

(Model.)

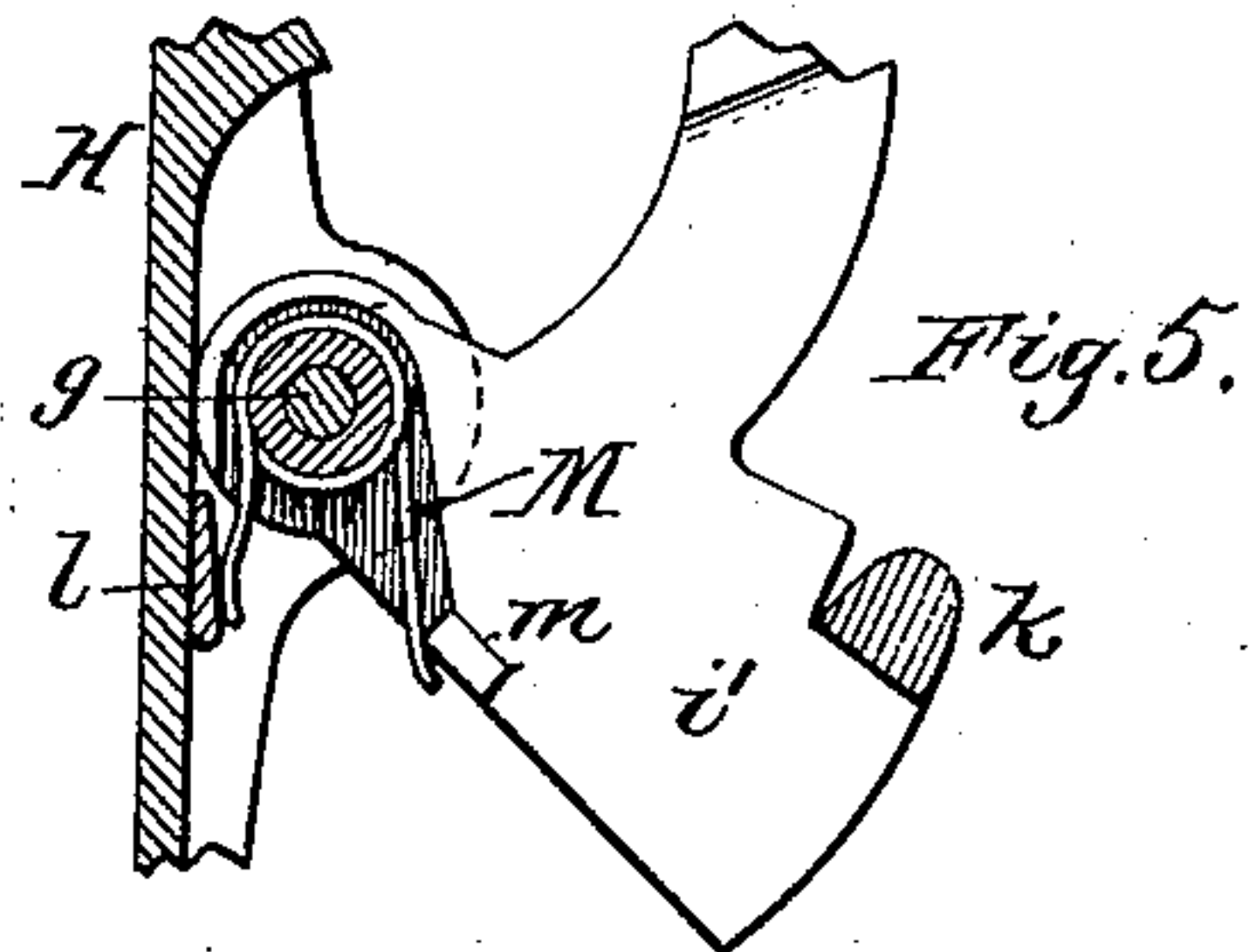
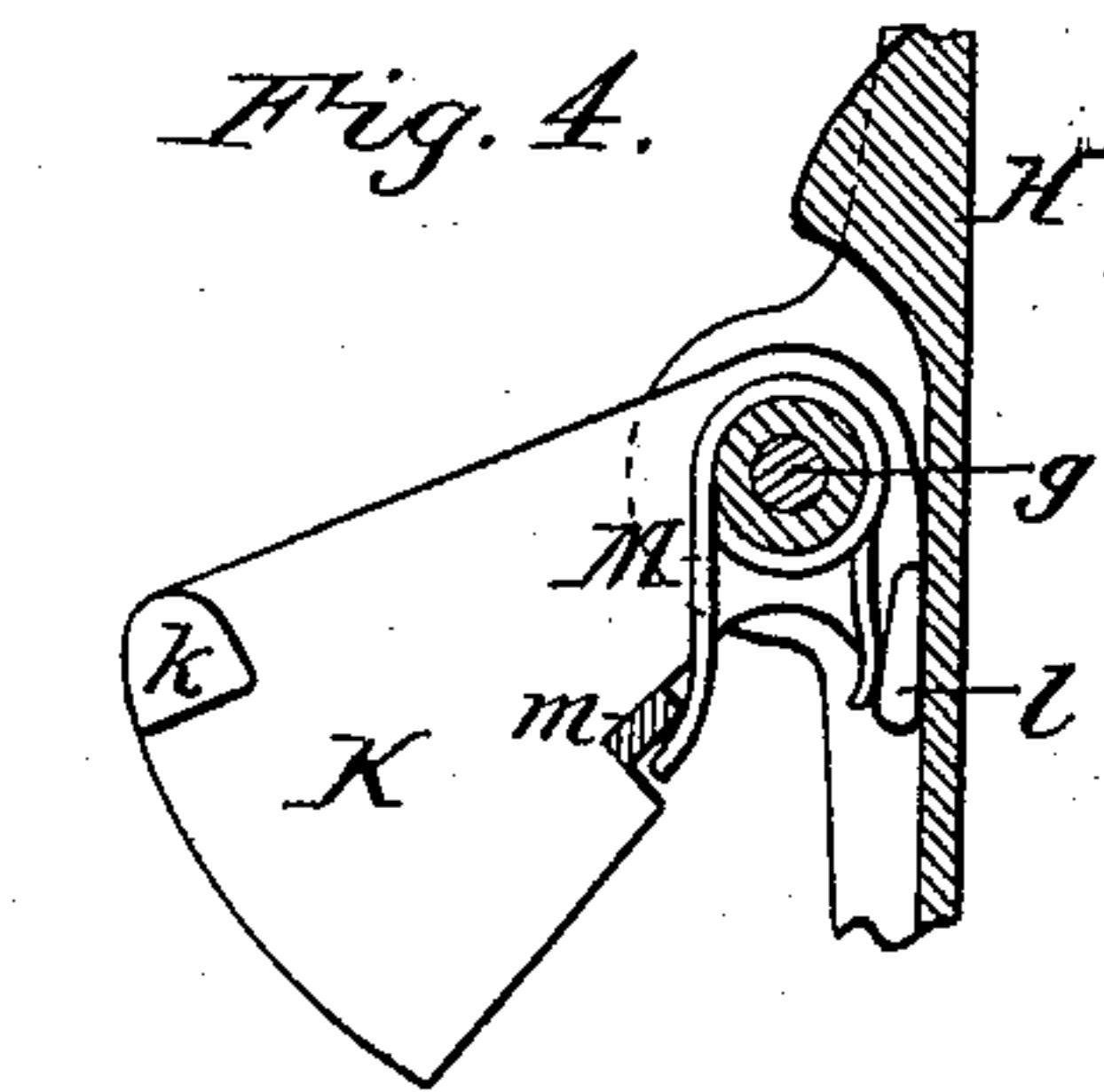
