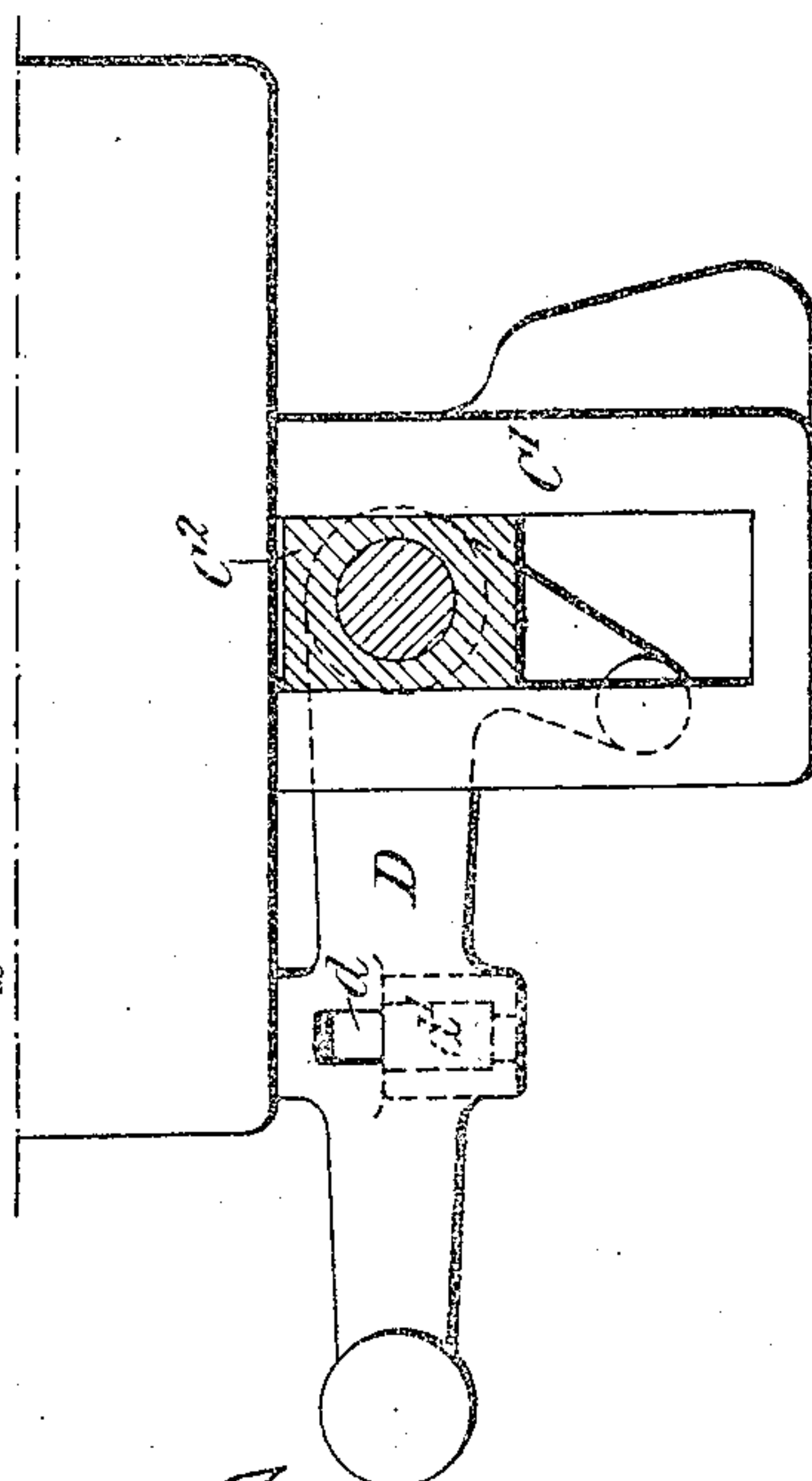
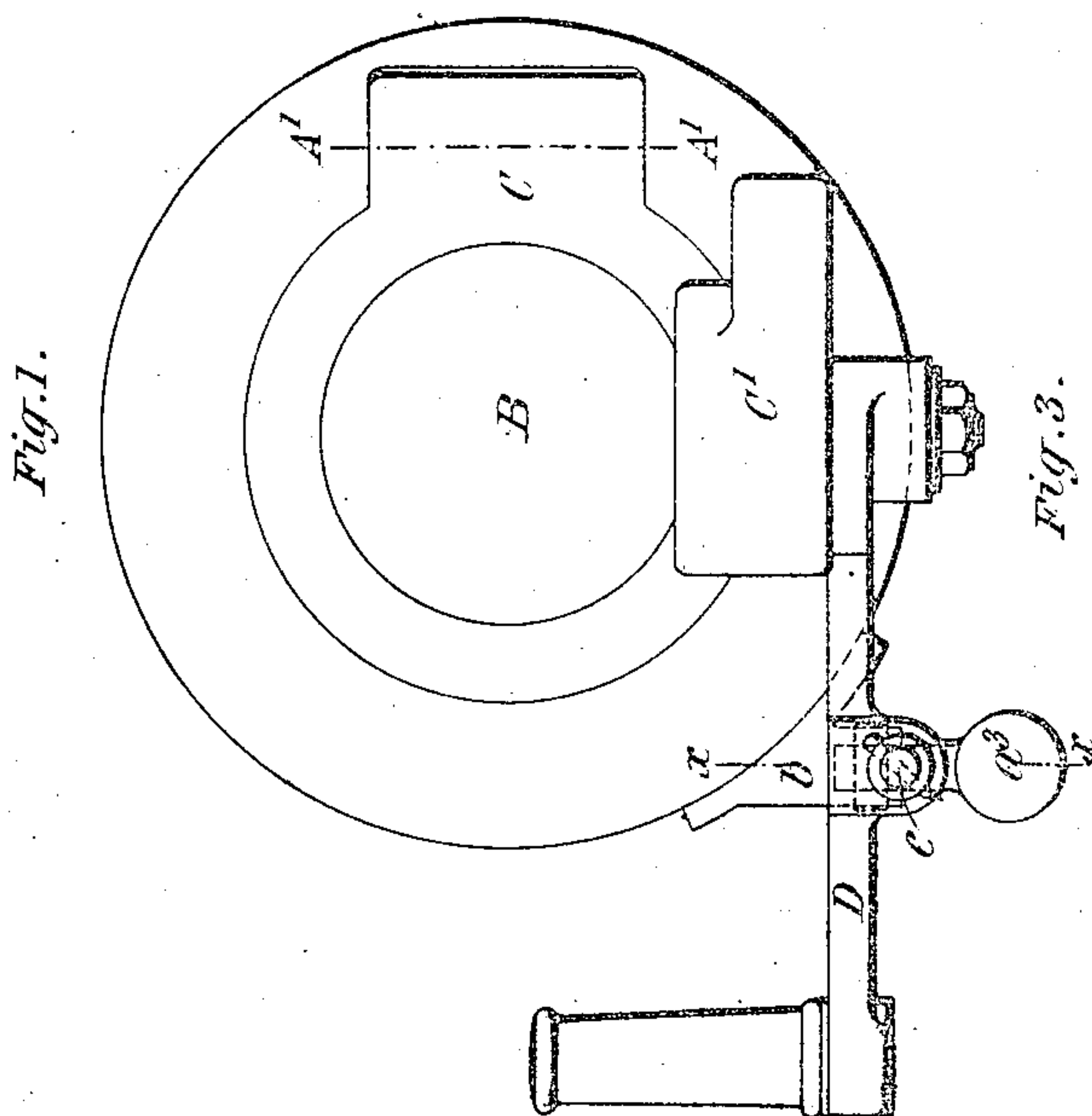
