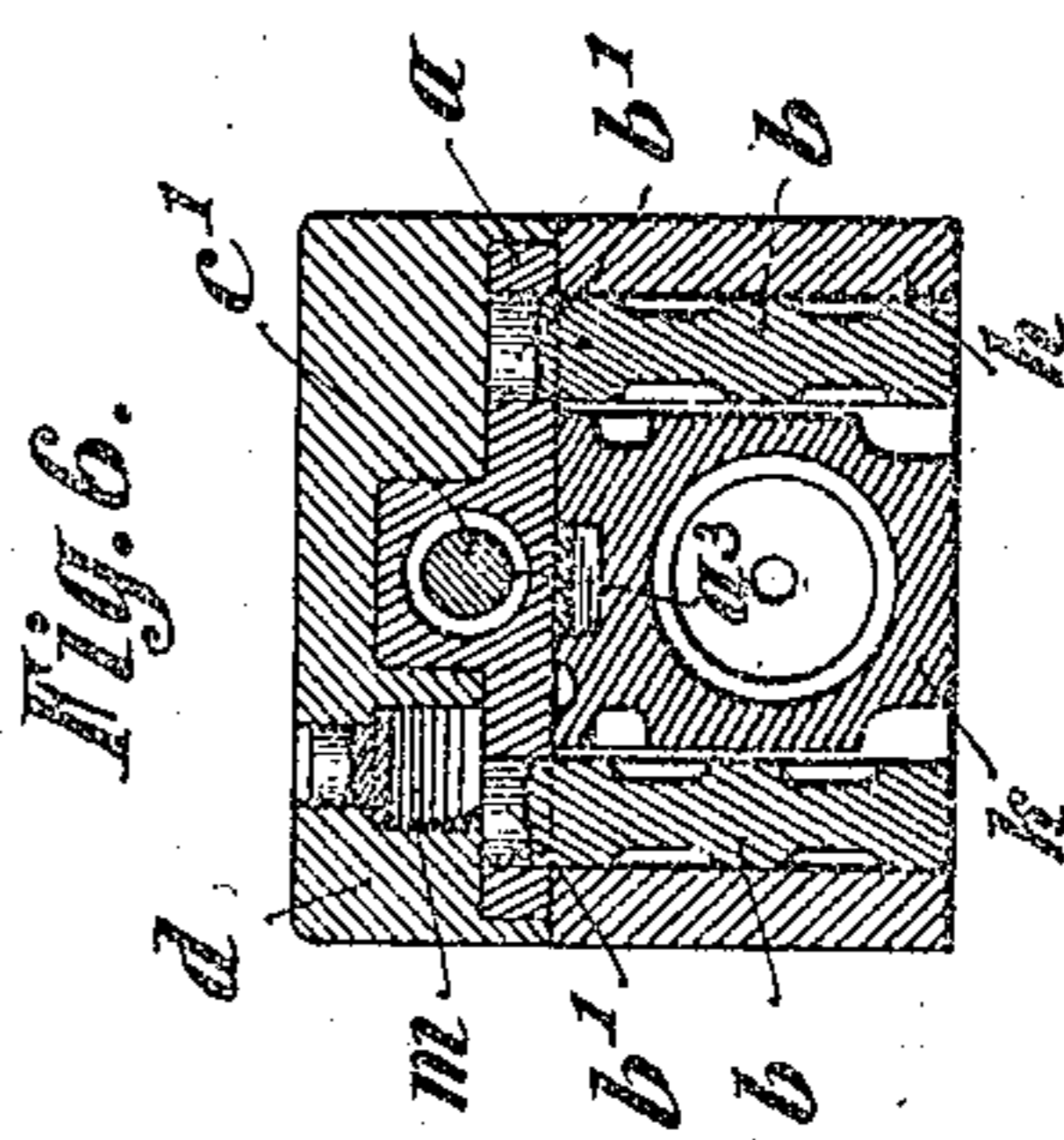


943,949.