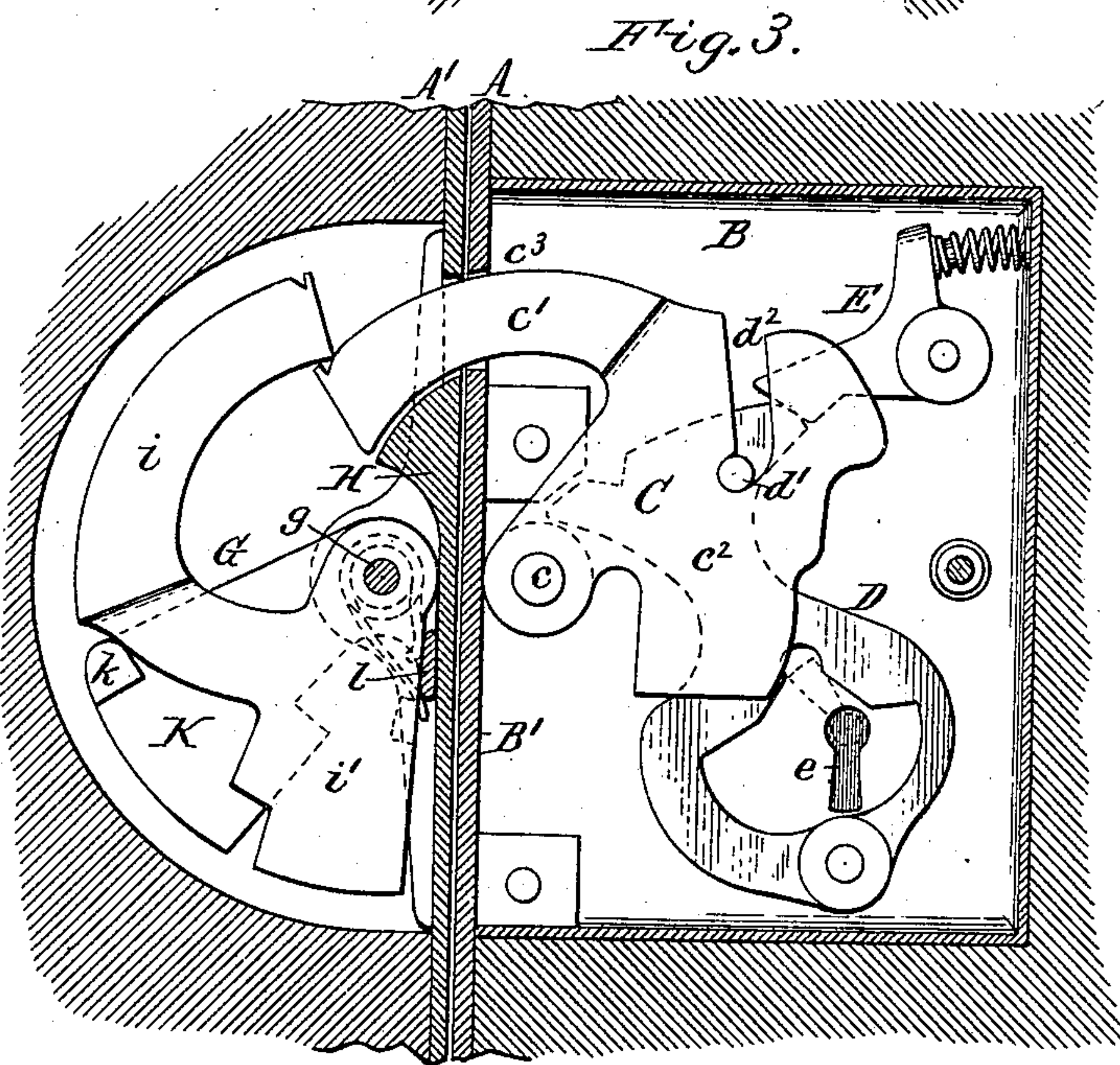
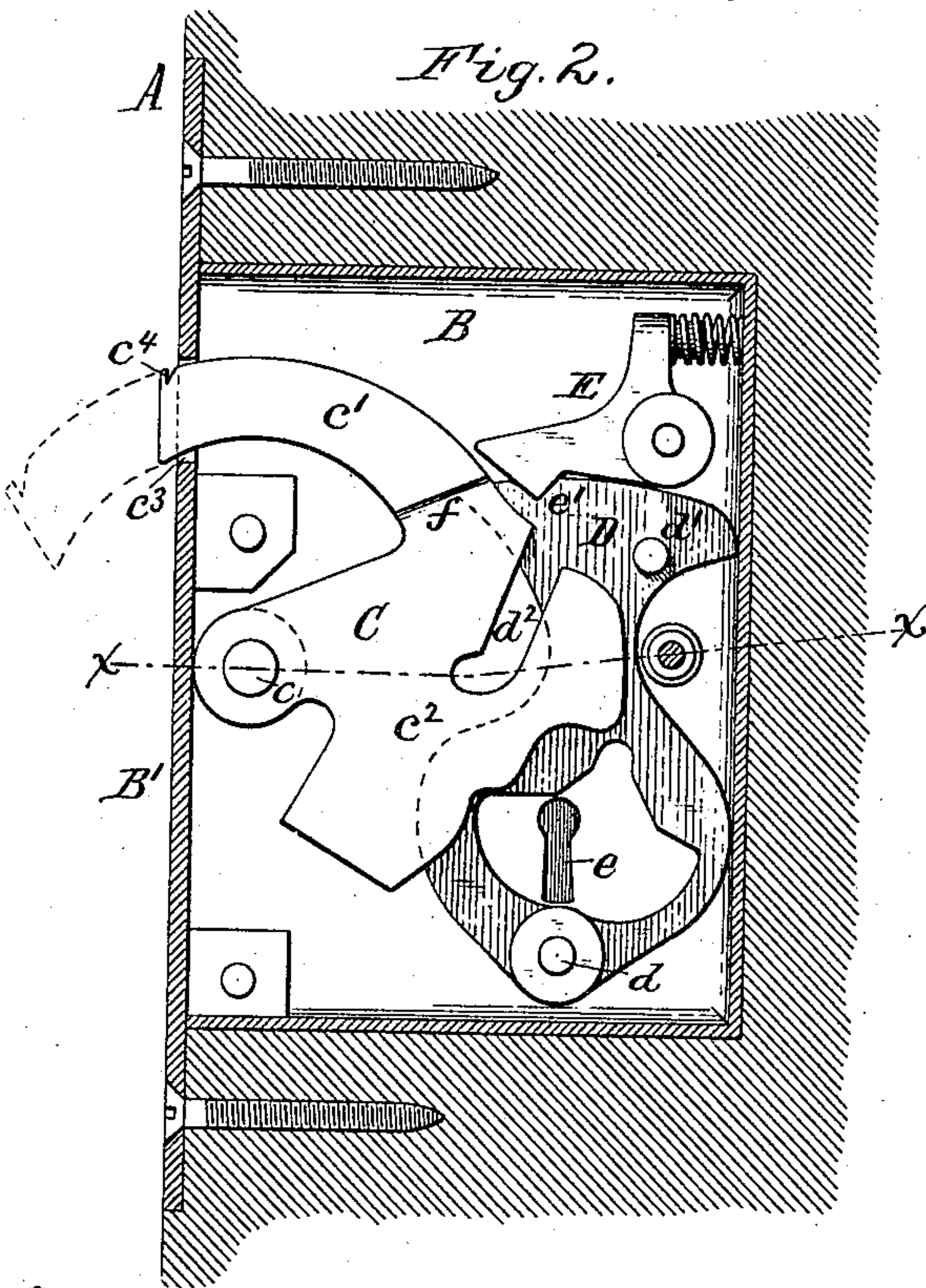
