

(No Model.)

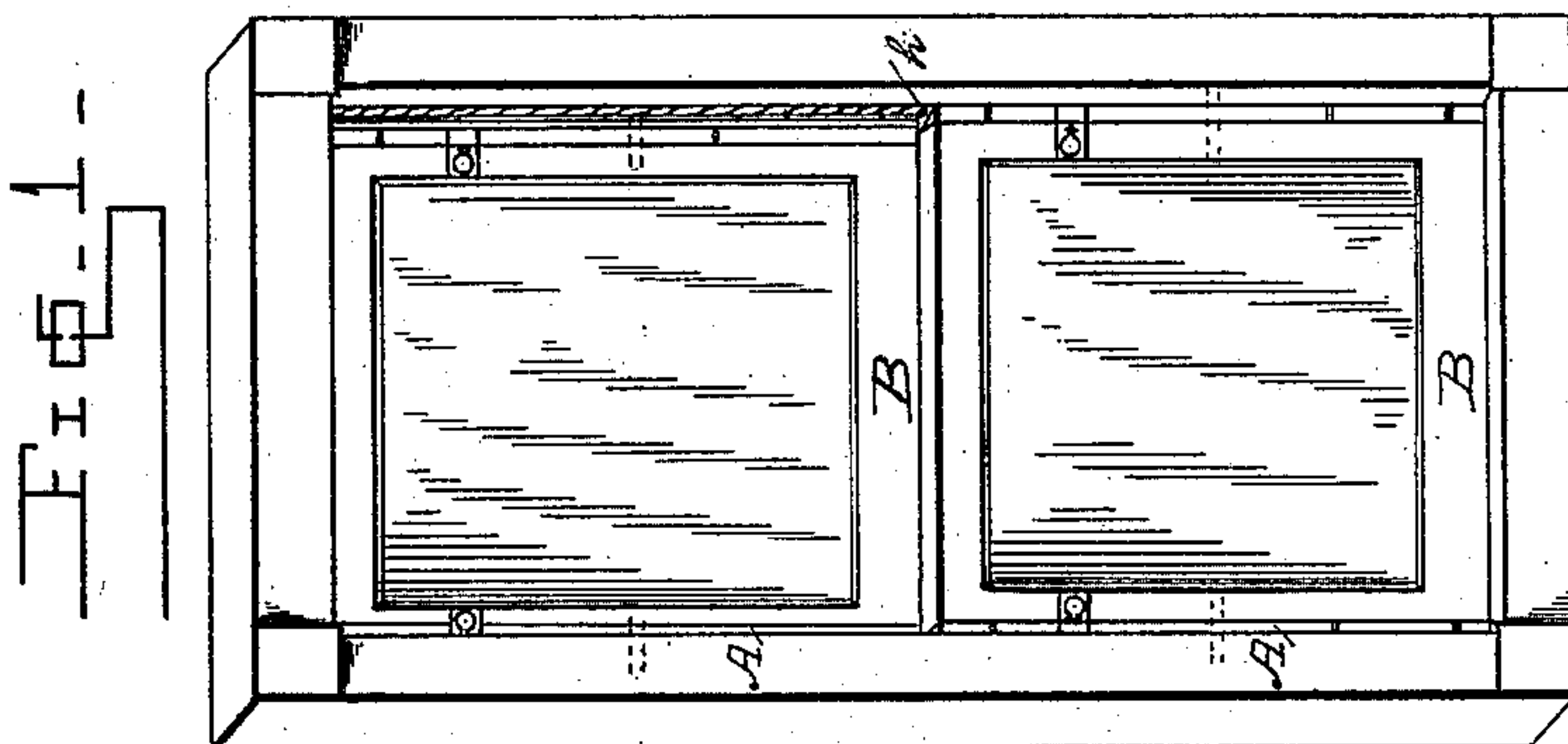
