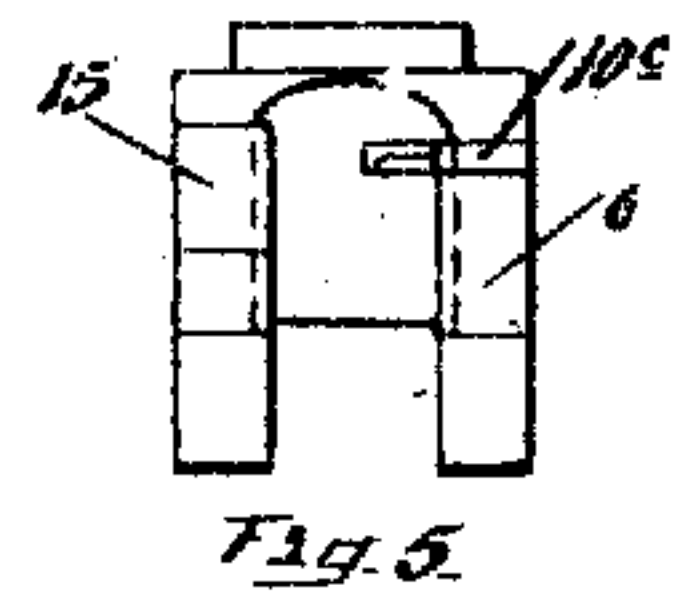
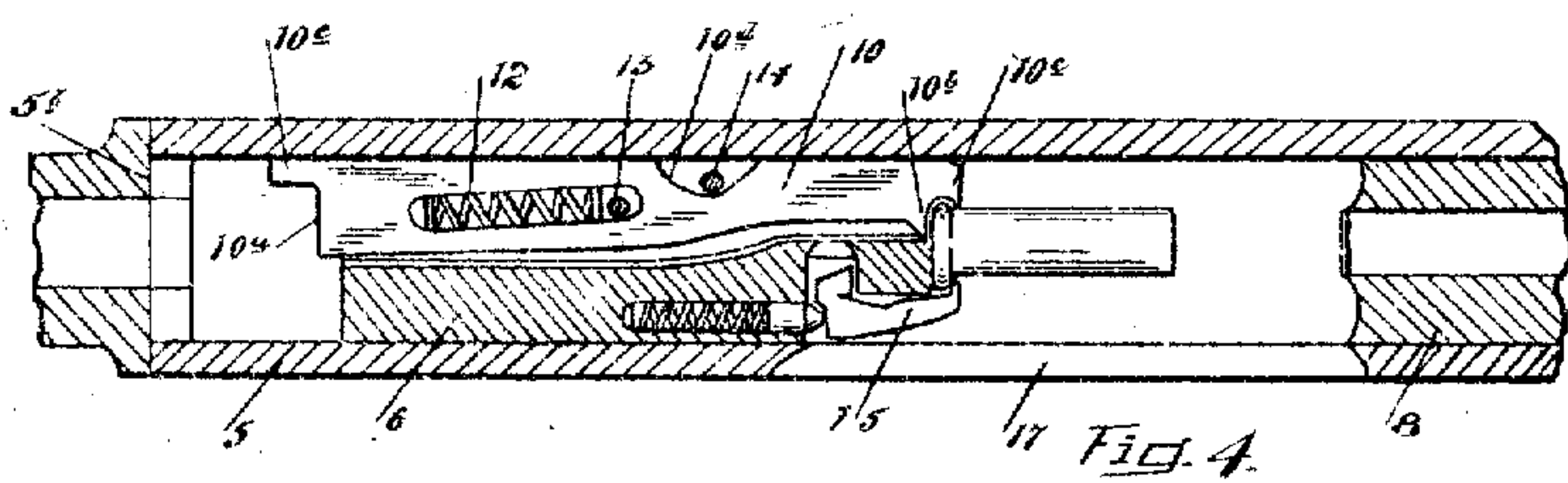