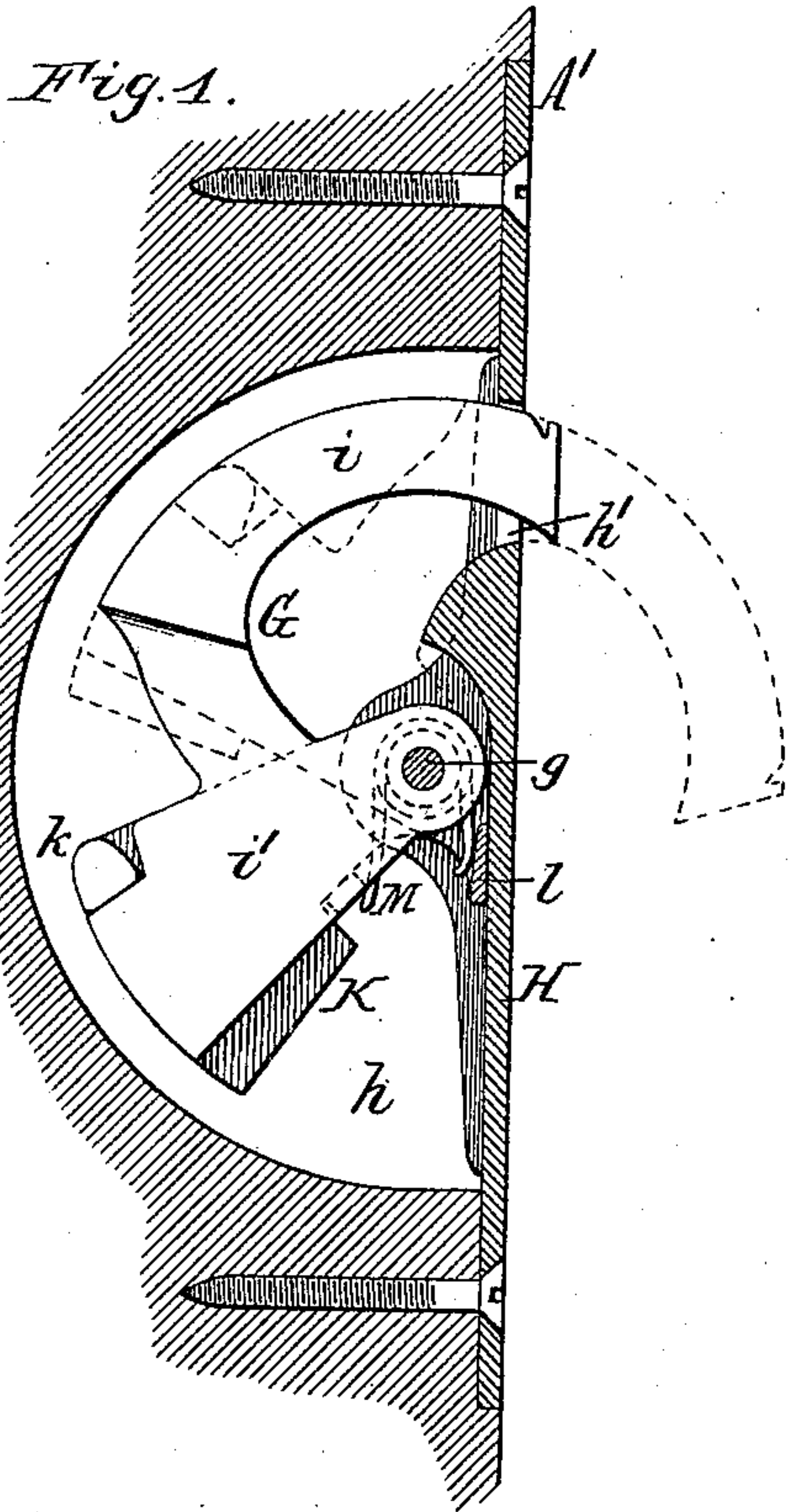
2 Sheets—Sheet 1.

