

(No Model.)

2 Sheets—Sheet 1.

W. ANSON.

SHELL EJECTING MECHANISM FOR BREECH LOADING GUNS.

No. 371,118.

Patented Oct. 4, 1887.

FIG. 1.

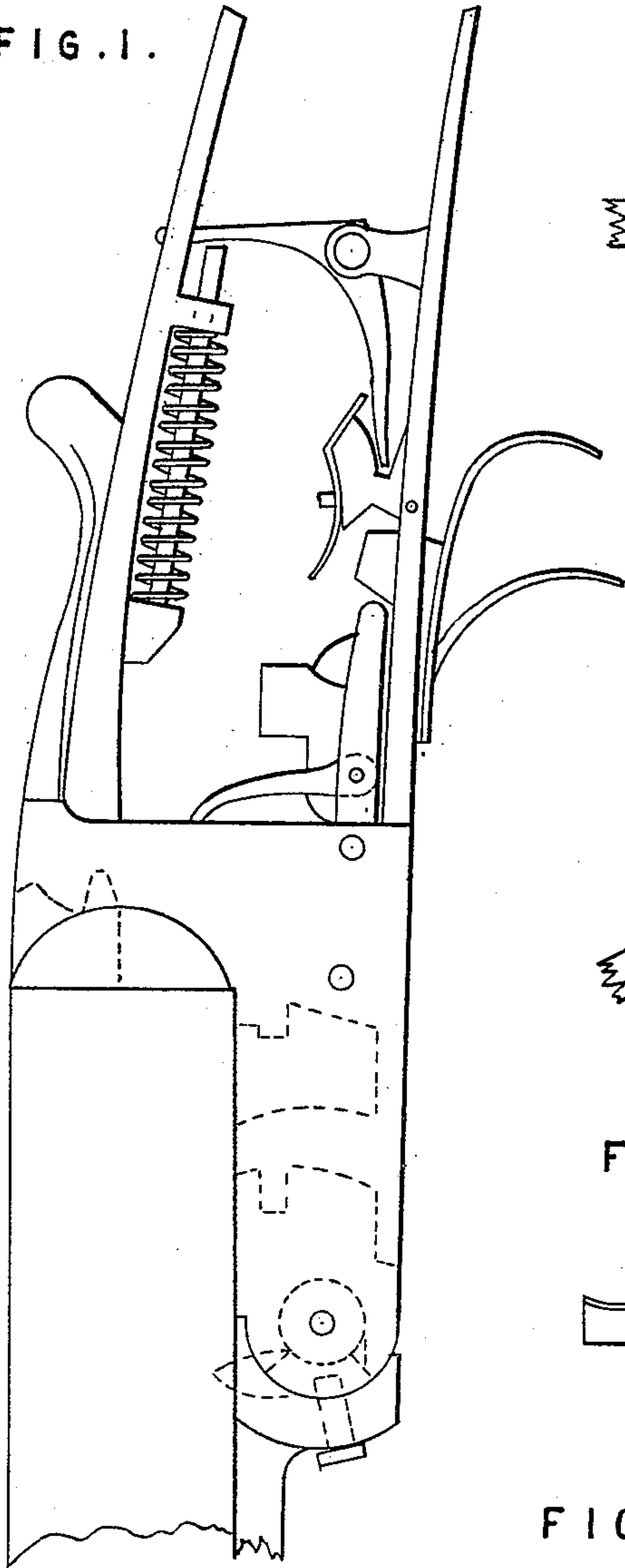


FIG. 2.