3 SHEETS—SHEET 1.



Fred White
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By Attorneys,

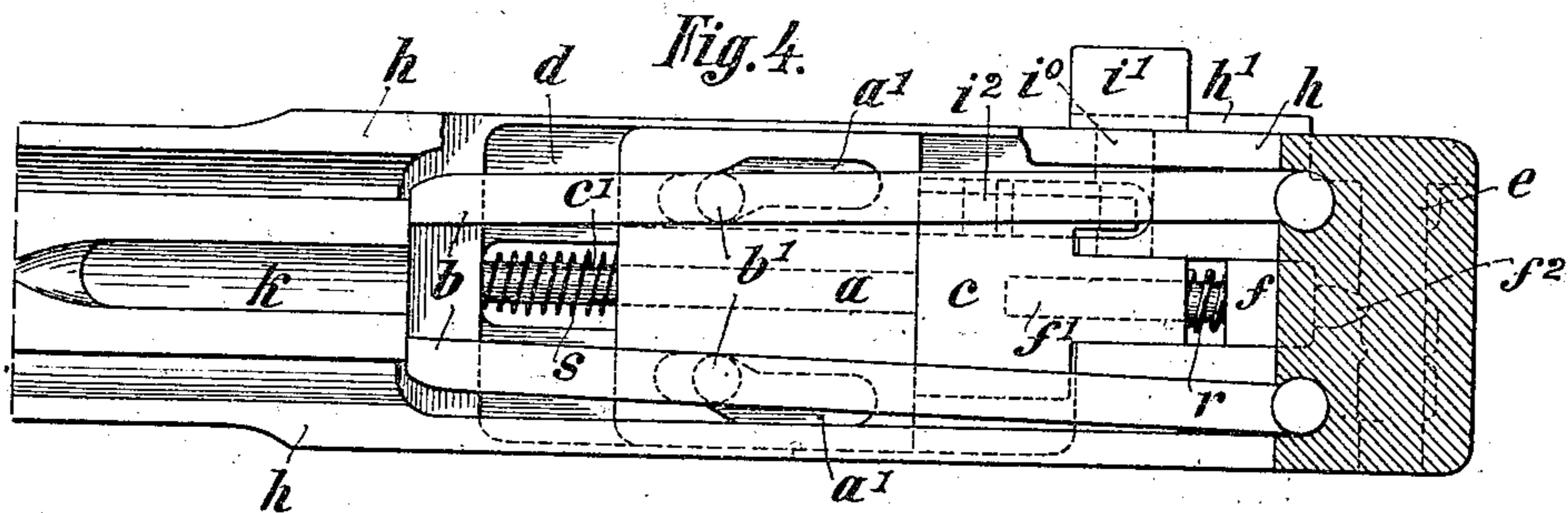