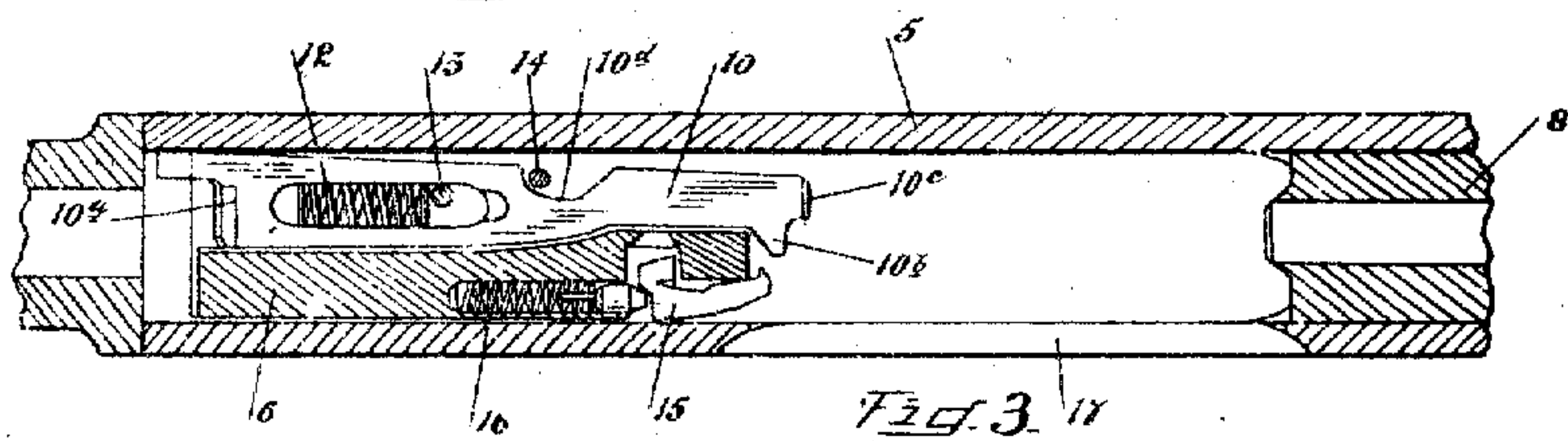
