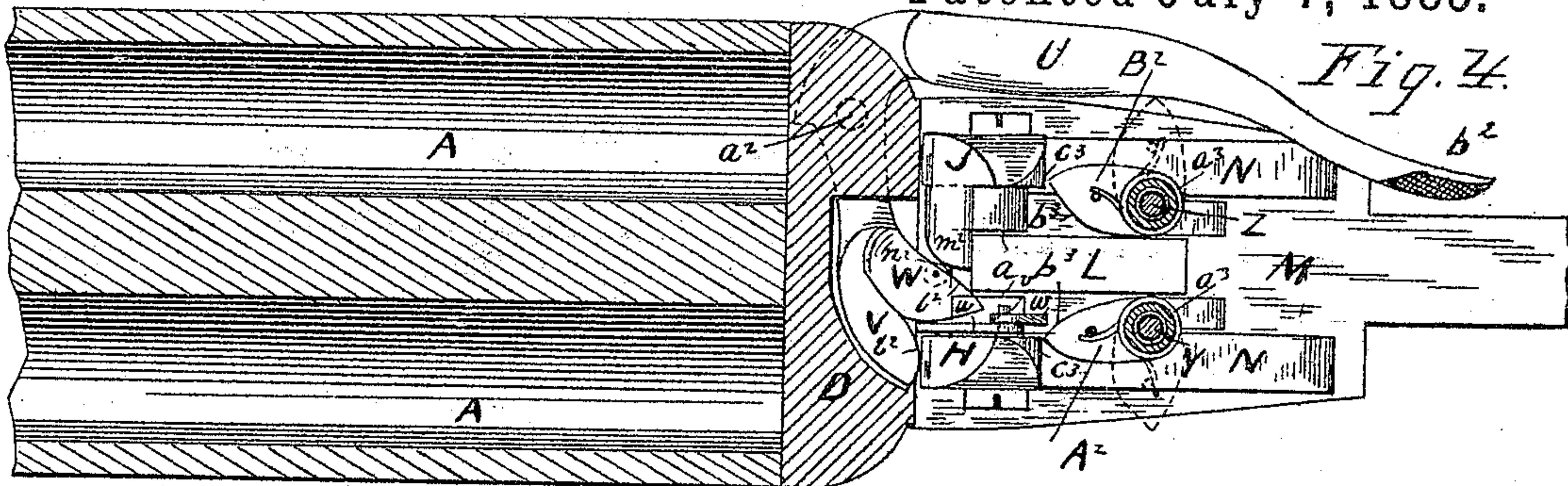
2 Sheets—Sheet 2.

J. TURNER.

BREECH LOADING FIRE ARM.

No. 321,923.

Patented July 7, 1885.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN TURNER, OF BOSTON, MASSACHUSETTS.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 321,923, dated July 7, 1885.

Application filed August 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN TURNER, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a full, clear, and exact description.

This invention relates to breech-loading hammerless guns; and it consists in combination, with the barrel or barrels of a breech-loading gun, of mechanism constructed and arranged to operate in connection with and by the movement of the barrel in opening the gun to interlock with the sear to prevent its escape from its engagement with its hammer, and thus the accidental discharge of the gun.

It also consists in providing the lever which operates the bolt of the gun with a suitable cam or cams to act upon the hammer to move it into position of cock when unbolting the gun.

It also consists in providing a device visible on the outside of the gun, that is arranged to swivel or turn in a suitable socket in the frame of the gun from the hammer as it is moved into its cocked position or discharged, so as to indicate on the outside of the gun whether the hammer is cocked or not; and it also consists of other arrangements of parts in connection therewith, all substantially as hereinafter fully described.

In the accompanying plates of drawings is illustrated a double-barreled breech-loading gun having this invention applied thereto.

In Sheet 1, Figures 1 and 2 are detail longitudinal vertical sections on different lines, showing the operating mechanism in side view; Fig. 3, a detail plan view. In Sheet 2, Fig. 4 is a horizontal section and partial plan view of some of the operating parts. Fig. 5 is a cross-section on line 5 5, Fig. 2, with some parts removed; Figs. 6 and 7, detail views, to be hereinafter referred to. Fig. 8 is a detail longitudinal vertical section; and Fig. 9, a detail horizontal section, substantially on line 9 9, Fig. 8.

In the drawings, A A represent two barrels, pivoted at B to the fore end, C, of the breech-block D, having lugs E and F, adapted to be locked to the breech-block by the bolt G.