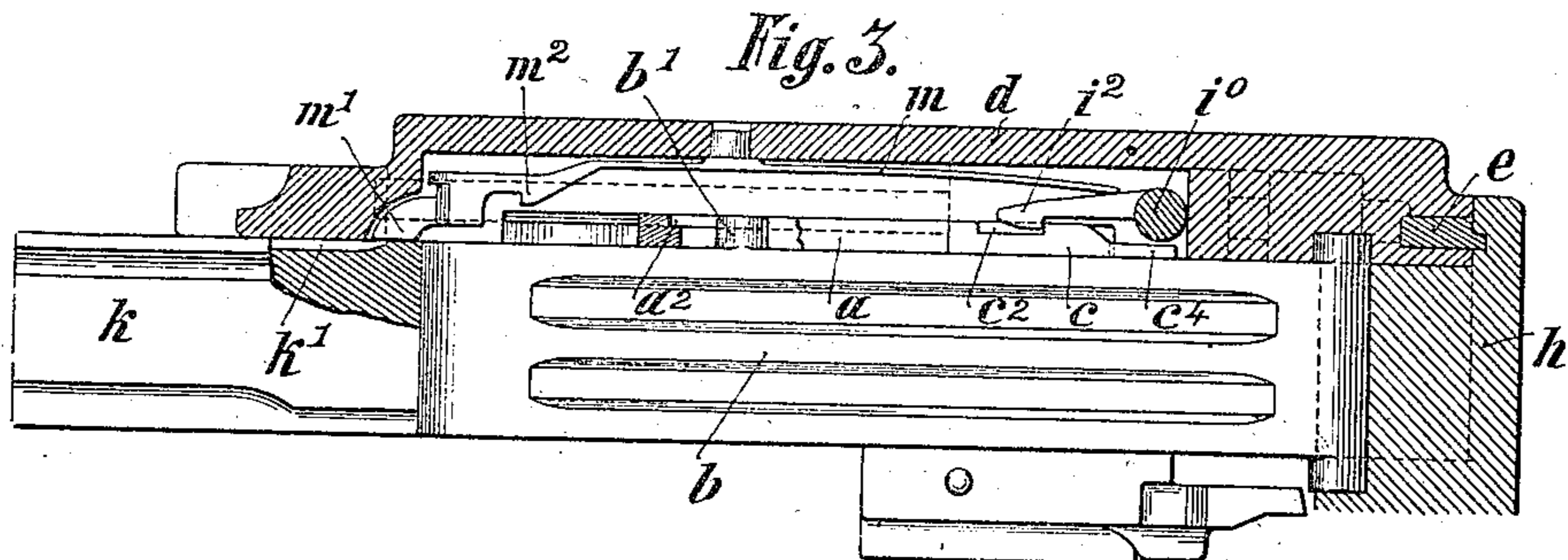
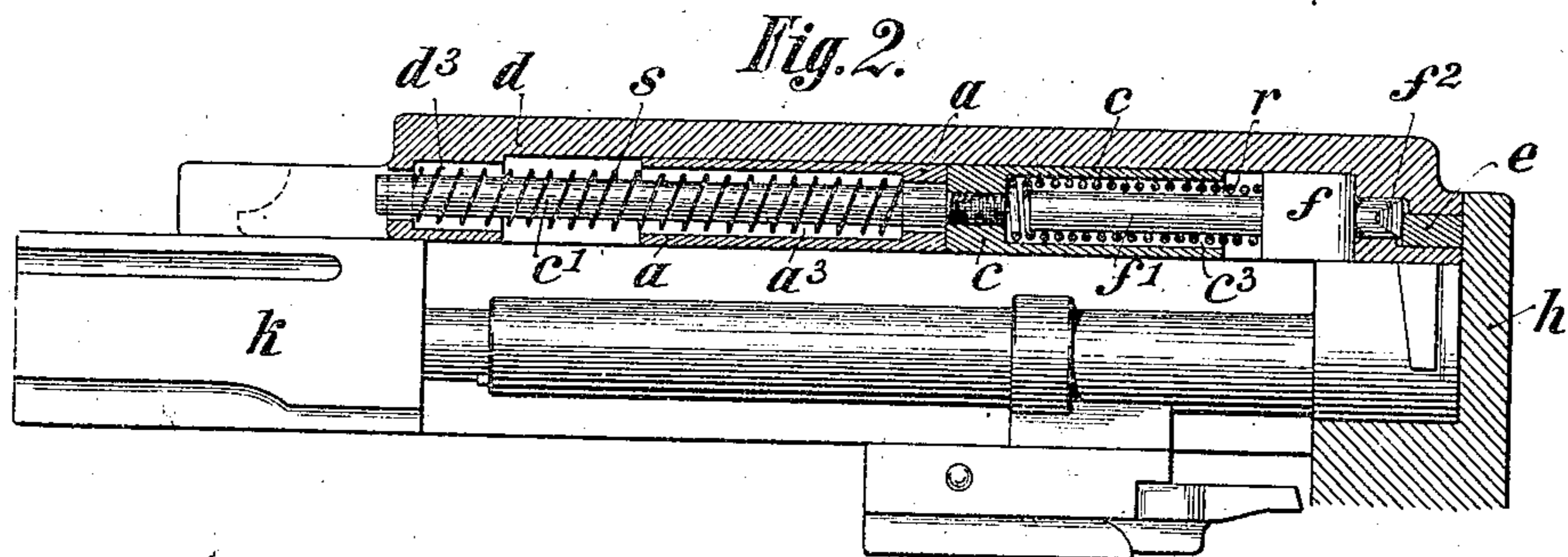
By Attorneys,
Arthur P. Francis & Son

