

(No Model.)

J. C. BACKUS.
LOCKING COAT HOOK.

No. 602,296.

Patented Apr. 12, 1898.

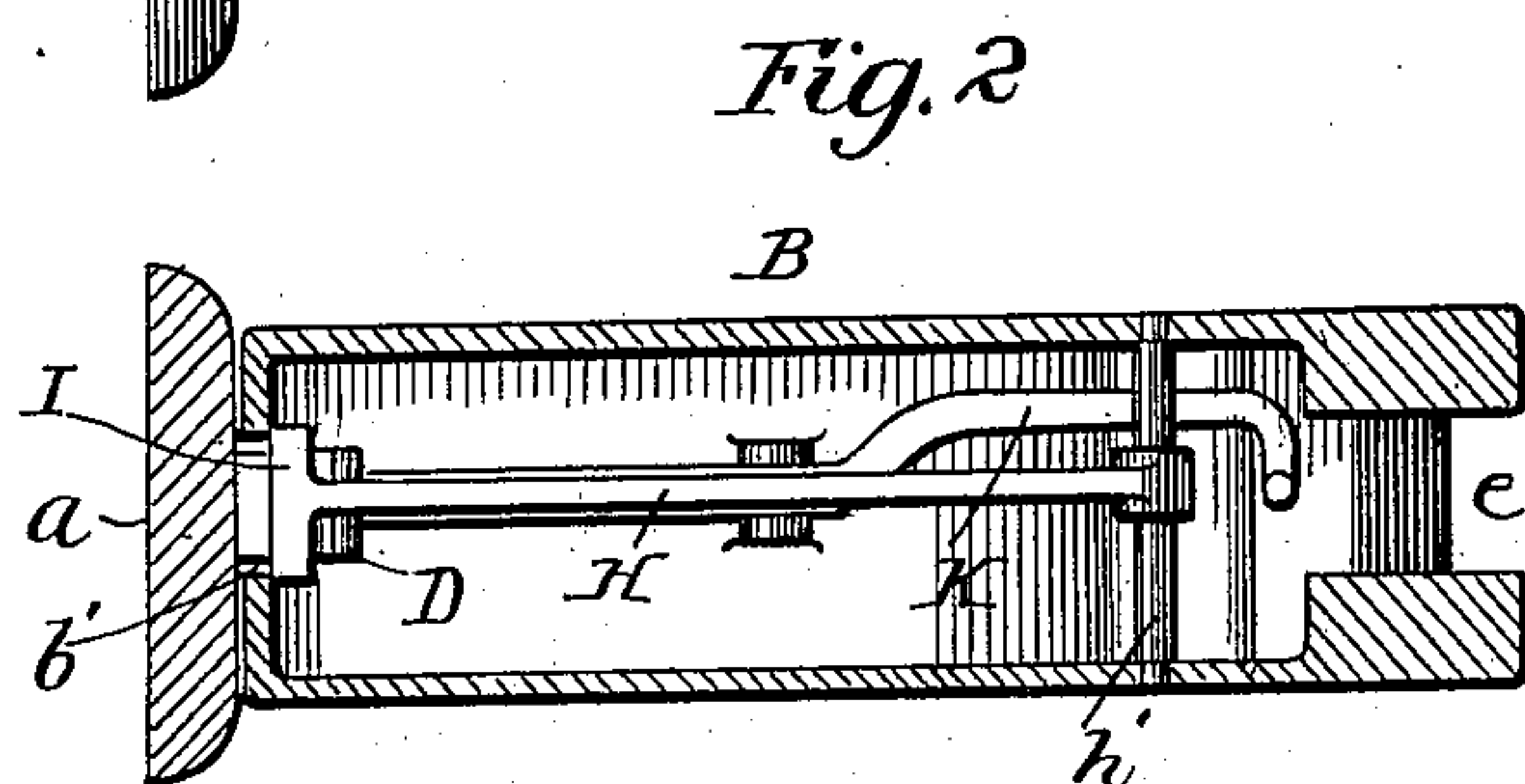
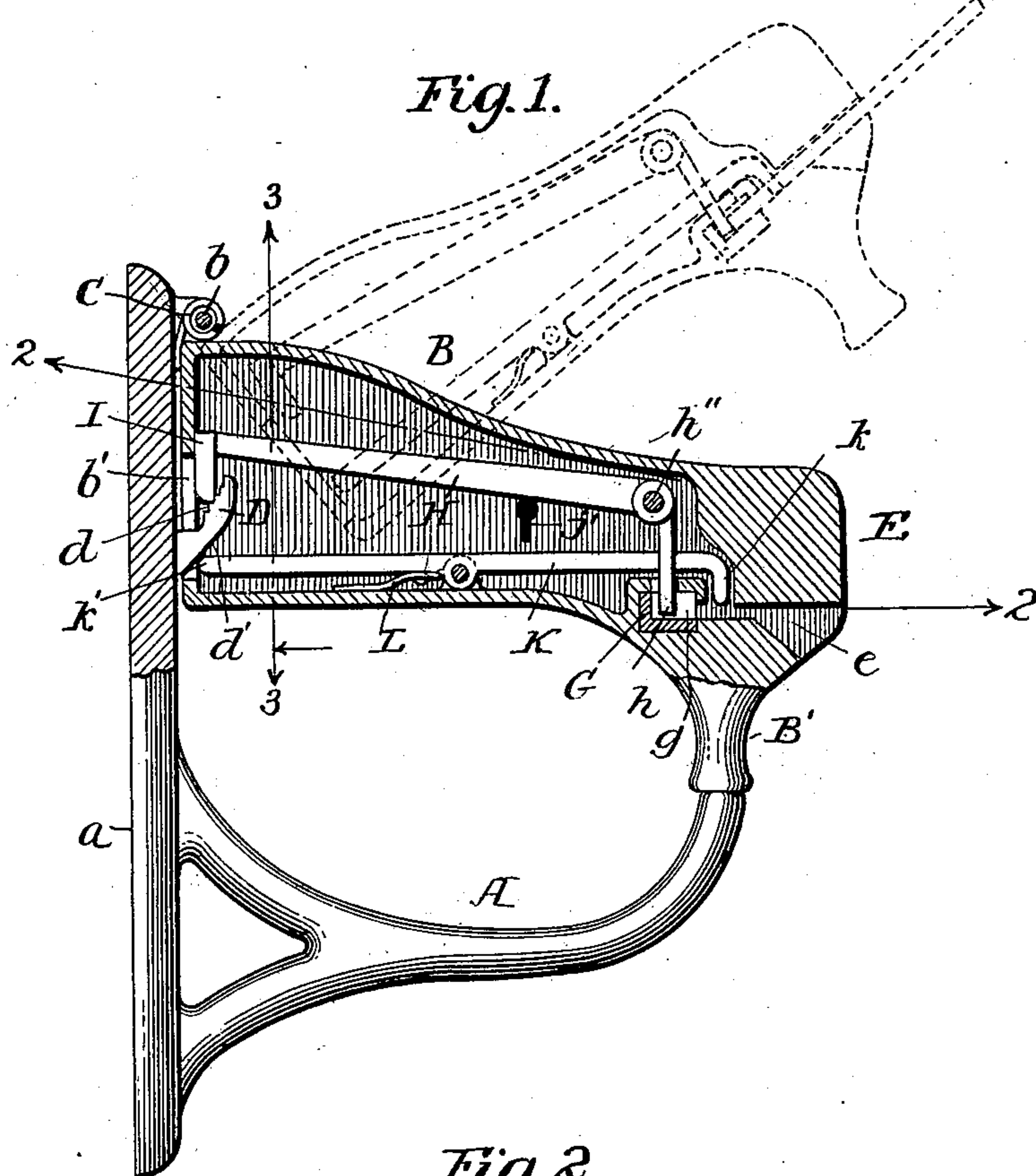


