

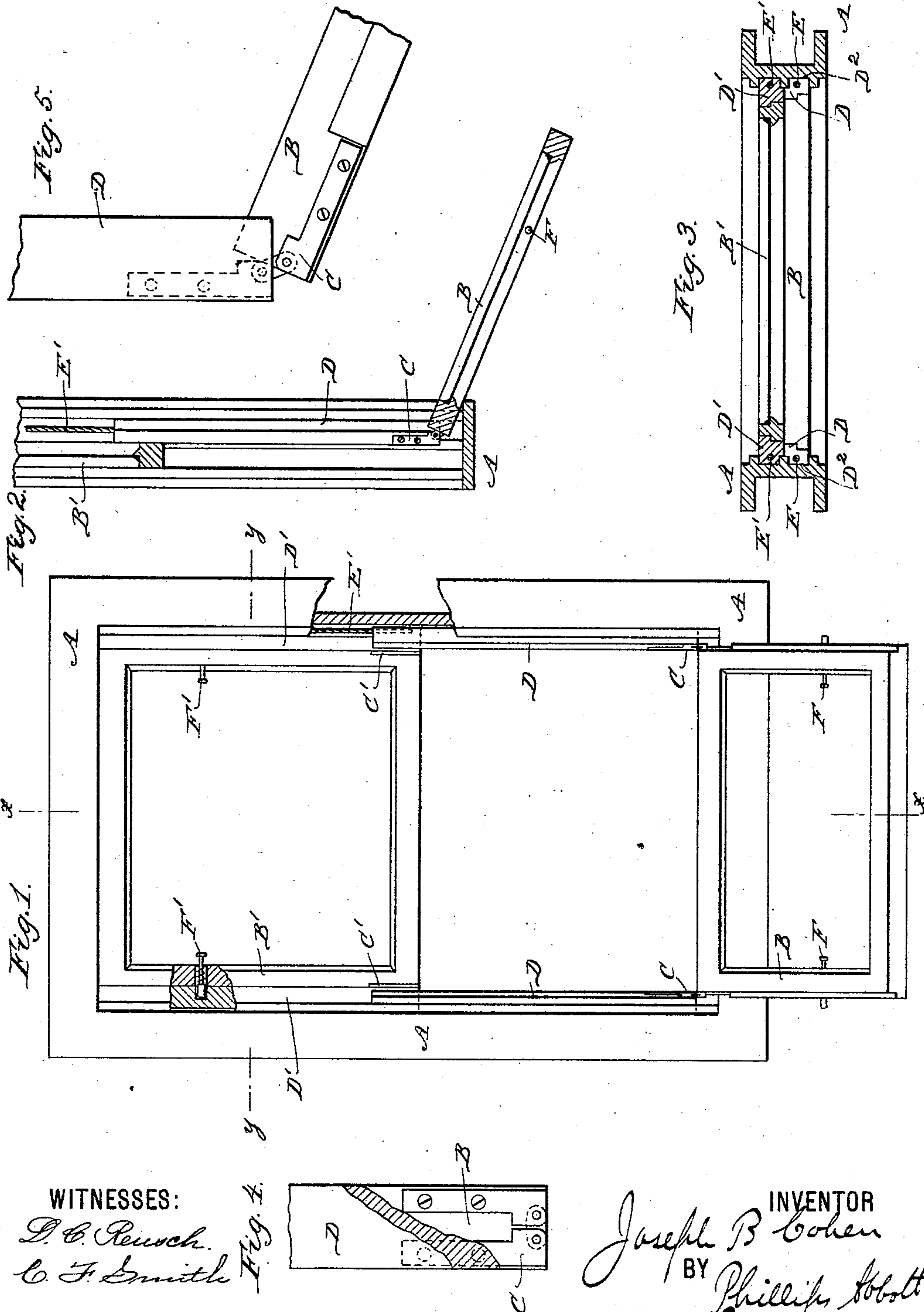
(No Model.)

2 Sheets—Sheet 1.

J. B. COHEN.
WINDOW SASH.

No. 455,825.

Patented July 14, 1891.



WITNESSES:
D. C. Reusch.
C. F. Smith

INVENTOR
Joseph B. Cohen
BY
Phillips Hobbs
his ATTORNEY

(No Model.)

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Fig. 7.

