

A. M. H. DE BRUYCKER.

LOCK.

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917,536.

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Fig. 1.

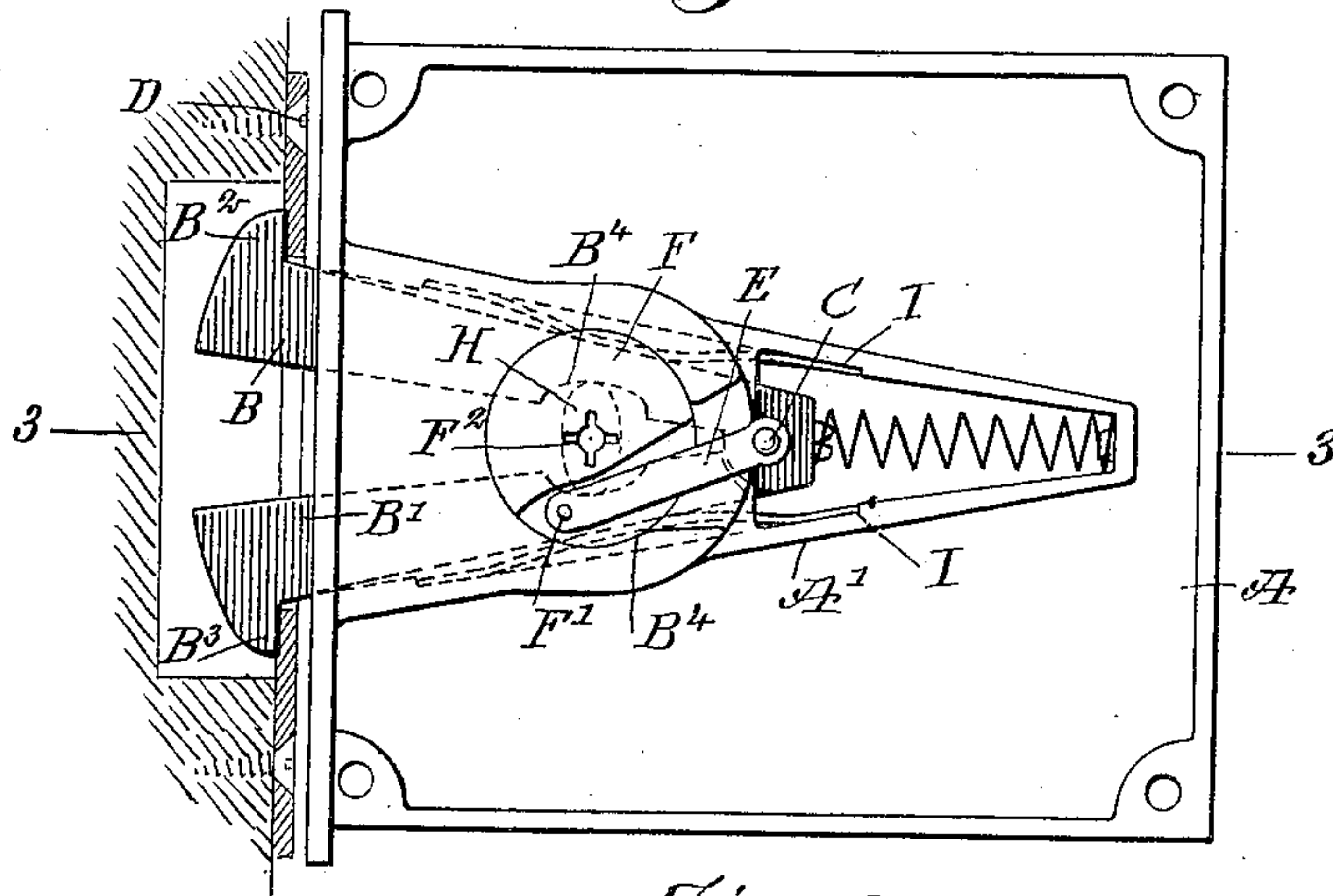