O. SEELY.

HANDLE FOR SLIDING DOORS.

No. 321,143.

Patented June 30, 1885.



Chas. J. Buckheit.
Theo. L. Popp. } Witnesses.

Obadiah Serly Inventor.
By Wilhelm H. Bonner.
Attorneys.

(Model.)

2 Sheets—Sheet 2.

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Fig. 9.

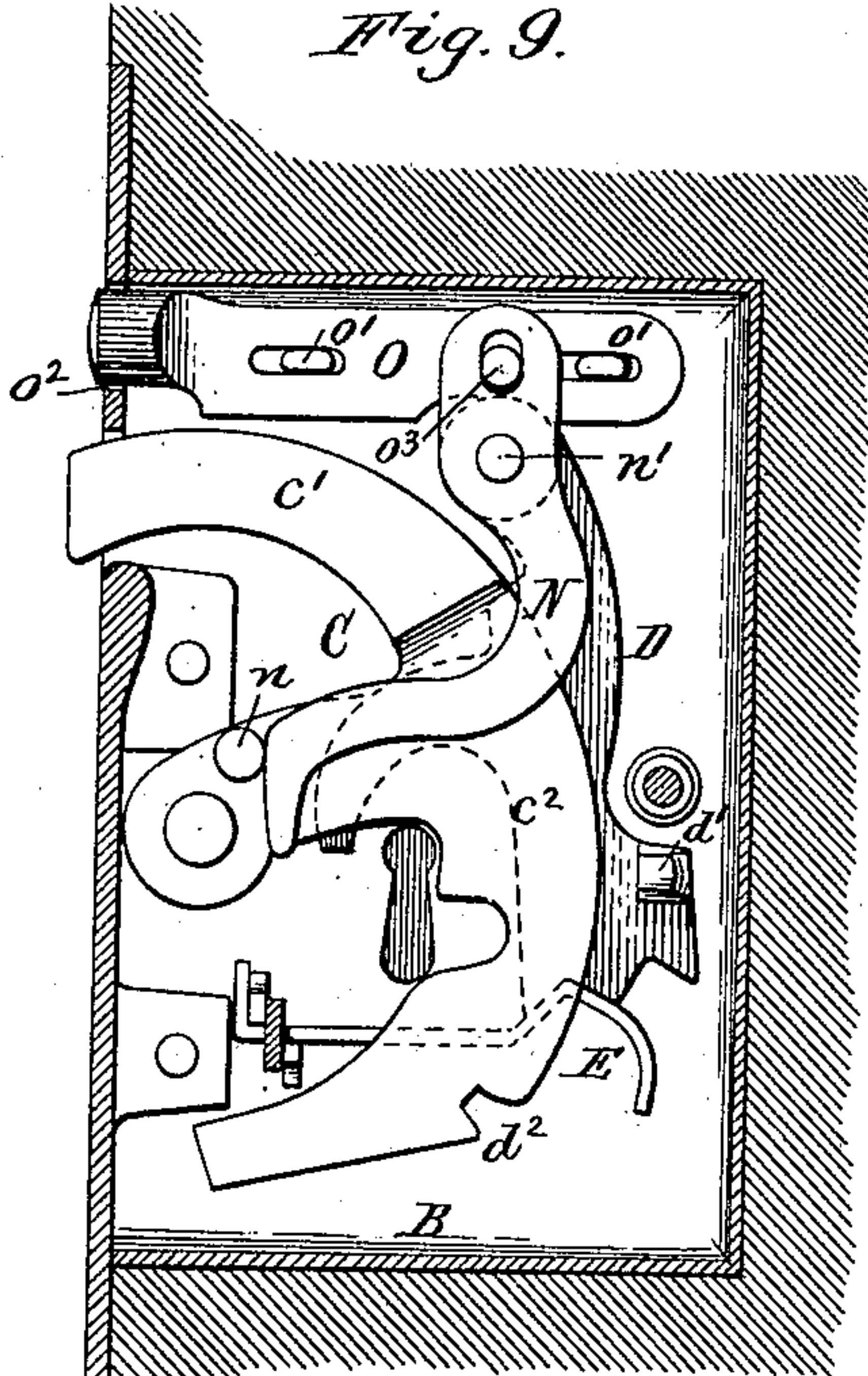


Fig. 10.