P. MAUSER.
RECOIL LOADER WITH FIXED BARREL.
APPLICATION FILED NOV. 9, 1908.

943,949.

Patented Dec. 21, 1909.

3 SHEETS—SHEET 2.



WITNESSES:

Fred White
Rene Guine

INVENTOR:

Paul Mauser,

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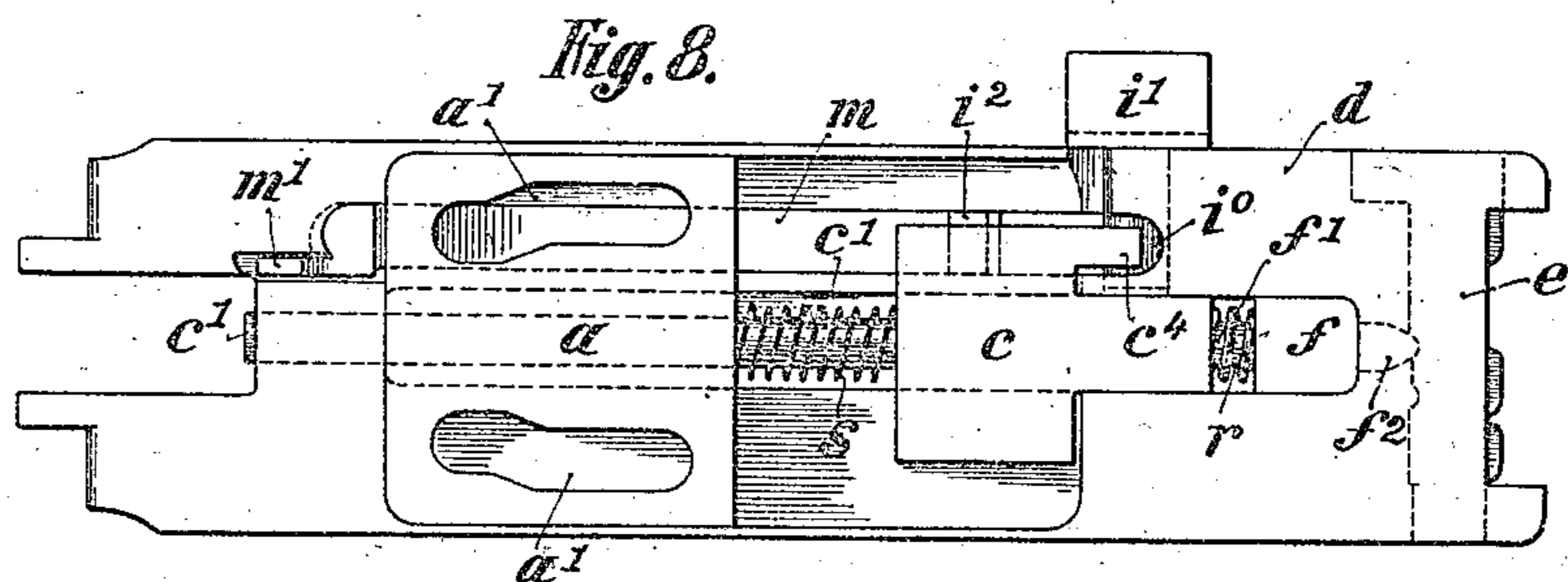
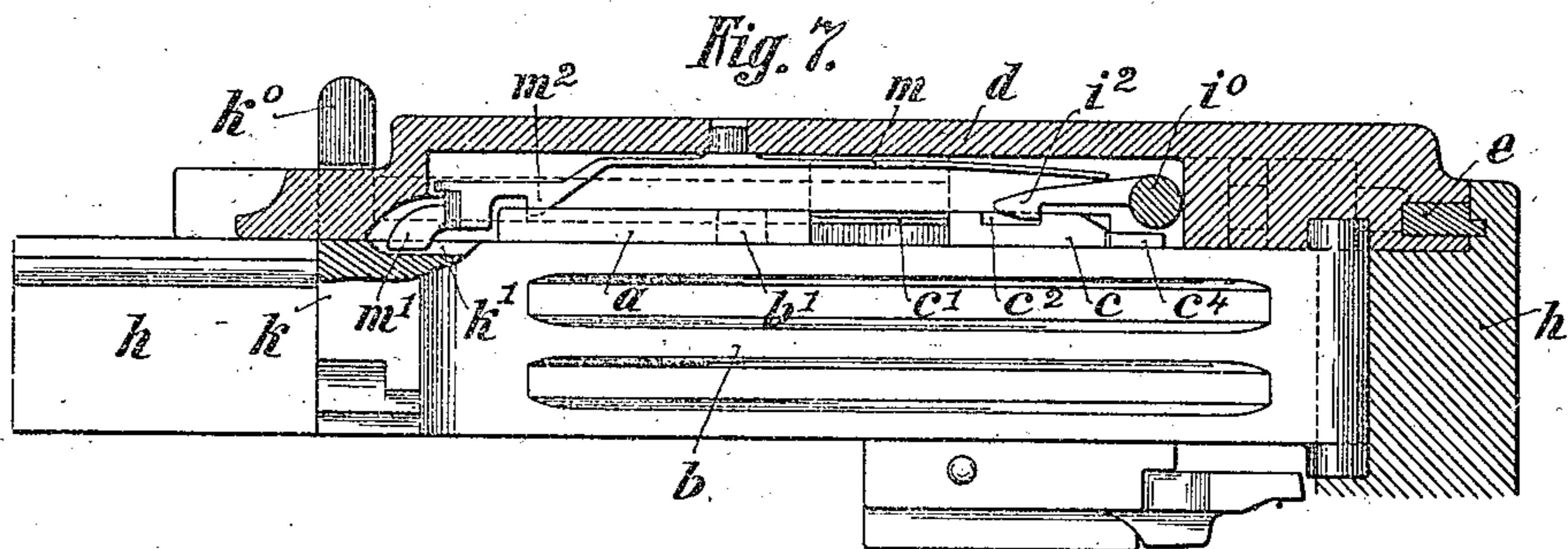
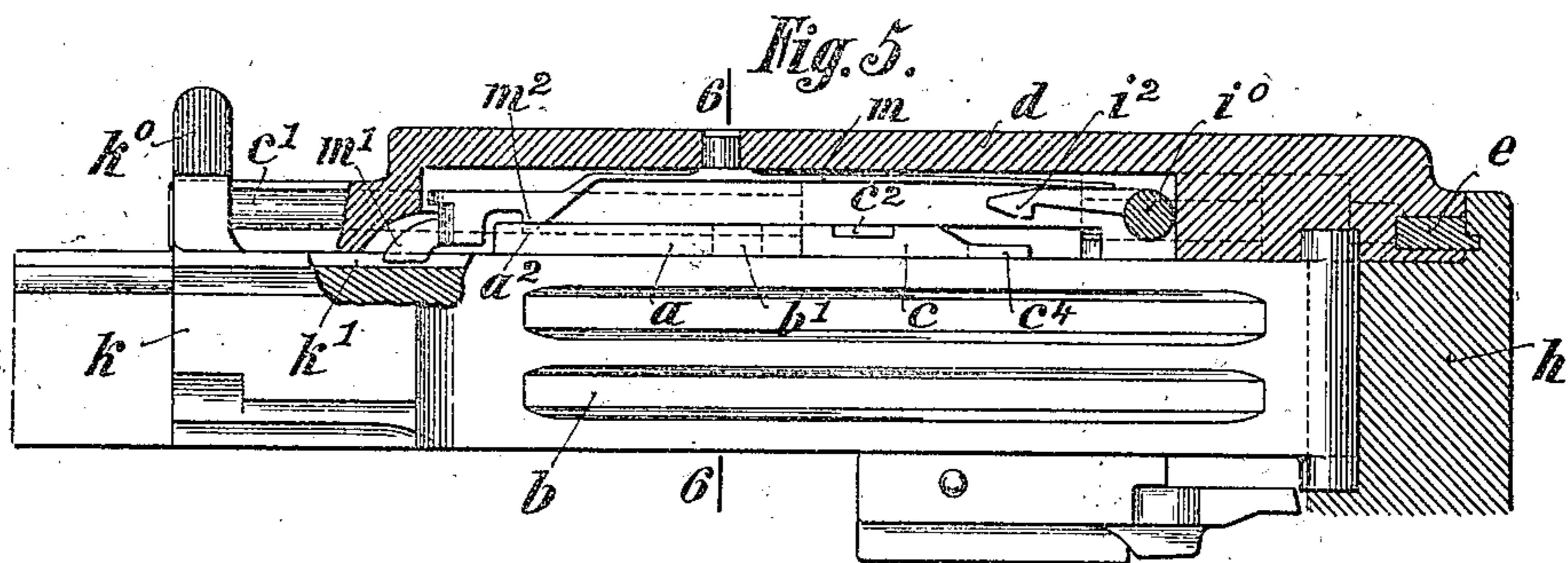
Arthur C. Fraser & Co.