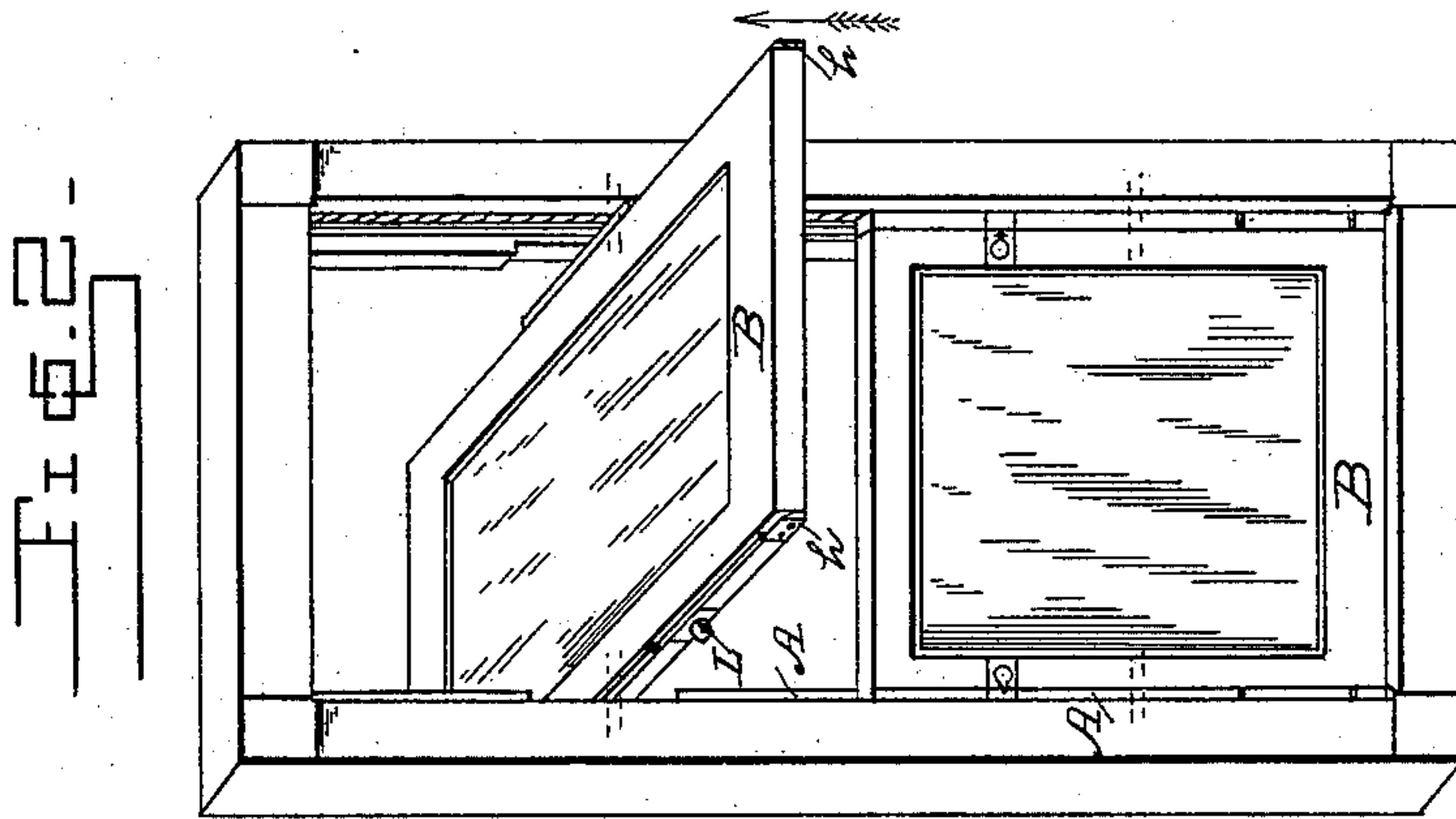
2 Sheets—Sheet 1.