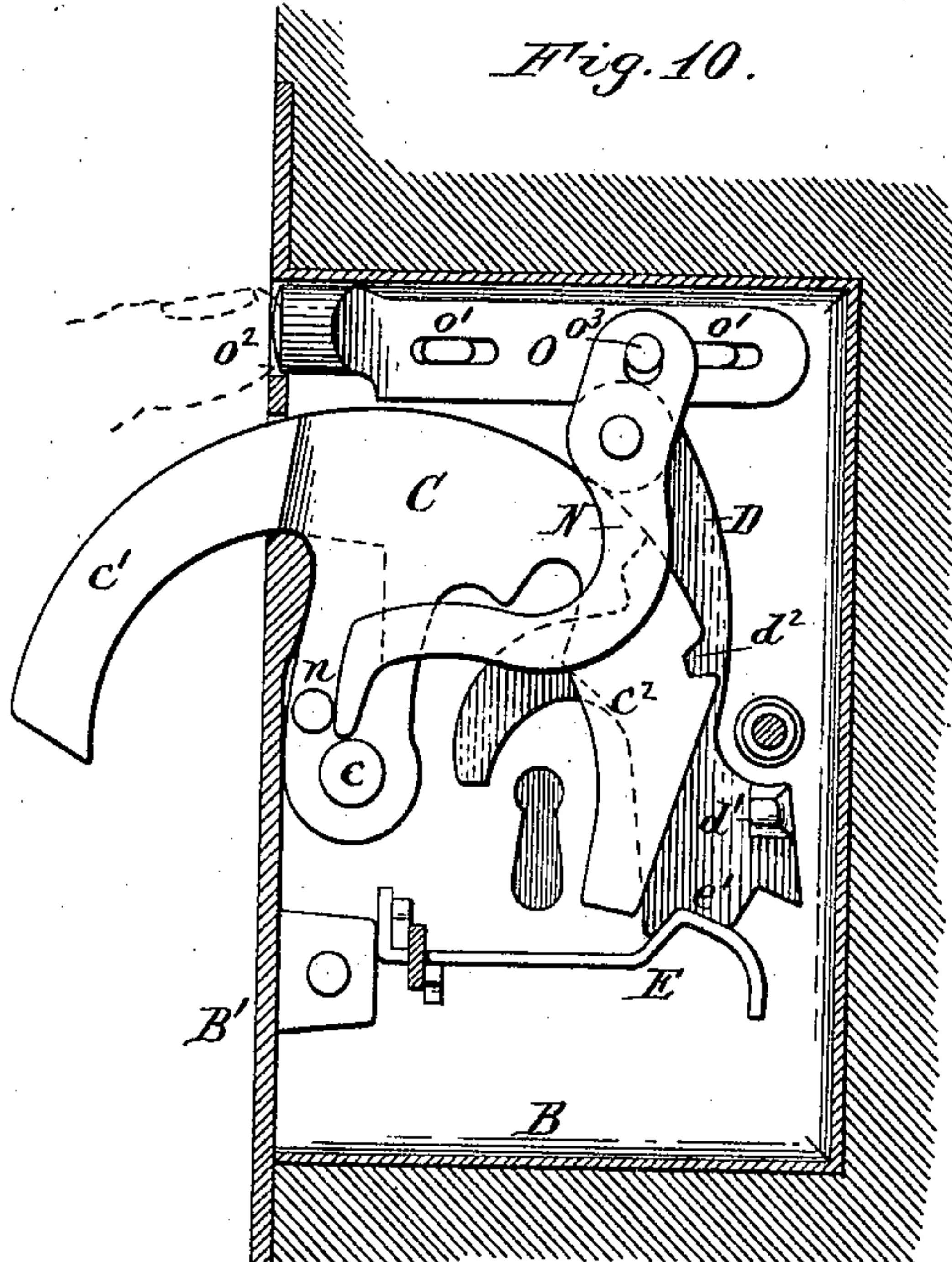


Fig. 11.

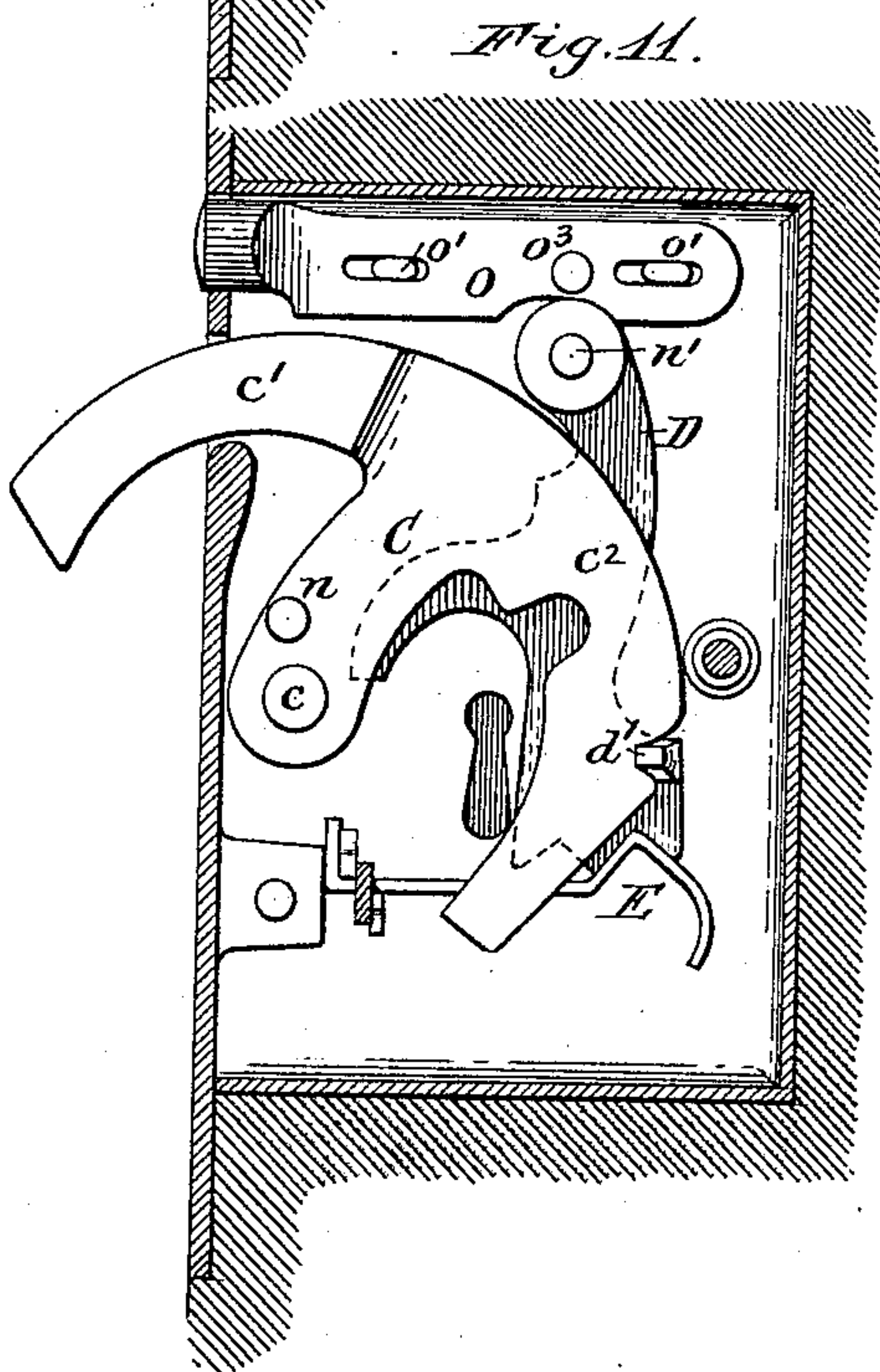


Fig. 6.

