

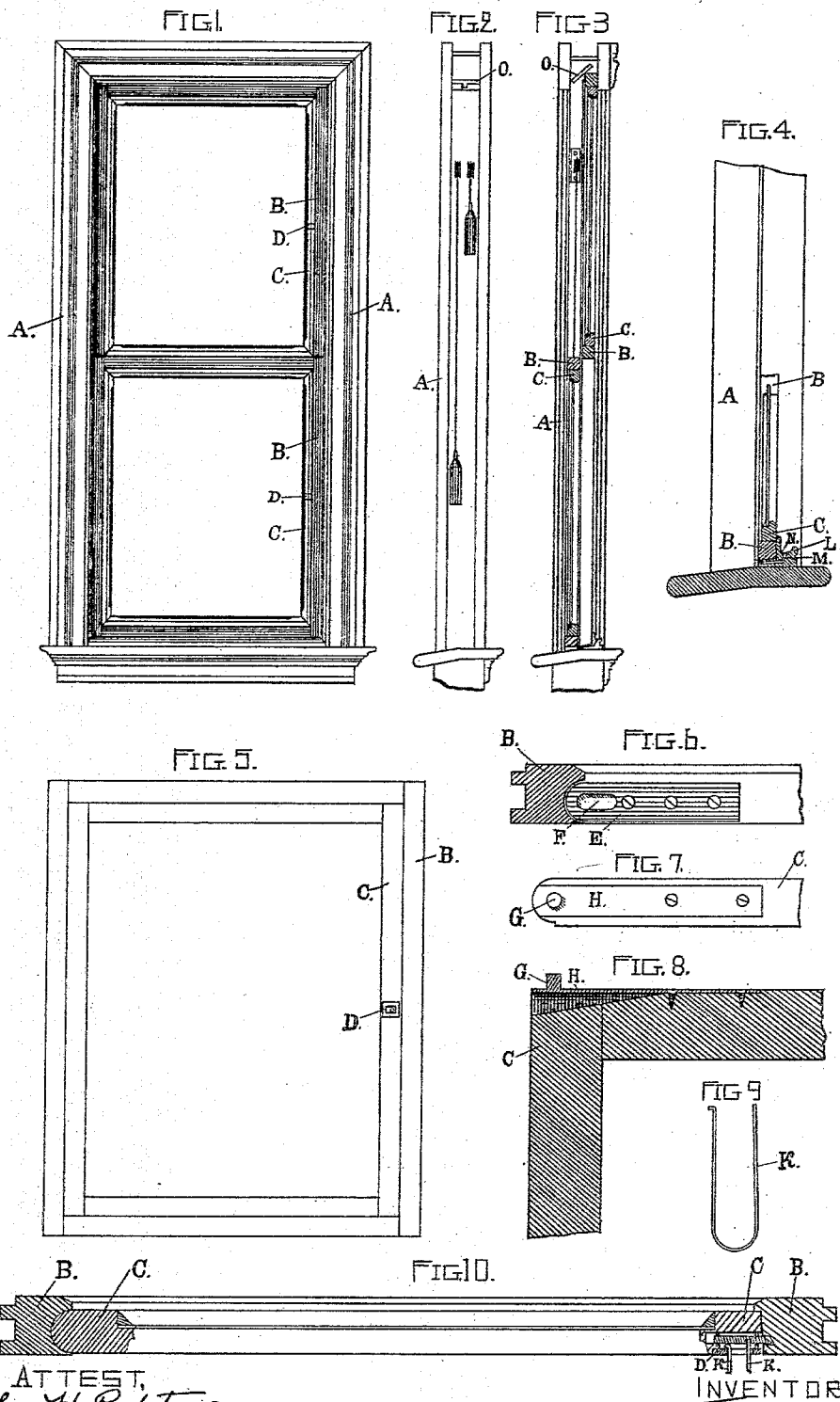
(No Model.)

2 Sheets—Sheet 1.

H. TINTROP. WINDOW.

No. 356,857.

Patented Feb. 1, 1887.



ATTEST,
John H. Redstone
L. E. Redstone

Henry Tintrop
INVENTOR.

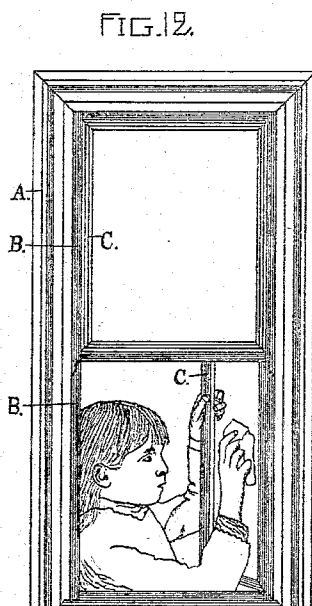
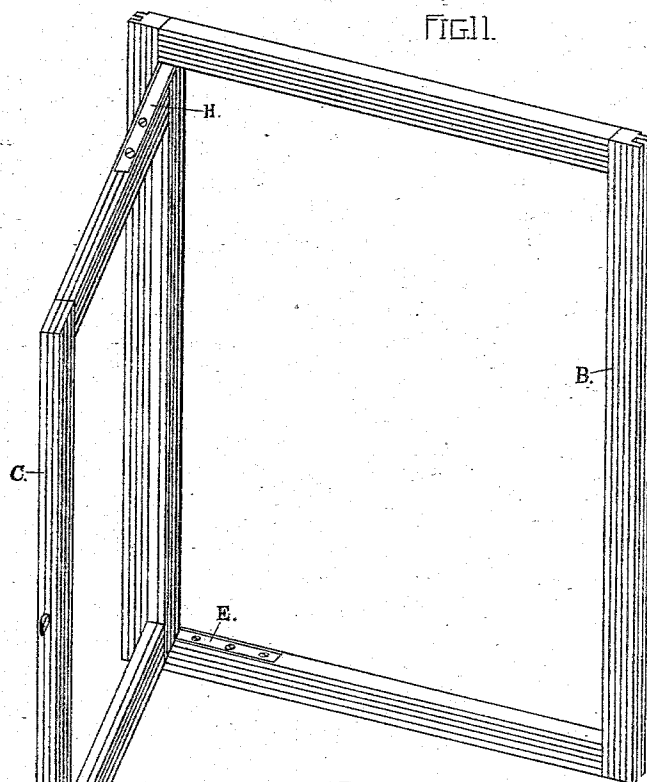
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UNITED STATES PATENT OFFICE.

