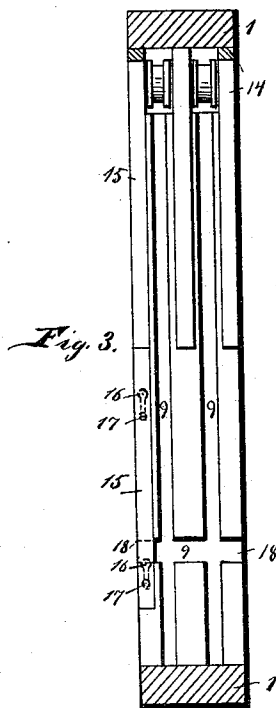
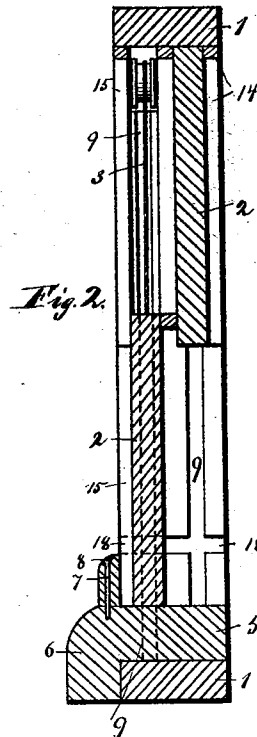


F. A. GOELZE.
WINDOW FRAME AND SASH.

Patented Nov. 7, 1893.



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UNITED STATES PATENT OFFICE.

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WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 508,010, dated November 7, 1893.

Application filed August 4, 1892. Serial No. 442,138. (No model.)

To all whom it may concern:

Be it known that I, FRANK ALBERT GOELZE, of Chicago, county of Cook, and State of Illinois, have invented certain new and useful
5 Improvements in Window Frames and Sashes, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a
10 neat, convenient, strong, and comparatively inexpensive window-frame, and a sash balanced therein and adapted to be revolved in its bearings for the purpose of cleaning or repairing it, or the like.

15 In the accompanying drawings, Figure 1 is a front view of my frame and sash complete. Fig. 2 is a central vertical transverse section of the same. Fig. 3 is a view of one side of the frame and its separable weather strip in
20 juxtaposition. Fig. 4 is a view of the cord-fastening plate or pivot piece and its adjacent parts.

Referring to the figures on the drawings, 1 indicates a window-frame, which may be made
25 in any suitable manner for the reception of sashes 2, each of which is adapted to be raised and lowered in the ordinary manner.

3 indicates sash-balances of any ordinary and suitable construction, for example as
30 illustrated, and consisting of weights and cords passing over pulleys in the top of the frame, as usual. These parts are of well-known construction and do not need special description.

35 The frame is made as above suggested, substantially in the ordinary manner; but, instead of having its inside length or height twice that of the inclosed sashes, it is made of a suitable additional length, to accommodate
40 a false sill 5 which may be made of suitable material, substantially as illustrated, with a face 6 for giving it a finished appearance. This sill may be made of solid wood, as illustrated; or, for the sake of lightness, as it has to
45 be lifted occasionally, it may be made of thin material, joined together to give it the appearance of solidity.

Suitable means are provided for holding the false sill firmly in its position. I prefer
50 to use projections 7 on each of the inner edges of the frame. These are provided with screws 8, which pass through projections and screw

into the face of the false sill. The projections may be made of wood, and may be provided with suitable bearings to prevent the
55 wear of the screws; and screw-plates may also be provided in the face of the sill, or the projections may be made of metal. These, however, are matters of mechanical construction which are not essential to my invention. 60

The sides of the frames are preferably provided with longitudinal grooves or ways 9, within which the nipples of the cord-plates
65 on opposite sides of the sashes work in practice. These plates are preferably made of brass, or other suitable material, and consist of a base-plate 10, and a perforated nipple 11. The base-plate is countersunk into the edge
70 of the sash, so that only the nipple projects, forming a pivot-piece and guide-piece. A recess in the sash, under the nipple, is provided for the reception of the knot of the cord. The nipples serve ordinarily to hold
75 the sash in position; but, for the sake of neatness, and specially for additional security when the sashes are closed, I prefer to provide, in the upper part of the frame for the
80 retention of the outer upper sash, permanent weather strips 14, of substantially the same length as the upper sash. This is sufficient to hold the upper sash in position, since ordinarily it is suspended in the upper part of the frame. When lowered the nipple, as above suggested, is sufficient to hold it in place.

On the inner side of the frame I provide
85 removable weather strips 15, and for convenience provide key-slots 16 upon the sides of the frame, and keys 17 upon the strips, or vice-versa. The key-slots may be made in
90 any suitable manner and preferably consist of separable metal plates screwed over recesses in the frame. The keys may consist simply of screws or nails with large heads
95 fitted to the key-slots so as to retain the strips in position. Of course any other means for detachably fastening the strips may be employed. The strips may extend from the top
100 of the frame to the top of the false sill, or they may be divided, and their upper parts made permanent, in the same manner as with the strips for the upper sash, it being only necessary that the lower parts of the strips should be removable.

At a suitable distance from the true bottom

of the frame I prefer to provide, upon opposite sides of the frame, transverse channels 18, of a width to accommodate the free passage of the nipples of the cord-plates. The distance of these channels from the bottom of the frame should be such as to allow the nipples to freely work in them, so that when the false sill has been detached and the weather strips have been removed, the sashes, when sufficiently lowered, may be swung upon their cords in or out of the frame.

The operation of my device will be understood from the following description: Suppose the false sill and the weather strips to have been removed, by lowering either of the sashes to a point where its nipples come opposite the channels in the frame, it may be withdrawn and handled in any desirable manner without detaching it from its cords or fastenings. They may be rotated without removing them from the frame, merely using their cords as pivots and revolving them in the longitudinal grooves in the frame. It should be observed that either sash may be handled in this manner without reference to the other. When it is desired to restore them to their original positions, all that is

necessary is to lift them a sufficient distance, replace the false sill, secure it, and set the detachable weather strips in position.

I desire it to be distinctly understood that I do not limit myself to the exact details of construction as hereinbefore suggested, for example, but I claim the right to vary them at will within the scope of my invention.

What I claim is—

1. The combination with a window frame provided with longitudinal grooves and transverse channels, of a sash provided with pivot pieces longitudinally movable therein and removable therefrom, substantially as specified.

2. The combination with a window-frame, a detachable sill and weather strips, pivot pieces upon the sashes moving in grooves in the frame, and transverse channels in the frame, substantially as and for the purpose specified.

In testimony of all which I have hereunto subscribed my name.

FRANK ALBERT GOELZE.

Witnesses:

T. E. JORDAN,
ANDY ALLEN.