F. JAEGER.

GUN WITH BREECH ACTION.

APPLICATION FILED NOV. 7, 1907.

928,608.

Patented July 20, 1909.

Fig. 1.

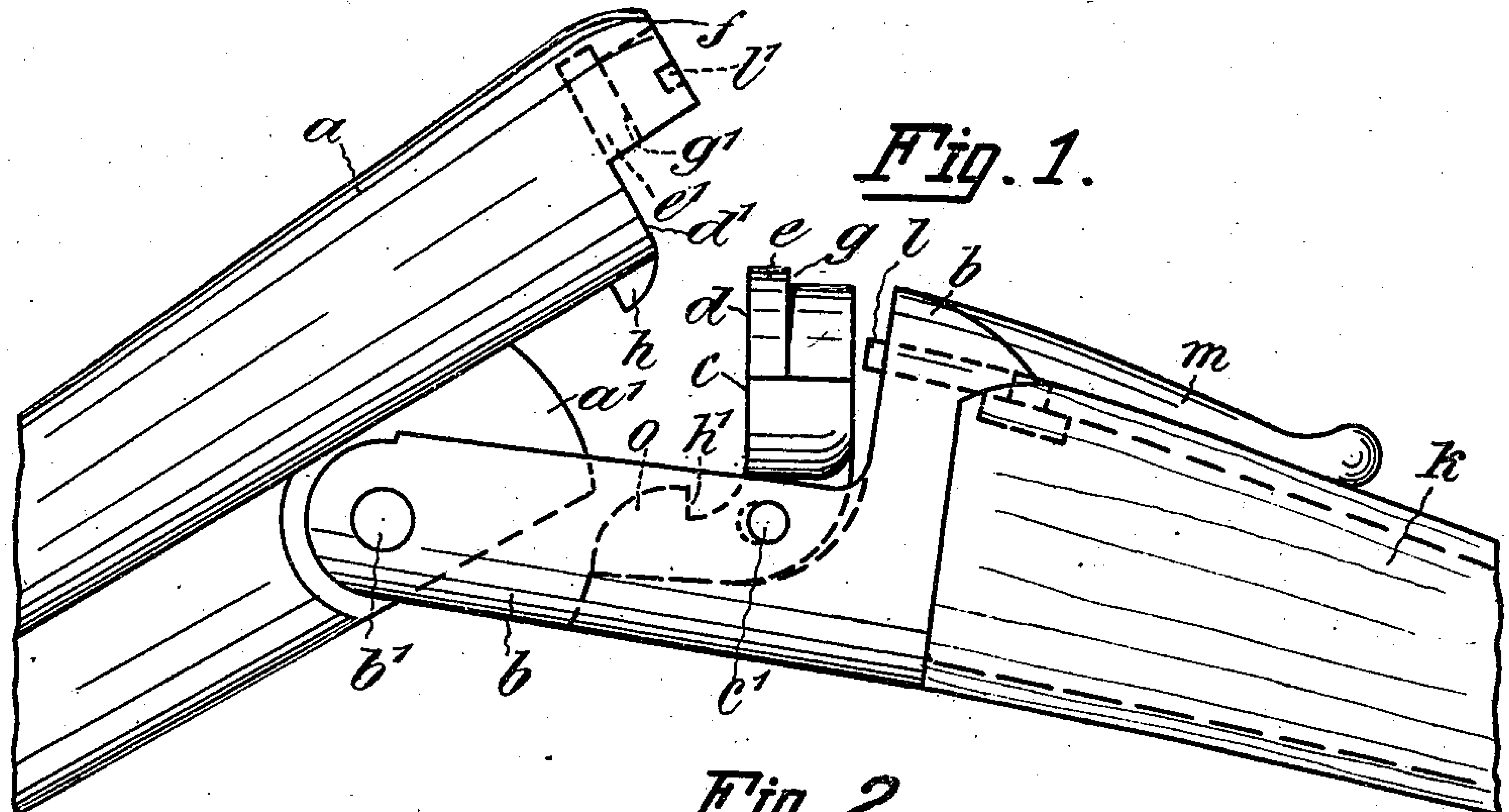


Fig. 2.

