No. 608,084. Patented July 26, 1898.

# H. STAIB.

## WINDOW FRAME AND SASH.

(No Model.) (Application filed Sept. 13, 1897.)

Fig. 1

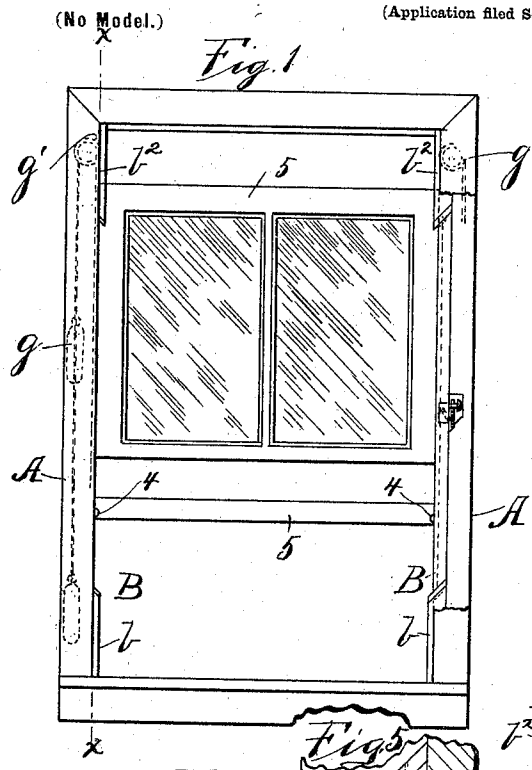



Fig. 2.

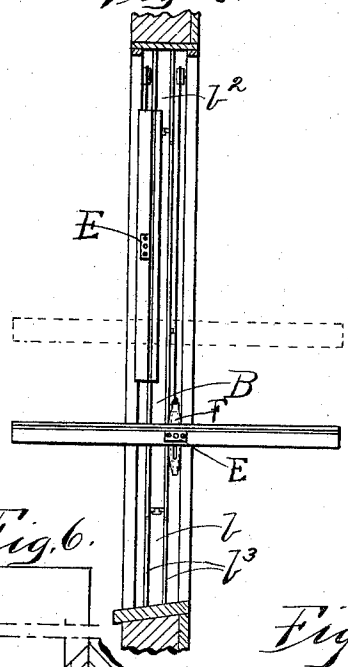



Fig. 6.

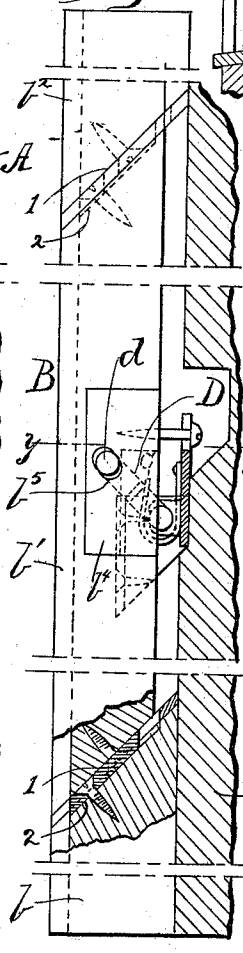



Fig. 7.

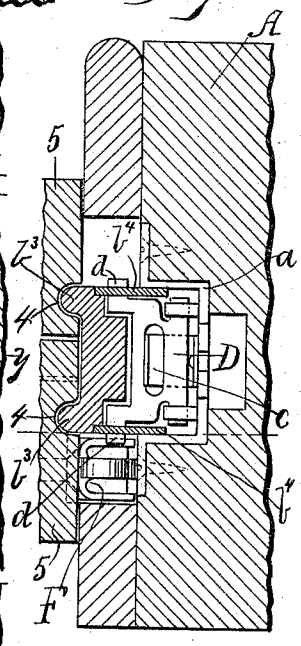



Fig 3

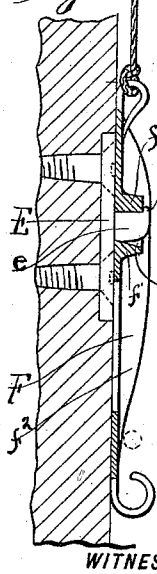
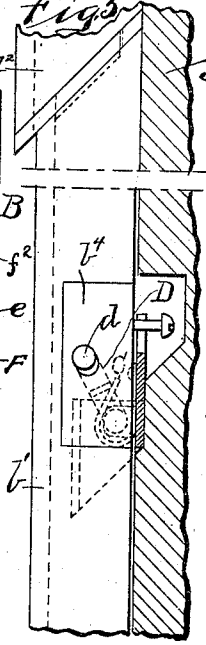



Fig 4




Fig 5

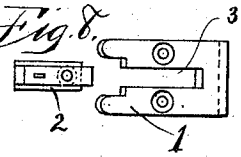



WITNESSES.

P. McComb.

E. Sealer

Fig. 8.




INVENTOR

A. H. Staib.

BY

Clark, Deemer & Co.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

HENRY STAIB, OF NEW YORK, N. Y.

## WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 608,084, dated July 26, 1898.

Application filed September 13, 1897. Serial No. 651,423. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY STAIB, a citizen of the United States, and a resident of New York, (Brooklyn,) county of Kings, and State of New York, have invented certain new and useful Improvements in Window Frames and Sashes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters and figures of reference indicate corresponding parts.

