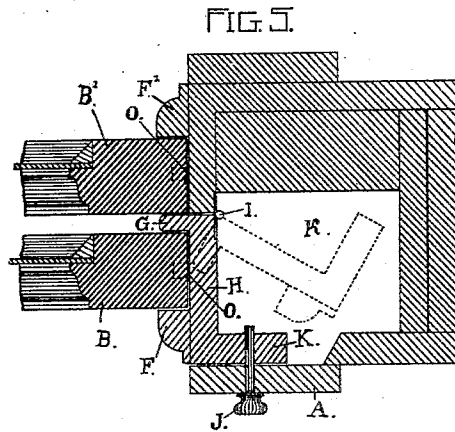
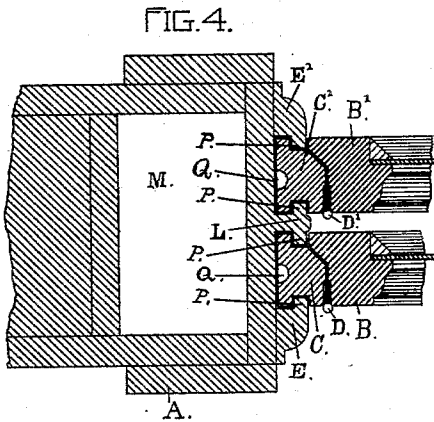
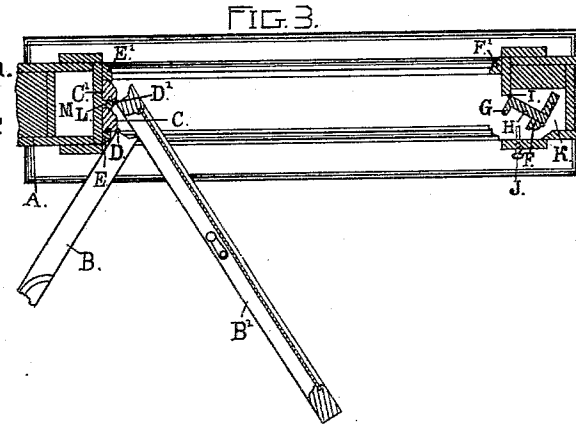
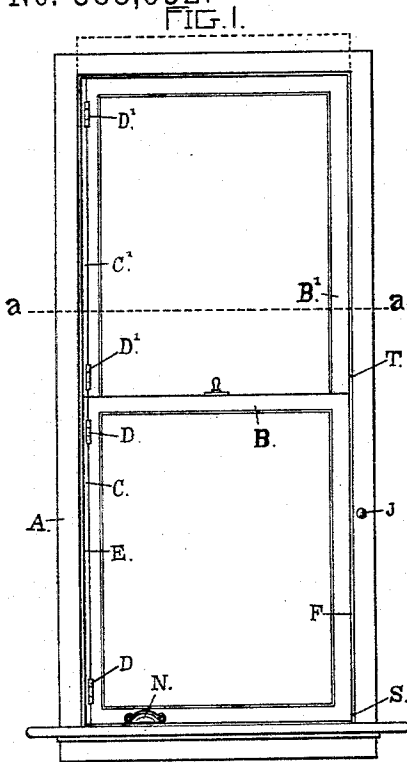


(No Model.)

H. TINTROP. WINDOW.

No. 388,932.

Patented Sept. 4, 1888.



ATTEST,
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UNITED STATES PATENT OFFICE.

HENRY TINTROP, OF SAN FRANCISCO, CALIFORNIA.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 388,932, dated September 4, 1888.

Application filed September 22, 1887. Serial No. 250,373. (No model.)

To all whom it may concern:

Be it known that I, HENRY TINTROP, a citizen of the United States, residing in the city and county of San Francisco, and State of California, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates to improvements in windows, which will be understood by reference to the accompanying drawings and the letters referring thereto.

Figure 1 is a front elevation. Figs. 2 and 3 are horizontal sections. Fig. 4 is an enlarged broken sectional view of the hinged part, and Fig. 5 a broken section showing the opposite side of the sash and casing.

A represents the window-casing; B, the lower sash; B', the upper sash; C, the lower sash hinge post; C', the upper sash hinge post; D, the hinges of the lower sash; D', the hinges for the upper sash; E, the inner window-strip for the hinge side of the sash; E', the outer window strip for the hinge side of the sash; F, the inner window-strip for the plain side of the sash; F', the outer window-strip for the plain side of the sash; G, the parting-strip for the outer or plain solid side of sashes.

H represents a part of the side of the window frame hinged so as to open back out of the way and allow the opening of the sashes. It extends from the point S up to the point T. The points S and T should be at an interval sufficient to permit the sashes to be swung between them.

I represents the hinge of the part H.

J represents the lock-pin.

K represents the lock-block.

L represents the parting-strip for the hinged edges of the sashes.

M represents the weight-box or side space for the window-sash weight.

N represents the lifting hand-piece for raising the sash.

O represents the position of anti friction pulleys for the edge of the sash.

P represents the tongues or projections, which interlock with corresponding grooves in the hinge-posts for the purpose of holding the sash from being drawn out when they are swung open, at the same time that they allow the same to slide up and down.

Q represents the channel for the sash-weight cord.

The following is the construction of my im-

proved window: I form the sash similar to other sashes, except that I fit and hinge them to the hinge-posts C and C', which I groove to receive the tongues P. (Plainly shown in Fig. 4.) I form the tongue P so as to allow the sash to slide freely up and down. I form the sash hinge-posts C and C' of hard wood, the best to be had for strength and durability, and hinge the sash as shown at D and D'. From the point S to the point T, (shown in Fig. 1,) I cut out the side frame to form the hinged door H, which I hinge at I, as shown in Figs. 2, 3, and 5. I add the projection K, which is designed to receive the lock-pin J. I place the hand-piece N close to the hinged and weightier side. I place anti-friction rolls O in the side of the sash opposite to the hinged side to keep the sash from cramping or binding when raised or lowered.

The following is the operation of my improved window: When the sash is to be raised or lowered, I slide them up or down in the same manner as other sashes are operated; but when the sash is to be opened for the purpose of washing it or for other purposes I raise the lower sash, B, above the point T. I then remove the lock-pin J and push back the door H to the position shown by the dotted lines in Fig. 5. I then lower the sash B until the lower rail is just above the point S and swing the sash into the room, and when the upper sash is to be opened I lower it to the same degree and swing it in, as shown in Fig. 3, thus leaving the whole window, or both sashes, open. Thus, in addition to avoiding all necessity of going on the outside to wash the glass, the whole area of the window may be opened at the same time, as shown in Fig. 3.

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

In windows, the combination, with a window-frame having one of its inner vertical walls provided with a parting-strip and guides, as described, of hinge-posts grooved and arranged in said guides, sashes hinged to the said posts, and a door hinged to the opposite vertical wall of the frame and adapted to serve the twofold function of a parting-strip and stop for the hinge-movement of the sashes, substantially as specified.

Witnesses: HENRY TINTROP.

JOHN H. REDSTONE,

L. E. REDSTONE.