(No Model.)

A. WIGGERS.

SASH LIFT.

No. 337,038. Patented Mar. 2, 1886.

Fig. 1.

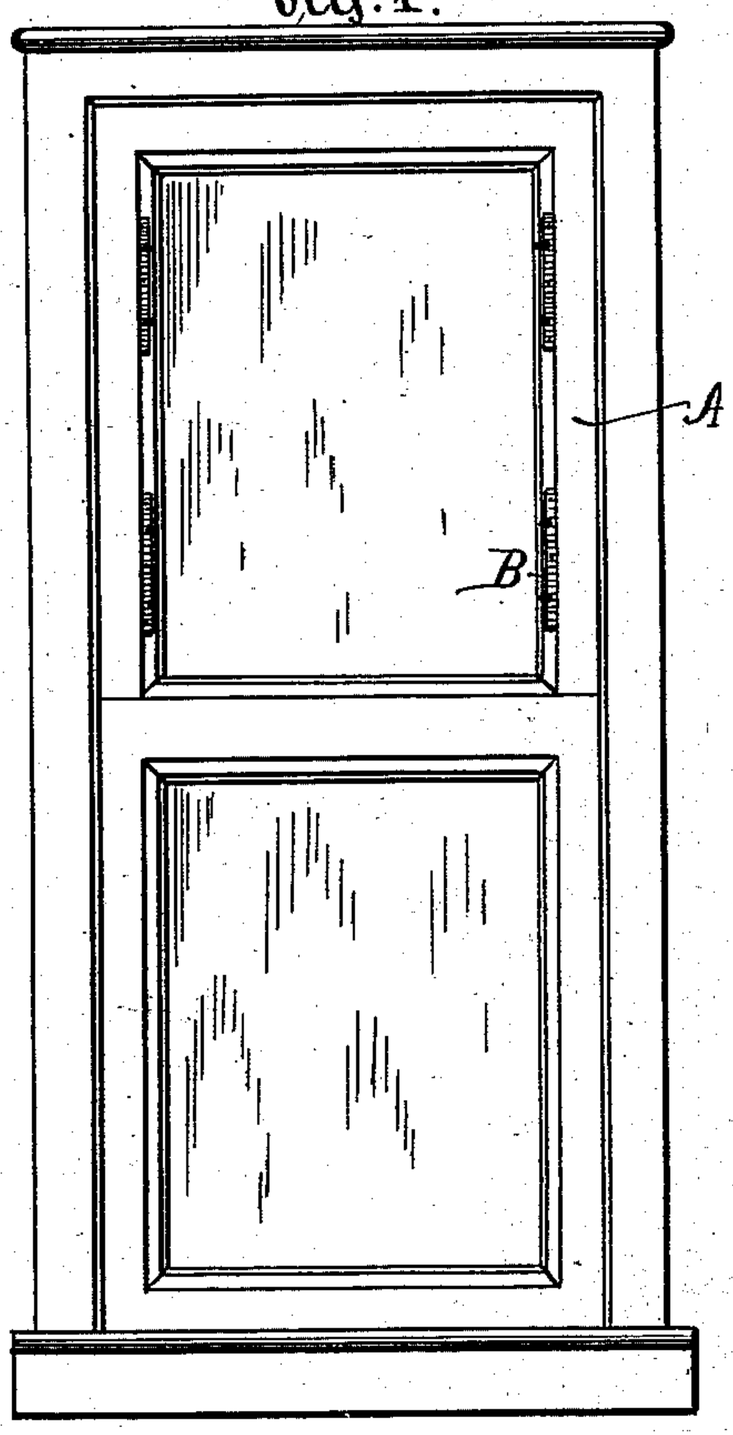


Fig. 2.