J. S. PIHLSTRÖM.

WINDOW.

No. 359,283.

Patented Mar. 15, 1887.



WITNESSES

*John H. Blackwood*  
*C. B. Thompson*

INVENTOR,

*John S. Pihlstrom*  
*Wm. H. Doolittle*  
his Attorney.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

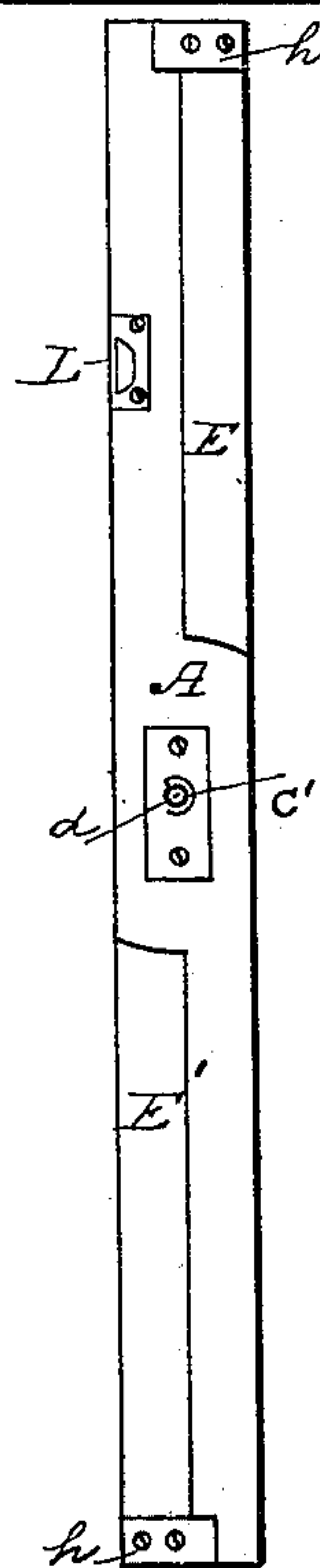


Fig. 5.

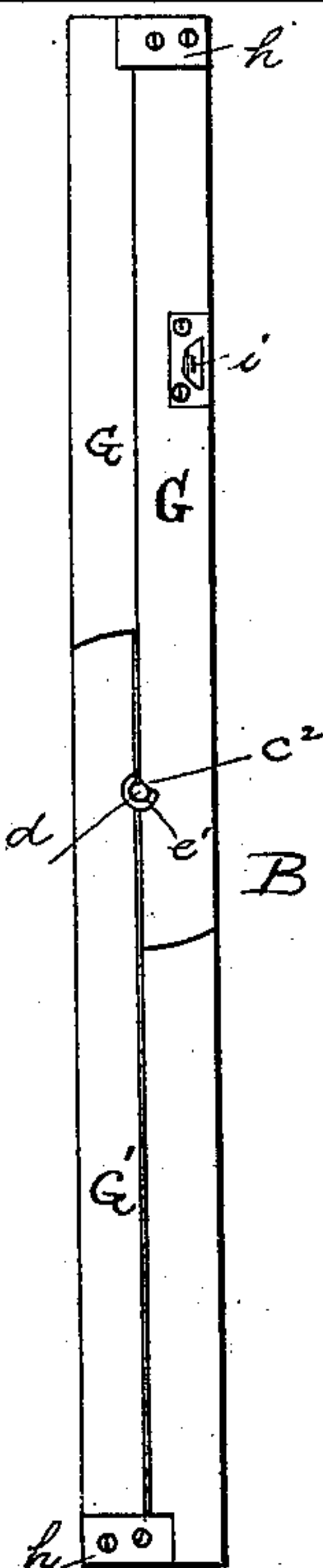


Fig. 3.