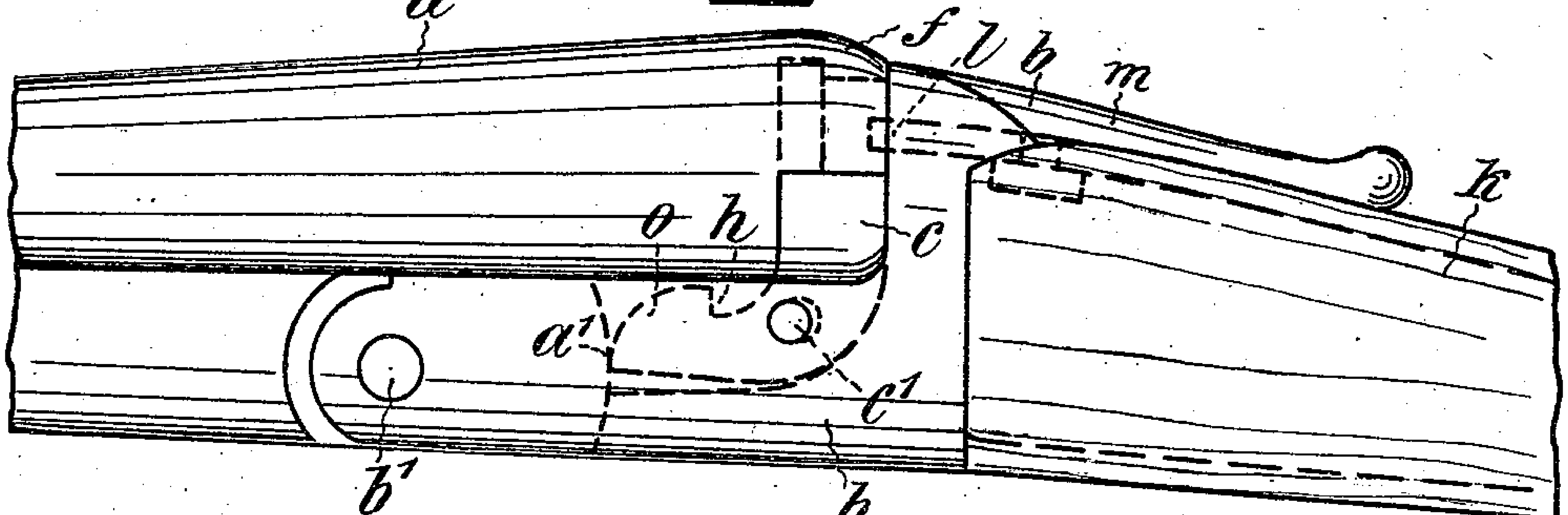


Fig. 3.

