

(No Model.)

C. O. BIRNEY.
SASH FASTENER.

No. 481,546.

Patented Aug. 30, 1892.

Fig. I.

Fig. II.

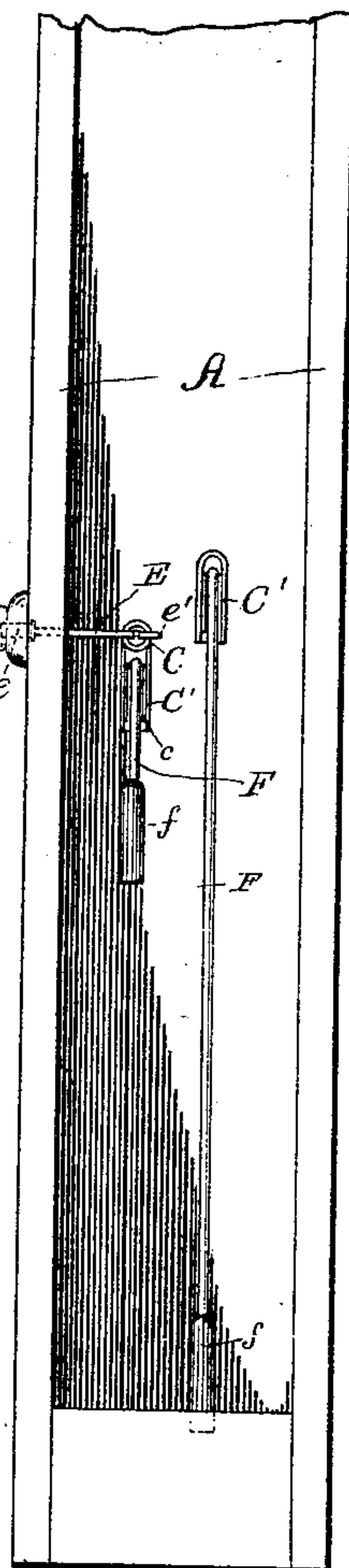