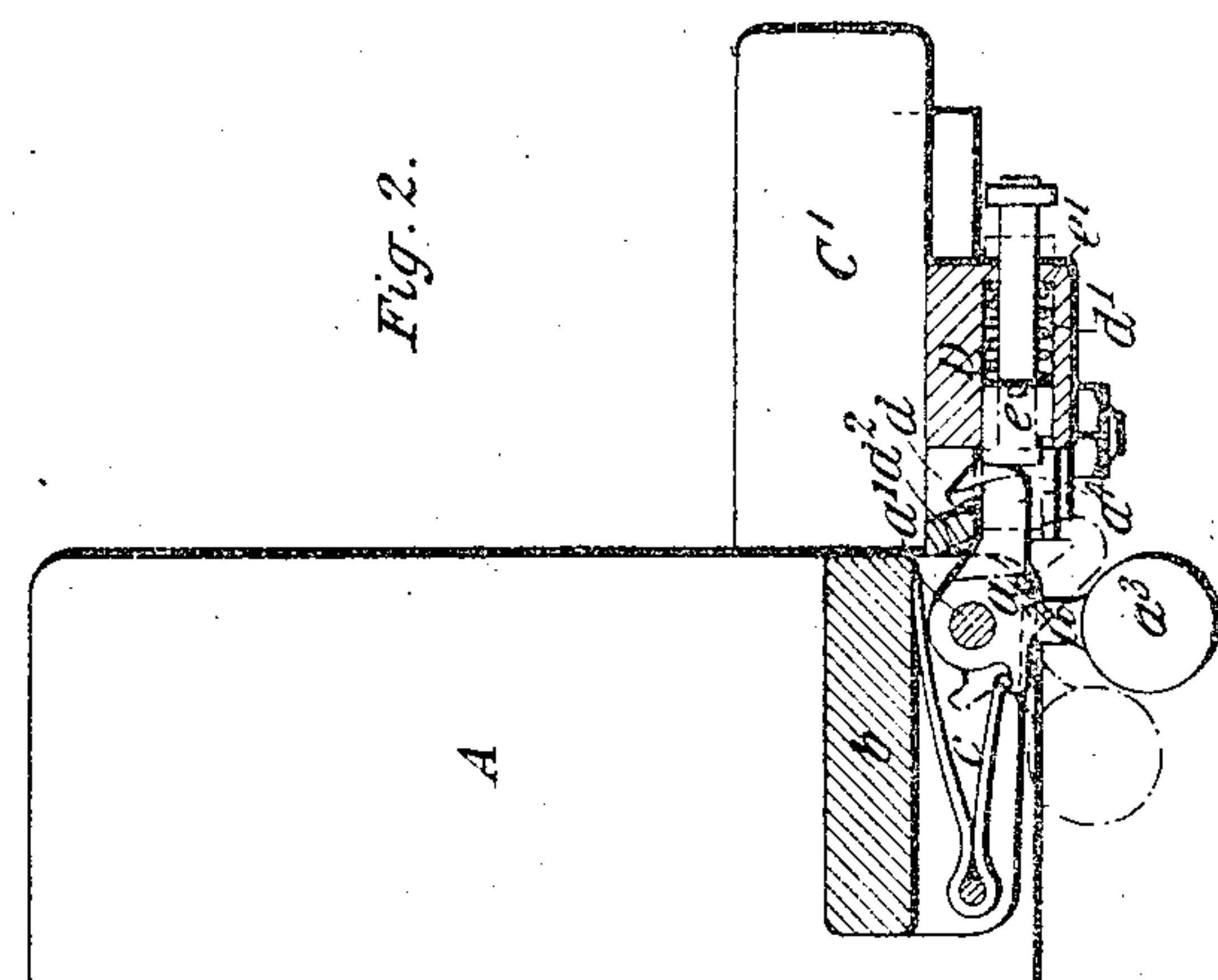