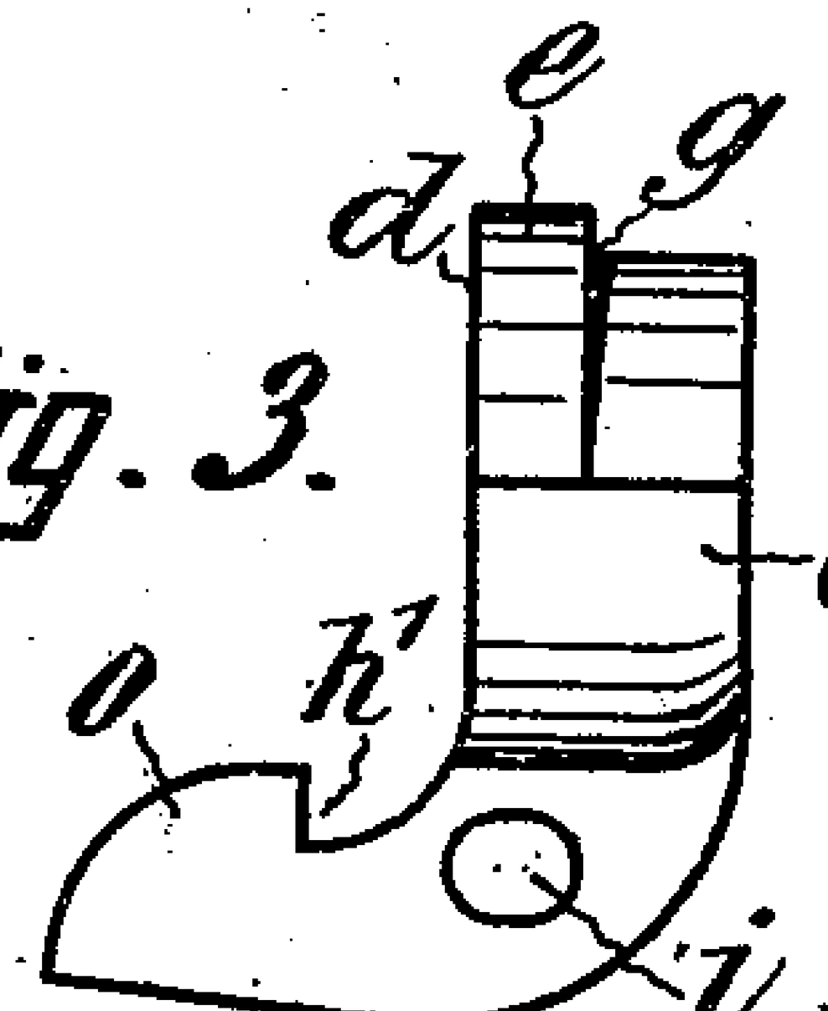


Fig. 4.

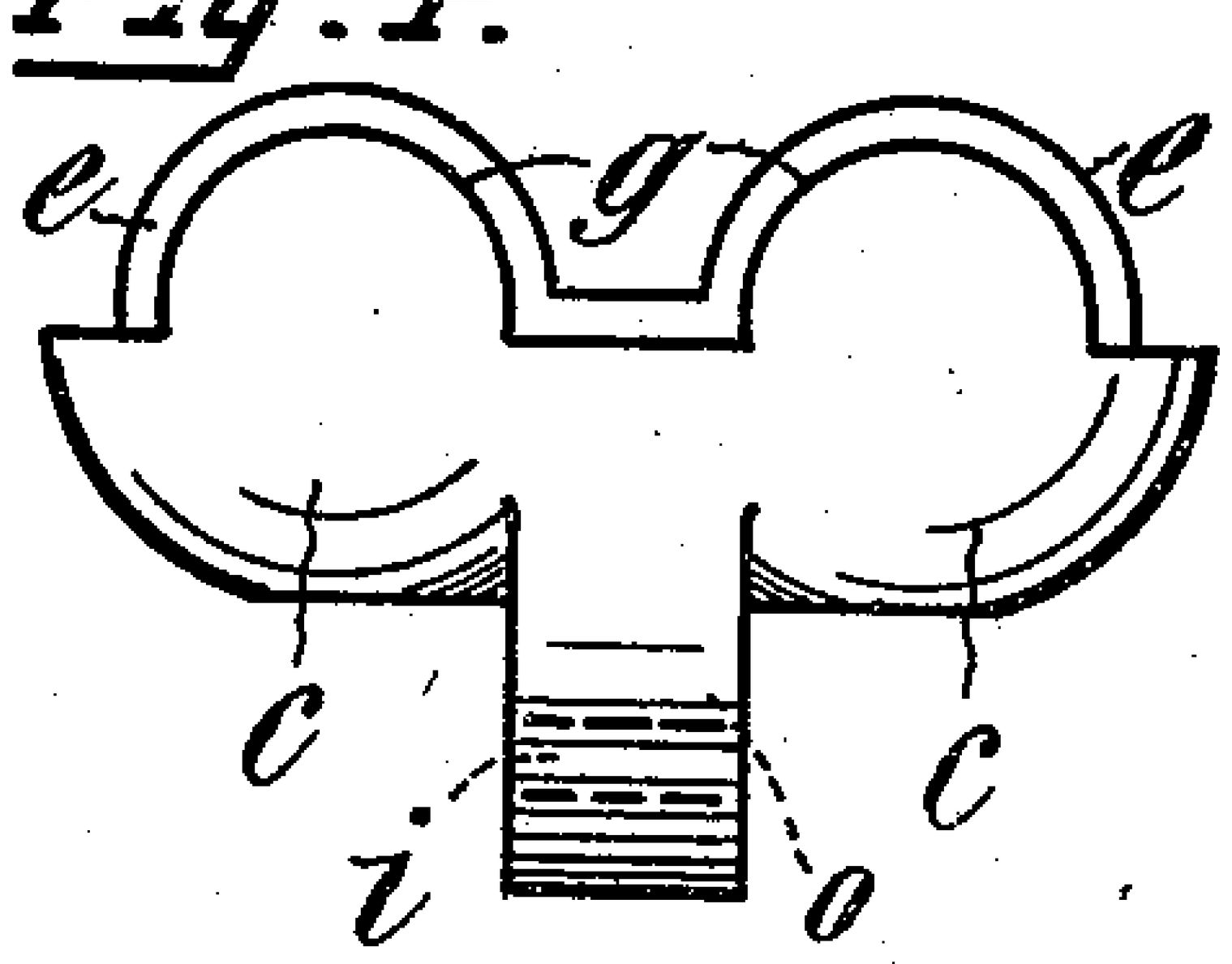


Fig. 5.