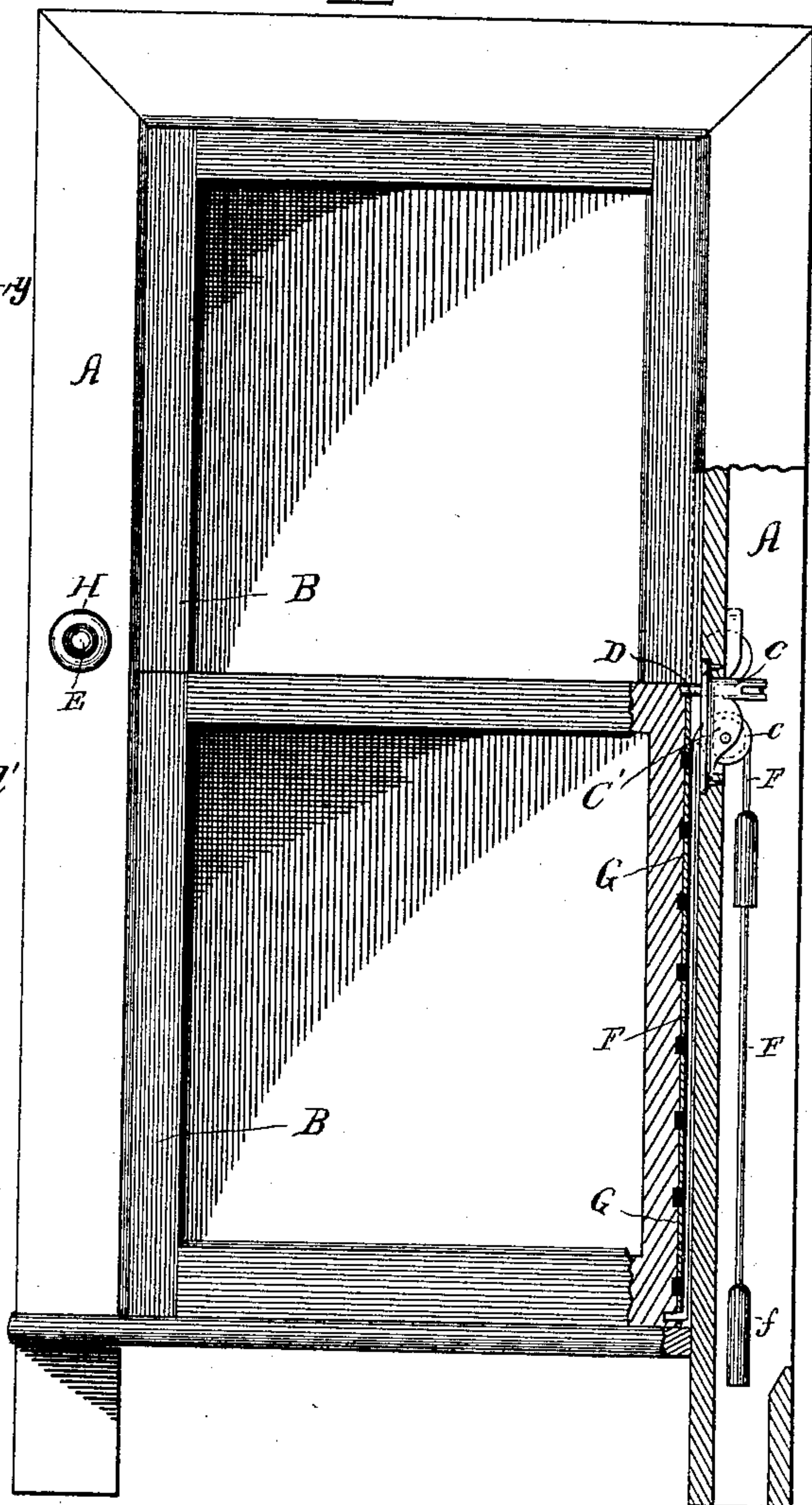
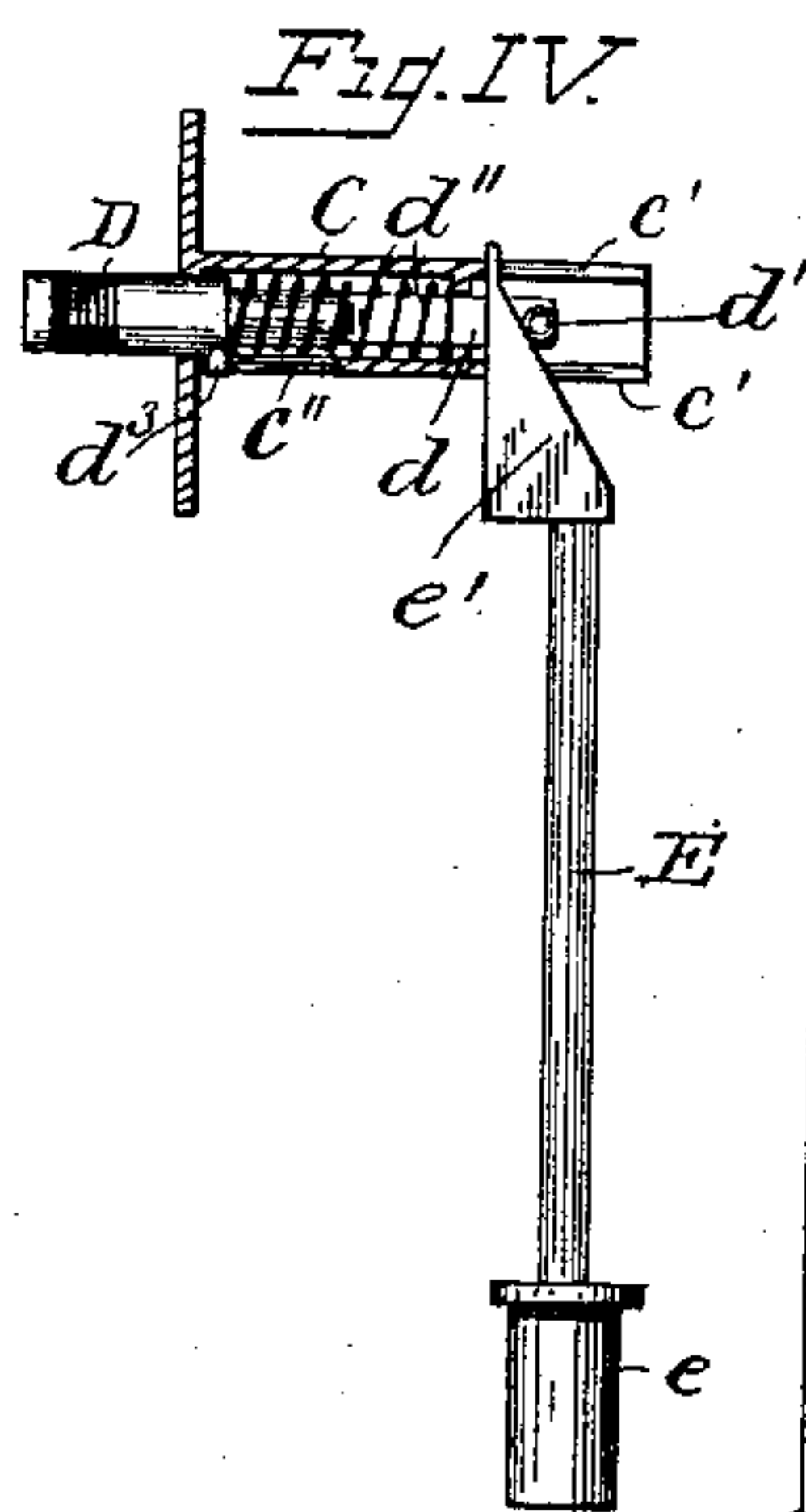