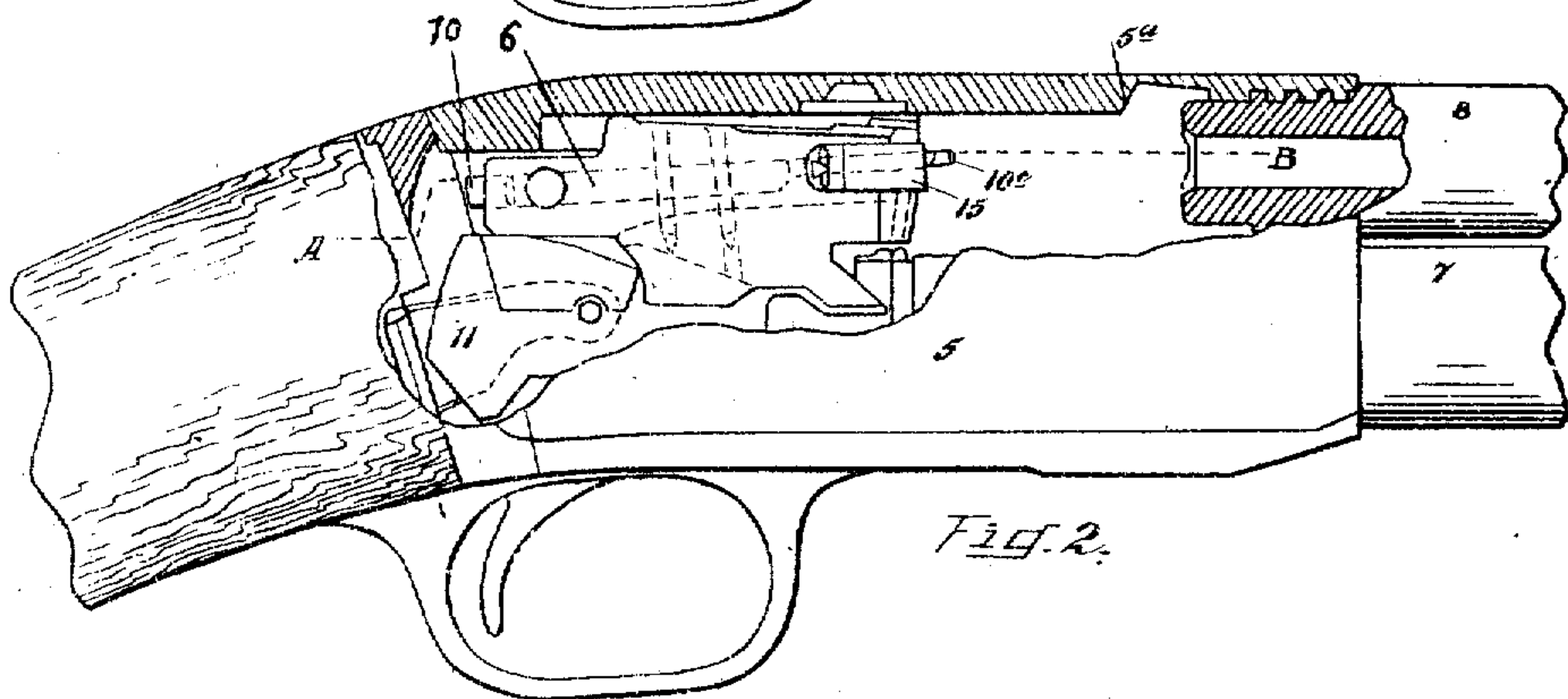
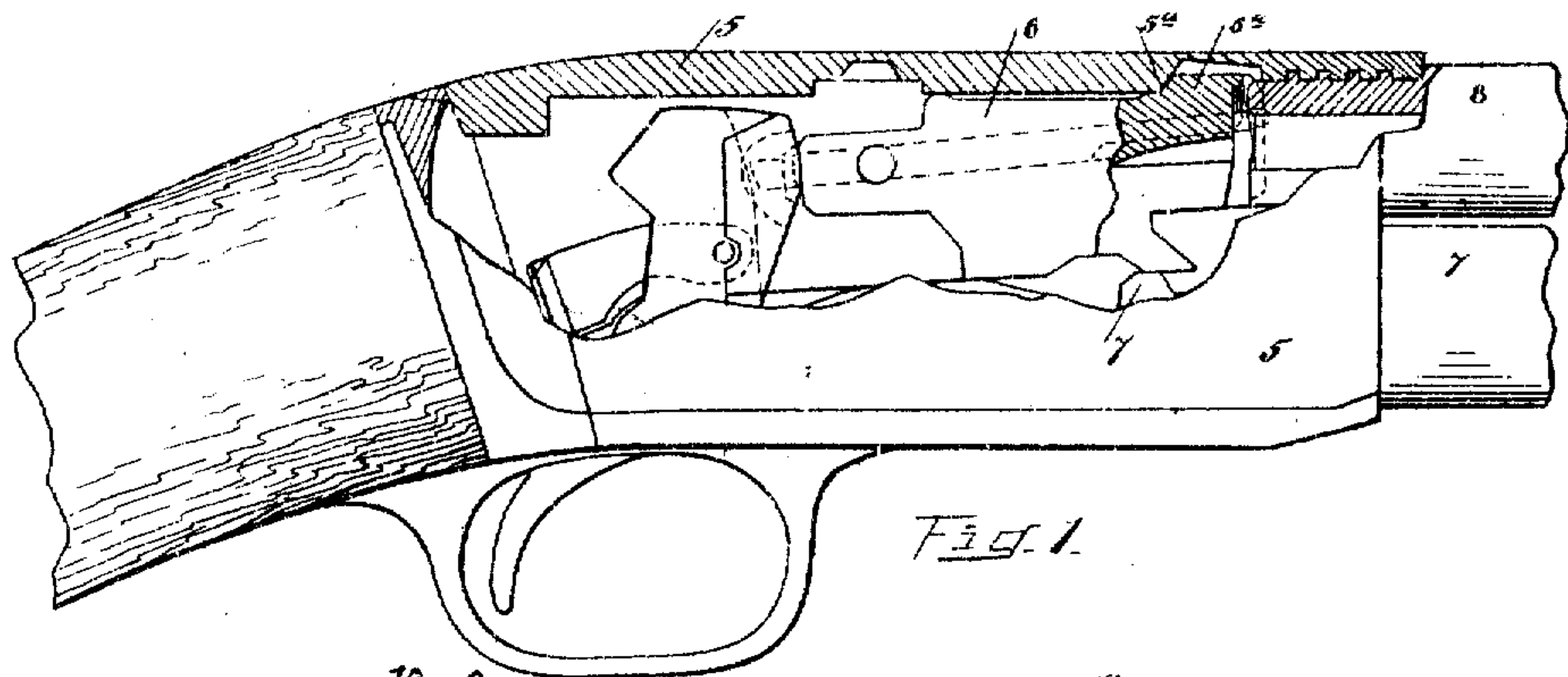