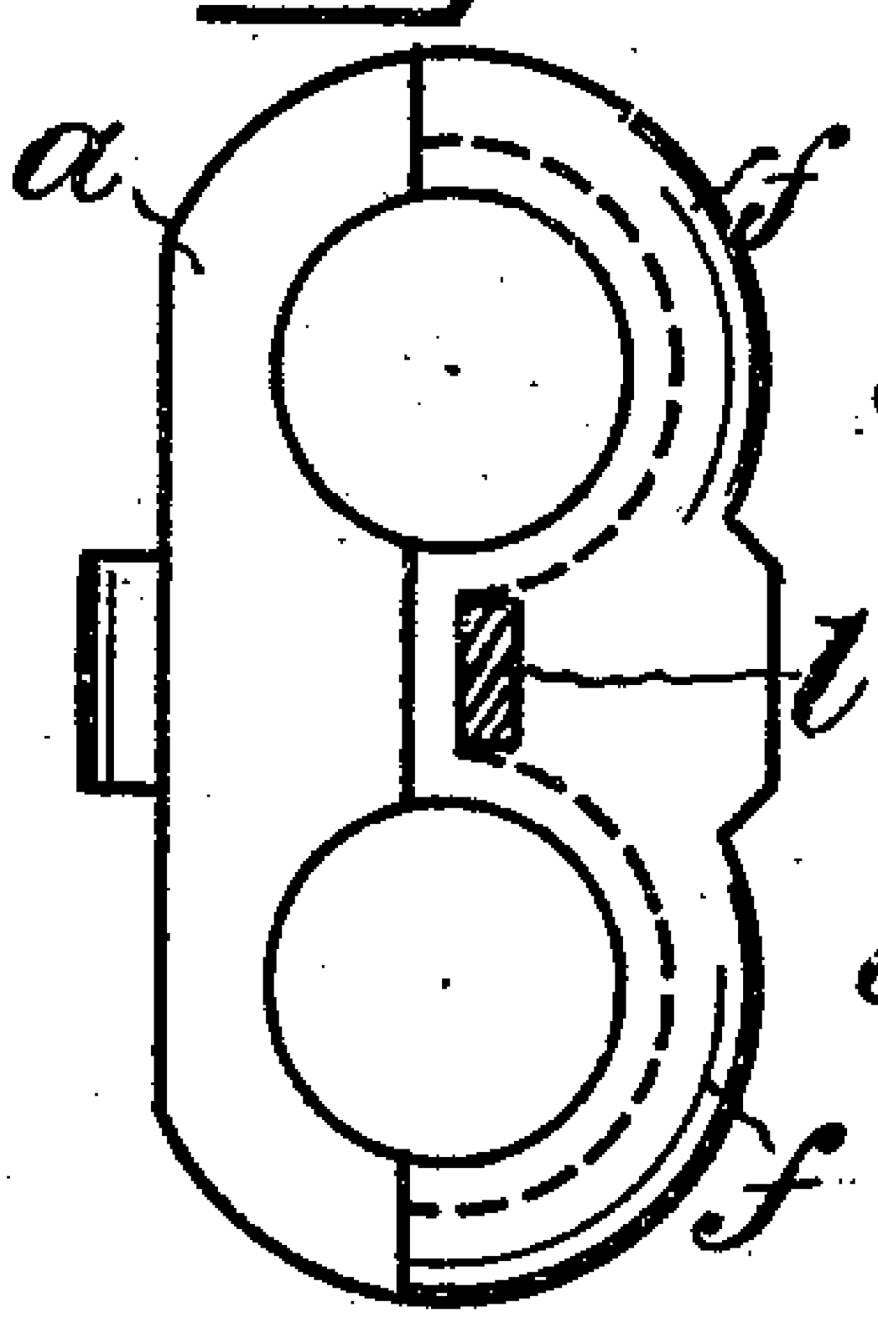


Fig. 6.