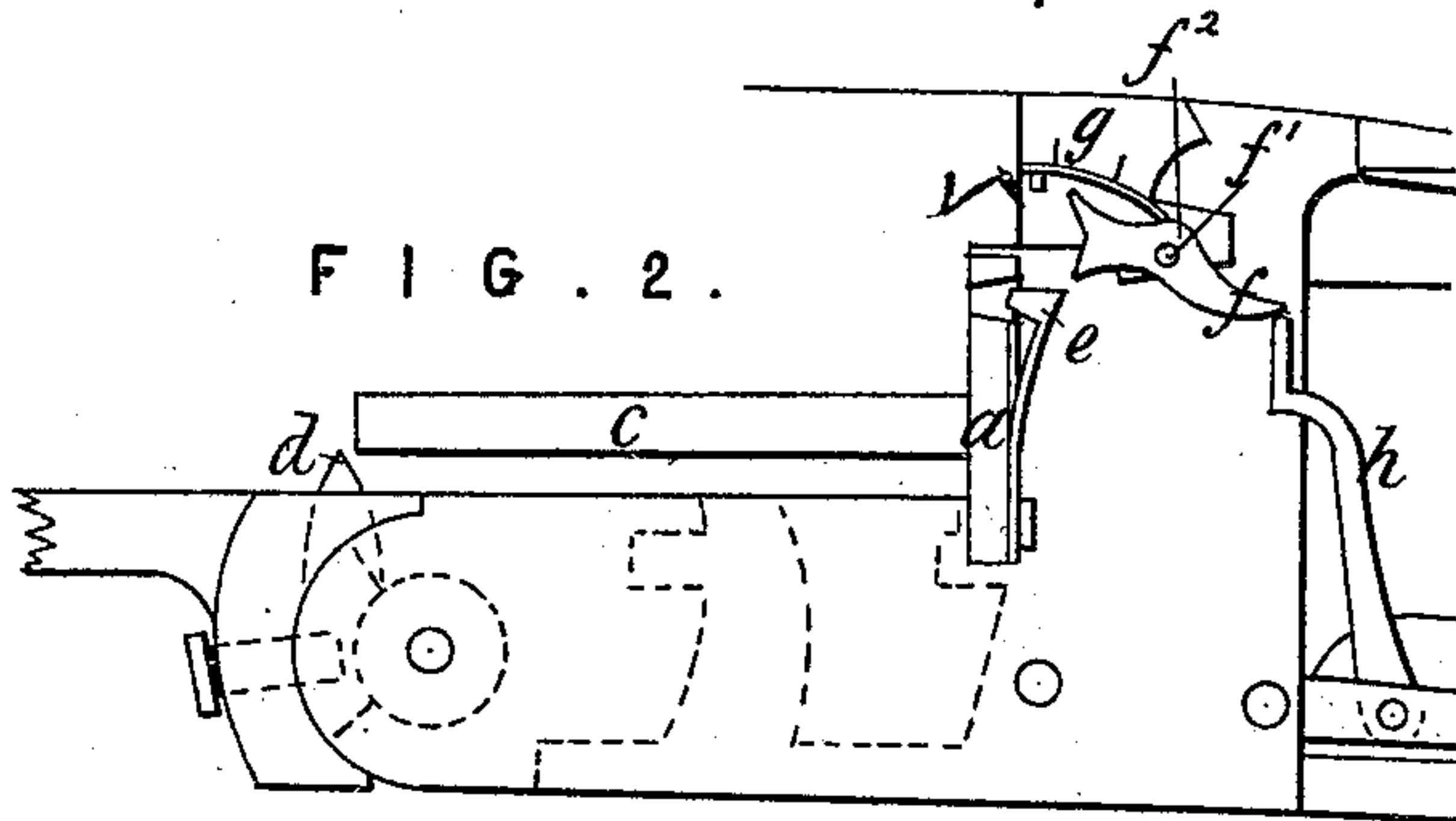


FIG. 3.

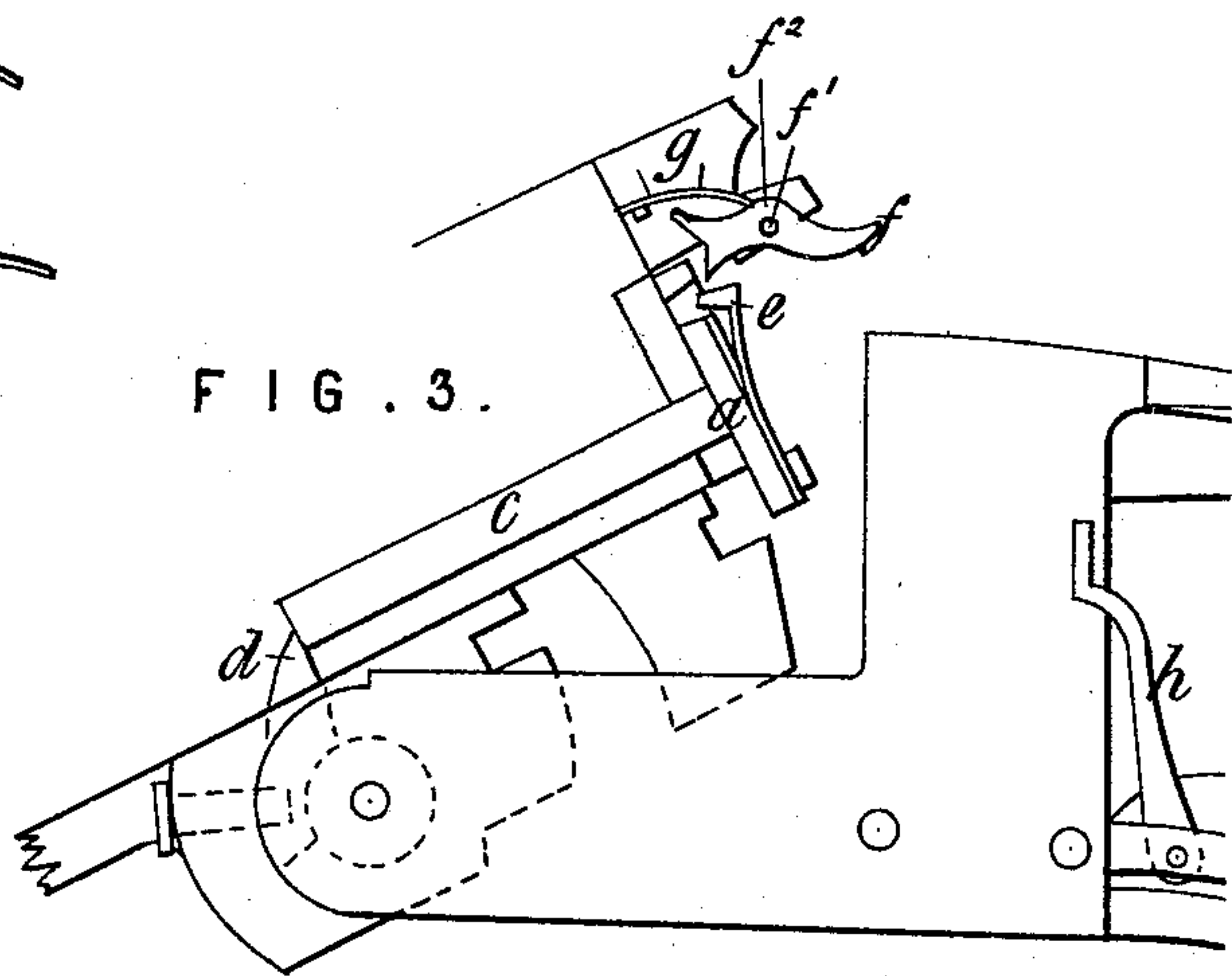


FIG. 4.

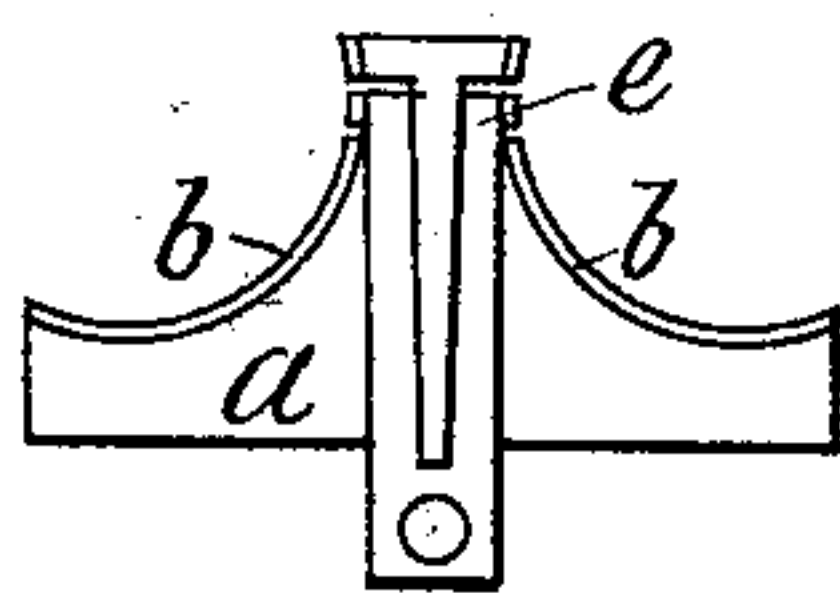


FIG. 5.