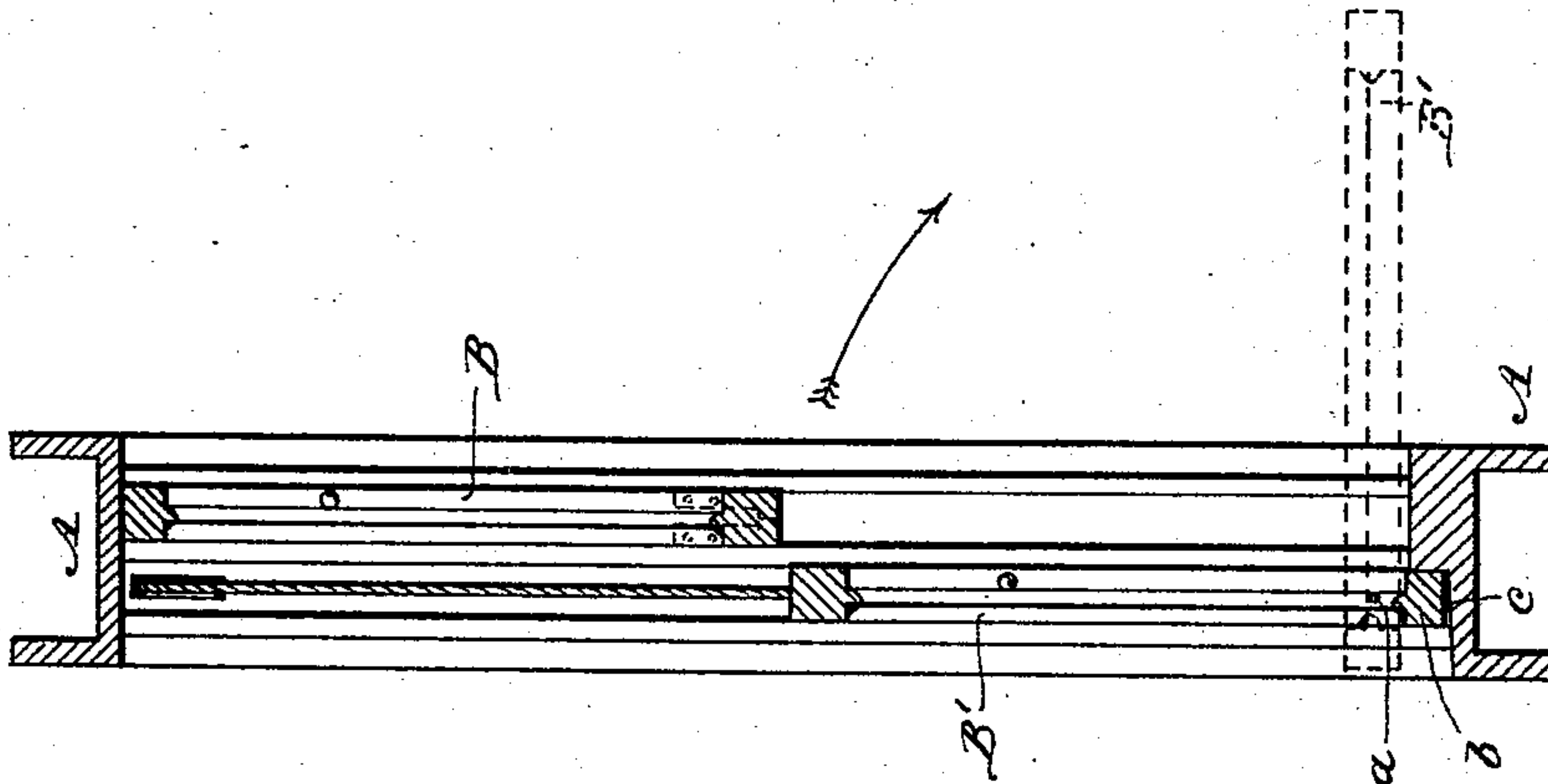