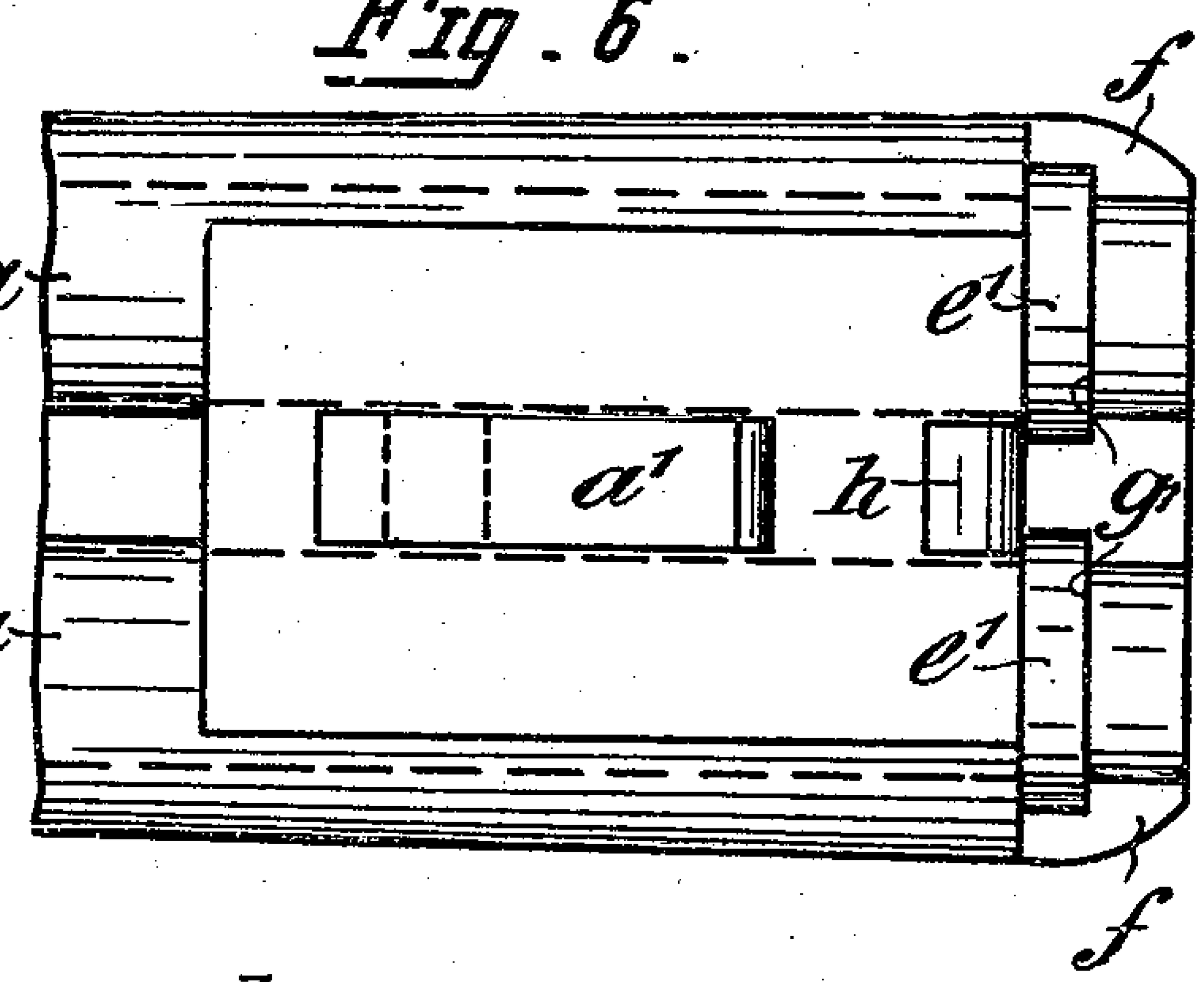
