

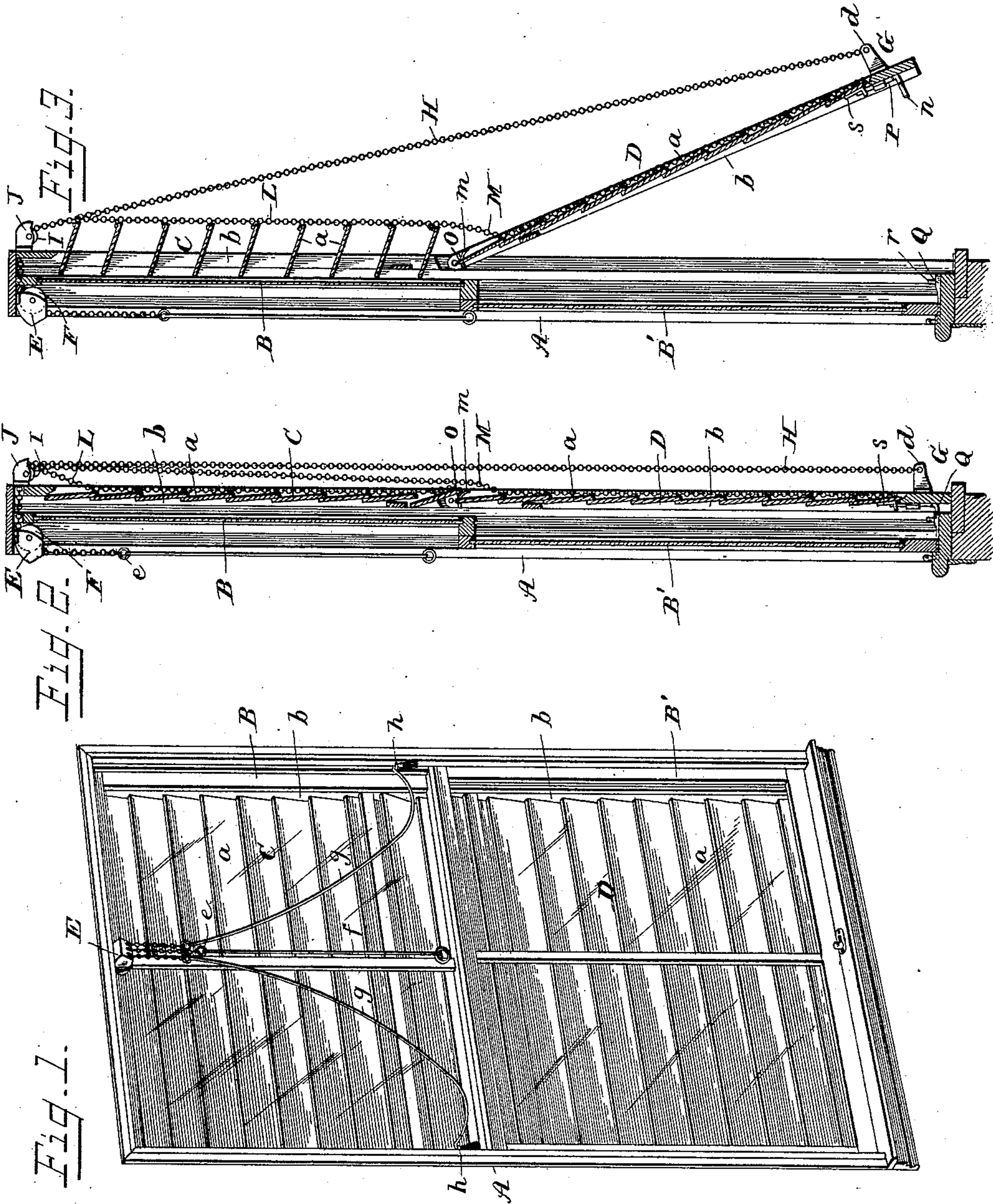
(No Model.)