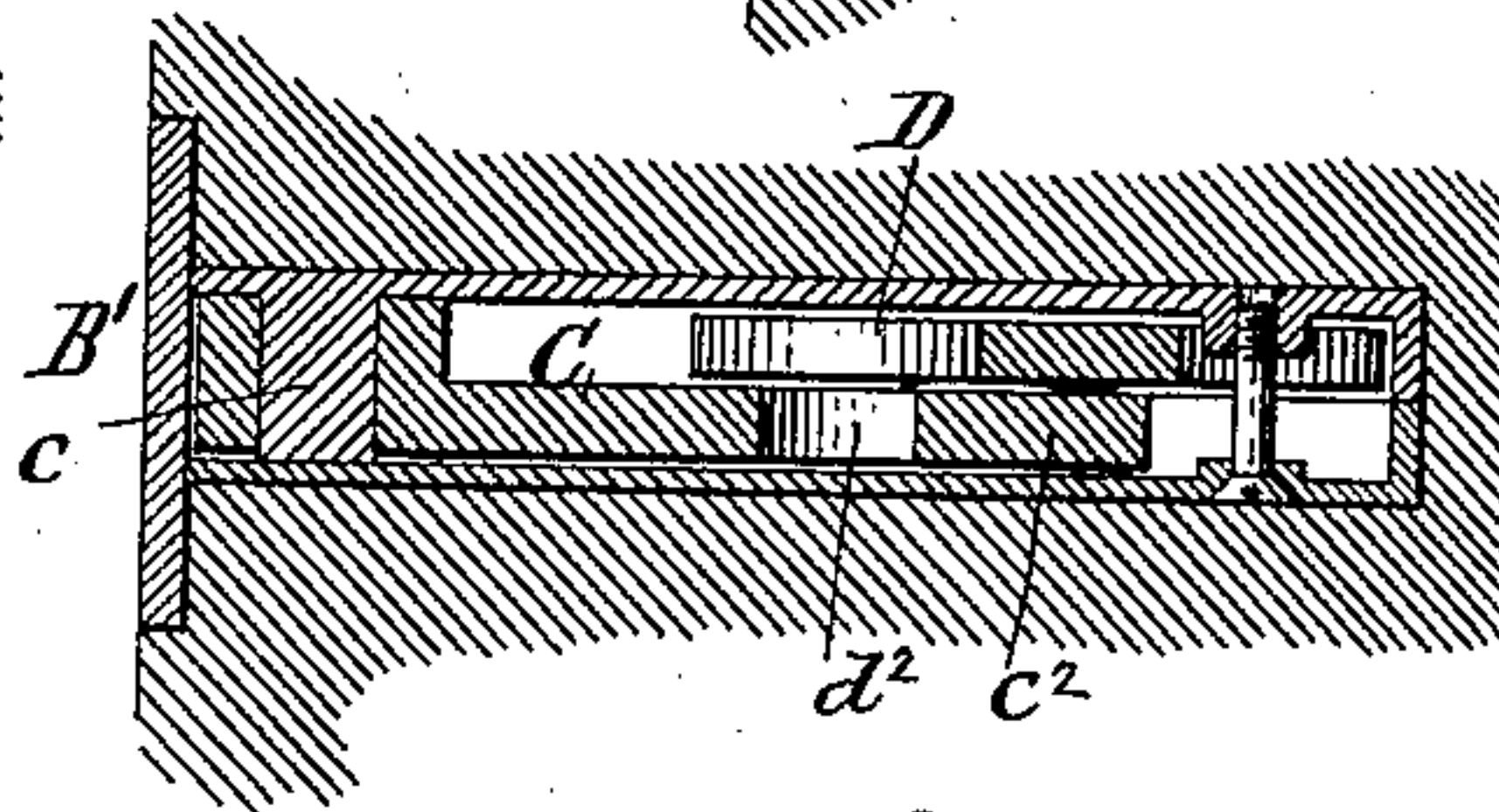


Fig. 7.

