

**Oct. 23, 1934.**

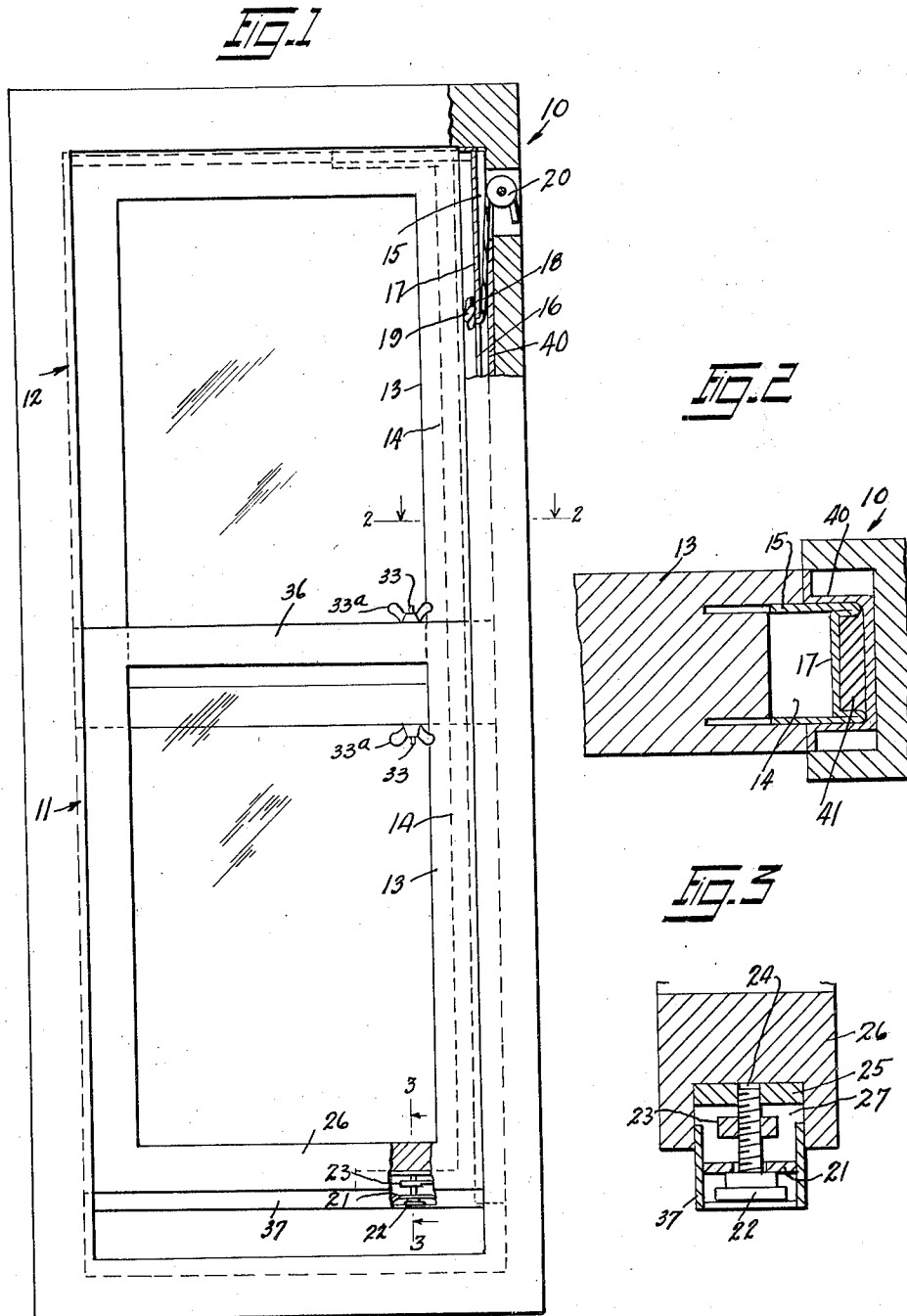
G. SCHULER

**1,977,975**

WINDOW

Filed May 2, 1934

2 Sheets-Sheet 1



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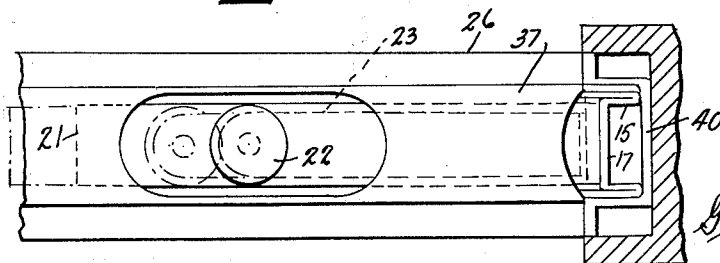
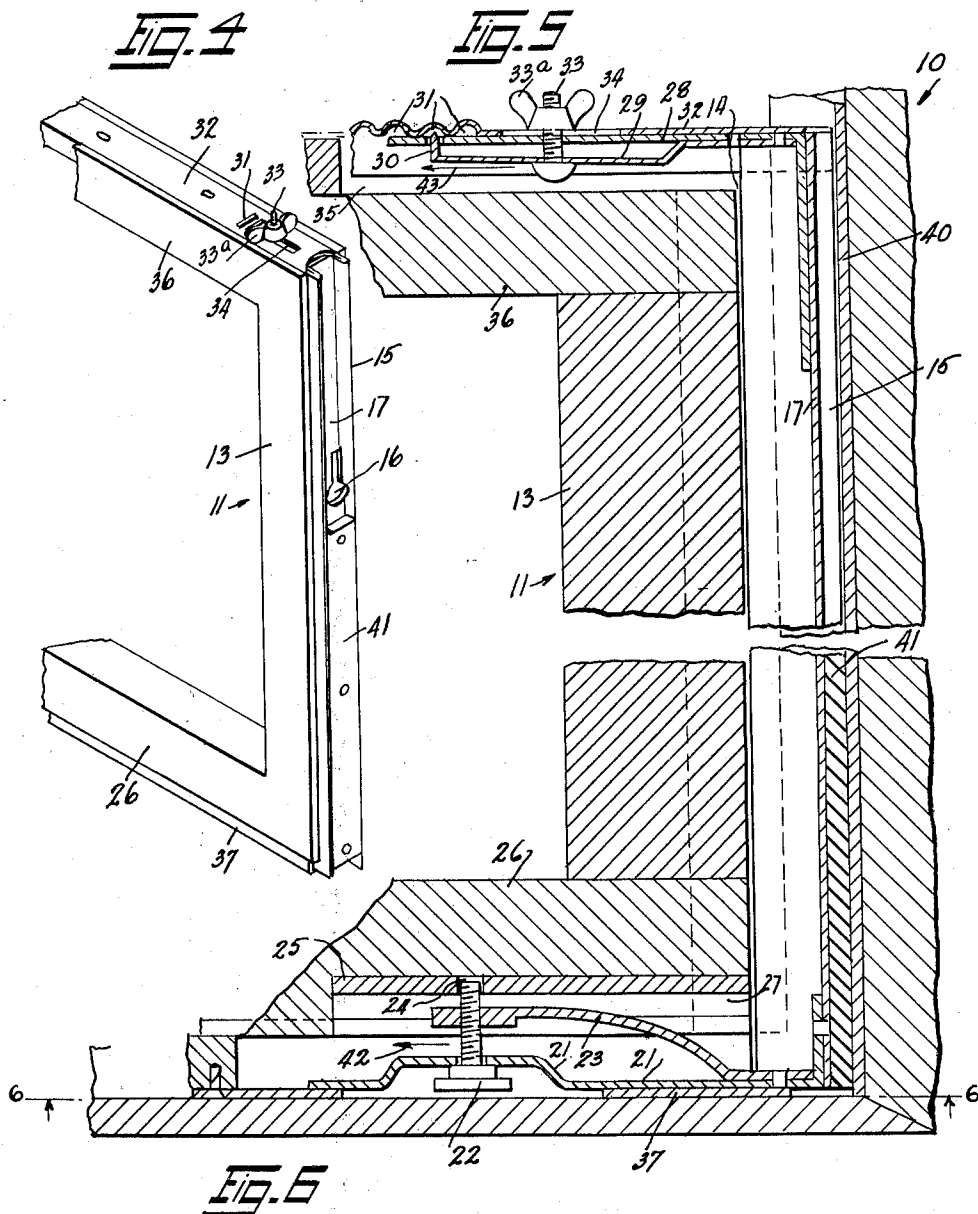
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1,977,975

WINDOW

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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

1,977,975

WINDOW

George Schuler, Woodside, N. Y.

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3 Claims. (Cl. 20—52.2)

This invention relates to removable windows and more particularly to the sash portions of such windows.

One object of the invention is to provide a window sash that may be contracted so as to be able to remove same from the window frame for cleaning purposes.

Another object of the invention is to provide a window sash that is laterally expansible and contractible and releasable locking means for maintaining the said sash in normal extended position in the window frame.

Still another object of the invention is to provide a window sash having telescopically arranged means in one or both stiles thereof which may be extended or retracted so as to adapt the said sash to be removed from the window frame.

Another object is to produce a device of the character described in which the maximum simplicity of construction and operation is secured.

Other objects and advantages will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel arrangement and co-relation of parts herein fully described, and illustrated in the accompanying drawings, wherein similar reference characters are used to describe corresponding parts throughout the several views, and then finally pointed out and specifically defined and indicated in the appended claims.

The disclosure made the basis of exemplifying the present inventive concept suggests a practical embodiment thereof, but the invention is not to be restricted to the exact details of this disclosure, and the latter, therefore, is to be understood from an illustrative, rather than a restrictive standpoint.