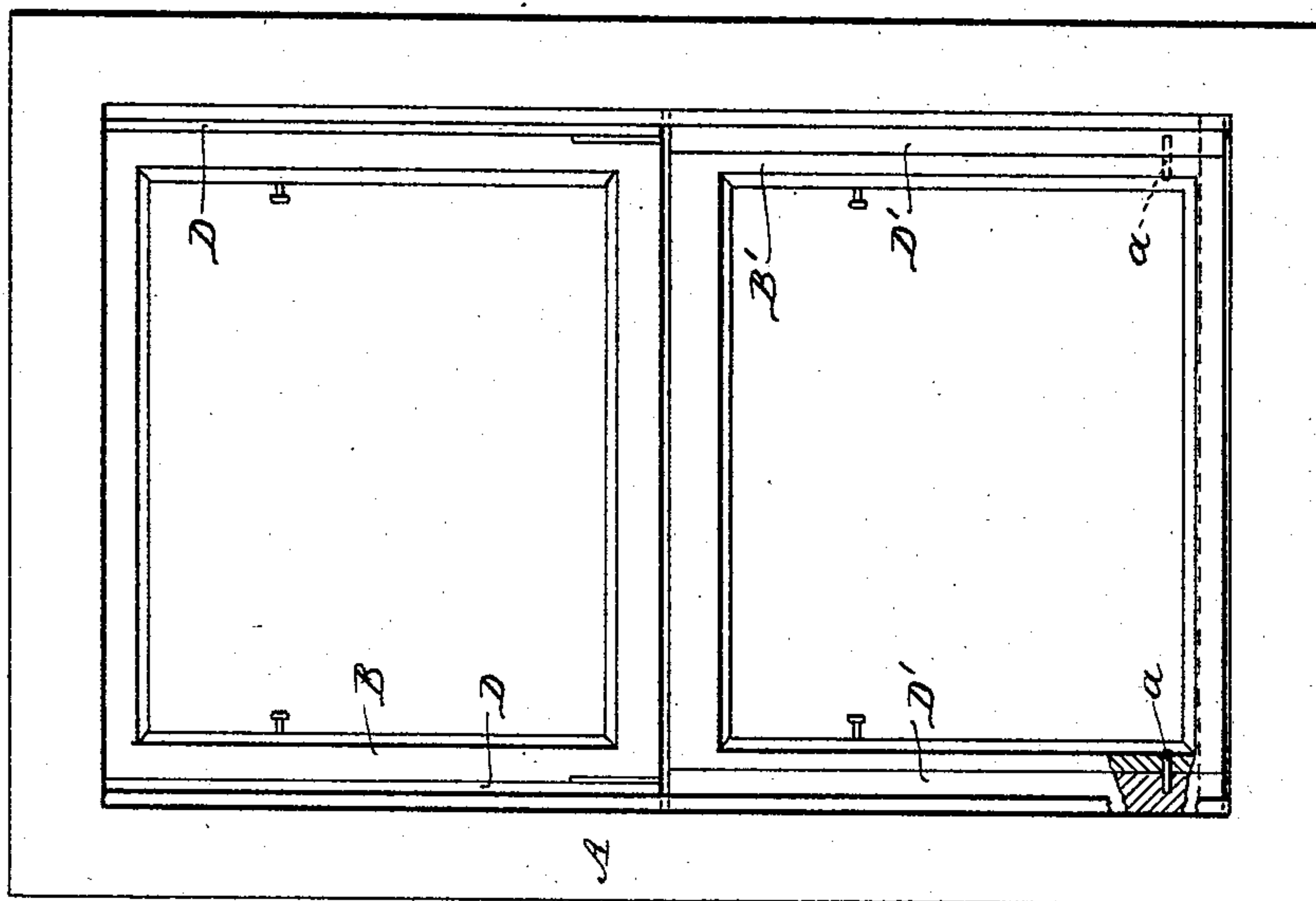