2 Sheets—Sheet 1.

H. HAWLEY.
WINDOW SHUTTER.

No. 424,061.

Patented Mar. 25, 1890.



Witnesses

Edwin L. Bradford
J. W. Fowler,

Inventor

Henry Hawley,
By his Attorneys
A. H. Evans & Co.

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Fig. 4.

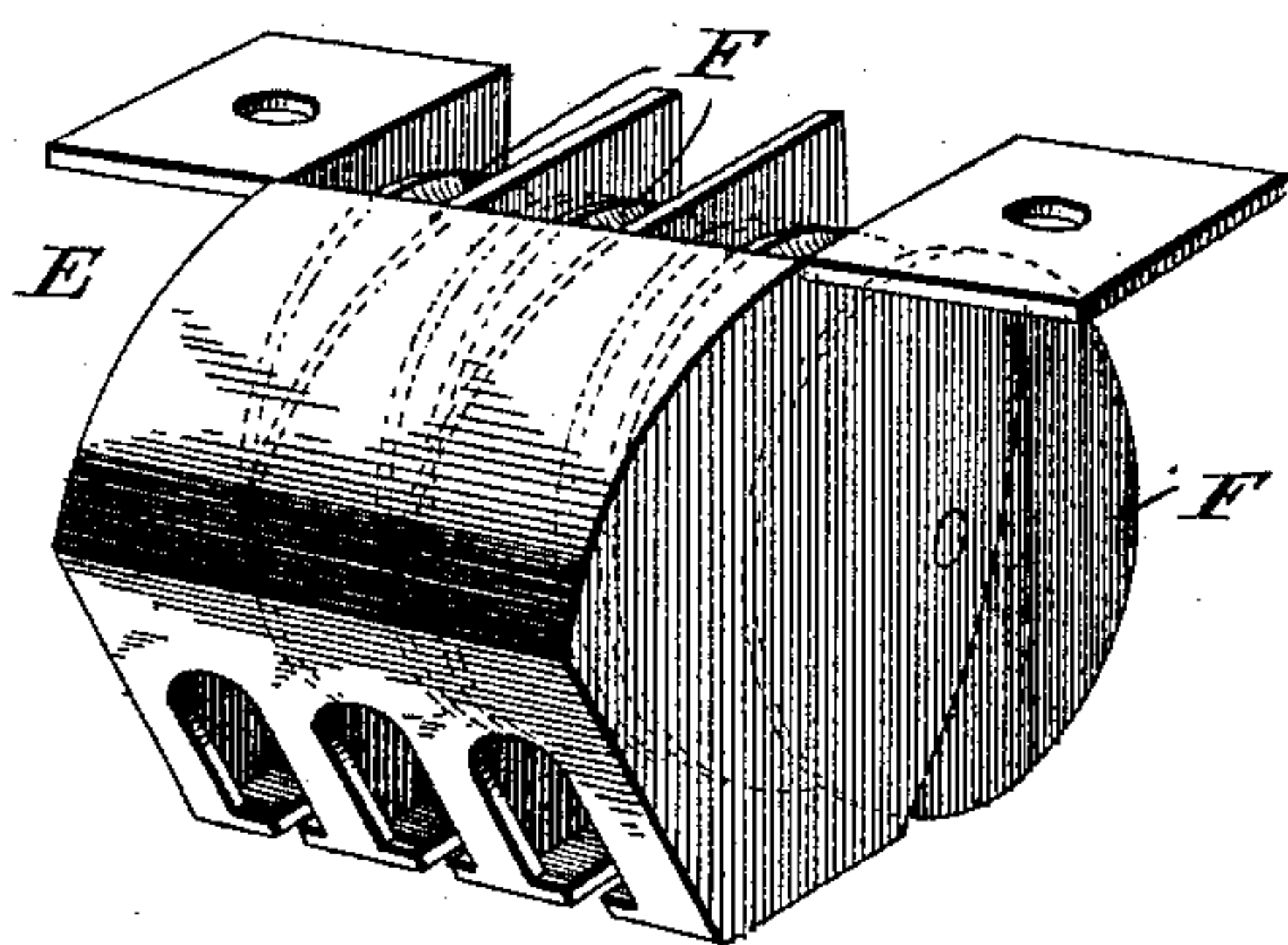


Fig. 5.