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3 SHEETS—SHEET 3.



WITNESSES:

Fred White
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INVENTOR:

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UNITED STATES PATENT OFFICE.

PAUL MAUSER, OF OBERNDORF-ON-THE-NECKAR, GERMANY.

RECOIL-LOADER WITH FIXED BARREL.

943,949.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed November 9, 1908. Serial No. 461,670.

To all whom it may concern:

Be it known that I, PAUL MAUSER, privy councilor of commerce, a subject of the King of Württemberg, residing at Oberndorf-on-the-Neckar, in the Kingdom of Württemberg, Germany, have invented certain new and useful Improvements Relating to Recoil-Loaders with Fixed Barrel, of which the following is a full, clear, and exact description.

10 This invention refers to a recoil loader with fixed barrel, and taking as its basis the locking arrangements already known for recoil weapons with movable barrel of the Mauser system, has for its object to obtain
15 a particularly simple and suitable device by means of which in the case of recoil loaders having fixed barrels, the locking parts are moved into the unlocking and into the locking position. For this purpose the arrangement is such that the movement of the locking
20 levers, which heretofore (with movable barrel) were arranged in a sliding socket and moved together with this socket, but are now arranged permanently in the lock casing, into and out of the locking and un-
25 locking position, is effected by a slotted plate, which according to the present invention, is exposed to the action of a special actuating device, which latter before the discharge of the weapon is in the compressed
30 condition but after the discharge of the weapon is released and thereby drives the plate into the unlocking position. Before the discharge of the weapon this actuating
35 device is held in its compressed condition by means of a catch and consequently secures the plate in its locking position. This catch on its part is actuated by a weighted pivotal
40 lever, which on the discharge of the weapon is caused to turn upon its pivot owing to the recoil and is thereby enabled to release the catch.