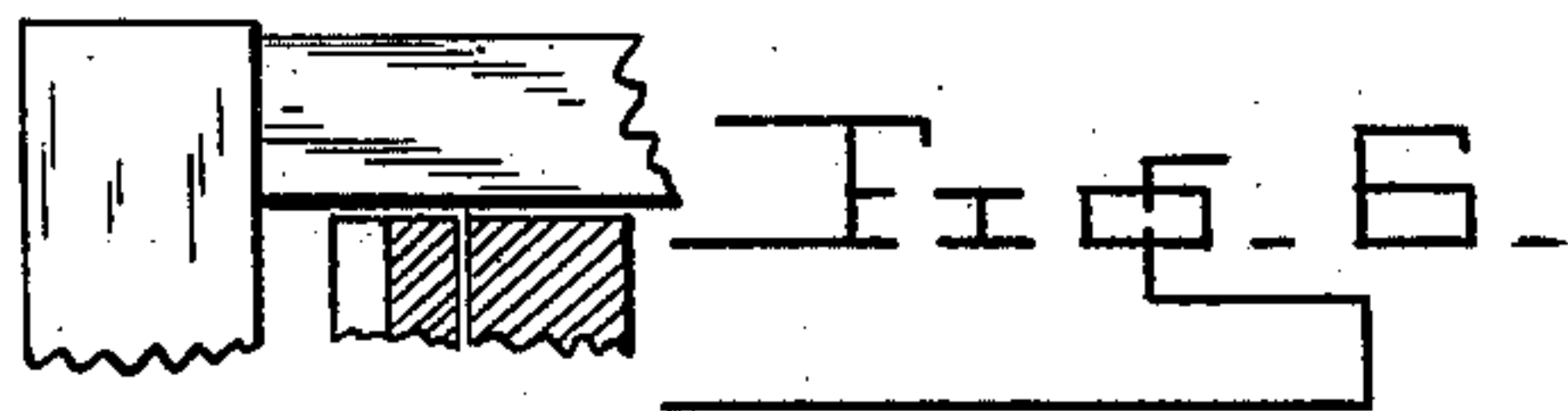
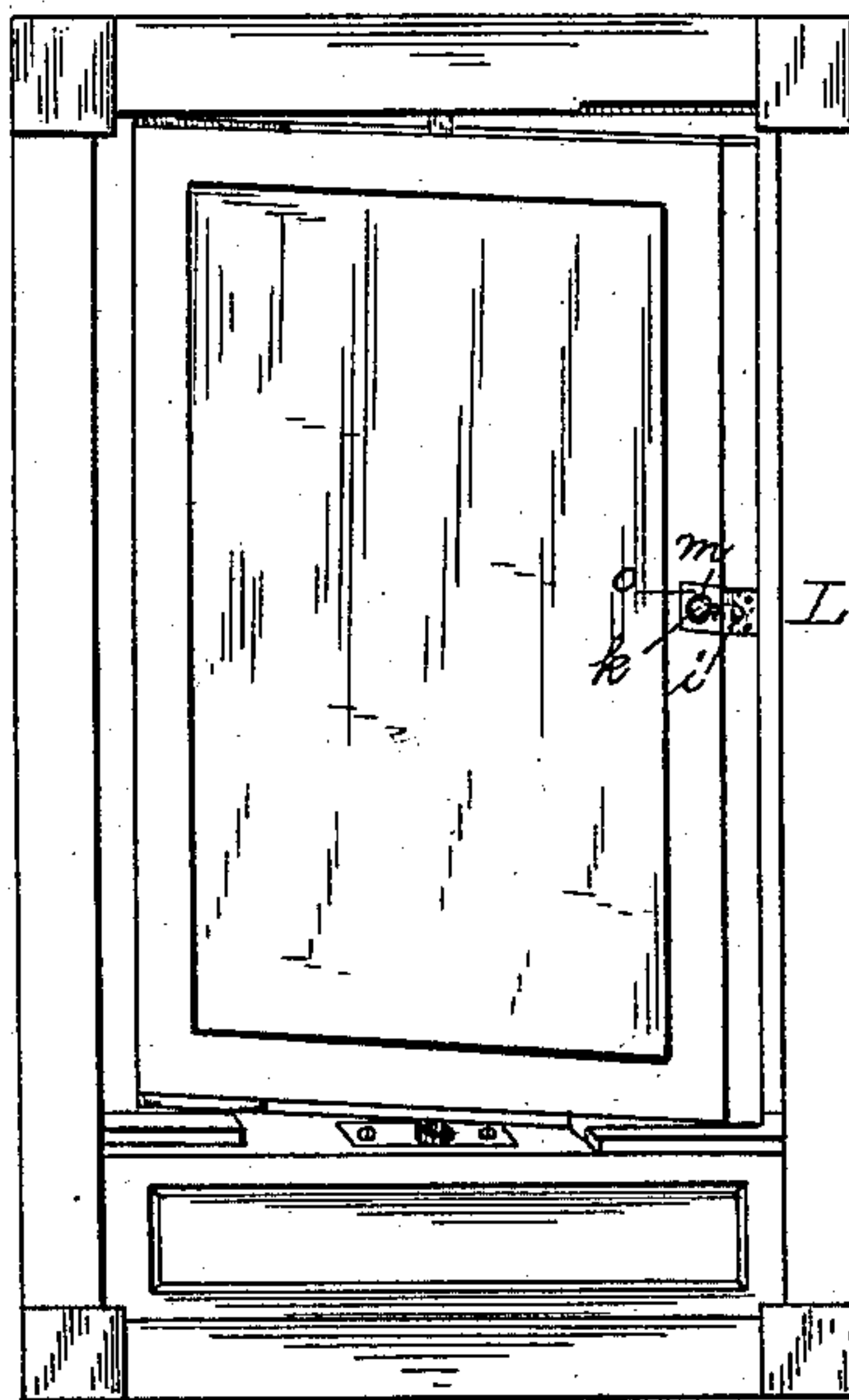


Fig. 7.