H and J are two hammers, one to each bar-

rel, arranged below the tang K, and pivoted at a to and one each side of a central upward projection, L, of the trigger-plate M, each having a spring, N, and arranged to strike against the head b of a plunger, O, adapted to slide horizontally in an opening, d, in the breech-block D, to act upon the cartridge to fire the same.

P P are two sears, one to each hammer, and pivoted to the upright L, one on each side, and each arranged to engage by its end e with a notch, f, in its respective hammer, the other ends, g, being in position for operation thereon, each by its respective trigger, Q, all substantially as usual in breech-loading hammerless guns, and needing no particular description herein, except so far as they are connected with the present invention.

R R are two blocks, each beveled on its upper side, l, connected together at m, and having a common rod or arm, S, which extends through and is arranged to freely slide back and forth in an opening, n, in the breech-block. Each of these blocks R is in line or in the same vertical plane with a sear, P, and they are so arranged that, being moved backward from their position, as shown in Fig. 2, their wedge-shaped ends l will pass under the end e of its sear and wedge between it and the trigger-plate M, and if the sears are interlocked with their respective hammers their escape therefrom is prevented, and thus the accidental discharge of the gun; but with the blocks moved back until their shoulder p abuts against the inner face of the block, each sear is free to be moved from engagement with its hammer, as usual. The blocks R are arranged to be operated, preferably, by the movement of the barrels when swinging them down, and this is accomplished as follows:

In the end of the lug F of the barrels is an opening, q, into which the end r of the rod or arm S of blocks R projects when the blocks are disengaged from their interlock with the sears. This opening q has an inclined face, t, against which the end of arm S bears, and by which incline, as the barrels are swung down to open the gun, the blocks will be pressed backward to and under their sears, where they will remain until removed by other means, which are provided.

Attached to one of the blocks R is an arm,

u , extending upward and backward, and having a cross-pin, v .

T is a thumb-piece on the top surface of the tang K, and having an arm, w , which projects downwardly through a longitudinal slot, x , in the tang, and by its forked end y engages with the cross-pin v of the arm u of block R. With the blocks R in their normal position or disengaged from their sears the thumb-piece T is forward and its arm w at the forward end of the slot x ; but as the blocks R are moved back to lock the sears in opening the barrels A through its arm u , connecting with the arm w of the thumb-piece T, the thumb-piece will be moved back correspondingly, indicating on the outside of the gun that each block is under its respective sear, and with the hammers cocked that the hammers are prevented from being accidentally discharged, and thus the gun is in a safe condition. To hold the thumb-piece from accidental movement a spring, z , secured to the under side of the tang by its free end, bears on a pin, z^2 , on the arm w of the thumb-piece. To release the sears from such interlock, so the gun can be discharged, press with the thumb the thumb-piece T forward, which, through its connection with the blocks, will move the blocks back, disengaging them from the sears, and thus leaving them free to operate in the discharge of the gun.

U is a lever pivoted at a^2 in an opening in the block D, and extending outward therefrom sidewise, then upward at the side of the breech, and thence backward, substantially at the side, into convenient position for use at its end b^2 by the persons using the gun. Its arm d^2 , beyond its pivot, extends horizontally into the frame or block, and by a pin, e^2 , extending downward therefrom into a slot, f^2 , in the inner end, g^2 , of the bolt G, which is arranged to slide, as usual, in a groove, h^2 , so that swinging the lever by its end b^2 outward from the gun through the connection of its arm d^2 moves the bolt backward and unlocks it from its engagement with the lugs, so that then the barrels can be swung down. A vertical arm, U^2 , from the portion d^2 of the lever U has two horizontally-projecting cams, V and W. The cam V by its edge l^2 is in position to bear against the hammer H, and the cam W by its edge l^2 is in position to bear against a lateral projection, m^2 , on the hammer J. As the lever is swung outward to unlock the gun the cams V and W are moved in a direction to and against the hammers, moving them back into position for the sears to engage therewith to hold them in a cocked position.

To prevent friction of the cam W on the hammer J, the cam is provided with a friction-roller, n^2 .