In the accompanying drawings, Figure 1 is a longitudinal view of the breech in which
45 the movable breech mechanism (the breech block) is situated in its closed position ready for the discharge of the weapon. Fig. 2 is a longitudinal section of the rear portion of the lock casing with the parts appertaining
50 thereto in the position shown at Fig. 1, that is to say, with the breech block locked before discharging the weapon. Fig. 3 shows another longitudinal section taken in the direction of the left locking lever and with the
55 parts in the same position. Fig. 4 is an underside plan view of Fig. 3, more particu-

larly showing the mutual position of the locking parts and of the slotted plate acting on the same. Fig. 5 is a longitudinal section corresponding to Fig. 3 in which the
60 parts are shown in the position they occupy after discharging the weapon, after the locking parts have passed into the unlocking position and the breech block is situated near the rear end of its traverse. Fig. 6 is a ver-
65 tical transverse section taken on the line 6—6 of Fig. 5. Fig. 7 shows the parts in similar position but with the breech block situated completely at the end of its traverse and Fig. 8 is an underside plan view of the
70 cover plate of the lock casing containing all the actuating mechanism for effecting the locking and unlocking.

In the first place as regards the general arrangement of the breech mechanism shown, to which the invention is applied by way
75 of example, it may be said essentially to consist of the casing *h* (the so-called sliding socket) of the breech block *k* to the front portion of which is fitted the barrel *l* and the
80 back portion of which is closed by a removable lid *d*, which breech block *k* performs its closing and opening movement in this casing *h*, and the latter also contains the levers *b* *b*
85 serving for locking the breech block and symmetrically supporting in the locking position the breech block on both sides. These locking levers are one-armed levers located
90 along the inside of the breech casing and are so arranged with their rear ends pivoted in the rear wall of the casing, that moving like arms and standing inward when the breech is closed, they symmetrically support the
95 breech block on both sides and consequently lock the same, but, after the discharge of the weapon, they stand outward and allow the thus unlocked breech block to pass backward between them. Whereas in the case of a
movable barrel, these locking levers are moved into the locking and unlocking posi-
100 tions by the levers sliding, on the to and fro movement of the barrel together with the sliding socket, with downwardly projecting pins in slots or grooves provided on the bottom of the casing, now according to the new
105 arrangement the displacement of the levers is effected by a slotted plate *a*, movably arranged beneath the cover plate, and provided with slots *a'* *a'* serving for actuating the
110 levers, and in which the engagement between the levers and the slots is obtained by means of pins *b'* *b'* provided on the upper surface

of the levers. Now according to the position of this slotted plate a , the levers b will be adjusted either in the unlocking or in the locking position; in the form of construction shown the slots a' are so formed, that when the plate a is situated at the rear end of its traverse which is the case when the breech is closed and with the breech block situated in its forward position, the levers b are situated inward in the locking position as shown at Fig. 4. When, however, the slotted plate a is moved into its forward position as shown at Fig. 8, the levers turn outward away from the breech block into the unlocking position.

The to and fro movement of the slotted plate a , in the first place its displacement into the front position in which it holds the levers b outward in the unlocking position, is effected by an actuating device which effects the movement of the plate. This actuating device essentially consists of the plate-like presser part c and the spring r belonging thereto, which spring r , when the plate a and the part c are in their rearmost position, is compressed and, as soon as the movement for unlocking has arrived, is released from its compressed condition, so that upon its release it will suddenly drive the plate a forward by the intermediary of the presser part c .

The releasing or bringing into play of the actuating device c r is effected by the lever i provided with a weight i' , the pivot i^0 of which lever arranged at the side of the cover plate d is provided on its inner end with a locking arm or catch i^2 which latter engages with the part c as soon as it is situated in its rearmost position, (and in this manner the spring r is placed under compression) for the purpose of holding the spring r in its compressed position. Now the recoil occasioned by the discharge of the weapon, causes the lever i with the weight i' to swing forward thereby releasing the locking arm i^2 from its notch c^2 in the part c ; the part c flies forward and thus brings the plate a into the unlocking position so that the breech block can fly freely backward between the outwardly standing levers b .