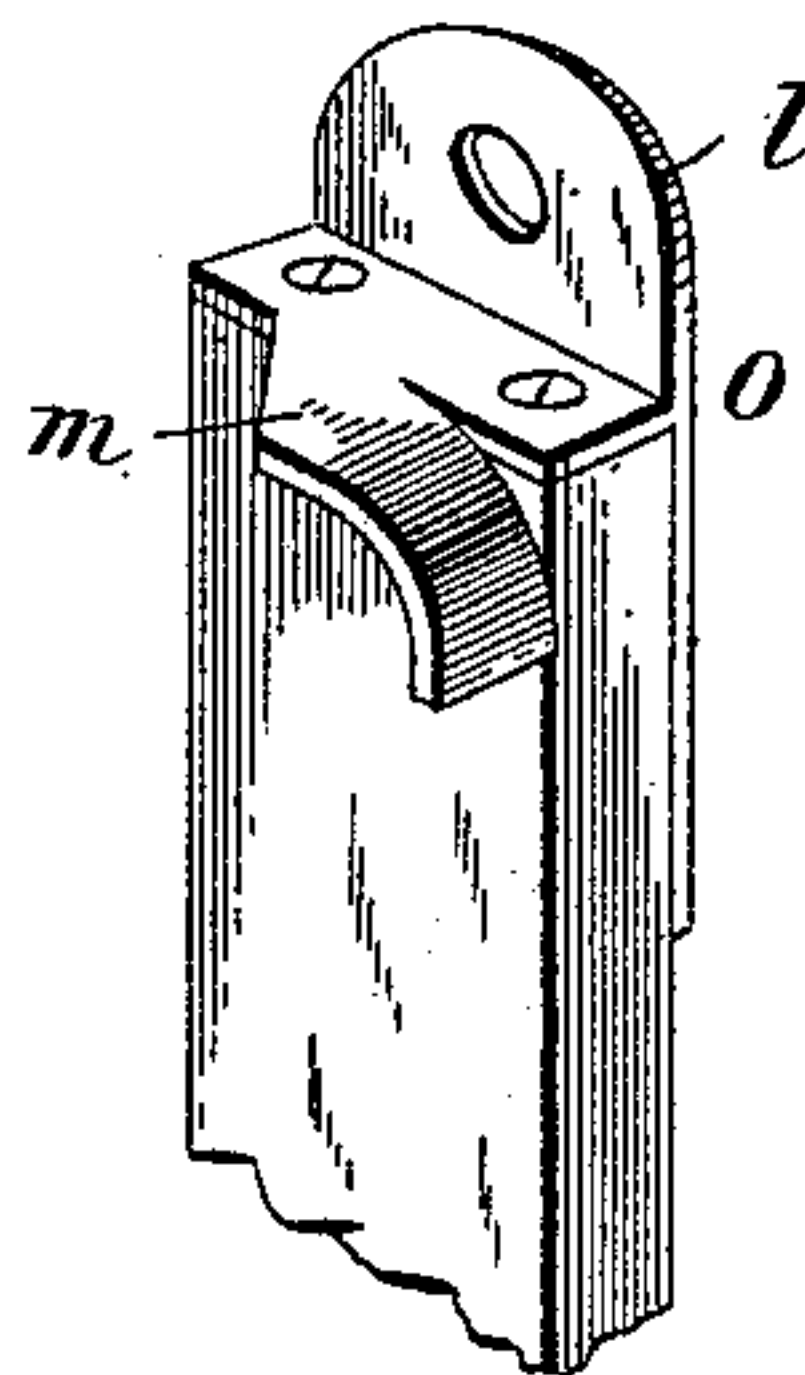