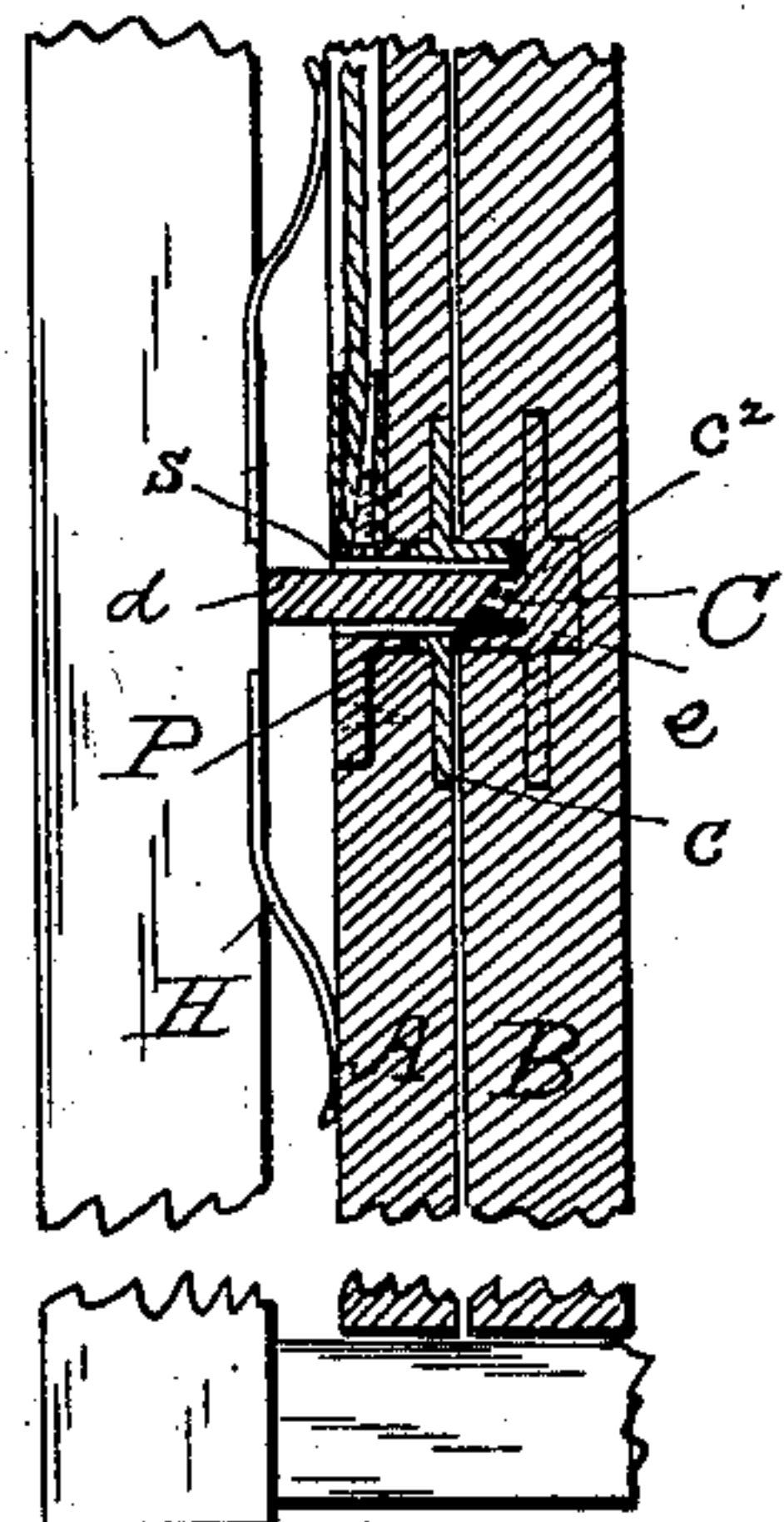
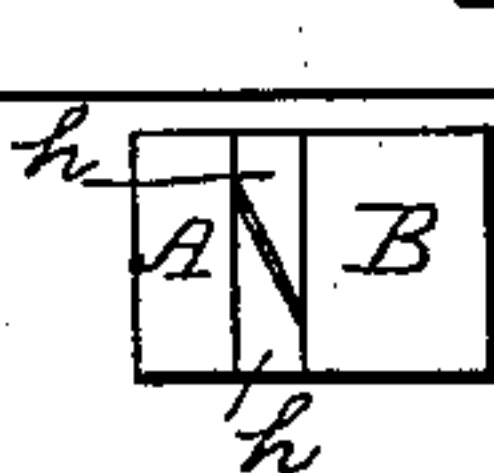