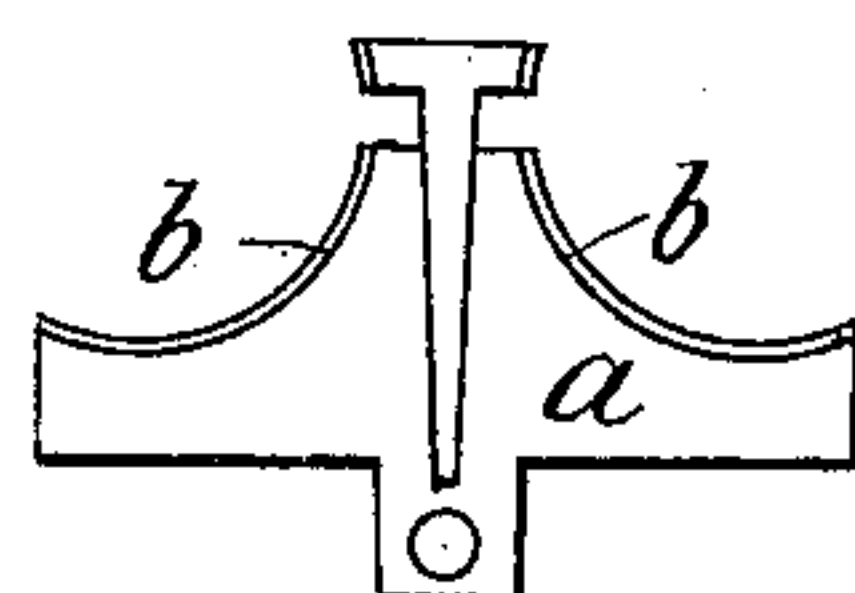
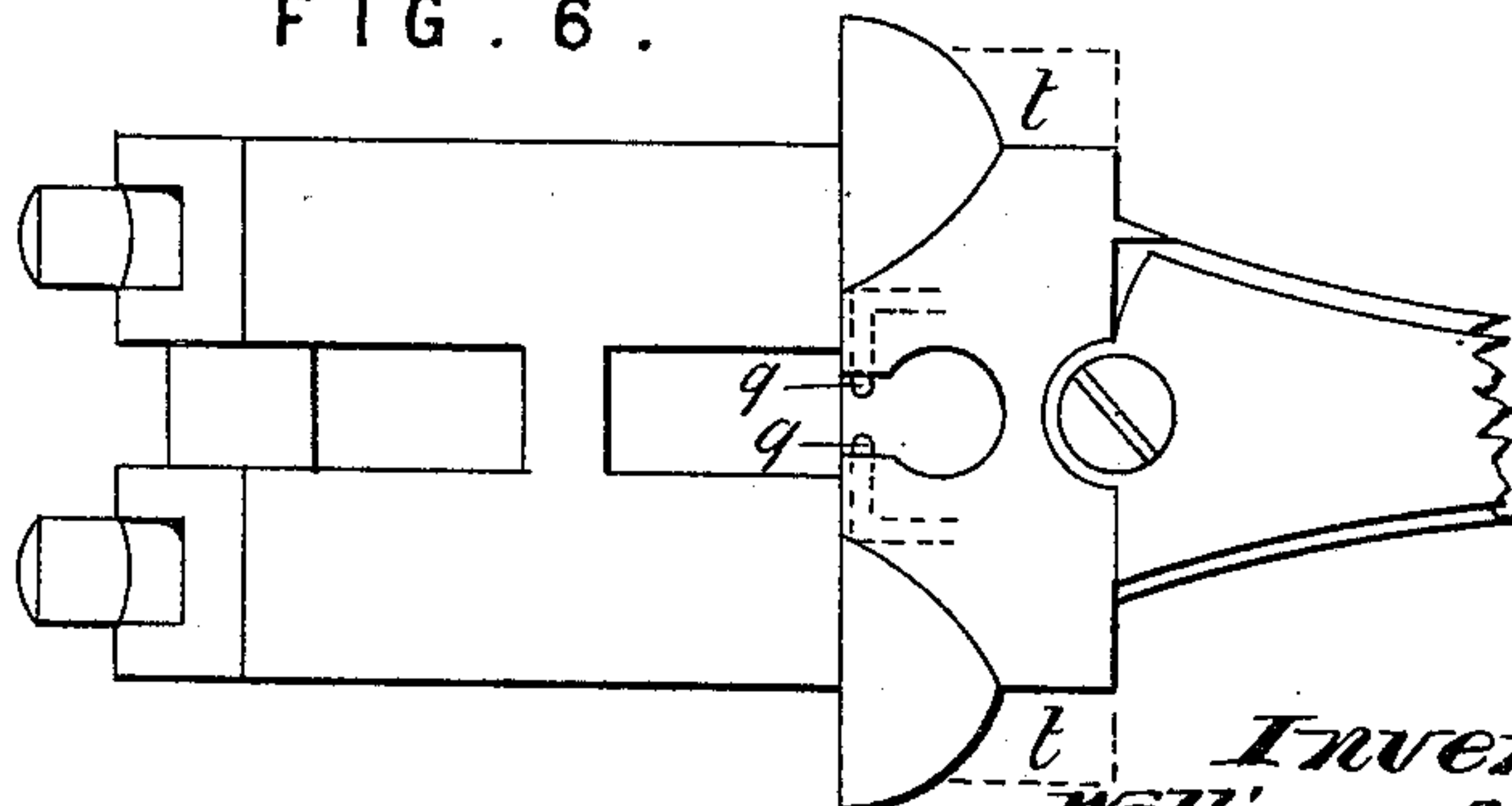


FIG. 6.