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH B. COHEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
FRANCIS LATHROP, OF SAME PLACE.

WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 455,825, dated July 14, 1891.

Application filed July 22, 1890. Serial No. 359,520. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. COHEN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Window-Sashes, of which the following is a specification.

My invention relates to improvements in window-sashes; and it consists in the construction, arrangement, and operation of the parts hereinafter set forth.

In the drawings the same reference-letters indicate the same parts in all the figures.

Figure 1 illustrates an elevation of the invention, the lower sash being swung down and the upper one in normal position. Fig. 2 illustrates a sectional elevation of Fig. 1 on the line $x x$ of Fig. 1, partly broken away. Fig. 3 illustrates a sectional plan view on line $y y$ of Fig. 1, with both sashes in their normal position. Fig. 4 illustrates an enlarged view of the hinge between the sash and the sliding strips, the latter being partly broken away. Fig. 5 illustrates the same as Fig. 4, the sash being let down. Figs. 6 and 7 are a plan view and vertical section, respectively, of a modified construction of my invention.

A is the window-casing.

B B' are the top and bottom sashes, respectively. The sashes are hinged or pivoted at C C C' C' to side strips D D D' D', which slide in the sash-rabbets D² D².

E E E' E' are the window-cords. They are attached to the strips D D D' D' in the same manner that they are usually attached to the side of the window-sashes, excepting that they preferably cannot be separated laterally from the upper part of the strips. On the contrary, the strips are confined to them at their upper ends either by the cords passing through holes made in the body of the strips or by clips or other means to hold the strips to the cords, so that when the sashes are turned downwardly on their hinges or pivots, as hereinafter described, these strips will be held in the sash-rabbets at their upper ends by the stress of the window-cords on them, as well as by their confinement at the lower ends by the sashes.

F F F' F' are catches of any suitable construction. (The ordinary spring-controlled spindle-catch is shown in the drawings.) They pass through the sides of the sashes and enter recesses or holes in the strips D D D' D'. Thus the sashes are held up parallel with the strips and in proper closed position until the catches are released. The sashes may then be swung downwardly and forwardly into the room, where they may be conveniently and easily cleaned.

In order that the upper sash may be manipulated in the same way that the lower one is, the side strips D' D' of the upper sash are made so much wider than the strips D D of the lower sash (see Fig. 3) that when the upper sash is pulled down and its catches are released it may be turned downwardly and inwardly and will move between the strips D D without striking them and attain a position within the apartment the same as that described regarding the lower sash.

When my sashes are employed in dwelling-houses or other places where it would be objectionable on the score of loss of heat to open the entire window-space, I construct them as shown in Figs. 6 and 7—that is to say, the lower sash B is pivoted to the sliding strips D the same as in the cases above described and illustrated; but the upper sash is not hinged to the very bottom of its sliding strips. On the contrary, it is hung on pivots $a a$, which pass through the sliding strips and enter the side of the sash a short distance above the bottom thereof, as at $b b$, and I cut out the window-sill, as at c , so that the upper sash may be drawn down so low that its upper rail will be below the bottom rail of the other sash when their normal positions are reversed, and in this way, after the lower sash has been cleaned, it may be pushed up to the top of the window-frame, and the upper sash then being pulled fully down until its lower rail rests in the cut-out part of the sill (marked c) it may be tipped over inwardly, its upper rail passing through below the lower rail of the other sash, and because it is pivoted above the lower ends of the sliding strips it will not bind on the window-sill while moving over. Thus it may be cleaned

while the other sash, which is normally the lower one, fills the upper part of the window-frame and prevents escape of heat.

As above set forth, it will be seen that both
5 of the sashes may be cleaned much more easily, quickly, and thoroughly than as they are now constructed and without liability of falling of the person cleaning them, and also that bars, shutters, or wire netting, which are
10 frequently placed on the outside of windows, present no obstruction to the cleaning of the same, because the window is moved away from them into the room or apartment.

I do not limit myself to the details of construction shown, since it will be obvious to
15 those who are skilled in this art that changes may be made therein and still the essential features of my invention be employed.

I claim—

20 1. The combination, in a window, of a sash permanently pivoted at its lower end to strips which slide in the rabbets of the casing, catches which hold the upper end of the sash to the strips, and window-cords attached to
25 the strips, substantially as set forth.

2. The combination, in a window, of a plurality of sashes, each permanently pivoted at its lower end to strips which slide in the rabbets of the casing, the strips for the upper

casing being thicker than those of the lower casing, catches which hold the sashes at their upper ends to their respective strips, and window-cords attached to the strips, substantially as set forth.

3. The combination, in a window, of a sash
35 permanently pivoted at its lower end to strips which slide in the rabbets of the casing, catches which hold the upper ends of the sash to the strips, and window-cords attached to the strips at or near their upper ends, substantially as set forth.

4. The combination, in a window, of a plurality of sashes, each pivoted to sliding strips which slide in the sash-rabbets of the casing, the pivots of the upper sash being somewhat
45 above the bottom of its sliding strips, window-cords attached to the strips, and a recessed sill, into which recess the upper sash may descend lower than the lower sash, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 18th day of July, A. D. 1890.

JOSEPH B. COHEN.

Witnesses:

PHILLIPS ABBOTT,
FRANCIS LATHROP.