Fig. 3

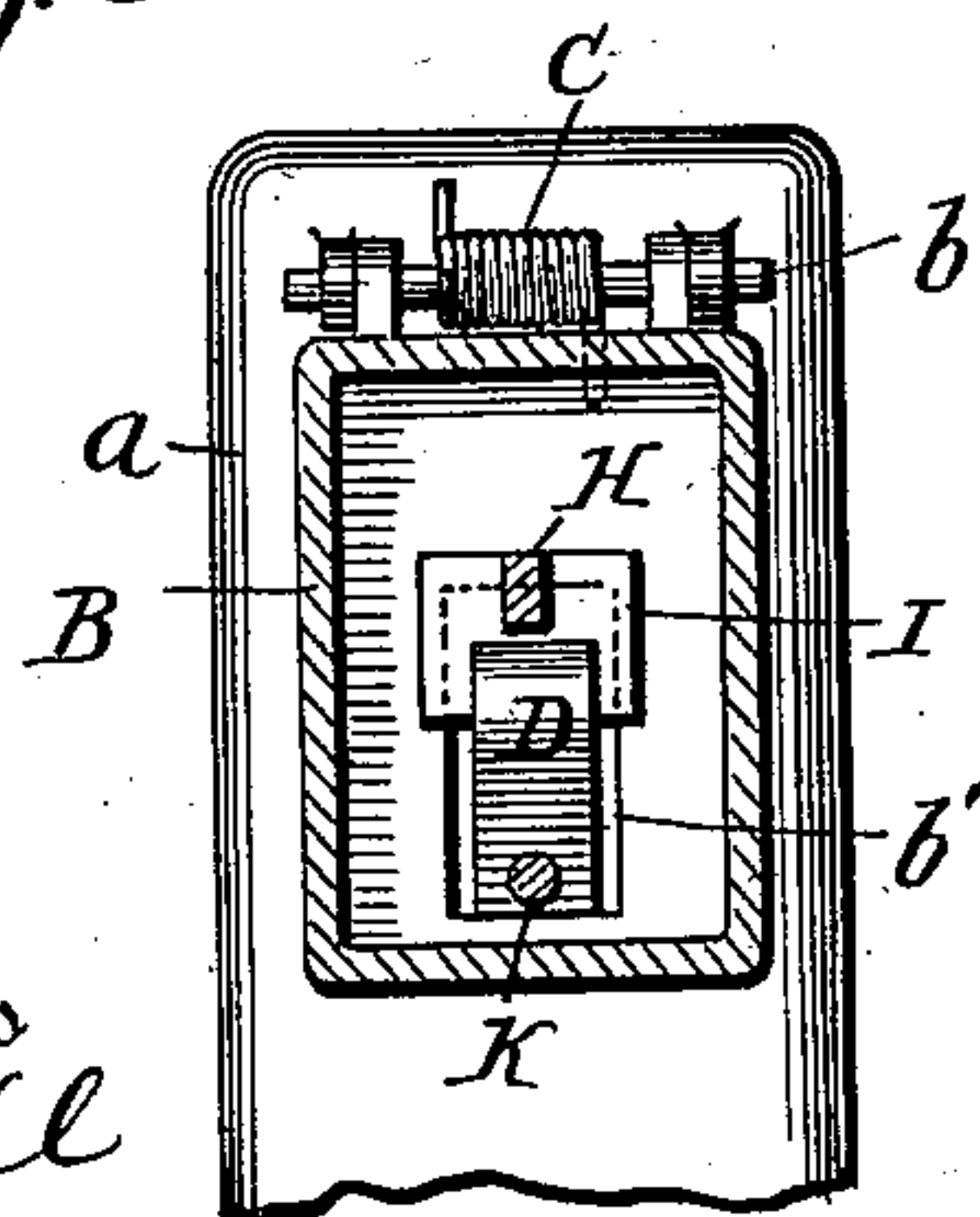
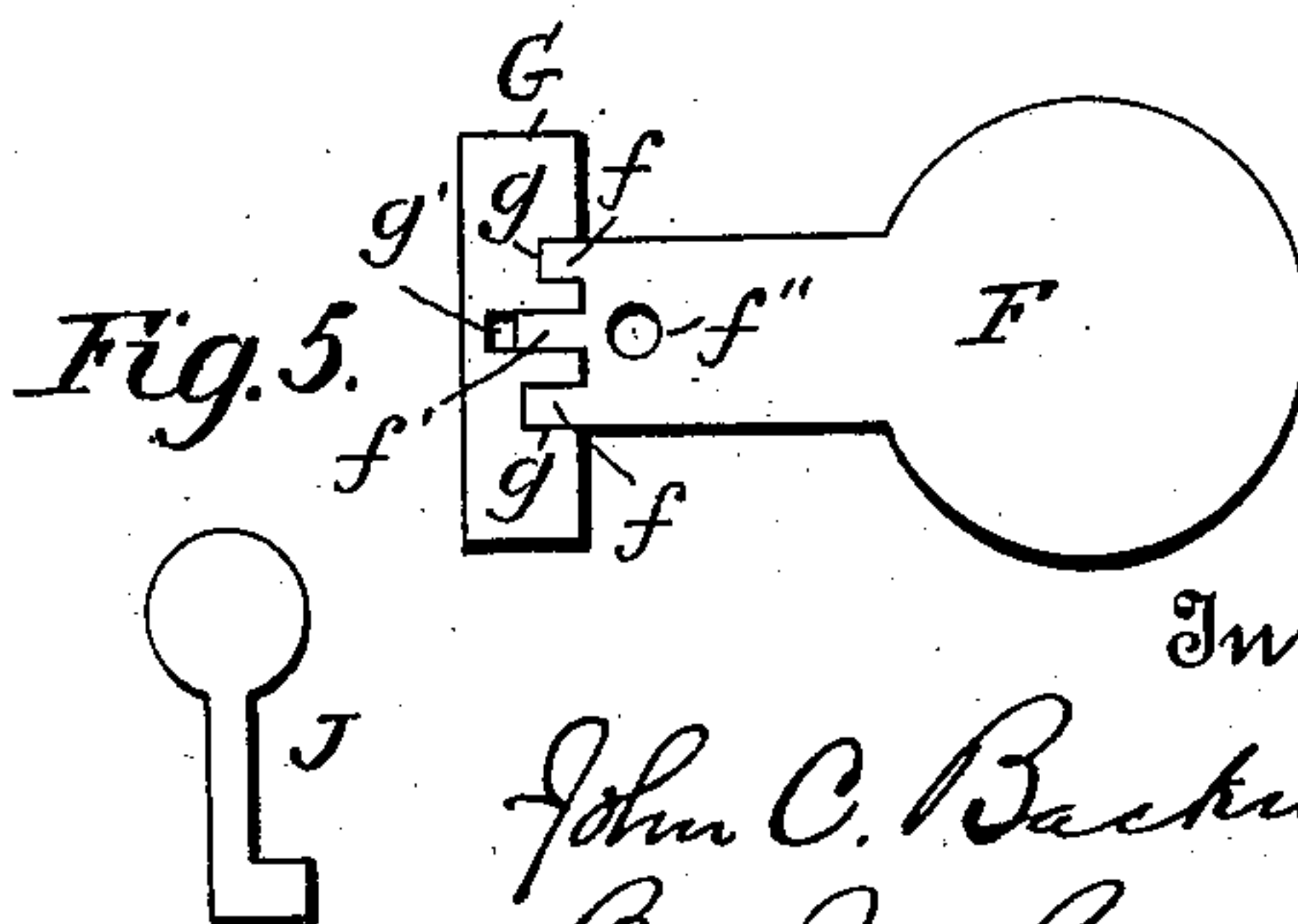