Witnesses.

Geo. W. Rea.

Robert Everett.

Inventor:
William Anson.

By James L. Norris,
Atty.

(No Model.)

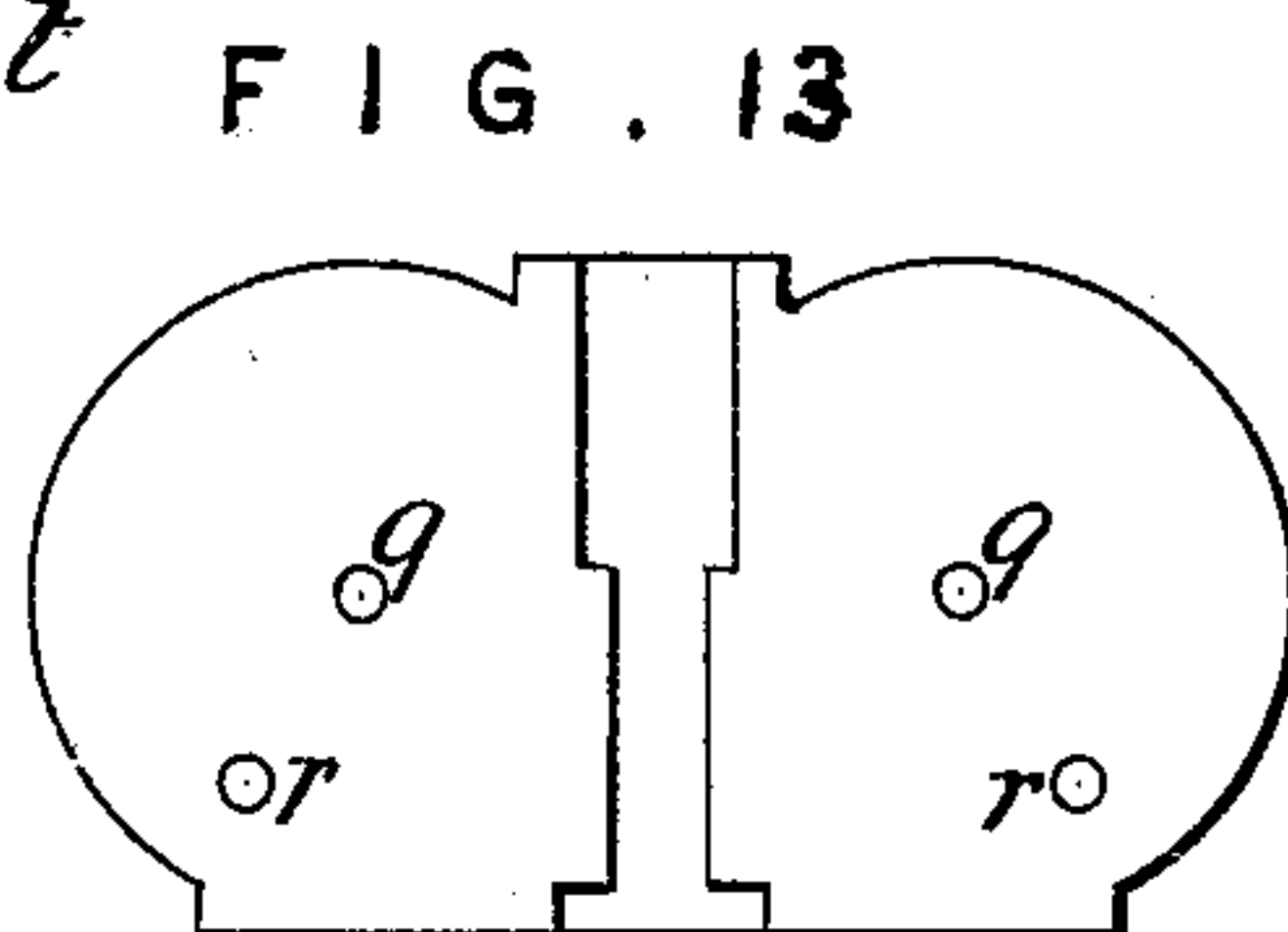