This invention relates to improvements in window frames and sashes; and the object thereof is to supply a structure of this character which comprises movable parts so assembled that the sash can be readily operated vertically for purposes of ordinary use, while at the same time it can be easily swung or rotated upon its suspended pivots for the purpose of cleaning the glass or removing the sash, if desired.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a window-frame in full. Fig. 2 is a vertical sectional elevation taken on a line $x\ x$ of Fig. 1. Fig. 3 is a detail vertical sectional view illustrating the hanger and the means for attaching it to the sash. Fig. 4 is an edge elevation of the said hanger and a portion of the sash. Fig. 5 is a detail front elevation of a portion of a window-frame. Fig. 6 is a similar view. Fig. 7 is a sectional plan view taken on a line $y\ y$ of Fig. 6, and Fig. 8 is a plan view of the plates adapted for connecting the sections forming the window-stop.

In the practice of my invention I employ, primarily, a window-frame of ordinary adapted construction. Upon the inner surface of each of the uprights A, forming part of the said frame, is placed a stop B, comprising three parts $b$, $b'$, and $b^2$. These three said parts are maintained in normally vertical alinement with each other, whereby a smooth outer surface is presented, as illustrated in Fig. 6 of the drawings, and the sections are connected to each other by means of metallic plates 1 and 2, the metallic plate 2 engaging a groove 3 of the plate 1 for the purpose of limiting the outward movement of the section B', and these plates also prevent the wearing out of the wooden sections comprising the stop at their points of juncture. The stop is further provided with continuous beads $b^3$, adapted for engagement with grooves 4 of the sashes 5.

The sections comprising the stops are preferably beveled at their adjacent ends, the beveled edges being all parallel with each other, whereby the movable section $b'$ moves upwardly, as well as rearwardly, and any oscillation upon the hanger is prevented, lateral displacement being prevented by the interlocking plates 1 and 2, which connect the sections.

As a means for maintaining the central section $b'$ of the stop B in its normal outward position a spring C is placed between the said central section of the stop and the upright portion A of the window-frame. This said spring may be of any adapted form, and in the drawings it is simply a bow-spring secured to a recessed plate $a$, embedded in the upright A, forming part of the frame. The plate $a$ further carries a swinging hanger D, which engages a recess in the section $b'$ of the stop and is connected to plates $b^4$, which close said recess, these plates being respectively supplied with slots $b^5$ for engagement with pins or projections $d$ of the hanger D.

As a means for hanging the sashes they are respectively supplied at each side thereof with centrally-located plates E, having projected pins $e$ extended therefrom for the purpose of engaging with suspended slides F, to which the ropes G are attached. These said ropes connect with weights $g$ and pass over pulleys $g'$ in the customary manner. The pins $e$ are respectively supplied with radially-extended lugs $e'$, and the surfaces thereof opposite to the said lugs are beveled, as indicated at $e^2$. This construction admits of readily removing the sash from the slide F, while at the same time it maintains a secure engagement therewith after the sash is hung. The opening $f$, formed through the slide F, is also supplied with a beveled portion $f'$ to facilitate the operation of adjusting the window-sash.

As a means for automatically operating the central section of the stop B flanges $f^2$ are formed upon the slides F, whereby when the

said slides pass the projections $d$ of the hanger D the said hanger will be thrown in a rearward direction against its spring C, thus carrying the central section B′ of the stop B into position illustrated by Figs. 1 and 5 of the drawings to permit of readily throwing or swinging the sash into a horizontal position, as illustrated in Figs. 1 and 2 of the drawings. After the slide passes the projections $d$ of the hanger D it is obvious that the section $b'$ of the stop will be carried back to its normal position.

In the operation and use of this invention the sashes are obviously raised and lowered in the customary adapted manner, and when it is desired to remove or clean them it is simply necessary to carry the slide F into a position whereby its flange $f^2$ will throw the hanger D into a rearward position.

I do not confine myself to the specific details of mechanical construction as herein shown and described, as it is obvious that under the scope of my invention I am entitled to slight structural variations.

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

1. A window-frame having vertical stops comprising respectively, three sections, the upper and lower sections being stationary and the central section being movable in a rearward direction, and having fixed thereto suitable guide-plates, and means for maintaining the central section in its outward position, substantially as shown and described.

2. A window-frame, having its vertical stops composed of three sections, the said sections being maintained in normal vertical alinement with each other and having continuous beads formed thereon for engagement with grooves in the window-sash, and a spring-actuated means for maintaining the central section of the stop in normal alinement with the upper and lower sections, the central section being adapted to slide on suitable plates fixed thereto, substantially as shown and described.

3. The combination, with a window-frame, of sectional stops having guide-plates fixed thereto, said stops comprising respectively stationary upper and lower sections and a movable central section, the said central section being maintained in normal alinement with the stationary sections, by means of a spring, substantially as shown and described.

4. In a window-frame, the combination of sectional stops comprising upper and lower stationary sections and a central movable section provided with guide-plates, and a hanger supporting the movable section, said hanger pivoted to the stationary upright of the window-frame and having projections extended therefrom for engagement with the movable section of the said stop, and a spring for maintaining the hanger in its outward position, substantially as shown and described.

5. The combination, with a window-sash, of sectional stops engaging said sash, the window-sash being supplied with grooves and the sectional stops with beads for engagement therewith, the said sectional stops comprising respectively an upper and lower stationary section and a central movable section, and a spring-actuated hanger for supporting the central movable section of the stop, said hanger having projections extended laterally therefrom for engagement with a suspended slide for supporting the sash, whereby the slide in its vertical movement will operate the hanger and throw the movable sectional stop in a rearward direction, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of September, 1897.

HENRY STAIB.

Witnesses:
B. McCOMB,
M. G. McCLEAN.