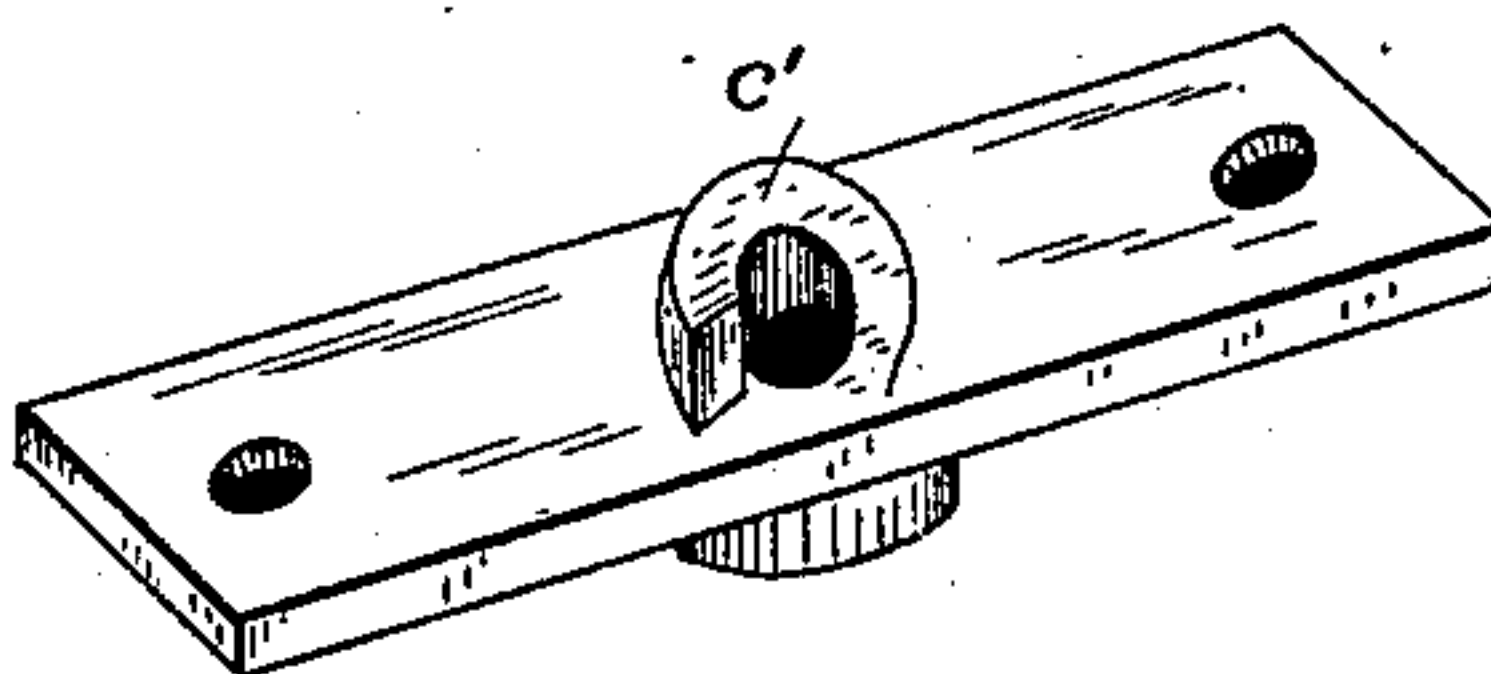