(No Model.)

J. B. G. A. CANET.
SAFETY BREECH LOCK FOR GUNS.

No. 519,661.

Patented May 8, 1894.



Witness:
E. L. Perry
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UNITED STATES PATENT OFFICE.

JEAN BAPTISTE GUSTAVE ADOLPHE CANET, OF PARIS, FRANCE, ASSIGNOR
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OF MANCHESTER, ENGLAND.

SAFETY BREECH-LOCK FOR GUNS.

SPECIFICATION forming part of Letters Patent No. 519,661, dated May 8, 1894.

Application filed July 14, 1892. Serial No. 440,022. (No model.) Patented in France December 29, 1886, No. 180,578, and in England July 13, 1891, No. 11,858.

To all whom it may concern:

Be it known that I, JEAN BAPTISTE GUSTAVE ADOLPHE CANET, engineer, a citizen of the Republic of France, and a resident of Paris, France, have invented certain new and useful Improved Safety Devices for the Breech Mechanism of Guns, (for which I have obtained patents in Great Britain, No. 11,858, dated July 13, 1891, and in France certificate of addition, dated June 3, 1891, to Patent No. 180,578, dated December 29, 1886,) of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements applicable to breech mechanism of guns particularly of the kind or class described in Letters Patent of the United States No. 447,228, in which the single movement of a lever performs the successive rotary and translatory movements of the breech-block required for opening the breech.