Fig. 4.



Witnesses
J. Hinkel
H. N. Low

Inventor
John C. Backus
By *J. S. Barker*
his Attorney

UNITED STATES PATENT OFFICE.

JOHN C. BACKUS, OF SMETHPORT, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO WILLIAM H. HUNGERFORD, OF SAME PLACE.

LOCKING COAT-HOOK.

SPECIFICATION forming part of Letters Patent No. 602,296, dated April 12, 1898.

Application filed January 26, 1897. Serial No. 620,736. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BACKUS, a citizen of the United States, residing at Smethport, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Locking Coat-Hooks, of which the following is a specification.

My invention has for its object to provide a hook for coats or the like with a locking attachment, whereby the article supported by the hook is retained so that it cannot be removed until the attachment is unlocked, and to produce such a locking device of novel construction which is adapted to be operated by a key, which may also serve as a check for the article held upon the hook.

The invention consists of the combination, with a hook, of a locking device of novel construction, as will be more fully pointed out hereinafter.

Figure 1 of the accompanying drawings is a side elevation of a locking-hook embodying the preferred form of my invention, one side of the lock-case being removed and the case and locking devices which it contains being shown in dotted lines in position away from the hook. Fig. 2 is a horizontal section taken on the line 2 2 of Fig. 1. Fig. 3 is a vertical section taken on the line 3 3 of Fig. 1. Fig. 4 is a detail plan view showing the key by which the lock is operated and the block G with which it engages. Fig. 5 is a detail view of the pass-key by which the lock may be operated.

In the drawings, A represents the hook proper, which may be of any usual or approved construction, and a a plate to which it is secured and by means of which it is attached to a wall or other support. The lock is mounted within a case B, which is hinged at b to the plate a, so as to be free to swing toward and from the hook, the case, constituting the movable member of the hook, having a projecting portion B', formed with a recess adapted to fit over or against the end of the hook when the case is brought into locking position. A spring C, preferably a coiled spring, surrounding the hinge-pin b, bears upon the case B and tends to throw it upward or away from the end of the hook, as indicated in dotted lines, Fig. 1, this being the

normal position of the parts when the hook is unoccupied.