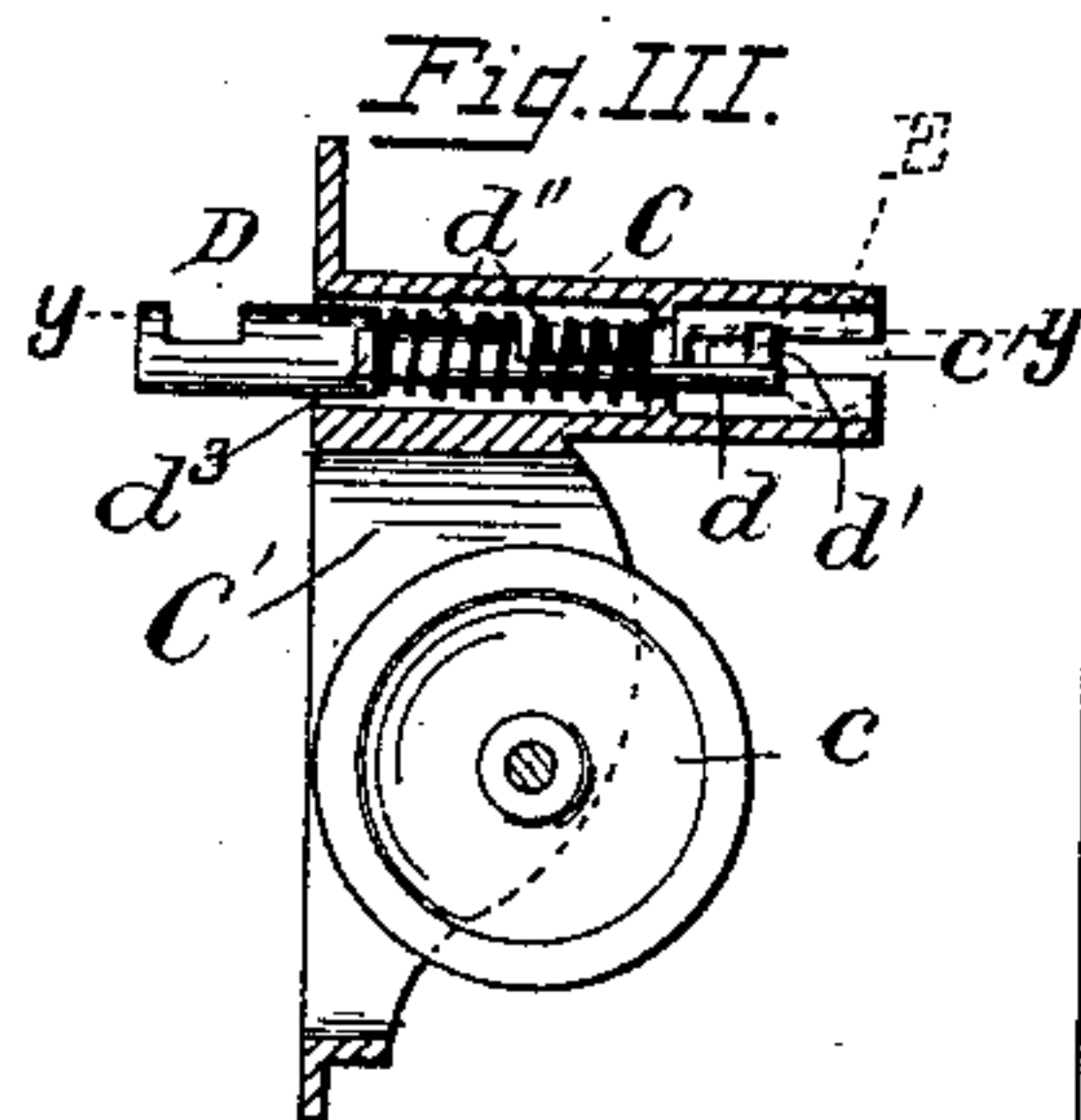