The object of the present improvements is to avoid all risk of accident which heretofore has been possible from the liability to open the breech block prematurely after pulling the trigger to fire the gun. For this purpose I provide suitable mechanism for automatically locking the breech block either directly or through the operating breech-lever when the breech is closed. This mechanism is so arranged that upon the recoil of the gun taking place after firing, the breech block or its operating lever is automatically released and the breech can then be opened by pulling the said lever. The safety mechanism is moreover so arranged that it can be moved by hand to unlock the breech block, but as this requires a special operation to effect the unlocking it will obviously only be unlocked intentionally. This safety device is specially advantageous in the event of a hangfire of a cartridge as it prevents the movement of the lever for the purpose of opening the breech until the said lever is released by the action of the recoil or the will of the operator.

Figure 1 shows one form of my improved apparatus applied to the actuating breech-lever of a gun the breech-end of the gun being shown in rear elevation. Fig. 2 is a ver-

tical section of the said apparatus on the line x, x Fig. 1, and Fig. 3 is a plan of same.

Like letters of reference indicate corresponding parts throughout the drawings.

A is the gun.

B is the breech block.

C is the carrier ring for the breech block. The said ring is hinged to the gun at the center line A' . The rear part of the ring C is provided with an extension C' which carries a guide block C^2 to which the actuating lever D is pivoted. The said lever D is shown in the position it occupies when the breech is closed.

a is the catch which locks the operating lever of the breech-block.

My safety apparatus which operates to lock the breech block through the medium of the lever D comprises when constructed as herein shown a catch a pivoted at a' to a bracket b attached to or formed on the gun. This catch is provided with an arm a^2 terminating in a weight a^3 .

c is a spring carried by the bracket b and arranged to act upon the catch a causing it to engage with a slot d provided in the lever D thereby locking the lever to the gun.

e is a bolt carried in a recess d' in the lever D and is acted upon by a spring e' which presses it against the end of the catch a . Upon the recoil of the gun the catch a owing to the inertia of the weight a^3 assumes the position shown in dotted lines and the bolt e under the action of the spring e' moves forward and masks or closes the slot d thereby preventing the re-entry of the catch a in the said slot. The lever D is thereby released and is then free to be operated to open the breech. The action of opening the breech withdraws the bolt e from contact with the catch a and allows the latter under the influence of the weight a^3 and the spring c to resume its initial position. When closing the breech the inclined or beveled edge d^2 of the lever D acts upon a similarly inclined or beveled face a^4 on the catch a and slightly depresses the catch thereby allowing the lever D to be pressed home against the gun. At the same time the end of the catch acts to-

force back the bolt *e* so as to uncover the slot *d* and allow the catch to enter the said slot under the action of its spring *c* and lock the lever again when the breech has been properly closed.

In the above device the breech can be opened before firing if the catch *a* is withdrawn by hand from the locking position, but as the gunner cannot do this without knowing it he cannot open the gun unintentionally before the firing has actually taken place.

It should be further understood that in the closing of the breech the catch *a* although it moves back out of the way of the block or lever yet does not move back as in the recoil far enough to become locked.

What I claim is—

1. In a breech loading gun, the combination of the breech, a breech block, an operating lever, one of said members being provided with a slot, a catch adapted to engage said slot, a pendulous device operated by the recoil and connected with said catch for releasing it, and an automatic closer for said slot.

2. In a breech loading gun, the combination of the breech, a breech block, an operating lever therefor, a catch, means for actuating said catch, and an automatic closer for said slot.

3. In a breech loading gun, the combination of a breech block, an actuating lever therefor provided with a slot, a catch pivoted to the

gun and adapted to engage said slot when the breech is closed, means for actuating said catch, means actuated by the recoil of the gun for releasing said catch, and an automatic closer for said slot.

4. In a breech loading gun, the combination of a breech block, an operating lever therefor provided with a slot, a spring catch pivoted to the gun and adapted to engage said slot when the breech is closed, a weight suspended from the catch, a slide on said lever for closing the slot, and a spring for pushing said slide in closed position, said catch engaging the slide to open it when the breech is closed.

5. In a breech loading gun, the combination of a breech block, an operating lever therefor provided with a slot and with a spring actuated slide for closing said slot, a spring catch adapted to engage said slot when the breech is closed, and a weight suspended from said catch for releasing it under the influence of the recoil, said catch having an inclined face engaged by said lever and by said slide when the breech is closed.

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

JEAN BAPTISTE GUSTAVE ADOLPHE CANET.

Witnesses:

ROBT. M. HOOPER,
J. CHATEL.