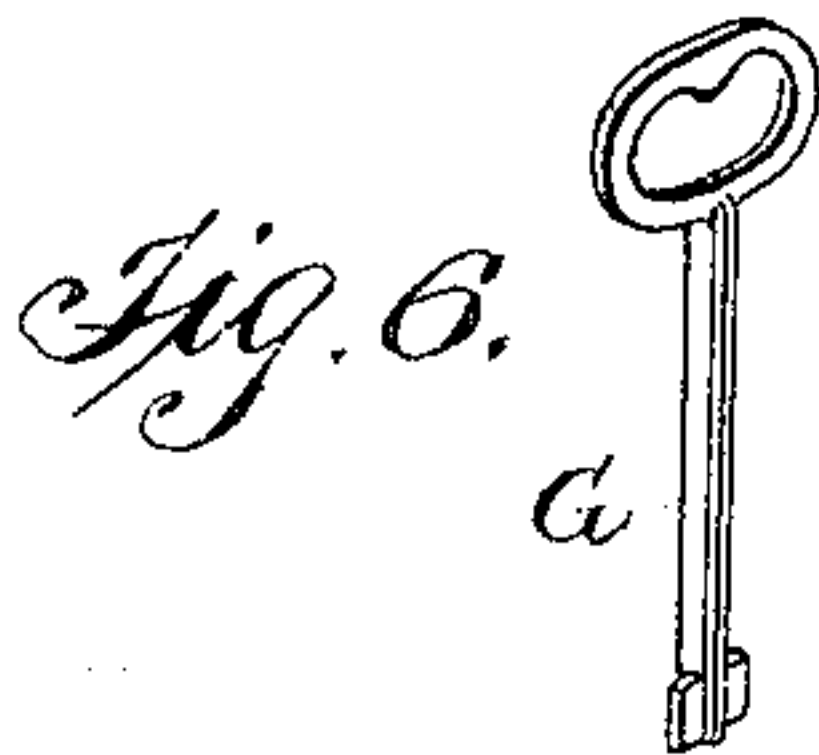
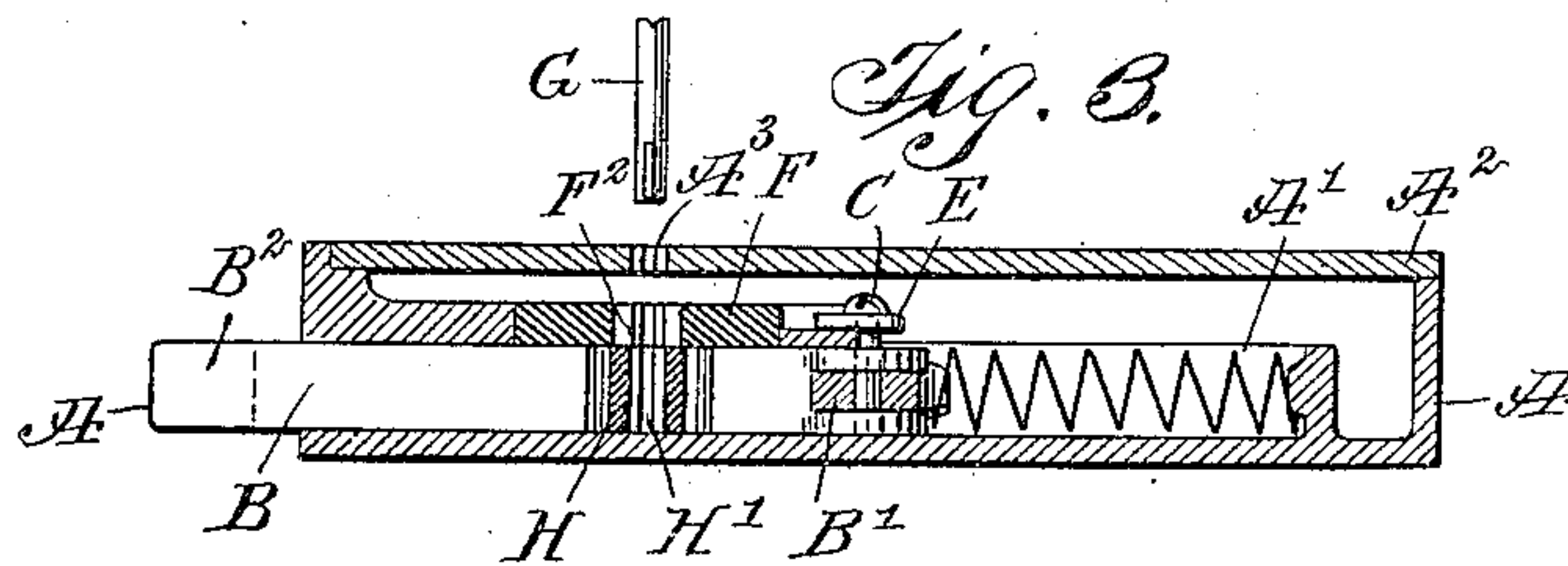
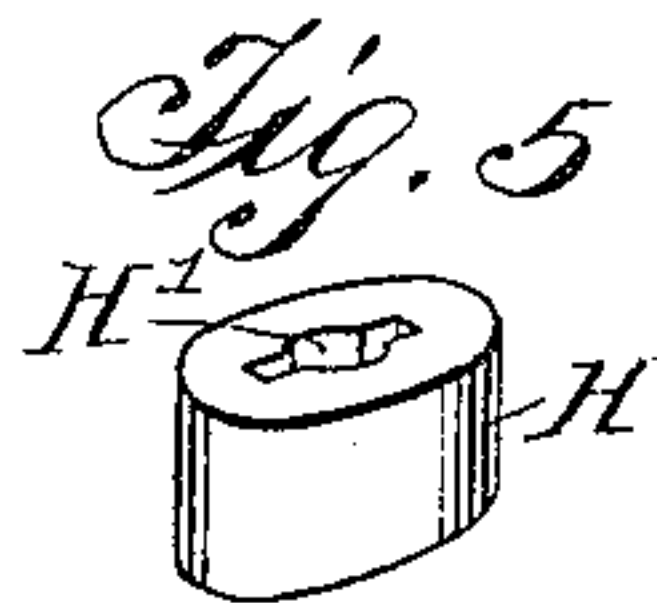