The inventive idea involved is capable of receiving a variety of mechanical expressions, one of which, for the purpose of illustration, is shown in the accompanying drawings, in which

Figure 1 is a front view partly in section of a window showing my improved sash as applied thereto.

Fig. 2 is a fragmental sectional view through one stile taken on line 2—2 Fig. 1.

Fig. 3 is a sectional view through the bottom rail of the lower window sash, taken on line 3—3 Fig. 1.

Fig. 4 is a fragmental perspective view of my improved sash.

Fig. 5 is a fragmental vertical sectional view of the lower sash looking from the front of Fig. 1, and

Fig. 6 is a sectional view taken on line 6—6 Fig. 5.

Referring now to the drawings in detail 10 indicates a window frame in which there is slidably mounted a lower sash 11 and an upper sash 12. In the present embodiment of my invention I have shown the right stiles 13 of both the upper and lower sashes as provided with a longitudinal groove, channel or runway 14 in which there is laterally slidably mounted a slide 15 which is substantially channeled or U shaped in cross section and is provided with a cutout or opening 16 in its side wall 17 so as to accommodate the sash cord 18 which is provided with a knot 19 at one end thereof and which passes over the pulley 20 in the window frame 10 and is provided at its opposite end with the usual sash weight not shown

Secured to the lower end of the slide 15 which fits into the stile 13 of the bottom sash 11, is an arm 21 through which there loosely passes a screw 22 threadedly mounted in a spring arm 23 and which enters a hole or opening 24 (see Figs. 1—3—5 and 6), in a plate 25 secured to the lower rail 26 in a groove or recess 27 therein. Secured to the upper end of the said slide 15 is a second arm 28 to which there is secured a spring plate 29 having a detent tooth 30 (see Fig. 5). The said tooth is adapted to be brought into and out of engagement with any one of a plurality of detent grooves 31 in an upper channel plate 32 by means of a screw 33 and wing nut 33a the said screw passing through the spring plate 29, arm 28 and a slot 34 in the plate 32. The said arm 28 and spring plate 29 are guided for lateral movement in the plate 32 which is U shaped in cross section and fits into and closes a cutout 35 in the upper rail 36. The lower rail 26 is provided with a similar channel plate 37 for guiding the arm 21 in its inward and outward movement.

The same elements of spring arms, detents and screws are provided for the upper sash, with the exception that for the sake of convenience the arrangement is reversed, that is, whatever is mounted in the upper rail of the lower sash is mounted in the lower rail of the upper sash, and what is mounted in the lower rail of the lower sash is mounted in the upper rail of the upper sash.

If desirable the window frame 10 may be provided with a U shaped metal channel or lining 40 in which the slides 15 operate and the slide 15 may be provided with a rubber strip 41 to

produce a quiet action when the sashes are slid up and down.

To operate the device for retraction the screw 22 is loosened until it is free of the hole 24 after which it may be pulled inwardly in the direction of the arrow 42; this will carry the lower end or the slide 15 out of the window frame or channel 40. Likewise by unscrewing the wing nut 33a the tooth, 30 will leave the detent groove 31 and the upper end of the slide 15 may be drawn out of the channel 40 by pulling the screw 33 inwardly in the direction of the arrow 43. Then by withdrawing the sash cord 18 from the slot 16 the sash may be readily withdrawn from the window frame.

The slide 15 may be provided either along one or both stiles of the sashes, one being sufficient for all practical purposes.

From the foregoing it will be seen that I have provided a simple yet efficient device which when attached to a window sash will enable same to be withdrawn from the window frame for cleaning or other purposes.

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

1. A window sash having a longitudinal groove extending the entire longitudinal end edge of one of its stiles and horizontal grooves in the rails thereof, channel irons overlying the top and bottom of the said sash and horizontal grooves, a slide in the stile groove, an arm at each end of the slide extending into the channel irons and horizontal grooves, a spring member on each of the said arms, and screw operated detent means

on the said arms and spring members for releasably locking the said slide when in extended position.

2. A window sash having a longitudinal groove extending the entire longitudinal end edge of one of its stiles and horizontal grooves in the rails thereof, channel irons overlying the top and bottom of the said sash and horizontal grooves, the top channel iron having a slot and detent grooves, a plate having a perforation therein in the lower rail groove, a slide in the stile groove, an arm at each end of the said slide extending into the channel irons, a spring member on the upper arm, a tooth on the said member passing through the arm, screw means passing through the spring member, arm and slot in the said upper channel iron for bringing the said tooth into and out of locking engagement with the detent grooves in the said upper channel iron, a spring member on the lower arm, and a screw passing through the said lower arm and spring member for engaging the hole in the lower groove plate for the purpose specified.

3. In combination with a longitudinally grooved sash and window frame, a longitudinally slide laterally slidable in the said sash groove normally extending into the window frame, arms at each end of the slide extending into the top and bottom sash rails guiding the said slide in its lateral movement, and spring detent means associated with the said arms for releasably locking the said slide when extended into the window frame.

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