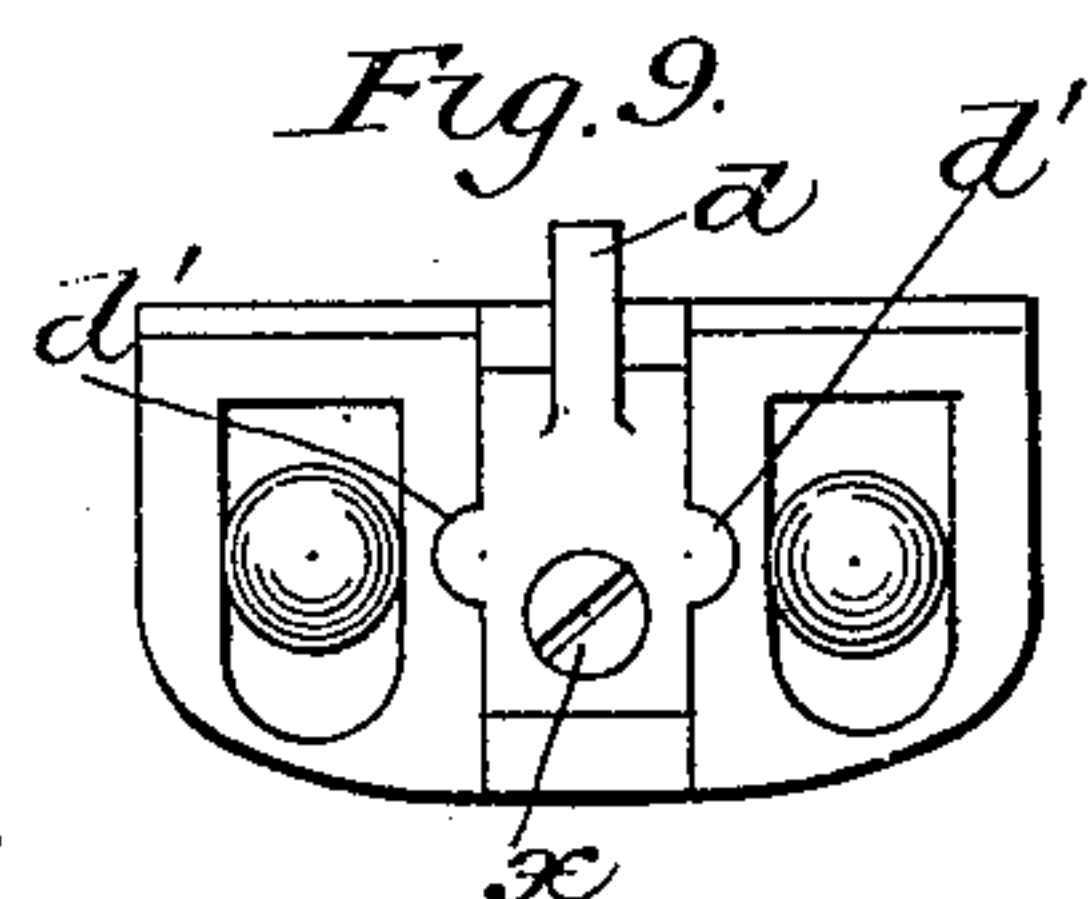
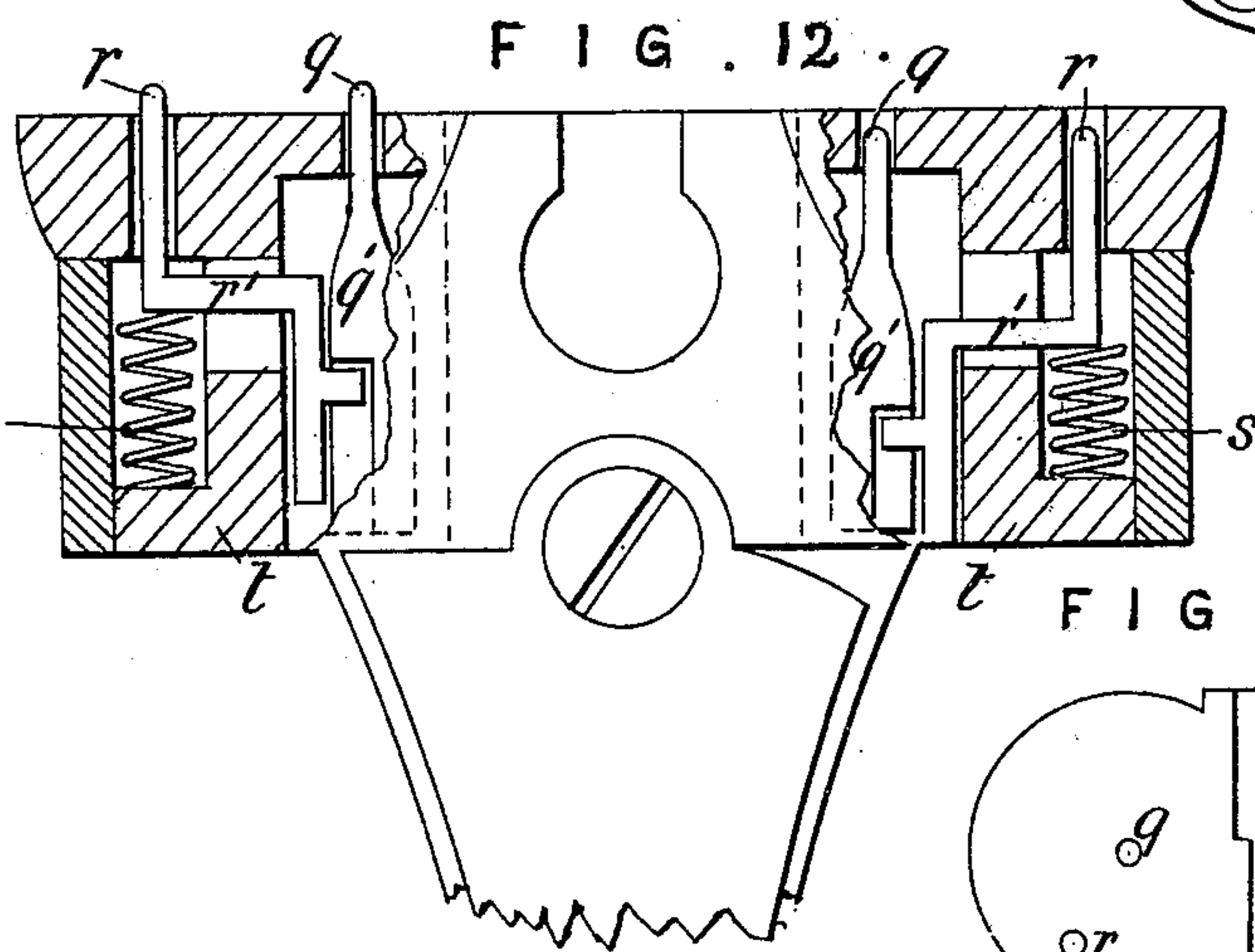
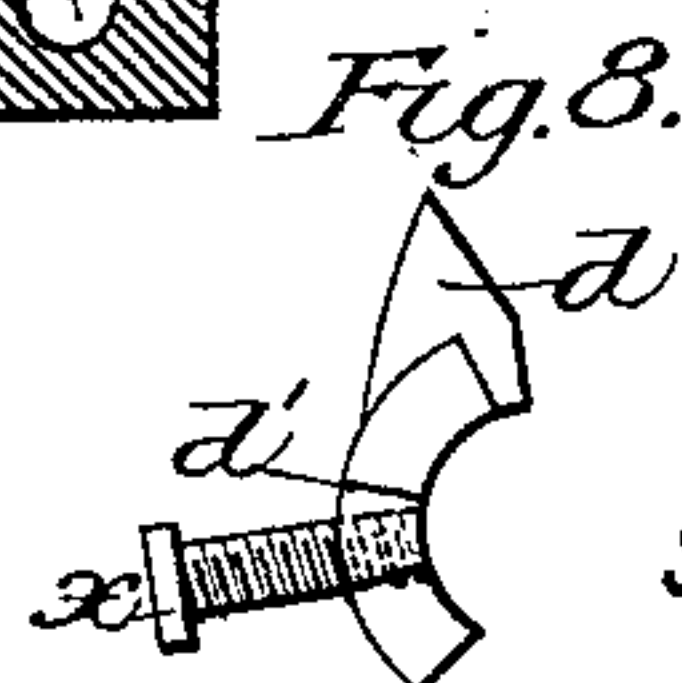