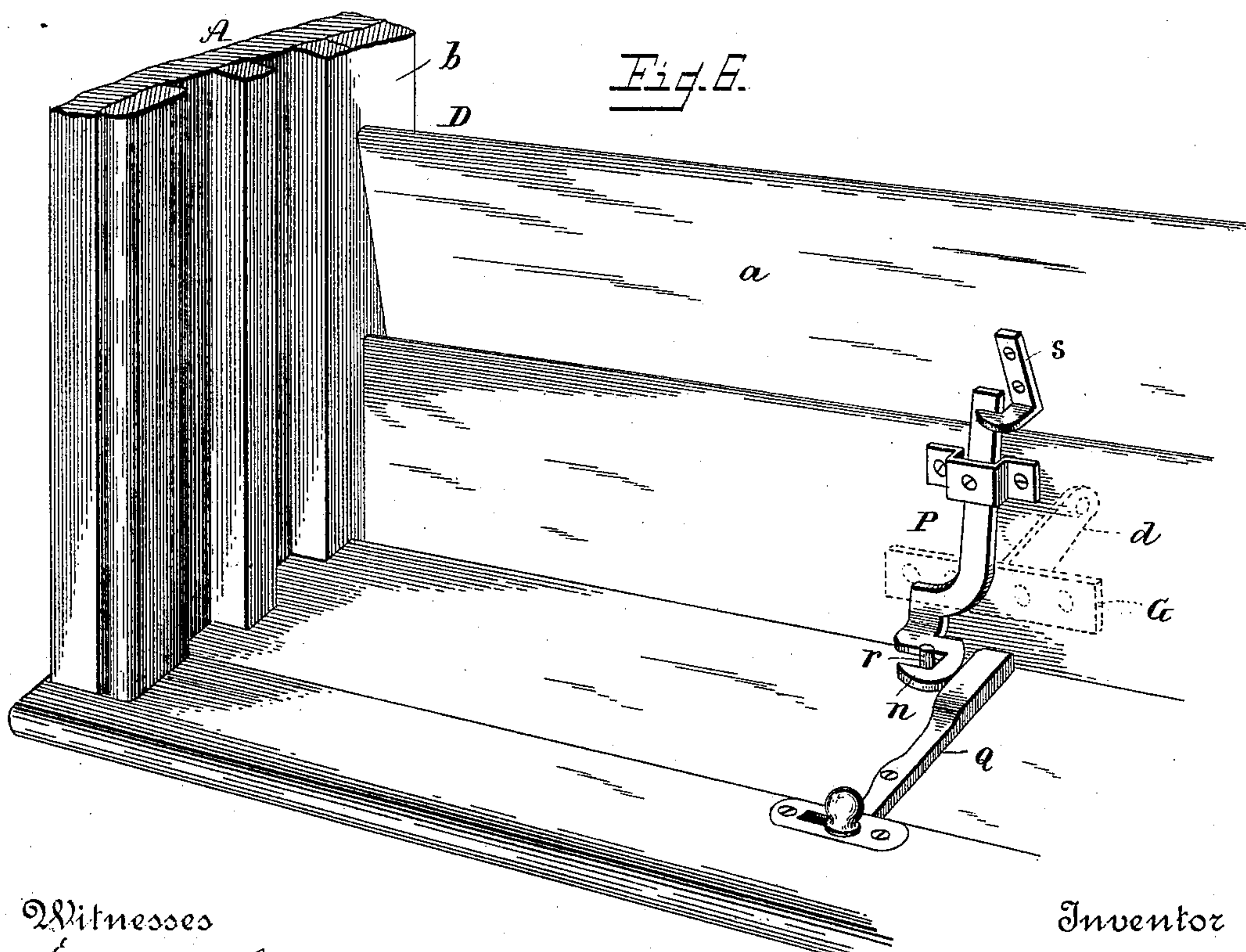