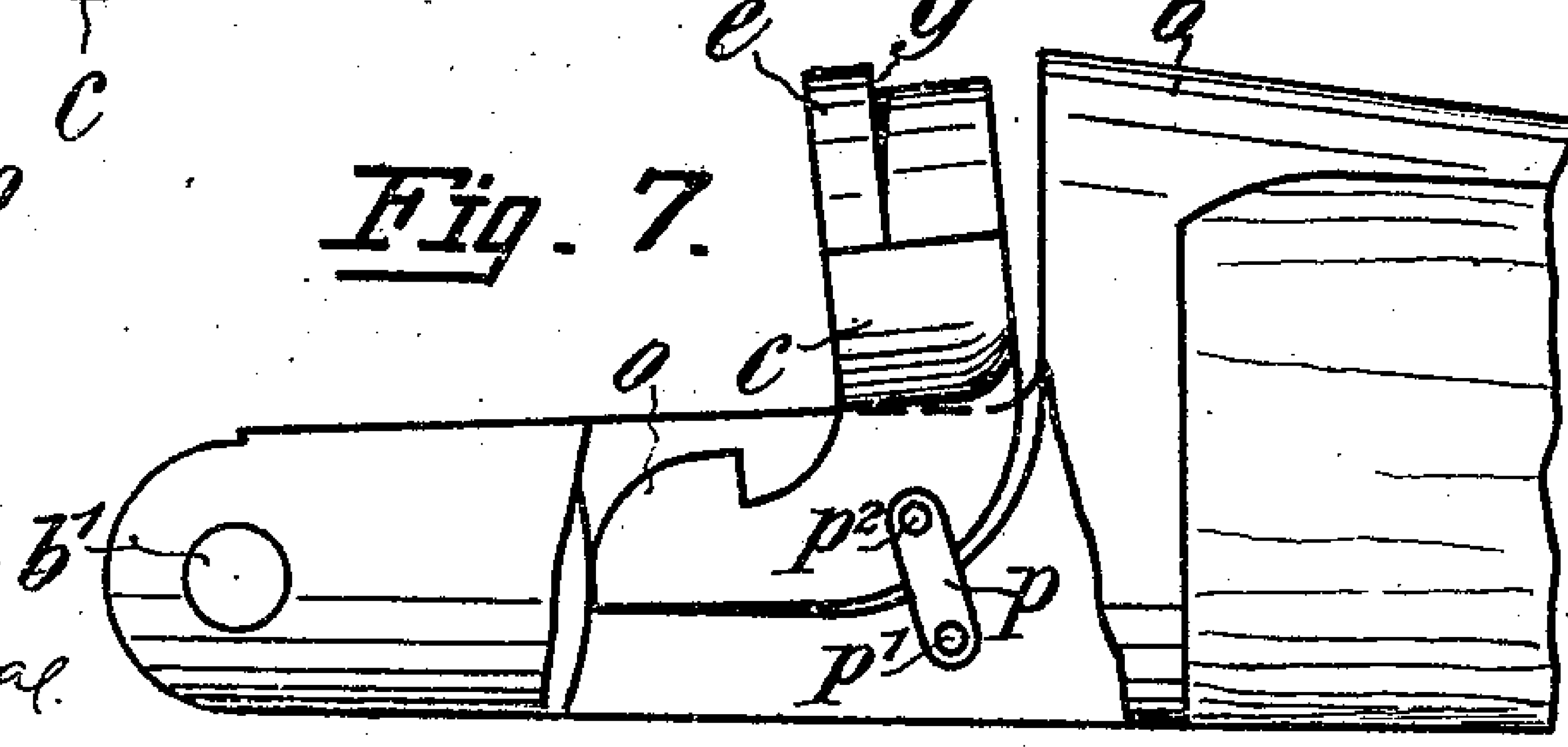