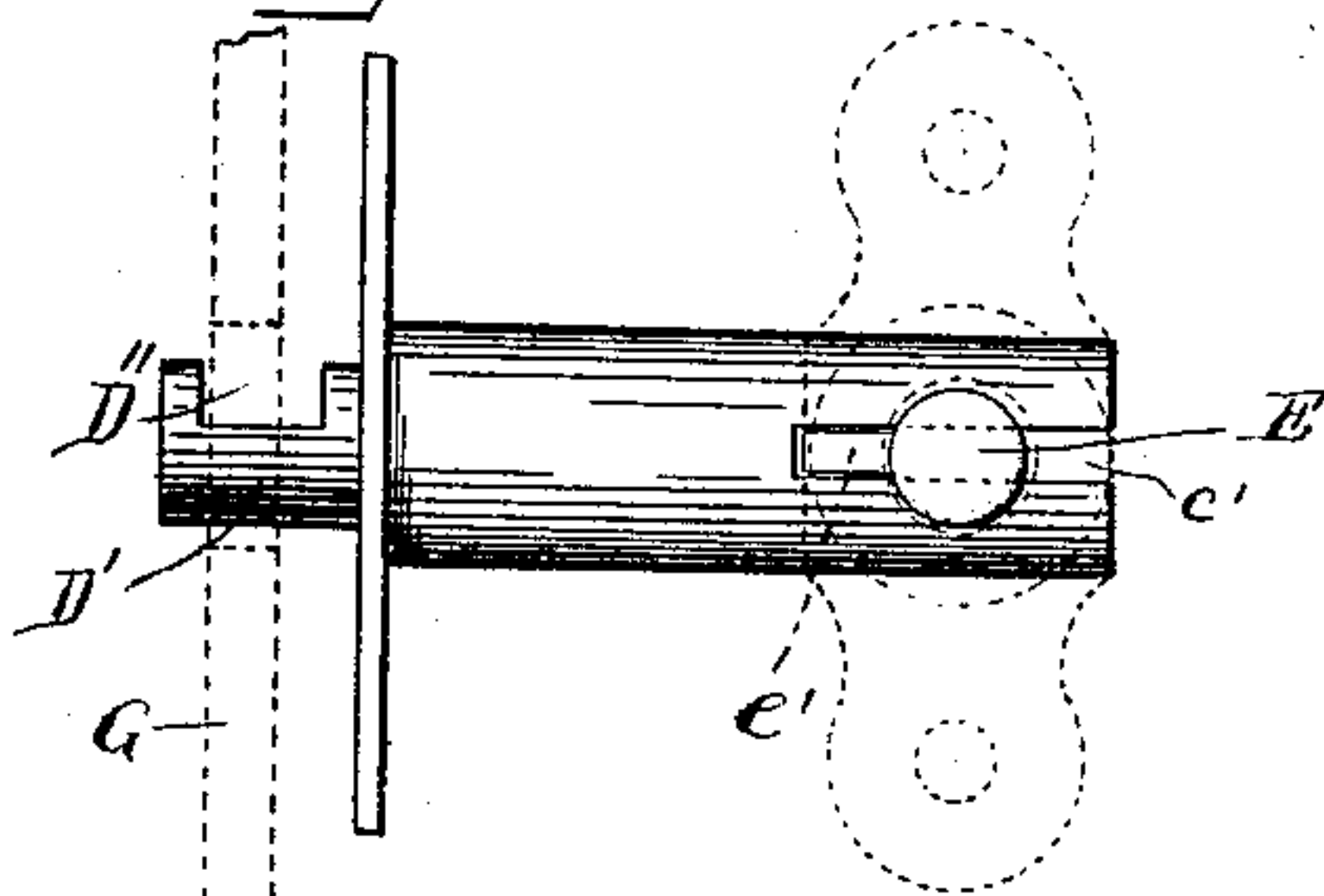
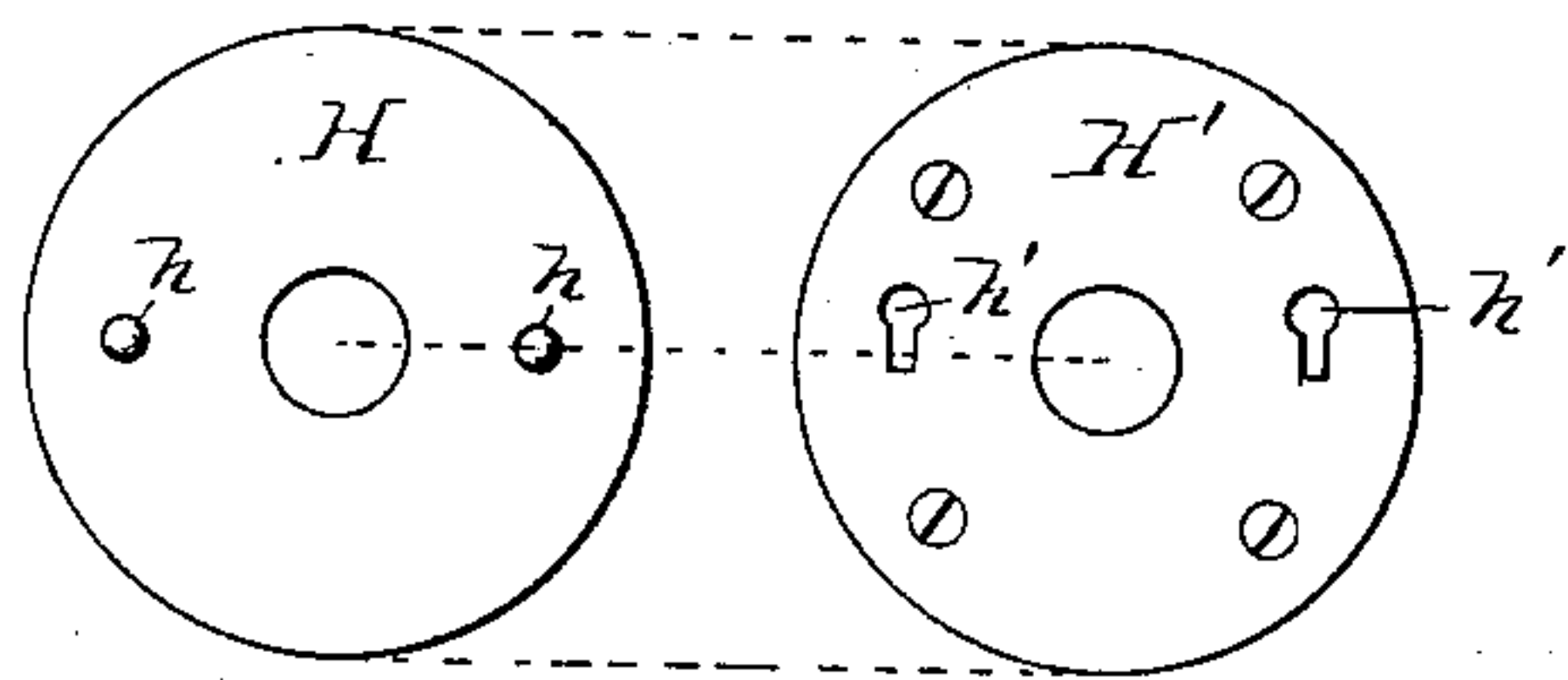