D is a projection extending outward from the plate a at a suitable angle and so disposed that when the case B is in position to engage with the hook it enters the case through an opening b' in the rear end or wall thereof. The inner inclined face d of this projection is preferably roughened or formed with small ridges, for a purpose to be described.

The outer end E of the case or movable member above the part B' thereof is preferably shaped to receive a number or designating-mark, which corresponds with a mark upon the key F, fitted to operate the particular lock within that case. I prefer that the portion E should be so shaped as to overhang the part B' somewhat, and between them there is a narrow opening or slit e in the outer end of the case, through which the end of the key is inserted and withdrawn. The style of lock which I prefer to employ is one which is adapted to be operated by a push-key, and the preferred form of such lock I will now describe.

G indicates a block arranged within the case at the inner end of the opening e. In its edge toward the opening there are formed a number of slots or recesses g, corresponding in size and arrangement with the projecting pins f on the end of the key, so that when the key fitted for that particular lock is inserted into the opening the pins enter the recesses; but should it be attempted to insert another key that will be found to be impossible, because the key and block do not register. One of the recesses g' is preferably longer than the others, and in the rear portion of this recess is arranged the end h of a lever H, mounted within the case. This lever is preferably nearly right-angled, the arm h being the shorter and disposed so as to be nearly vertical when the case B is brought into locked position. The long arm H' of the lever carries a catch-plate I, which is of sufficient size to act as a weight to carry the inner end of the lever down when the case is brought into locking position and at the same time move the arm h forward in the recess g', carrying before it the key, if it be in the lock. The

catch-plate I is adapted to fall behind the face d of the projection D when the parts are in the position shown in full lines in Fig. 1, and the angle of the projection is such that when the plate occupies this position the case cannot be turned on its pivot until the plate is moved from behind the projection D by turning the lever H on its pivot h'' . This movement may be effected by inserting the proper key F into the lock until the pin f' , which enters the recess g' , moves the arm h of the lever and causes the catch I to be moved. Should the key F be lost, I make provision for unlocking the case by means of a pass-key J, which is adapted to be inserted through a keyhole in the case and to engage with and move the lever H. The pass-key is shaped to operate different locks, so that but one such key is required by the attendant having charge of a number of the locked hooks.

It will be understood that by roughening the surface d of the projection the danger of the catch-plate slipping thereon is reduced to a minimum.

In order to hold the key F within the lock while it is in its raised position and until the case is brought into engagement with the hook, I mount a lever K within the case and form its forward end into a hook k , which is adapted to enter a hole f'' in the key when the key is fully inserted into the lock. A spring L tends to force the hook end of the lever K into position to engage with the key. The end k' of the lever opposite to the hooked end extends rearward sufficiently far to engage with the face d' of the projection D when the case is brought into engagement with the hook, and when this engagement takes place the spring L is compressed and the hook k raised, freeing the key.

The operation of the device may now be described. The parts will occupy the positions indicated by the dotted lines, Fig. 1, so long as the hook is unused, the key, which also serves as a check, being held in the lock by the lever K, and the lever H being held in position with the catch-plate I raised by reason of the key being held in the lock, so that the case may be freely swung into its various positions. If now it be desired to check a garment, it is placed upon the hook, and the case B or movable member is swung down until the part B' comes into contact with the end of the hook. In coming into this position the end k' of the lever K engages with the projection D and causes the hook k to be lifted, freeing the key, whereupon the weighted catch-plate I falls into position behind the projection D, locking the case, and at the same time forcing the key partly out of the lock. When it is desired to take the garment from the hook, the proper key is inserted into the lock, its projecting portion f' operating the lever H and moving the catch I to release the case, whereupon the spring C will move it away from the hook. The instant the case

begins to move away from the hook the lever K is freed, so that its spring L will operate to cause it to lock the key within the case, as is apparent.