Y Z are two pins, each having a head, q^2 , and arranged to turn in its respective socket r^2 in the tang K, its head lying within an enlarged socket, s^2 , in the tang, to be substantially flush with the upper surface of the tang.

t^2 is a sleeve extending downward, one each side of the projection L, and rigidly attached to the under side of the tang K, and forming by its central opening, u^2 , a continuation or extension of the opening r^2 in the tang. The lower end of each pin Y Z extends below its sleeve t^2 , and has attached to it, respectively, horizontal cams $A^2 B^2$, each projecting toward the hammer. Each of these cams is attached to its respective pin by a square socket, v^2 , into which a squared portion, w^2 , of the pin Y Z projects, and having a screw-nut, y^2 , on its outer end, which securely fastens the cams to its pin against a shoulder thereon. Encircling each sleeve is a spiral spring, a^3 , fastened by one end to the sleeve or tang and by its other end to its cam, the tension of which serves to keep its cam against the projection L. These cams project forward, and each has a curved edge, b^3 , at its outer end, such curved edge b^3 being in position for the back edge, c^3 , of its respective hammer to abut against it, and as the hammer is moved backward to cock it, cause the pin to swivel or turn a quarter-way round, so that such movement of each pin will indicate on the upper side of the gun the position of the hammer—that is, whether cocked or not.

To indicate readily and clearly from the position of the heads of the pins whether the hammers are cocked or not, each head has a slot, d^3 , across its upper surface, which is filled with any suitable material of a color different from the color of the material of which the head is made. The slot in each head is so cut in reference to the cam on its pin that when the cam is in its normal position, bearing against the projection L, the slot d^3 will be in a line parallel to the central longitudinal line of the gun, and when the pin is turned from the movement of the hammer into a cocked position the slot will have been turned a quarter-turn, and thus at right angles to the gun and to its normal position. Thus a person handling the gun can see at a glance whether either or both of the hammers are cocked or not. On the tang K at e^3 can be stamped or engraved the word "safe," so that when the thumb-piece is moved back it will expose it to view, indicating that the blocks are under the sears and that the gun is safe from accidental discharge.

In unbolting the gun by the proper movement of the lever U the hammers are cocked, the indicators are moved the requisite distance and as the barrels are afterward swung down the sears will be securely locked with the hammers by the movements of the blocks, which also move back the thumb-piece, exposing to view the word "safe." The swinging of the barrels up and bolting the same leaves the hammer safely cocked and ready for discharge at any time by simply moving forward the thumb-piece, which, as described, moves the blocks from under the sears, and consequently allows the gun to be discharged. The

hammers can be easily let down, when desired, by controlling their movements by the lever.

Although this invention is shown in connection with a gun having two barrels, obviously it is as applicable to a single-barrel gun, and in such case some of the parts would not be duplicated, as is obvious. The lug F can act on the blocks R in any other way than as particularly shown, any suitable spring can answer for the the pins Y Z, and the thumb-piece T can be connected to the block R in any suitable manner.

The slot d^3 in each pin-head q^2 can be arranged in any other than a longitudinal line when in its normal position, and in lieu of such mark being in the form of a slot or line it can be of any suitable and desirable form; also, the pins can turn more or less than a quarter of a turn, as is obvious.

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

1. In a breech-loading gun, in combination with the sear, hammer, and barrel having a lug, F, a block, R, arranged to bear by one end against said lug, its other end being in position for it, as the barrel is swung down to be moved under the end of the sear when engaged with its hammer, for the purpose specified.

2. In a breech-loading gun, the barrel provided with a lug, F, having an incline-bearing, t , in combination with a block, R, provided with an arm or rod, S, arranged to engage with said incline for the barrel when it is swung down by such engagement to move said block under the sear to secure its interlock with the hammer when it is cocked, substantially as described.

3. In a breech-loading gun, in combination with a block, R, adapted to be moved under the end of the sear, engaging with its hammer, a thumb-piece, T, arranged on the outside of the gun, and provided with an arm, w , passing through a slot in the tang and engaging with an arm, u , of said block for operation thereof, substantially as and for the purpose specified.

4. In a breech-loading gun, in combination with the hammer, the top snap-lever, U, pivoted to the breech and provided with horizontal arms V W, one above the other, in position to bear and act directly upon their respective hammers as the lever is moved to unbolt the gun, substantially as specified.

5. In a breech-loading gun, in combination with the hammer, an indicator-pin, Y or Z, arranged to turn in a suitable socket, s^2 , in the tang, provided with a spring, a^3 , and a cam, b^3 , in position for the hammer to bear and act thereon as it is moved into position of cock, substantially as and for the purpose specified.

6. In a breech-loading gun, a pin, Y or Z, arranged to turn in a suitable socket in the tang, provided with a spiral spring, a , and a cam, b^3 , in position for the hammer to bear and act thereon as it is swung into position of cock, said pin having on its outer or exposed end a mark, d^3 , substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN TURNER.

Witnesses:

EDWIN W. BROWN,
J. ARTHUR ROSS.