Fig. 7.



WITNESSES

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FRANZ JAEGER, OF SUHL, GERMANY.

GUN WITH BREECH-ACTION.

No. 928,608. Specification of Letters Patent. Patented July 20, 1909.

Application filed November 7, 1907. Serial No. 401,168.

To all whom it may concern:

Be it known that I, FRANZ JAEGER, manufacturer, of Suhl, Thuringia, in the Kingdom of Prussia, Germany, have invented a new Improvement in Guns with Breech-Actions, of which the following is a full, clear, and exact description.

This invention relates to guns or small arms with a break-down breech action, and has for its object to provide such guns with an efficient block-locking device at the breech.

The tendency in modern sporting guns is to increase the charges, and in guns as usually constructed the whole shock of the explosion comes upon the parts which connect the barrels to the breech-frame. Various attempts have been made to overcome the disadvantages of such constructions, either by using stronger bolts or by arranging supporting pieces for closing the breech, on the barrels or on the frame. When closing-blocks were used, however, they were not so arranged as to be firmly locked to the barrels when the breech was closed, and thus to take all the shock of the explosion and to relieve the barrel-hinge and other connections from such shock. As a rule, they were not directly locked to the barrels at all, but were simply brought into position on closing the breech either by being canted forward by the rear end of the barrels pressing upon a toe-piece on the block, or by being simply held between the barrel-ends and the breech-frame. When projections were formed on the barrels to engage in recesses on the blocks, the block and barrels were both arranged to turn in the arcs of circles during the whole closing movement, and it was therefore impossible to make the parts lock together over the whole breech-face; in fact in such devices the interlocking parts were only at the top of the barrels and block. As distinguished from this, in the device according to the present invention, the block is so arranged and supported that it can move parallel to the rear face of the barrel, *i. e.* vertically to the bore of the barrel, in the closing, and can therefore become locked in the most efficient manner to the barrel-ends so that it will take all the shock of the explosion, allowing none of the shock to come on the hinge of the barrels or on the locking bolts.

The accompanying drawings show the principle of construction of this invention as applied to a double barreled gun.

Figure 1 shows the breech open in elevation; Fig. 2 shows the same when closed; Fig. 3 is a side view of the closing block; Fig. 4 shows the same as seen from the rear; Fig. 5 shows the breech end of the barrels as seen from the rear; Fig. 6 shows the same as seen from below; Fig. 7 shows a modification in which the closing block is connected to the frame by means of a link.

The double barrel *a*, provided on the under side with a lug *a'*, is connected with the frame *b* in the ordinary manner by means of a hinge pin *b'*. At the end of the barrels is a solid continuation *f* provided with grooves or recesses *e'* having vertical surfaces *g'* and a notch *l'* for the closing bolt. The barrel ends have a downwardly projecting nose *h* at the bottom. The frame *b*, which is connected with the stock *k*, in the usual manner, carries the top lever *m* which moves the bolt *l* forward or backward and also carries the closing block *c* which is pivoted at *c'* as described below. The closing block is provided with lugs *e* which fit exactly into the grooves *e'* on the barrel, so that when the breech is closed, the forward face *d* and the rear surface *g* of the closing block lie snug against the corresponding surfaces *g'* and *d'* of the barrel.

The closing block is formed with a longitudinally extended hole *i* through which the pivot pin *c'* passes, so as to permit of its being moved in the direction of the bore of the barrel, and is also formed with a nose *o* having a catch face *h'* which engages with the nose *h* on the barrel. Instead of connecting the block *e* with the frame by means of a slot and pivot, the connection shown in Fig. 7 can also be used, wherein a link *p* and the pins p^1 and p^2 connect the block to the frame.

The action is as follows:—As the barrel *a* is raised in closing the breech, the nose *h* engages with the nose *o*. As the closing block *c* is connected with the frame by means of a longitudinally extended hole *i*—or, as shown in Fig. 7, by means of the link *p*—it is free to move in the direction of the bore of the barrel and to turn at the same time on the pivot. These movements are so combined that during the last part of its movement the block has its faces exactly perpendicular to the bore of the barrel. The catch face *h'* which engages the front face of the nose *h* serves also to strengthen the locking device and to hold the block firmly upon the barrel ends, so that the connections between the

block and the barrel will take the whole thrust of the explosion. The bolt *l*—which may have any desired shape—only serves to hold the barrel fast and may, consequently, be very lightly constructed as the explosion causes no direct strain upon it.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a gun with a break down breech action, a separate block supported in the breech part so as to close against the barrel ends when the breech is closed, and means for securely connecting the block to the barrels so that it will take the shock of the explosion and will prevent said shock coming upon the connection between the barrels and the stock, substantially as described.

2. In a gun of the type described wherein the barrel is provided with a solid continuation at its upper portion having recesses therein said recesses opening downwardly and a pivoted breech block having upwardly extending projections thereon adapted to engage with said recesses, substantially as described.

3. In a gun of the type described, a barrel having a nose on its under side, a block pivotally supported in the breech part so as to close against the barrel ends when the breech is closed and a nose carried by the block for engaging with the nose of the barrel.

4. In a gun of the type described, a closing block provided with a longitudinally extended hole, and a supporting pin passing through the hole into the frame, said pin and hole enabling the block to have forward and rotary movements perpendicularly to the bore of the barrel, substantially as described.

5. In a gun of the type described, a block pivotally supported in the breech so as to close against the barrel ends when the breech is closed, means for connecting the block to the barrels, said means allowing a limited movement of the block perpendicular to the nose of the barrel, said block having a nose, and a nose on the barrel by which its action on the nose of the block moves said block.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FRANZ JAEGER.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.