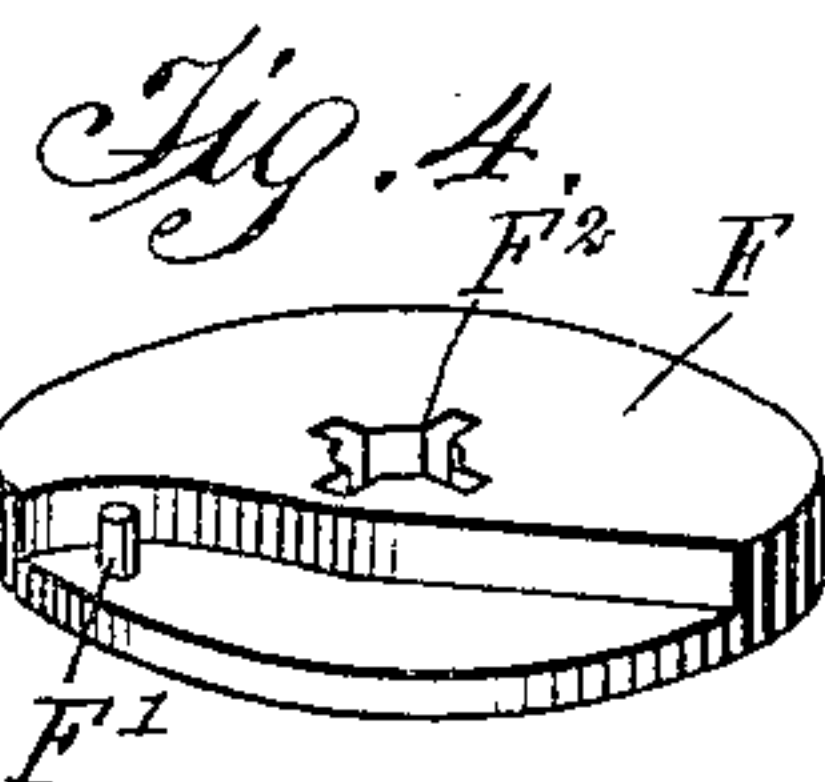
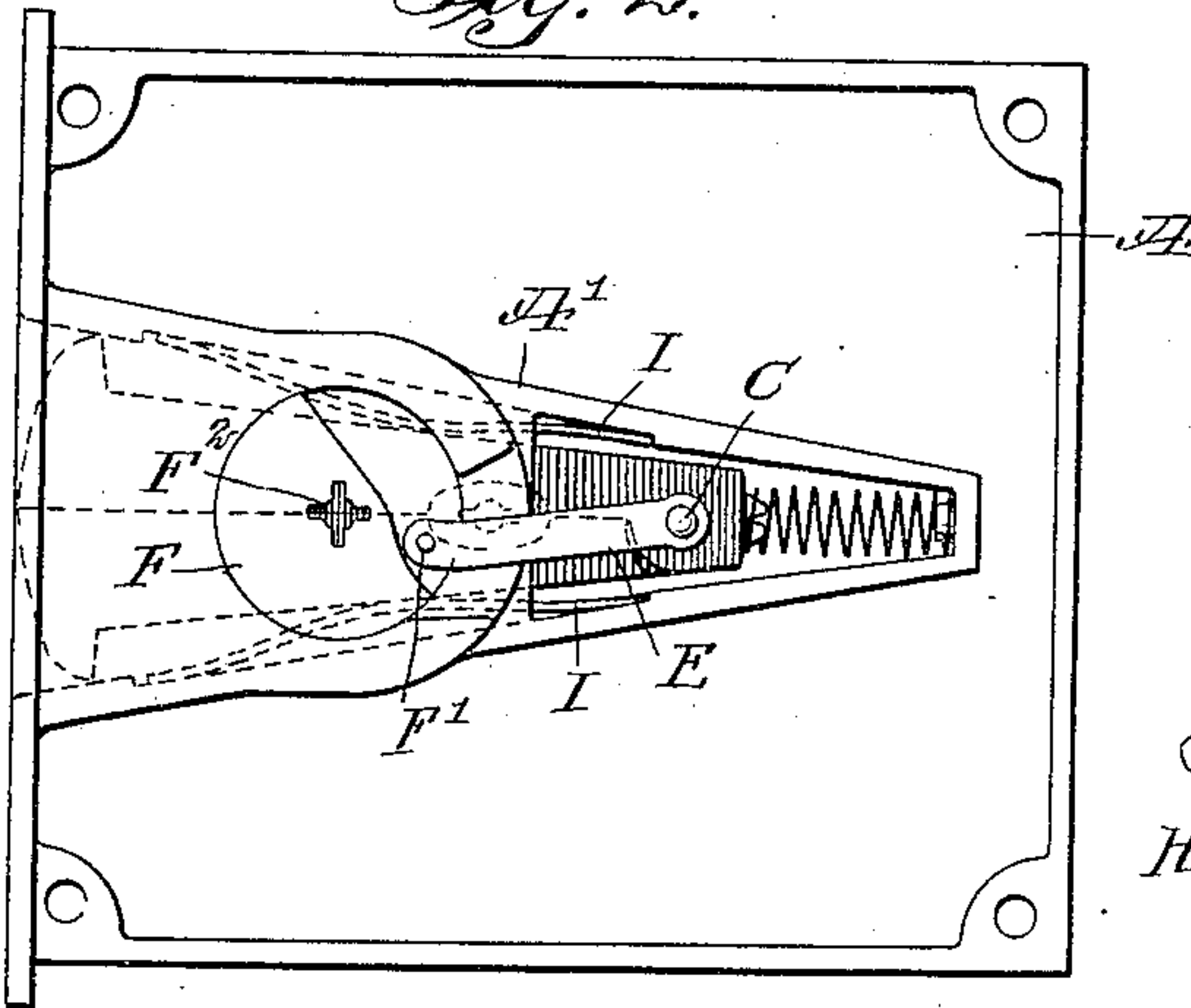