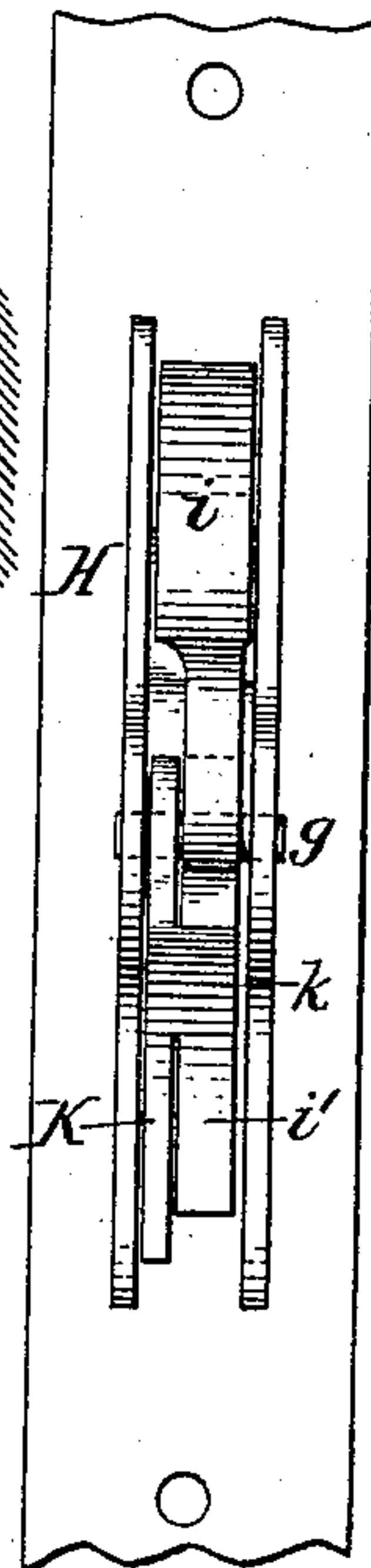
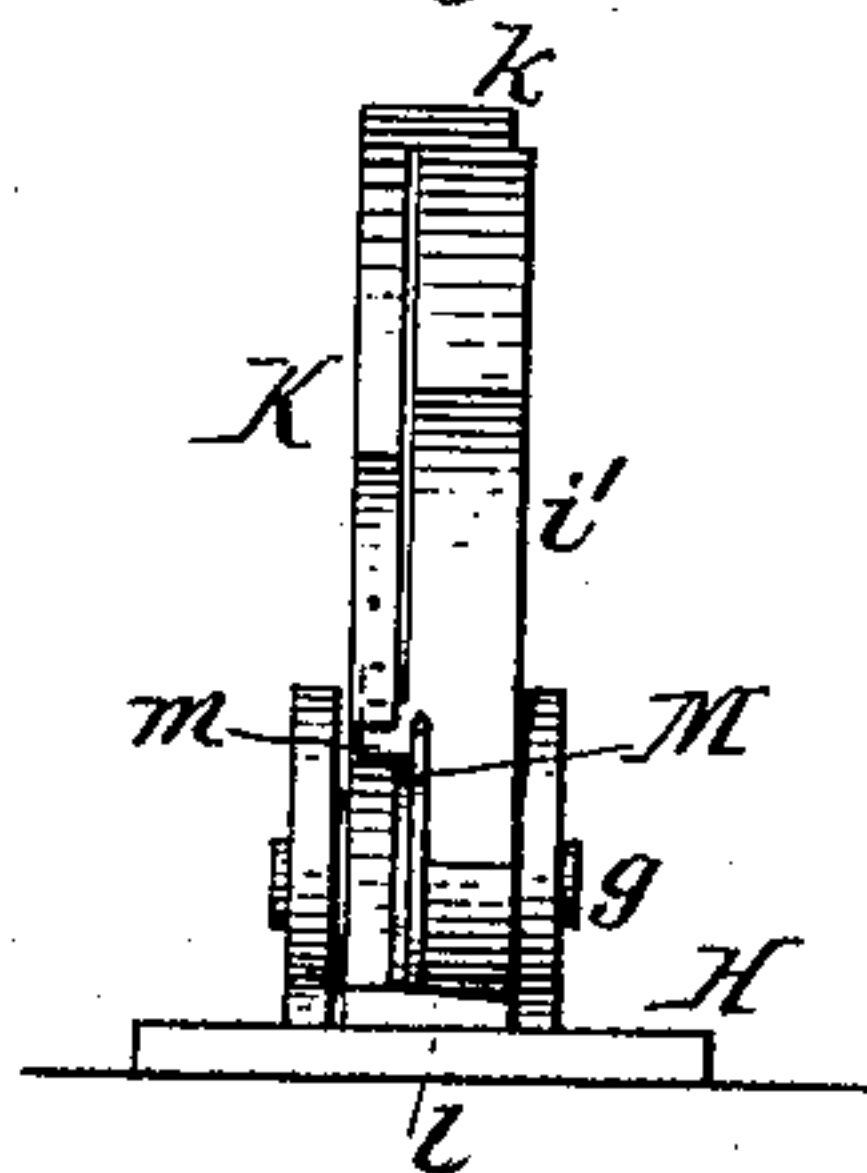


Fig. 8.



Chas. Buckheit
Theo. L. Popp. } Witnesses.

Obadiah Seely Inventor.
By Melvin Bonner.
Attorneys.

UNITED STATES PATENT OFFICE.

OBADIAH SEELY, OF SYRACUSE, NEW YORK, ASSIGNOR TO E. C. STEARNS
& CO., OF SAME PLACE.

HANDLE FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 321,143, dated June 30, 1885.

Application filed December 31, 1884. (Model.)

To all whom it may concern:

Be it known that I, OBADIAH SEELY, of the city of Syracuse, in the county of Onondaga and State of New York, have invented new
5 and useful Improvements in Handles for Sliding Doors, of which the following is a specification.

This invention relates to an improvement in that class of door pulls or handles which
10 are applied to the edges of sliding doors, to enable these doors to be slid completely into the recess of the wall, leaving only the edge of the door exposed to view. These door pulls or handles are so constructed that they with-
15 draw or fall back into the casing in the edge of the door when not required for use, but can be projected from the casing when the door is to be pulled out. Locks are also applied to these doors for locking them together in a
20 closed position.

The object of my invention is to produce a simple and convenient door pull or handle of this kind, which will serve at the same time as a locking-bolt, whereby the doors can be
25 locked together when desired; and to that end my invention consists in the improvements which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, consisting
30 of two sheets, Figure 1 is a sectional elevation of a pull not provided with a lock. Fig. 2 is a similar view of the opposite pull provided with a lock. Fig. 3 is a similar view of both pulls, showing the sliding doors locked together. Figs. 4 and 5 are sectional elevations
35 of opposite sides of the pull which is not provided with a lock. Fig. 6 is a horizontal section in line *xx*, Fig. 2. Fig. 7 is a rear elevation of the pull which is not provided with a lock. Fig. 8 is a bottom plan of the same.
40 Fig. 9 is a sectional elevation of my improved pull provided with a push-bolt for shooting out the pull, the latter being shown in a retracted position. Fig. 10 is a similar view
45 showing the bolt shot out to be used as a pull. Fig. 11 is a similar view showing the bolt shot out and locked.

Like letters of reference refer to like parts in the several figures.

A A' represent the edge portions of two slid- 50
ing doors.

B represents the lock-casing secured in a mortise in the door A, and B' the face-plate of said casing.

C is the door-pull, pivoted in the casing B 55
at *c*, and consisting of a bolt, *c'*, curved concentric with the pivot *c* and an overhanging weighted rear portion, *c''*, which is formed at the inner end of the bolt *c'*, and tends to hold the bolt in a retracted position in the casing, 60
as represented in Fig. 2. The curved bolt *c'* plays through an opening, *c'''*, in the face-plate B', and projects in its retracted position slightly beyond the face-plate B', to permit the end
65 of the bolt to be seized and the bolt to be pulled out of the casing when it is desired to use the pull. The projecting end of the bolt *c'* is provided with a notch, *c''''*, which facilitates taking hold of the bolt. When the bolt
70 is pulled out of the casing, as represented in dotted lines in Fig. 2, it answers the purpose of a handle, and upon releasing it it immediately swings back into the casing by the weight of the overhanging part *c''*.