J. D. PEDERSEN.
 COMBINED FIRING PIN AND EJECTOR FOR FIREARMS.
 APPLICATION FILED OCT. 21, 1908.

936,806.

Patented Oct. 12, 1909.



Witnesses
 Chas. A. Kendall
 Sarah E. Clark.

Inventor
 JOHN D. PEDERSEN
 BY Robinson Martin Jones
 Attorneys

UNITED STATES PATENT OFFICE.

JOHN D. PEDERSEN, OF JACKSON, WYOMING.

COMBINED FIRING-PIN AND EJECTOR FOR FIREARMS.

936,806.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed October 21, 1908. Serial No. 458,745.

To all whom it may concern:

Be it known that I, JOHN D. PEDERSEN, of Jackson, in the county of Uinta and State of Wyoming, have invented certain new and useful Improvements in Combined Firing-Pins and Ejectors for Firearms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form part of this specification.

The object of my present invention is to provide an improved combined firing pin and cartridge ejector for fire arms.

Figure 1 shows partially in side elevation and partially in broken-out section, which exposes the breech block and other operative parts, the frame portion of a fire arm embodying the features of my present invention. Fig. 2 shows in a similar manner the same parts with the breech block in the open position. Fig. 3 is a horizontal sectional view of the frame and block taken substantially on line A—B of Fig. 2, with the breech block in open position. Fig. 4 is a similar sectional view with the breech block in partially open position. Fig. 5 shows a front end elevation of the breech block.

Referring to the reference characters in a more particular description, 5 indicates the frame or receiver of the fire arm, which may consist of two detachable parts, one attached to the stock and one to the barrel in a well known manner. Mounted for reciprocation in the chamber in the frame is the breech block 6 having a recoil shoulder 6^a adapted to engage with the recoil shoulder 5^a on the top plate of the frame to secure the breech block in closed position. The block is adapted to be operated by a sliding action bar 7 arranged under the barrel 8.

Mounted in a longitudinal recess in the breech block 6 is a sliding bar 10 constituting the firing pin and cartridge ejector. When acting as a firing pin, the rear end of the bar 10 is adapted to project beyond the rear end of the breech block 6 at its shoulder portion 10^a, where it is adapted to be struck by the hammer 11. For moving the combined firing pin and ejector 10 normally into its rearward position, there is provided a spring 12 arranged in a slot-like recess in the body of the bar 10 and confined between

the rear end of this slot-like recess and a fixed pin 13 secured in the body of the breech block. At its forward end the combined firing pin and ejector is provided with a tooth-like projection 10^b having an inclined rear face, the same being arranged somewhat back from the forward end of the bar 10, whereby there is also provided the projection 10^c. In the side of the bar 10 there is provided a cam-faced recess 10^d through which passes a pin 14 mounted in the body of the breech block 6. At the rear end at one side of the shoulder 10^a against which the hammer is adapted to strike, the bar 10 is provided with a projection 10^e adapted, when the breech block is in its fully open position, to strike against the shoulder 5^b on the rear portion of the frame.