By so constructing and arranging the lock which holds the movable member closed upon the hook that its case is above the hook and extends outward substantially as far as the end of the hook, and by making the opening for the key in its front end substantially in line with the hook, it is possible to place a greater number of hooks upon a given amount of wall-space than is possible when the locks are arranged in rear of the front end of the hooks and near the wall and with the key-holes at the sides, as has heretofore been the custom, for the manifest reason that when the hooks are constructed as heretofore they have to be placed sufficiently far apart to permit the hand to be passed between two adjacent hooks and the garments which may be held thereby and to manipulate the key in the lock, whereas in the arrangement which I have described one hook does not interfere with or stand in the way of the use of the key in another hook-lock, and the hats and garments which are supported upon the hooks do not hang over or in front of the lock-cases, so that the hooks may be arranged as close together as is practicable and yet give room for the garments which are to be supported. Further, the use of a form of lock in which a push-key is employed is advantageous in that it facilitates the rapid use of the hooks and is especially adapted for use where the key is in the form of a check which may be locked in place in the lock when the hook is unoccupied.

It will be understood that the device may be changed in its details of construction and arrangement without departing from the spirit of my invention. Thus the making of the single projection D to serve the double purpose of an abutment for the catch-plate and for the lever K is a matter of expediency and is not essential to my invention; but I do not deem it necessary herein to set out in detail all of the modifications of my invention.

Therefore, without limiting myself to the precise construction and arrangements of parts shown, what I claim, and desire to secure by Letters Patent, is—

1. In a locking coat-hook, the combination of a stationary hook, a movable member adapted to close upon the hook at its forward end, so as to confine an article which may be placed between them, a lock which holds the said parts in their closed positions, the said lock engaging with a stationary part of the device in rear of its front or hook part, and a casing surrounding the lock and being arranged above the hook and extending outward substantially as far as its end, and having the opening for the key in its front end, whereby the articles supported by the hook do not hang over, or in front of, the key-opening of the lock, substantially as set forth.

2. The combination of the hook, a movable member adapted to close upon the hook, a push-key lock for holding the hook and the movable member in their closed positions, and a case in which the lock is arranged, extending outward to the end of the hook, the case having an opening for the key at its front end, substantially as set forth.

3. The combination with a hook and its supporting-plate, of a projection extending outward from the plate, a case hinged to the plate, formed with an opening through its rear end through which the said projection enters the case when the latter is moved into engagement with the hook, and with a key-opening in its opposite or forward end, and a lock within the case adapted to engage with the said projection when it enters the case, in order to hold the case in engagement with the hook, and arranged to be operated by a key inserted through the opening in the front end of the case, substantially as set forth.

4. In a lock for a clothes-hook, the inclosing case, a block arranged therein and formed with a number of slots, a key having pins corresponding in arrangement to the slots in the said block, a locking-catch, and a lever carrying the said catch and provided with an arm which extends into one of the slots of the said block, whereby it is operated by the key, substantially as set forth.

5. In a lock for a clothes-hook, the inclosing case, a slotted block arranged therein, a key having pins corresponding in arrangement to the slots in the said block, a locking-catch, a lever carrying the catch and provided with an arm which extends into one of the slots of the said block, a retaining device for holding the key when inserted in the lock, and means for operating the said retaining device to hold the key when the lock is open, and for releasing the key when the lock is closed, substantially as set forth.

6. The combination with a hook, of a swinging case B, a stationary projection D arranged adjacent to the hook and adapted to enter the case when it is brought into the closing position, and a lock within the case comprising a catch-plate I adapted to engage with the said projection when the case is moved into locking position, and a lever carrying the said catch-plate and arranged to be operated by a key, substantially as set forth.

7. The combination of the swinging case B, a stationary projection D, adapted to enter the case when the latter is moved into a certain position, a locking-plate adapted to engage with the said projection, a lever carrying the said locking-plate, adapted to be operated by a key, and a lever K adapted to retain the key within the lock, this lever being so arranged as to engage with the said projection and be operated thereby to release the key whenever the parts are brought into position to have the catch-plate engage with the said projection, substantially as set forth.

8. In combination with a hook, a case B pivoted adjacent thereto, a spring which tends to move the case away from the hook, a stationary projection D adapted to enter the case when the latter is moved into engagement with the hook, a slotted block G arranged within the case opposite a key-opening, a lever H having an arm *h* extending into one of the slots of the said block, a catch-plate I carried by the other arm of the said lever, a key having pins corresponding in position to the slots in the said block, and the lever K for retaining the key in the case when the latter is moved away from the hook, the levers H and K being arranged within the case, substantially as set forth.

JOHN C. BACKUS.

Witnesses:

T. F. RICHMOND,
B. L. KNAPP.