D represents a tumbler pivoted in the casing 75
B at *d*, and provided with a pin, *d'*, which engages in a notch, *d''*, formed in the overhanging part *c''* of the pull.

e is the key-hole, formed in the side of the casing B, for the introduction of a key, where- 80
by the tumbler and bolt can be moved.

E represents a detent-pawl pivoted in the casing B, and engaging in a notch, *e'*, of the tumbler D, to hold the latter out of engagement with the bolt except when being moved by 85
the key. The notch *e'* is constructed with inclined sides and the head of the detent-pawl with inclined faces, so that the detent is lifted out of the notch when the tumbler is moved by the key. 90

f represents a shoulder formed on one side of the bolt *c'* at its junction with the rear part, *c''*. The bolt rests with the shoulder *f* on the tumbler D when the bolt is retracted, as represented in Fig. 2. When the bolt is pulled 95
out to be used as a handle, the tumbler is not disturbed, and the bolt withdraws into the case as soon as released. When the bolt is shot

out by means of the key, the pin d' of the tumbler engages in the bottom of the notch d^2 , when the bolt is projected and locks the bolt in this position, so that it cannot be pushed back into the case except by releasing the tumbler by means of the key. The bolt operates both as a handle and locking-bolt, and the lock is thereby rendered extremely simple and cheap of construction.

G represents the pull or handle, attached to the door A', and pivoted at g to the rear side of a face-plate, H. The door A' is provided with a recess, h , in which the pull G is arranged, and from which its end projects through an opening, h' , in the face-plate. The pull G is hung loosely upon the pivot g , and consists of a curved bolt, i , and a weighted rear arm, i' , like the pull C.

K represents a carrier-arm hung loosely on the pivot g , and extending backwardly on one side of the arm i' .

k represents a stop formed on the arm K on one side of its rear end, and overlapping the upper side of the arm i' of the pull.

l represents a stop or short arm formed on the arm K near the pivot g , so as to rest against the face-plate H when the pull is retracted, as represented in Fig. 1.

m is a projection formed on the arm i' of the pull, and bearing against the under side of the arm K.

M is a spring coiled around the hub of the arm K, and bearing with its ends respectively against the stop l of the arm K and the stop m of the arm i' , thereby tending to hold the stop m in contact with the arm K, and causing the pull G and arm K to swing on the pivot g together. When the pull G is retracted, the stop l rests against the face-plate H, and holds the bolt with its end slightly projecting beyond the face-plate, as represented in Fig. 1. In drawing out the pull G the arm K swings, with the pull, on the pivot g , as indicated by dotted lines in Fig. 1. When the bolt is retracted and it is pushed further back—for instance, by the opposite bolt entering through the opening h' in the face-plate H—the arm i' of the pull swings further toward the face-plate, and compresses the spring M, as represented in Fig. 3. As soon as the pull G is released from this pressure, the spring M returns the pull to its former position. By this means the pull is withdrawn into its recess by gravity, when released, and held in its normal position, while it can be pushed back beyond its normal position. The carrier-arm K and spring M thus form a yielding support, which holds the pull G in a retracted position, and permits the pull to be swung back beyond its normal retracted position. When the edges of the sliding doors come together, and the pull C is shot forward by the key, the bolt c' of the pull C strikes against the bolt i of the pull G, and pushes the latter back into its recess, while the bolt c' enters through the opening h' of the face-plate H, and engages behind the

latter, as represented in Fig. 3, whereby the doors are locked together. Upon unlocking the pull C and separating the doors both pulls resume their normal position.

If it is desired to have the end of the pull in its normal position flush with the face-plate, the construction represented in Figs. 9, 10, and 11 may be employed. In this construction the bolt is shot out by a lever, N, which bears with the end of its long arm against a pin, n , on the pull C, and which is pivoted in the casing at n' . The short arm of the lever N is actuated by a horizontal push-bolt, O, which has a limited rectilinear movement in the casing on studs o' , and whose front end is exposed through an opening, o^2 , in the face-plate. The push-bolt is provided with a pin, o^3 , which engages in an opening in the short arm of the lever N. By pushing the bolt O backward the pull C is shot out, and upon releasing the bolt the pull drops back to its normal position by gravity. The tumbler is in this construction hung on the same pivot, n' , on which the lever N is mounted. I prefer, however, the construction represented in Fig. 2, as it is simpler and answers the purpose quite as well.

I claim as my invention—

1. In a door-pull, the combination of a handle composed of a curved bolt and a weighted rear portion, a support to which the handle is pivoted below its curved bolt, and a stop which supports the handle in its retracted position, whereby the handle is returned to its retracted position by the weight of its rear portion when released, substantially as set forth.

2. In a door-pull, the combination, with a support or casing, of a movable handle having a notch in its front end, and a stop which supports the handle in its retracted position, with the notched end projecting beyond the face of the support or casing, substantially as set forth.

3. The combination, with a curved handle adapted to be freely projected and retracted, of a support to which the handle is pivoted, and a locking mechanism whereby the handle can be secured in a projected position, substantially as set forth.

4. The combination, with the handle C, composed of a curved bolt, c' , and weighted rear portion, c^2 , provided with a slot, d^2 , and shoulder f , of the tumbler D, provided with a pin, d' , and a detent, E, substantially as set forth.

5. The combination, with a movable handle, a casing or support to which the handle is attached, and a locking device whereby the handle can be shot forward and secured in a projected position, of an opposing movable handle adapted to come in contact with the locking-handle, a casing or frame to which the opposing handle is attached, and a yielding support which permits the opposing handle to recede before the pressure of the entering locking-handle, substantially as set forth.

6. The combination, with the supporting-plate H and the handle G, composed of the curved bolt *i* and rear arm, *i'*, of the carrier-arm K and spring M, constituting a yielding
5 support, whereby the handle G is held in its normal position and permitted to recede under pressure, substantially as set forth.

7. The combination, with the face-plate H, of the handle G, composed of the curved bolt
10 *i* and rear arm, *i'*, pivoted to said face-plate,

the carrier-arm K, provided with stops *k* and *l*, and the spring M, bearing against the arm K and arm *i'*, substantially as set forth.

Witness my hand this 19th day of December, 1884.

OBADIAH SEELY.

Witnesses:

JOHN B. TALLMAN,
WILLIAM T. MCARDLE.