The actuating device is brought into the compressed position by means of the breech block as it flies back, inasmuch as on its backward movement it encounters with its head piece k^0 a pin c' projecting from the front of the cover plate and screwed into the presser part c , in this manner, while at the same time compressing the spring r , the part c is pressed backward and as soon as it has reached its rearmost position, it is caught by the locking arm i^2 engaging in the notch c^2 of the side arm c^4 .

With respect to the spring r it may be still further remarked that this spring is situated in the middle hollow portion c^3 of

the presser part c and is guided by a pin f' mounted in a guide block f projecting into said hollow part c^3 . This pin f' by means of its acting point f^2 forms a spring catch for holding the cover plate to the casing by engaging in the cover slide e as shown at Fig. 8.

In order to cause the slotted plate a to move from its foremost position into its rearmost position and thus occasion the inward movement of the levers b for the purpose of locking the breech block, a counter spring s is provided, which acts in an opposite direction to the spring r and which is supported at one end against the front inner wall of the cover plate and at the other end against the back wall of a recess a^3 in the slotted plate a . This counter spring s is compressed on the plate a being driven forward by the spring r , and in order to maintain the spring s in said compressed condition on the return of the pressure part c into its rearmost position, the plate a is held in its foremost position by a catch m^2 as shown at Figs. 5 and 7. The arrangement is such that the releasing of this catch m^2 and consequently the releasing of the compressed counter spring s is effected by the breech block passing forward; for this purpose the arm m carrying the catch m^2 is provided at its front end with a curved shoulder m' , which on the return of the breech block slides in a longitudinal groove k' of the same and the catch in its lowermost position continues in engagement with the corresponding notch a^2 of the plate a .

The groove k' at its rear end forms a projecting shoulder, which when the breech block has almost reached its closing position, encounters the shoulder m' and raises up the arm carrying the catch and consequently releases the same from its engaging position. Owing to this releasing of the catch, the plate a flies backward under the action of the counter spring s thereby turning the levers b inward into the locking position as shown at Fig. 4 and the locking is thus effected. Previously, however, on the returning movement of the breech block, the actuating device c r is brought into the compressed position, which as soon as the weapon has been discharged and the catch i^2 released owing to the pivoting of the lever i , again presses the plate a forward thereby again effecting the unlocking. There thus occurs such a continuous coöperation of the described parts that on the discharge of the weapon the spring r is released by the lever i swinging forward, the plate a is pressed forward, at the same time compressing the counter spring s , and in this way the unlocking is effected, the breech block flies back again compresses the actuating device c r , the lever i swings back and brings the arm i^2 into the locking position, the breech

block again flies forward and, passing into the closed position, releases the catch m^2 , consequently the plate a under the action of the compressed counter spring s flies back thereby effecting the locking.

What I claim is:—

1. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, and an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm.

2. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, and a catch for holding said actuating device in its initial position before the discharge of the firearm.

3. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, a spring for moving said actuating device, means for compressing said spring, a catch for holding said actuating device, and a pivotally mounted weighted lever for operating said catch, said lever being adapted to oscillate upon the recoil of the firearm and thereby to release said catch.

4. A recoil loading firearm having a fixed

barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, and a spring for said actuating device, said breech block being adapted to compress said spring upon the return of said breech block.

5. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, a counter spring for actuating said slotted plate, said counter spring being compressed by the forward movement of said plate, an actuating device for moving said plate forwardly, and a spring for driving said presser part.

6. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, a counter spring for actuating said slotted plate, said counter spring being compressed by the forward movement of said plate, a catch for holding said slotted plate in the unlocking position, and a shoulder formed upon the breech block for actuating said catch to release said plate upon the forward movement of said breech block.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

PAUL MAUSER.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.