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY HAWLEY, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF
ONE-HALF TO P. M. RIXEY, OF SAME PLACE.

WINDOW-SHUTTER.

SPECIFICATION forming part of Letters Patent No. 424,061, dated March 25, 1890.

Application filed December 21, 1889. Serial No. 334,540. (No model.)

To all whom it may concern:

Be it known that I, HENRY HAWLEY, a citizen of the United States, residing at the city of Washington, District of Columbia, have
5 invented certain new and useful Improvements in Window-Shutters, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a perspective view of a window showing my improved shutter secured thereto. Fig. 2 is a cross-sectional view of the same. Fig. 3 is a similar view showing the lower section of the shutter thrown outward to serve
15 as an awning, and showing also the slats of the upper section open. Figs. 4 and 5 are details to be referred to. Fig. 6 is a detail of the mechanism for locking the shutter.

My invention relates to that class of shutters which may be readily used either wholly
20 or partially as an awning, and may be conveniently operated from the inside of the room to close or open the slats, or to convert the shutter into an awning, these operations being performed from the inside of the room and
25 without necessitating the raising of the window-sash.

My invention consists in the combinations and constructions of devices, which I shall
30 hereinafter fully describe and claim.

To enable others skilled in the art to make and use my invention, I will now describe its construction and indicate the manner in which the same is carried out.

35 In the said drawings, A represents a window frame or casing, and B B' the sash mounted therein, the said casing and sash being of any desired and well-known construction.

The shutter is preferably made in two sections, one section C being fixed to the outside
40 of the casing and terminating at its lower end at or about the center of the window, and the other or lower section D being adapted to swing outward to serve as an awning. The upper portion of the section D is hinged to
45 the casing at a point near the lower end of the upper section C, and its lower end, which swings outward, is provided with a catch adapted to lock this hinged section in place

when desired, as I shall hereinafter fully disclose. 50

Both the upper and lower sections of the shutter are provided with slats *a*, having the usual pintles or ends mounted in the side rails *b* of the shutter, whereby said slats may
55 be turned to open the spaces between them to admit light and air, or may be closed to exclude the same, as the circumstances of the case require. The slats *a* are mounted in the
60 the usual way; but they are made wide to increase the space between them to secure the full benefit of light and air.

To the upper and inner central portion of the window-casing is secured a casting E, in which three or more grooved pulleys F are
65 mounted, the said casting serving as a housing for these pulleys and having its front wall formed with openings in line with the grooves of the pulleys and its bottom wall slotted from
70 these openings rearwardly, as shown, and for a purpose I will hereinafter disclose.

To the lower end of the lower section D of the shutter, and on the outside thereof, is secured a T-shaped casting G, whose long arm
75 *d* is provided with an opening, in which is secured one end of a chain or cord H, which thence extends upwardly and passes over the middle one of three pulleys I, mounted in a
80 casting J, secured to the outside of the casing above the top section of the shutter, and thence extends through an opening formed between
85 the top of the upper sash and the under side of the top rail of the window-casing to the middle pulley in the casting or housing E on the inside of the window-casing, and finally
90 extends through its opening in the front of the casting E, and has its end provided with a ring or other enlargement *e*, which prevents the chain running back through said opening. To the ring or enlargement *e* is secured one
95 end of a cord *f*, which hangs loosely and has its lower end attached to a tassel, ring, or other ornament which lies within easy reach of the operator, and serves also as a weight to keep the cord comparatively taut. Other chains L
and M are fixed by staples or otherwise to the lower edges of the slats *a* of the upper and lower sections, respectively, of the shutter,

and thence extend upwardly substantially parallel with the chain H and pass over the outside pulleys L in the casting J and through the opening above the upper sash to the outside pulleys on the casting or housing E, over which pulleys these chains L and M pass, and are let through their respective openings in the front wall of the casting E and have their lower ends provided with rings or enlargements similar to the ring e, and for a like purpose, said rings being also connected with cords or flexible connections g, which extend downwardly and preferably toward the sides of the window-casing, and may pass through guide-eyes h on said casing, and have their lower ends provided with tassels, rings, or other devices. This arrangement of the cords makes a neat finish for the inside of the window and prevents the several cords becoming entangled.