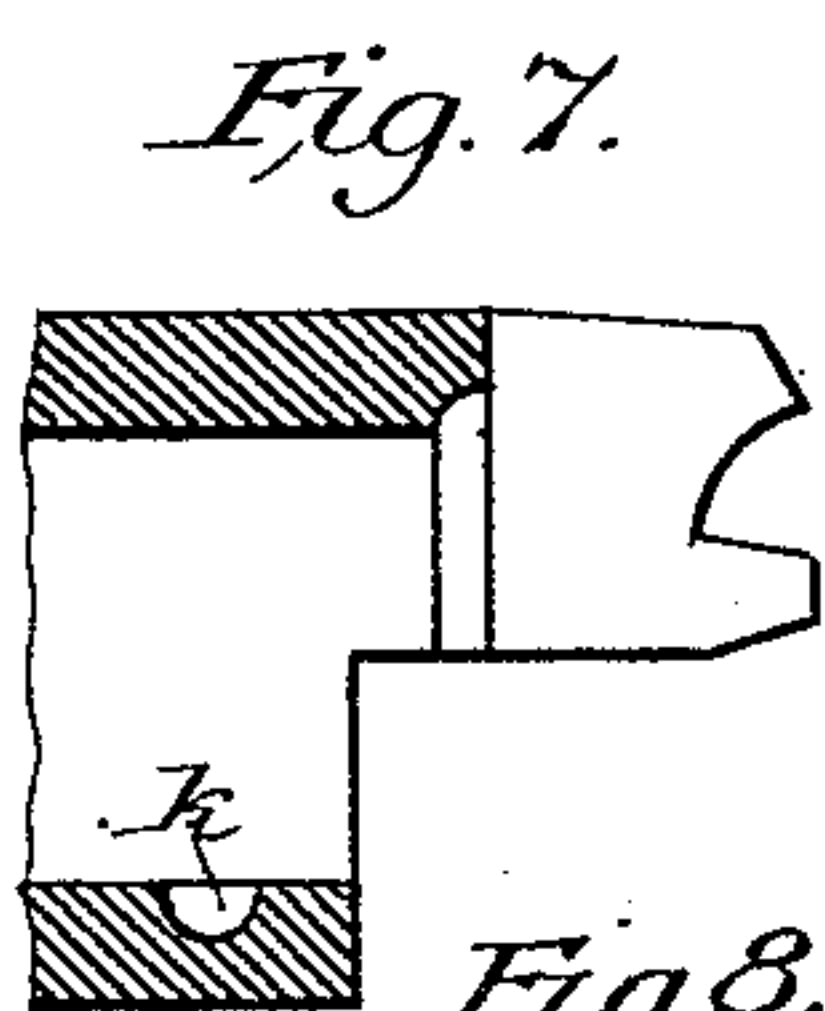
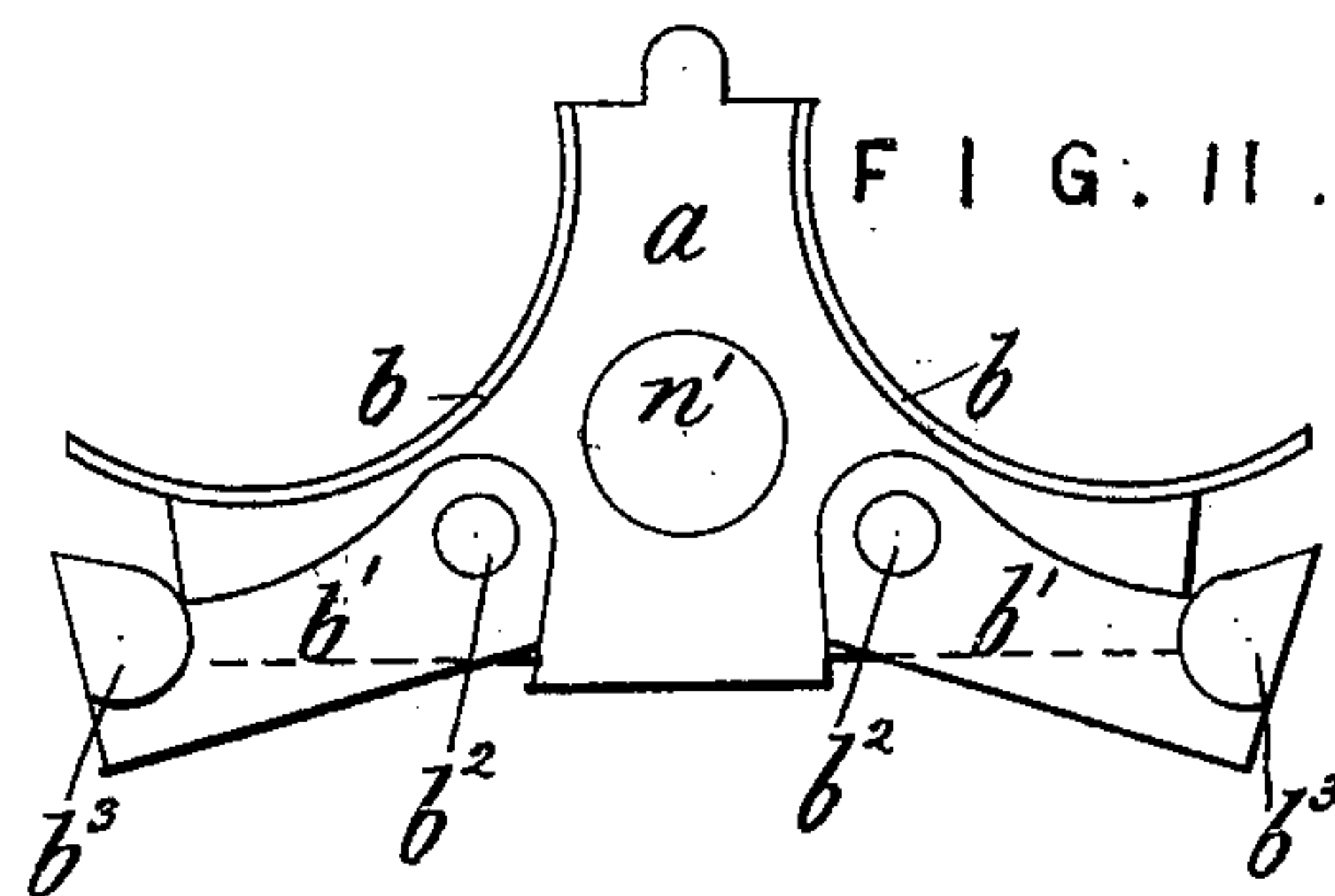
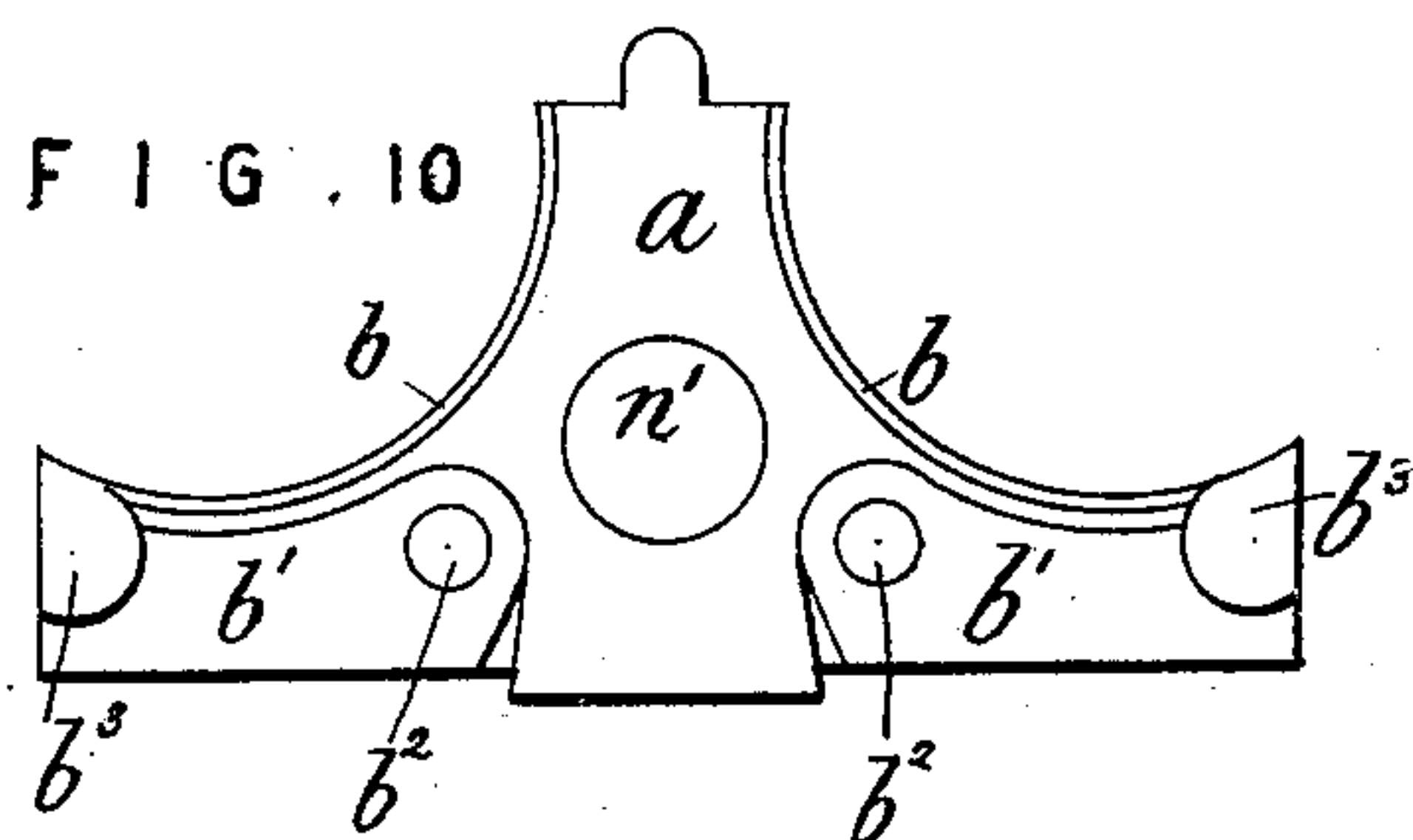
2 Sheets—Sheet 2.