Fig. 8.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN S. PIHLSTRÖM, OF CHICAGO, ILLINOIS.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 359,283, dated March 15, 1887.

Application filed April 23, 1886. Serial No. 199,949. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. PIHLSTRÖM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Windows; and I do hereby 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 ap-  
10 pertains to make and use the same.

My invention relates to that class of windows in which the window-sash is centrally pivoted, so as to swing and turn within the frame; and it consists of means for holding  
15 the window in position when it is turned, locking the window when closed, and forming a weather-tight joint on all sides of the window when closed, all as more fully hereinafter described and particularly claimed.

20 My invention is illustrated in the accompanying drawings, in which—

Figures 1, 2, and 3 are perspective views of a window-frame and the sash with my invention applied; and Figs. 4, 5, 6, 7, and 8, de-  
25 tails.

My invention may be applied to the ordinary sash-cord window-frames, or to windows in which other means or no means are provided for raising and lowering the windows verti-  
30 cally, and to heavy plate-glass windows, which are not raised or lowered, but are hung from a central pivot.

In Fig. 1 I have shown my improvement applied to a window in which the windows are  
35 closed; in Fig. 2, to a window with sash open, with cords and weights, and in Fig. 3 to a single heavy plate-glass window pivoted centrally at top and bottom, and with my improvements attached.

40 In the drawings, A is an outer side part of a window-sash, pivoted centrally to the inner part of the sash B by a hinge-joint, C. This joint, which is a sort of rising butt-joint, consists of two parts—a plate, *c*, let into a mortise  
45 in the part A, and having a boss on its under side, which fits in the hole made in the mortise, and a rising incline, *c'*, and a part, *c''*, set into the sash B, and having a pintle, *d*, and a head, *e*, with a projecting incline, *e'*. The  
50 pintle *d* passes through the plate *c*, and the

incline *e'* climbs upon the incline *c'* of plate *c* when the sash is turned, and forces the sash and outer side part, A, apart when the sash is opened, for the purpose shortly to be described.

E E' are strips placed in opposite sides of  
55 the outer part, A, above and below the central joint, and G G' are longer strips placed on opposite sides of the sash B, as shown, and inclosing the pintle of the hinge. *h h h h* are locking-pieces with beveled inner faces placed at  
60 the ends and on opposite sides of the parts A B. It will be seen that by the arrangement of these strips and locking-pieces when the sash is put in place against the outer part, A, the strips E E' and G G' will enter opposite  
65 spaces or recesses formed by the opposite strips, so that the strips will all be flush with each other, and the wedge-shaped parts *h* interlock and draw the parts together, as shown in Fig. 1, forming a weather-tight joint. On  
70 opening the sash the operation of the joint forces the side parts and sashes apart, so that the strips E E' G G' pass each other, and the window may be entirely reversed.

H is a flat spring back of the part A in the  
75 framing, to force and keep the sash and that part close together when closed, and to hold the sash at any desired angle when open.

L is a spring locking device, to lock the sash to the frame when closed. This locking de-  
80 vice is shown in Fig. 3, and is provided with a handle, *m*, to withdraw the spring-bolt *i* when it is desired to open the sash. This handle is thrown back into a recess, *k*, in the plate *o* by the action of the spring when released by  
85 the hand. It is not essential to my invention that this particular form of locking device be used.

In Fig. 3 the parts above described are shown as placed at the top and bottom of a  
90 sash when a single plate of heavy glass is used to constitute the window.

I prefer to hang my window at the center, when cords are used, by the means shown. These means consist of a metal ring-plate, P,  
95 to which the cord is secured, and which plate terminates in a curved recess, S. The plate is hung on the pintle *d*, the pintle resting in the recess *s*.

My improvements, in addition to the advan- 100



tages due to having the windows reversible, of easy and convenient cleaning and ventilation, and easy egress and ingress when large windows are used, also possess the advantage of a good weather-tight joint when the windows are closed.

Having thus described my invention, what I claim is--

1. A centrally-pivoted window-sash, in combination with the adjoining parts of the window-frame, strips on the opposite edges of the sash and of the adjoining part arranged to fit flush with each other, as described, and the beveled interlocking end pieces, *h*, in the sash and adjoining parts, as and for the purpose described.

2. A window-sash, in combination with the central pivot-joint, composed of plates having oppositely-inclined faces, and the pintle, the adjoining part A, through which the said pin-

tle passes, and the side strips on the part A and the sash, whereby, when the sash is turned, the said pivot-joint presses the sash and adjoining part A apart, leaving the sash free to move between said strips, substantially as described.

3. A window-sash, in combination with the adjoining part A, said sash and part provided with strips *E E' G G'*, and the interlocking end pieces, *h*, the central pivot, the springs back of the outer part to force the same against the sash, and the locking device to lock the sash in place when closed, substantially as described.

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

JOHN S. PIHLSTRÖM.

Witnesses:

CHARLES COLE,

J. SHOGREN.