Fig. 2.



WITNESSES
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LOCK.

No. 917,536.

Specification of Letters Patent.

Patented April 6, 1909.

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To all whom it may concern:

Be it known that I, AUGUST M. H. DE BRUYCKER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Lock, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved lock having a bolt formed of hook members, capable of being moved in the direction of their length and adapted to be spread apart to engage the keeper with the hook ends, thus holding the bolt pivotally against retraction unless actuated by the proper key.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement and showing the cover of the casing removed and the bolt shot out into engagement with the keeper, the latter being shown in section; Fig. 2 is a like view of the improvement and showing the bolt in a retracted position; Fig. 3 is a sectional plan view of the same on the line 3—3 of Fig. 1; Fig. 4 is an enlarged perspective view of the plug; Fig. 5 is a similar view of the spreading cam for the bolt members; and Fig. 6 is a perspective view of the key.

The casing A of the lock is provided with a guideway A', in which is mounted a bolt formed of two members B and B', pivotally connected with each other at their rear ends by a pivot pin C, and provided at their forward ends with outwardly-extending hooks B², B³ for engagement with a keeper D, as plainly indicated in Fig. 1. The pivot pin is pivotally connected by a link E with the wrist pin F' of a plug F, mounted to turn in a bearing formed in the guideway A' of the lock casing A, and the said plug F is provided with a keyhole F², adapted to be engaged by a key G for turning the plug F, with a view to slide the bolt outward or inward according to the direction in which the plug F is turned by the key. The opposite faces of the bolt members B and B' are recessed, as indicated at B⁴ in Fig. 1, and in the said recess fits a spreading cam H having a keyhole H' adapted to be engaged by the key G at the time the bolt has been shot out into engagement with the keeper D, the key-

hole H' then registering with the keyhole F² of the plug F.

When the bolt is in a retracted position as shown in Fig. 2, then the keyhole of the spreading cam H is out of register with the keyhole of the plug F, and the bolt members B and B' are held closed when retracted, by springs I arranged in the guideway A' and pressing on the outer sides of the bolt members B and B', as plainly indicated in Figs. 1 and 2. When the bolt is in the withdrawn or retracted position shown in Fig. 2, and it is desired to lock the door or other part on which the lock is applied, then the operator inserts the key G in the keyhole F², and through a keyhole A³ formed in the cover A² of the lock casing A, and then the operator turns the key so as to turn the plug F in its bearing, and in doing so the link E shoots the bolt F outward, so that the bolt passes with its outer hook ends through the opening in the keeper D, the bolt members B', B² being held in a closed position during this outward movement by the action of the springs I. The bolt during this outward movement carries the spreading cam H along so that the keyhole H' thereof finally registers with the keyhole F², and the operator now pushes the key G farther in so as to engage the bit of the key with the keyhole H'. Now a further turning of the key G on the part of the operator causes a turning of the spreading cam H, so that the bolt members B and B' are spread apart, and their hooks B², B³ engage the back of the keeper D, as plainly shown in Fig. 1. When the key G is now withdrawn it is evident that the bolt cannot be pushed back into a retracted position by a person inserting a knife or other tool between the front end of the casing A and the keeper D, thus preventing unlocking of the door by unauthorized persons. When it is desired to unlock the door with the proper key G, then the latter is re-inserted through the keyholes A³, F² and H', after which the key is turned to turn the spreading cam H back into normal position. When this takes place the springs I act on the bolt members B, B', to swing the same toward each other into a closed position, and then the key is partly withdrawn to move the bit thereof out of the keyhole H' and into the keyhole F², after which the key is again turned to rotate the plug F, whereby the latter causes the link E to withdraw the bolt members B, B' back into the position shown in Fig. 2. The out-

ward sliding movement of the bolt may be limited by suitable means, such, for instance, as the pivot pin C abutting against the guideway A' at the time the bolt is shot out to the desired extent (see Fig. 3).