Fig. V.

Fig. VI.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES O. BIRNEY, OF KANSAS CITY, MISSOURI, ASSIGNOR OF NINE-SIXTEENTHS TO JOHN BIRNEY AND FRANK M. BRESSLER, OF SAME PLACE.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 481,546, dated August 30, 1892.

Application filed March 15, 1892. Serial No. 425,048. (No model.)

To all whom it may concern:

Be it known that I, CHARLES O. BIRNEY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in a Combined Sash Lock and Pulley; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a combined sash lock and pulley, by which the sash may be raised or lowered at will and wherever left will be securely locked.

A further object of my invention is to obviate the necessity of the cord and pulley being exposed to view.

Another object is to provide such security and convenience that a person may raise the lower sash, lower the upper sash, either, or both, as desired, so that windows may be left open nights or at any time and yet be so firmly locked at any desired point as to prevent the possibility of their being farther opened for the intrusion of burglars without breaking the window. I attain these results by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a front view of a window sash and frame, with one side partly broken away, showing my lock and pulley in position. Fig. II is a side view of the same. Fig. III is a sectional detail view of the combined lock and pulley. Fig. IV is a sectional detail view taken on line *y y* of Fig. III. Fig. V is an inverted plan view of the protecting plate or keeper and a plan view of the plate to which it is secured. Fig. VI is a side view of the lock as used separate from the pulley.

Similar letters refer to similar parts throughout the several views.

A represents the frame or jamb.

B B represent the sash.

C is the casing or cylinder in which the lock-bolt is secured.

C' is the casing around the pulley *c*.

c is the pulley over which the sash-cords operate.

c' are slots in the end of the cylinder C, in which the key E operates.

c'' is a slot in the casing in which the lug *d³* operates.

D is the lock-bolt having a smaller extension *d*, to which is secured a lug *d'*, against which the shaft *e'* of the key-stem E operates.

D' is one of the perforations in the metallic plate G.

D'' is the slot in the locking-bolt D.

d is the small extension to the locking-bolt D.

d' is a lug secured to the extension *d*.

d'' is the coil-spring around the locking-bolt.

d³ is a small lug secured to the locking-bolt D. (See Figs. III and IV.)

E is the key-stem proper.

e is the key knob or button against which the finger is pressed for the purpose of unlocking the sash from the jamb.

e' is the beveled end of the key which operates the locking-bolt D.

F F are the sash-cords.

f f are the weights.

G G is a perforated metallic locking-plate sunk and secured in the cord-groove of the sash and over which the cord travels in the raising or lowering process of the sash and contains any desired number of perforations corresponding in size to the end of the locking-bolt D and into which the end of the bolt D projects sufficient to receive the metallic plate into the slot D'', thereby securely holding the sash suspended at any point and locking the same.

H is the keeper or holder in which the key-knob *e* is held in position. This keeper is caught onto a corresponding plate (see Fig. V,) which is itself fastened to the jamb, the object being to instantly release the keeper H at will, when the key is readily removed and the window cannot be unlocked until the key is again inserted.

H' is an inverted plan view of the keeper H.

h h are lugs which fit the slotted openings *h' h'* in plate H, as seen in inverted view.

It should be noticed that by the old system

of hanging sash the cord is attached at or near the center of the sash and is exposed to view, while in my invention there is a continuous slot the entire length of the sash and the cord is fastened at the bottom in both the top and bottom sash, and in the bottom sash the combined lock and pulley is inserted in the jamb near the top of the side stile, and in the upper sash the combined lock and pulley is inserted near the bottom of the side stile, which results in inclosing from view the cords and pulleys in each case.

A further advantage to be derived from my combined lock and pulley is that being operated by a key a person desirous of leaving the windows open may easily remove the keeper and key, so that it would be impossible while the key is thus removed for any one to reach in with the arm and operate the lock, which must be done before the sash is either raised or lowered.

It will be seen that the combined pulley and lock is intended to be used either separately or in combination—in combination in ordinary windows in buildings and where it is convenient to use cords and weights, but in car and kindred windows, the pulley, cord, and weight having to be dispensed with, the lock only being used.

In the operation of my combined sash lock and pulley it will be noticed that the lock and pulley for the lower sash is inserted in the jamb at a point at or near the top of the lower sash, and for the upper sash the sash-lock and pulley is inserted in the jamb at a point at or near its bottom, so that in the raising of the lower sash the cord leaves the metallic plate free to receive the locking-bolt D at any

point where there is a perforation in the plate, and the normal condition of the locking-bolt D being a projection from the jamb just sufficient length to extend into the plate far enough to receive the plate in the slot D'' it will be seen that when the locking-plate G rests in the slot it is impossible to move the window up or down without slightly raising the window and releasing the bolt by pressure on the key, which by means of its wedge-shape formation at its operating end with pressure throws the bolt out of the plate, allowing the sash to be moved up or down at will.

It should be further noticed that an essential feature of my invention is the removable keeper which holds the key in operating position. This keeper is readily placed or displaced.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In combination with a sash lock and fastener, the locking-bolt D, the slot D'', the metallic locking-plate G, the coil-spring d'', the casing C, the slot c', connected with the pulley c, the operating-key E, its beveled end e', its operating end e, secured in the keeper H by a flange, and the removable keeper H and its corresponding plate securely bolted or screwed to the jamb, substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES O. BIRNEY.

Witnesses:

BESSIE E. YOUNG,
JANE GAIR.