On the opposite side of the breech block 6 from the forward end of the combined ejector and firing pin 10, is mounted the extractor 15 having a hook-like end adapted to engage the rim of a cartridge shell and operated to its engaging position by a spring 16.

When not otherwise acted upon, the combined firing pin and ejector will be moved to its normal rearward position with reference to the breech block, as shown in Fig. 4, by operation of the spring 12. In this position the tooth-like projection 10^b is withdrawn into the forward end of the slot which contains the bar 10, leaving the projecting portion 10^c, however, projecting beyond the face of the breech block. At the same time that the tooth-like projection 10^b is withdrawn into the forward end of the breech block, the inclined rear cam face thereof, acting against the breech block, serves to move the combined firing pin and ejector at its forward end laterally outward from the central line. When in this position the projection 10^c on one side of the cartridge head and the extractor 15 on the other side engage and hold the cartridge shell securely on the face of the breech block. The front side of the tooth-like projection 10^b is the portion which acts on the cartridge head or rim when the device is serving as a firing pin, and it will be noted with reference to Fig. 1 that when the forward end of the breech block has been elevated to bring the recoil shoulders into engagement, the forward face of the projection 10^b is carried well up toward the top of the head of the cartridge, but is still supported at such a point as to become effective in exploding the cartridge. The firing is

effected by releasing the hammer 11 in an obvious and well known manner and letting it strike the rear end of the firing pin on the shoulder 10^a. The blow is transmitted by the bar to the cartridge. The first opening movement of the breech block necessarily is to drop down the front end thereof, and the arrangement is such that when so dropped down the extractor 15 on one side and the forward end of the ejector on the other side will take substantially diametrical positions on the head of the cartridge shell. As the breech block is reciprocated longitudinally toward its open position, the shell is withdrawn from the barrel and carried by the breech block until the breech block reaches substantially the limit of its opening movement. When the rear projection 10^e strikes the shoulder on the frame, the continued rearward movement of the breech block causes the forward end of the ejector 10 to be projected from the forward end of the breech block and it is given also a sidewise swing by the wall of the cam recess 10^b engaging with the fixed pin 14. This movement, together with the holding effect of the extractor 15 on the opposite side of the shell, causes the shell to be expelled laterally through the ejection opening at 17 in the side of the frame. The ejection is positive and certain, even though the opening movement of the breech block is slow. In its opening movement the breech block is arranged to ride the hammer down into its cocked position in the usual manner.

It is evident that modifications and changes in and from the construction herein described may be made without departing from the invention as intended to be covered by the claims.

What I claim as new and desire to secure by Letters Patent is:

1. A combined firing pin and ejector mounted in the breech block, having means for producing a lateral throw to the car-

tridge engaging end, substantially as set forth.

2. A cartridge-ejector consisting of a bar having a part adapted to engage the head of a shell and a part adapted to engage the edge of the head and having a cam to throw laterally the cartridge-engaging parts, a reciprocating breech block in which the ejector is mounted to move longitudinally and a fixture on the frame and engaging with the ejector, substantially as set forth.

3. A combination firing pin and ejector mounted in the breech block, having means for producing a lateral throw to the cartridge engaging end, an extractor cooperating therewith and a hammer cooperating therewith, substantially as set forth.

4. A combination firing pin and ejector, having means for engaging the end of the cartridge and the side of the cartridge, means for producing a lateral throw to the cartridge engaging end, and a hammer and an extractor cooperating therewith, substantially as set forth.

5. The combination in a firearm of a breech block, a combined firing pin and cartridge ejector consisting of a bar mounted in the breech block for longitudinal movement and having a part adapted to engage the edge of the head of the cartridge, and a tooth-like projection adapted to engage the head of the cartridge, a cam for throwing the cartridge engaging parts laterally as the bar is moved longitudinally, a hammer adapted to strike the bar and a fixed shoulder on the frame to engage and operate the bar, substantially as set forth.

In witness whereof, I have affixed my signature, in presence of two witnesses, this 10th day of October, 1908.

JOHN D. PEDERSEN.

Witnesses:

EMMA S. HESSE,
SARAH E. CLARK.