HENRY TINTROP, OF SAN FRANCISCO, CALIFORNIA.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 356,857, dated February 1, 1887.

Application filed July 20, 1886. Serial No. 208,537. (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 a new and useful Improvement in Windows, of which the following is a specification.

My invention relates to improvements in sliding-sash windows; and it consists in the construction and arrangement of combined sliding and hinged sashes which open inwardly.

The nature of my invention will be understood by reference to the accompanying drawings and the letters referring thereto.

Figure 1 is an inside front elevation; Fig. 2, a side elevation; Fig. 3, a sectional elevation showing the window-frame and sash cut vertically through the center; Fig. 4, a broken sectional view showing the lower part of the lower sash cut perpendicularly through the same at the point where one of the drains or water-discharges is situated; Fig. 5, a front view of the sash; Fig. 6, a broken view showing section of the sash viewed from the top; Fig. 7, a broken view showing an under plan view of the sash, and Fig. 8 a sectional broken view showing the upper corner of the sash cut vertically through the center for the purpose of showing the spring-pivot attachment. Fig. 9 shows the key for opening the sash. Fig. 10 is a cross-section showing the sash cut through the lock. Fig. 11 shows a perspective view of a sash when opened. Fig. 12 is a front elevation showing the position explaining the operation of cleaning the window.

The following is the construction of the same: I form the upper and lower sash, C, similar to the ordinary window-sash, and fit it with hinges to an outer frame, which is fitted to the window-frame and casing, as an ordinary window-sash is fitted, to slide up and down. I employ wood or any suitable material, such as is employed in the ordinary construction of other sashes. When constructed of wood, I employ metal corners to secure extra strength when required.

A represents the outer window frame or casing; B, the outer sash-frame, which slides up and down in the same manner as an ordinary sash; C, the hinged sash, which opens

and closes like a door and is set with glass like an ordinary sash; D, the sash-lock; E, the plate which contains the pivot guide-bearing for the sash-pivot; F, the pivot guide-bearing; G, the pivot of the sash. H represents the spring pivot-plate, which is constructed so as to be flush with the edge of the hinged sash C. L represents the water strip or stop; N, the water-trough, and M the discharge-duct; O, the hinged cap-board or cover to keep the dust out.

The object of my invention is to provide for the cleaning of windows by means of a construction which allows the sash to be swung inward, so that even a child can get at it to wash and clean it, and when so washed and cleaned it may be closed up and raised and lowered like an ordinary sliding sash.

The following is the operation of my improved window-sash: In placing the inner hinged sash, C, in the outer sash-frame, B, the spring pivot-plate H is pressed into the sash C until the pivot G is below the surface of the edge of the same. Then the sash C is placed in the outer sash-frame, B, so that the pivot G will spring up into the socket F, which is elongated, so as to allow a little lateral motion, so that when the sash C is turned to close it will fit in its circular bearing. When it is closed flush with the outer sash-frame, B, the catch or lock D (which is also let in flush with the surface of the sash) locks it in the outer sash so as to form one sash, in form like an ordinary sliding sash, which operates to raise and lower in the same manner as the windows now in use are operated.

When the lower sash is to be washed and cleaned, it is raised just above the stop molding or water strip, L. The key K is then placed in the lock D and the catch-bolt drawn back, allowing the sash C to swing open into the room in the position shown in Fig. 12, where the glass can be conveniently washed and cleaned by even a child without the least risk, such as is incurred by those washing windows upon the outside.

When the glass in the upper sash is to be cleaned, the lower sash is raised up, raising the cap or dust strip O, as shown in Fig. 3, thus allowing the upper sash to be brought down where it may be opened in the same

manner as the lower sash before described, and is swung out into the room convenient to the operator, who is in the position of the little girl shown in Fig. 12.

5 The manner of placing the key in the lock D is shown in Fig. 10, which shows a two-pronged key, K, broken off. (The key is wholly shown in Fig. 9.)

10 The water-strip L prevents the water from being driven in under the sash in the same way as other water-strips. It also has the groove N and duct M to receive and convey the water away when any is driven in between the sash or at any point where it may get
15 through.

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

In a window, the combination, with a sliding sash having plates provided with openings 20 secured to its upper and lower inner edges and located adjacent to one end of the sash, of an inner sash, spring-plates H, secured thereto at one end and free at their other ends, pivot- 25 pins formed integral with said plates and adapted to enter the pivot-openings, and a sliding catch located on the side of the pivoted sash and adapted to engage one of the sides of the sliding sash, substantially as set forth.

HENRY TINTROP.

Witnesses:

JOHN H. REDSTONE,
L. E. REDSTONE.