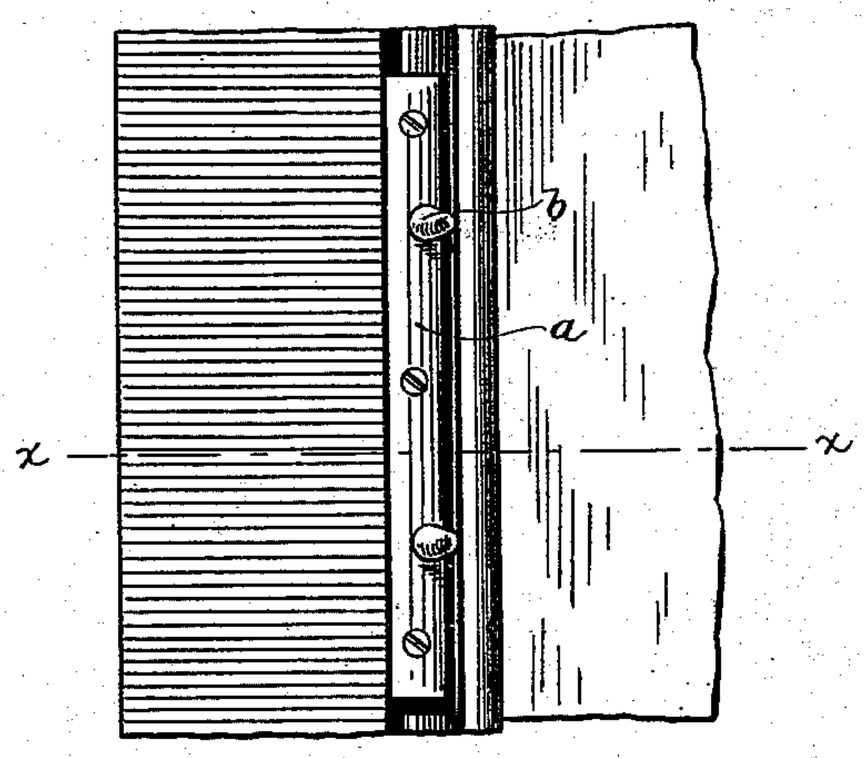
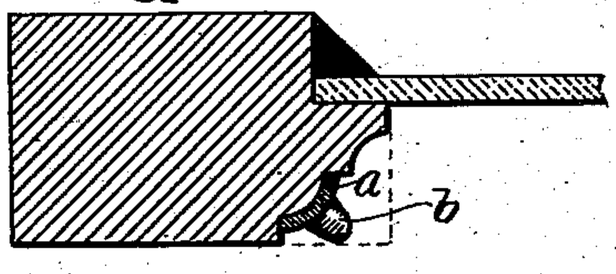


Fig. 3.



WITNESSES

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SASH-LIFT.

SPECIFICATION forming part of Letters Patent No. 337,038, dated March 2, 1886.

Application filed March 28, 1885. Serial No. 160,408. (No model.)

To all whom it may concern:

Be it known that I, ALBERT WIGGERS, of West Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Sash-Lifters, of which the following is a specification.

In the so-called "one-light" sashes, or sashes having a single pane of glass, the lowering or raising of the upper sash is connected with considerable difficulty, as the lower sash has to be first raised, so as to take hold of the upper sash, which is inconvenient.

This invention is designed to facilitate the lowering or raising of the upper sash of one-light sashes; and it consists of sash-lifting devices, which are attached to the side rails of the upper sash, and composed of a base strip having a number of projections or thumb-rests, which do not project out of the plane of the sash-frame, and by which the upper sash can be readily taken hold of.

In the accompanying drawings, Figure 1 represents a front elevation of a window with one-light sashes to which my improved sash-lifting device is attached. Fig. 2 is an enlarged front elevation of my sash-lifting device, and Fig. 3 is a section on the line *x x* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the upper sash of a window of that class known as "one-light" windows, or windows in which a single pane is used for each sash. To the side rails of the upper sash, A, are applied the sash-lifting devices B, of any suitable material, which devices are nailed, screwed, or otherwise attached to the inner edges of the side rails in such a manner that they do not project out of the plane of the sash-frame, so that they do not interfere with the motion of the lower sash.

The sash-lifting devices are formed of curved base-strips *a a*, having projections or teats *b b*, which are either bent or cast integral with the base-strip, or riveted or otherwise fastened thereto. The base-strip *a* is preferably made concave, as the same is to be attached to the convex corner of the side rails, as shown in Fig. 3, though any other suitable form of base that will fit the sash will answer equally well. The teats *b* do not project inward beyond the plane of the inner face of the sash or laterally beyond the plane of the inner edge of the sash, being secured to a recessed or cut-off portion of the sash in the angle of said planes. For convenience of illustration, these planes are extended in dotted lines in Fig. 3 to a meeting-point. The strip *a* may extend either along the full length of the side rails and be provided with a number of projections or teats, *b*, or preferably two shorter strips may be used at each side, as shown in Fig. 1, or the projections *b b* may be attached directly to the side rails of the sash, as desired.

By the fastening devices B B the sash can be readily taken hold of and moved into partly or entirely lowered position, or into partly or entirely raised position, as required, without disturbing the lower sash. In this manner a convenient means for handling the upper sash of one-light windows is furnished independently of the lower sash, which means can be furnished either japanned, nickel or silver plated, according as a cheaper or more expensive style of the lifting device is desired.

I am aware that a lifting device consisting of "a curved fishtail-shaped projecting arm," mounted on a flat base-plate, which is secured to the inner face of the sash, is not new; but the curved arm in that case obscures the vision in certain points, is liable to catch and injure the hands or clothes of the operator, will interfere with the washing of the window, and, if it becomes slightly bent, it will strike the lower sash and prevent the lowering of the upper, whereas in the present invention the teats lie within the planes of the two exposed faces of the sash, where they do not obscure the vision or the light, where there is no danger of accident to the user and no inconvenience to the window-washer, and where interference with the lower sash is practically impossible.

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

A lifting device for one-light window-sashes, consisting of a concavo-convex metal-

lic plate provided with one or more teats, said plate being attached to the recessed corner of the sash-rail, the points of said teats being inside the angle formed by the meeting of the planes of the two exposed inner faces of the sash-rail, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ALBERT WIGGERS.

Witnesses:

CARL KARP,

SOL. H. ROSENBAUM.