To prevent the top slat of the lower section of the shutter from binding against the lower slat of the upper section of said shutter when said lower section is used as an awning, I prefer to make the casting O, which serves as a hinge for the lower section of the shutter, also serve as a means for lifting the lower slat of said upper section far enough to let the top of the lower section of the shutter clear it without danger of binding when said lower section is used as an awning. To accomplish these results, I construct castings O of one piece and secure them to the upper ends of the lower section of the shutter, each casting having an ear l, through which a pin passes, which hinges or pivots the casing to the inside of the window-casing, while an arm m, projecting from the ear portion l, extends inwardly toward the top slat of the lower section D, and is curved downwardly in front thereof and in a position where the lower slat of the top section will rest against the curved portions of the casting O when the slats are closed, but which said curved portions will serve as cams to raise the lower slat of the top section C, as before noted.

To securely lock the lower section of the shutter when closed, I employ a locking-bar P, fulcrumed upon the lower stile of the lower section D, and form its lower end with a hook portion n, which is adapted to be engaged by the outer end of an arm Q, pivotally mounted in or on the window-sill and extending to the inside of the window and provided with a knob or other means for conveniently operating it, the said inner end of said arm Q being adapted when moved to throw the hooked end of the locking-bar P into engagement with a stud or pin r, rising from the window-sill, as shown in Fig. 6, the upper end of the locking-bar P being at the same time thrown into engagement with a hook s, projecting from one of the slats of the lower section of the shutter.

From this description it will be seen that to open the slats of one or both sections of

the shutter the operator will pull upon the respective cord or cords attached to the chain or chains L and M, and will then direct the chain or chains so that one of the links thereof will be guided into the slats in the bottom wall of the casting or housing on the inside of the window-casing, when the chains are held and the slats kept open. By drawing upon the middle chain the lower section of the shutter is caused to swing upward about its hinge to serve as an awning, and the said section maintained in its raised position by directing the chain into the proper slot in the casting or housing. To release or close the slats in one or both sections, either when the lower section is raised or lowered, the operator simply releases the chains, when the slats fall by their own gravity, and by releasing the middle chain the lower section may be dropped to its normal position and locked by the previously-mentioned locking-bar.

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

1. The combination, with the window-casing, of a shutter formed in sections and having one of its sections hinged and adapted to serve as an awning, independent chains connected with the slats of the shutter-sections, guide-pulleys exterior of window-casing for said chains, a casting inside of the window-casing, having corresponding pulleys for said chains, and slots in the casting for engaging the links of the chain, substantially as described.

2. The window-casing, a shutter having a fixed upper section and hinged lower section, both provided with pivoted slats, chains independently connected with the slats of both sections, and guide-pulleys for said chains, in combination with castings secured to the upper side portions of the lower section and pivotally secured to the window-casing, said castings having each a cam portion or curved arm adapted to lie beneath the lower slat of the upper section of the shutter and to raise the same when the lower section is raised to serve as an awning, substantially as described.

3. The window-casing, the fixed and movable sections of the shutter, the chains I, L, and M, and their guide-pulleys, in combination with a casting on the inside of the window-casing, and in which the inside guide-pulleys are mounted, said casting having openings in its front wall, through which the chains pass, and slots in its bottom wall, in which the links of the chains may be held, whereby the slats are kept open and the lower section maintained in a raised position.

4. The window-casing, the fixed and movable sections of the shutter, each having pivoted slats, chains connected with said slats, whereby each series may be independently operated, a chain fitted to a casting on the

lower section for raising said section to serve
as an awning, castings on the inside and out-
side of the window-casing, having guide-pul-
leys for the chains, a locking-bar on the in-
5 side of the lower section, having a hooked
arm, a pivoted arm in the window-sill, adapted
to operate the locking-bar from the inside of

the room, and a hook on the lower section,
with which the upper end of the locking-bar
engages, substantially as described.

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Witnesses:

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E. T. KELLER.