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SHELL EJECTING MECHANISM FOR BREECH LOADING GUNS.

No. 371,118.

Patented Oct. 4, 1887.



Witnesses.

Geo. W. Rea.

Robert Emmett.

Inventor.
William Anson.
By James L. Norris,
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM ANSON, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND.

SHELL-EJECTING MECHANISM FOR BREECH-LOADING GUNS.

SPECIFICATION forming part of Letters Patent No. 371,118, dated October 4, 1887.

Application filed February 11, 1887. Serial No. 227,300. (No model.) Patented in England December 9, 1886, No. 16,138.

To all whom it may concern:

Be it known that I, WILLIAM ANSON, a subject of the Queen of Great Britain, residing at Slaney Street, Birmingham, in the county of Warwick, England, gun-maker, have invented certain new and useful Improvements in Hammerless and other Breech-Loading Guns and Rifles in which the Barrels Drop Down for Charging, (for which I have obtained a patent in Great Britain, No. 16,138, bearing date December 9, 1886,) of which the following is a specification.

My invention relates to hammerless and other breech-loading guns and rifles in which the barrels drop down for charging, and has for its object the extraction and ejection of the empty cartridge-cases after firing.

In this specification, for convenience of description, the extractor, with my additions and improvements, is hereinafter referred to as the "extractor-ejector."

In order that my said invention may be particularly described and ascertained, reference is hereby made to the accompanying drawings, in which similar letters of reference indicate corresponding parts.