From the foregoing it will be seen that by the arrangement described, the bolt is moved in the direction of its length by key-controlled means, and the bolt members are spread apart at the time the bolt is shot out by key-controlled means, that is, the said means for moving the bolt in the direction of its length and for spreading the bolt members apart are controlled by the same key, which may be of any approved construction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A lock comprising a bolt formed of members pivoted together at one end and adapted to spread apart, means connected with the pivot of said bolt for moving the bolt in the direction of its length, and means for spreading the members of the bolt apart.

2. A lock comprising a bolt formed of members pivoted together at one end and adapted to spread apart, means connected with the pivot of said bolt for moving the bolt in the direction of its length, means for spreading the members of the bolt apart, and springs for normally closing the bolt members.

3. A lock, comprising a bolt formed of hook members pivotally connected with each other, a plug, a connection between the plug and the bolt to move the latter in the direction of the length of the bolt on turning the plug, and a cam moving with the bolt for spreading the said bolt members.

4. A lock comprising a bolt formed of members having hooks at one end and pivotally connected with each other at the other end, a plug mounted to turn, means for connecting the plug with the bolt at the pivoted ends of the bolt members, to move the bolt in the direction of its length on turning the plug, a device for spreading the said bolt members, the plug and the said spreading device having key holes adapted to register with each other, and a key for successively engaging the said key holes to actuate the said plug and the said spreading device.

5. A lock comprising a bolt formed of hook members pivotally connected with each other, a plug having a keyhole, a link connecting the said plug with the bolt to move the latter in the direction of its length on turning the plug, a spreading cam between the said bolt members and moving with the bolt, the said cam having a keyhole in register with the said plug keyhole at the time the bolt is shot out, and a key for successive engagement with the said keyholes.

6. A lock comprising a bolt formed of members provided at their forward ends with outwardly-extending hooks and pivotally connected with each other at their rear ends, key-controlled means mounted to turn and connected with the bolt for moving the bolt in the direction of its length, and key-controlled means mounted to turn and moving with the bolt for spreading the bolt members apart at the time the bolt is shot out.

7. A lock comprising a bolt formed of members provided at their forward ends with outwardly-extending hooks and pivotally connected with each other at their rear ends, key-controlled means for moving the bolt in the direction of its length, a key-controlled cam carried by the bolt for spreading the bolt members apart at the time the bolt is shot out, and springs pressing the said bolt members to hold the latter normally in a closed position.

8. A lock comprising a casing having a guideway, a bolt mounted in said guideway and formed of two members having hooks at one end for engagement with a keeper, a pivot pin connecting the other ends of the members together, a plug mounted to turn, a link connecting said plug with the pivot of the bolt to move the bolt in the direction of its length on turning the plug, the said bolt members being provided with opposing recesses, a cam for spreading the bolt members, the said cam engaging the recesses in the bolt members and moving with the bolt, and means for successively actuating the plug and the cam.

9. A lock comprising a casing having a cover plate provided with a key hole, a bolt having members pivotally connected with each other at one end, a tapering guideway in said casing in which the bolt is mounted to slide, a key-controlled plug mounted to turn in said casing and provided with a key hole registering with the key hole of the cover plate, a connection between the said plug and the said bolt to move the latter in said guideway in the direction of the length of the bolt on turning said plug, a key-controlled cam for spreading the bolt members, the said cam being held between the members of the bolt and moving with the latter and having a key hole adapted to register with the key hole of the plug at the time the bolt is shot out, and springs arranged in said guideway and pressing on the outer sides of the bolt members.

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

AUGUST M. H. DE BRUYCKER.

Witnesses:

FREDERICK LUTKE,
LOUIS YEARSLEY.