In the said drawings, Figure 1 is an elevation partly in section of a hammerless gun embodying my invention. Fig. 2 is a detail of the ejector mechanism, the barrels being closed. Fig. 3 is a view of the same parts, the barrels being open. Figs. 4 and 5 are rear elevations of the extractor-ejector. Fig. 6 is a plan view of part of the breech portion of the gun. Fig. 7 is a detail section of the breech end of one barrel. Fig. 8 is a detail elevation of the lift detached. Fig. 9 is a front elevation of the fore end, showing the lift in place. Fig. 10 is a rear elevation of the extractor-lift, enlarged, showing the devices for preventing the extraction of unfired cartridges. Fig. 11 is a similar view showing the parts in different position. Fig. 12 is a sectional view showing the means for operating the parts shown in Figs. 10 and 11. Fig. 13 is an elevation of the striking-plate.

In the said drawings, the letter *a*, Figs. 2 to 5, inclusive, denotes the extractor-ejector, having shoulders *b b*, which engage the ends of the cartridges.

c represents the extractor-ejector rod actu-

ated by the lift *d*. Fitted to the extractor-ejector is a spring, *e*, and pivoted upon a pin, *f*, is a catch, *f*, provided with a shoulder, *f*², with which a spring, *g*, has contact. The end of the catch *f* extends rearward and lies over the sear-rod *h*, which is lifted by the pulling of the trigger and raises the rear end of the catch *f*, causing its other end to engage the spring *e*. When the barrels are dropped for loading, as in Fig. 3, the extractor-ejector is pushed backward by the extractor-lift *d*, the shoulders *b* of the former, as well as the upper end of the spring *e*, being all in engagement with the projecting edges of the butt-ends of the empty cartridge shells. The spring *e* has a cross-head at the top, as seen in Fig. 4; and is arranged between the barrels, whereby the ends of the cross-head may engage with both shells. As the barrels drop, the extractor-ejector starts the shells from the barrels; but the spring *e* is momentarily held by the lip of catch *f* until, on further lowering of the barrels, the increased pressure of the extractor-ejector overcomes the catch *f*, whereby the spring *e* is released from the catch, whereupon it at once expels the shells from the barrels.

For the purpose of preventing the ejection of unfired cartridges, and to accumulate sufficient force in the spring to eject the shells, I may form in the chamber one or more indentations or recesses, as *k*, as in Fig. 7, in such position that when the gun is fired the explosive force of the powder will expand a portion of the metal of the cartridge-shell and cause it to enter said recess. When the extractor-ejector begins to press the cartridge-case outward, the expanded part will bind slightly in the chamber and retain the shell until the spring has gained enough force to overcome the resistance and expel the shell from the chamber.

I construct the lift *d* with two ears, *d'* *d'*, Figs. 8 and 9, which engage the fore end and retain the lift in position. The screw *x* passes through a slot in the fore-end iron, and in said slot the screw can slide freely when the barrels are dropped or raised.

To prevent the ejection of unfired cartridges I prefer the construction shown in Figs. 10 to 13, inclusive. Upon the extractor-ejector *a*, I pivot upon pins *b*² plates *b'*, having thumb-

pieces b^3 , which project over the butt-end edges of the cartridges. Through the striking-plate project the plungers g , by which the cartridges are exploded, and below and to one side project pins r , connected to the plungers g , as shown in Fig. 11, each pin having an angular arm, r' , provided with a nipple, r^2 , the latter engaging with a notch in the plunger in such manner that when the latter is drawn back it will retract the pin g , but will not affect its position when the plunger is projected forward. Springs s throw the pins outward when the gun is fired, each pin being wholly independent of the other.

When the gun is fired, the pins r are thrown outward and project through the striking-plate. If, now, the barrels are dropped, these pins will strike the thumb-pieces b^3 and depress them, thereby permitting the extraction of the shells.

The several parts described may be applied without change of a material character to single-barrel drop down guns, whether hammerless or otherwise.

Having thus described my invention, what I claim is—

1. In a breech-loading drop-down gun, the combination, with the extractor-ejector and its lift, of a spring mounted on the extractor-ejector and having its free end engaging the cartridge, a catch engaging said spring, and a sear-rod operated by the trigger to effect such engagement, substantially as described.

2. The combination, with the drop-down barrels, the extractor-ejector, and the lift, of the spring mounted by one end upon the extractor-ejector and having its other end engaging the cartridges, a catch pivoted in the barrels, a spring acting upon said catch, and a sear-rod operated by the trigger to throw the catch in engagement with the spring on the extractor-ejector, substantially as described.

3. The combination, with the barrels and trigger of a drop-down gun, of the extractor-ejector a , having the forwardly-projecting rod c , the lift d , arranged at the forward portion

of said rod, the spring e , secured to the extractor-ejector, the pivoted catch f above said spring, the spring g , acting on the catch, and the sear-rod h , lifted by pulling the trigger to engage the catch with the spring on the extractor-ejector, substantially as described.

4. The combination, with the barrels and trigger of a drop-down gun, of the extractor-ejector a , having the rod c , the spring e on the extractor-ejector, the pivoted catch f above said spring, the spring g , acting on the catch, the sear-rod h , lifted by the trigger to engage the catch with the spring on the extractor-ejector, and the lift d , arranged at the forward end of the extractor-ejector rod and having the ears d' d' , engaging the fore end, substantially as described.

5. The combination, with the extractor-ejector a , of the plates b' , pivoted to said extractor-ejector and having thumb-pieces b^3 to project over the butt-end edges of the cartridges, the striking-plate, the plungers g in said plate, the pins r , connected with the plungers and moved inward thereby, and springs s , for throwing the pins outward when the gun is fired, substantially as described.

6. The combination, with the extractor-ejector a , of the plates b' , pivoted to said extractor-ejector and having thumb-pieces b^3 to project over the butt-end edges of the cartridges, the striking-plate, the plungers g , arranged in said plate and having recesses, the pins r , having bent arms r' , provided with nipples engaging the recesses in the plungers, and the springs s , acting on the pins to throw them outward when the gun is fired, substantially as described.

Dated this 31st day of December, 1886.

WILLIAM ANSON.

Witnesses:

JAMES ROSIER,

HENRY BREWIN,

Both of 47 New Street, Birmingham, Clerks to
Reece, Harris & Harris, Solicitors, Birmingham.