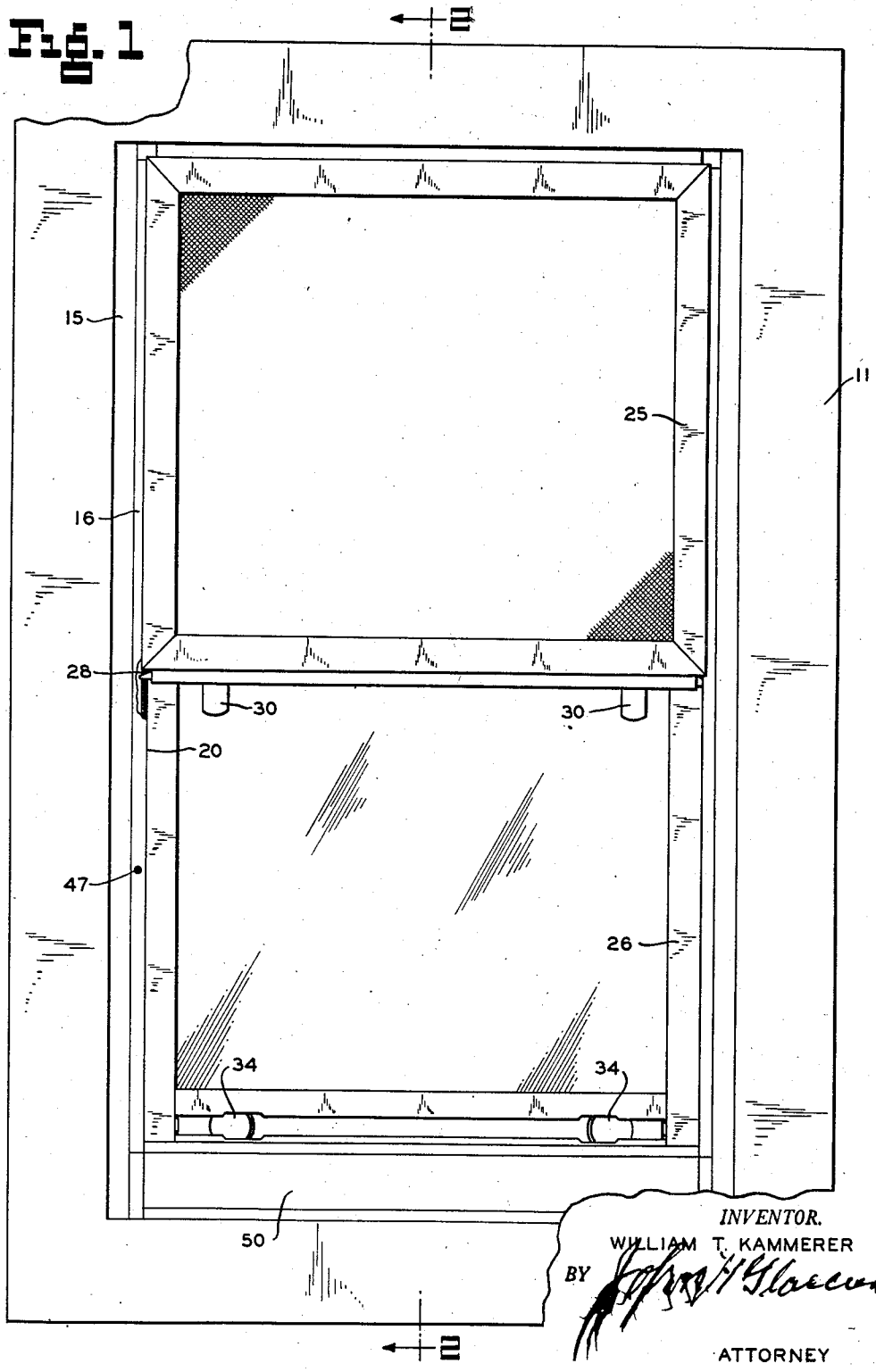
Aug. 5, 1958 W. T. KAMMERER 2,846,000

COMBINATION STORM WINDOW AND SCREEN

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Fig. 1



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COMBINATION STORM WINDOW AND SCREEN

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Fig. 2

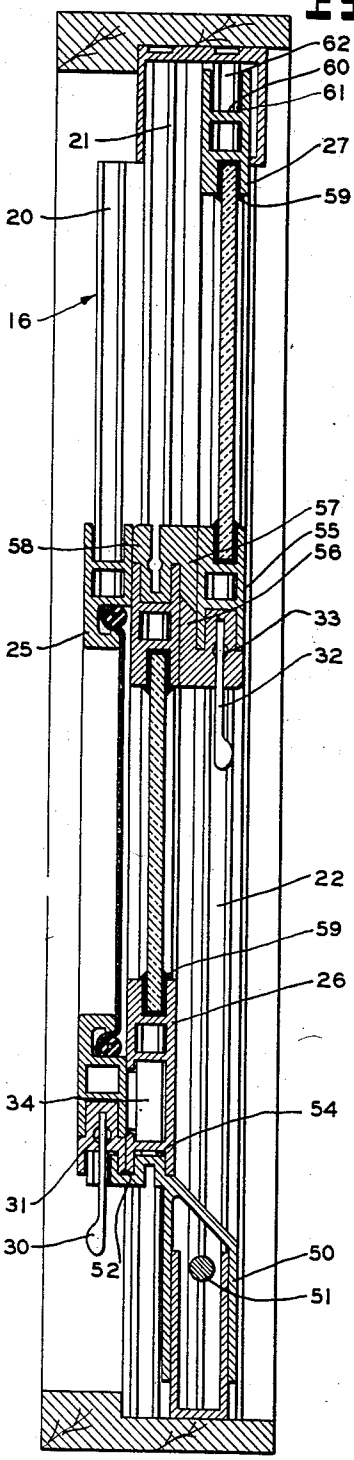


Fig. 3

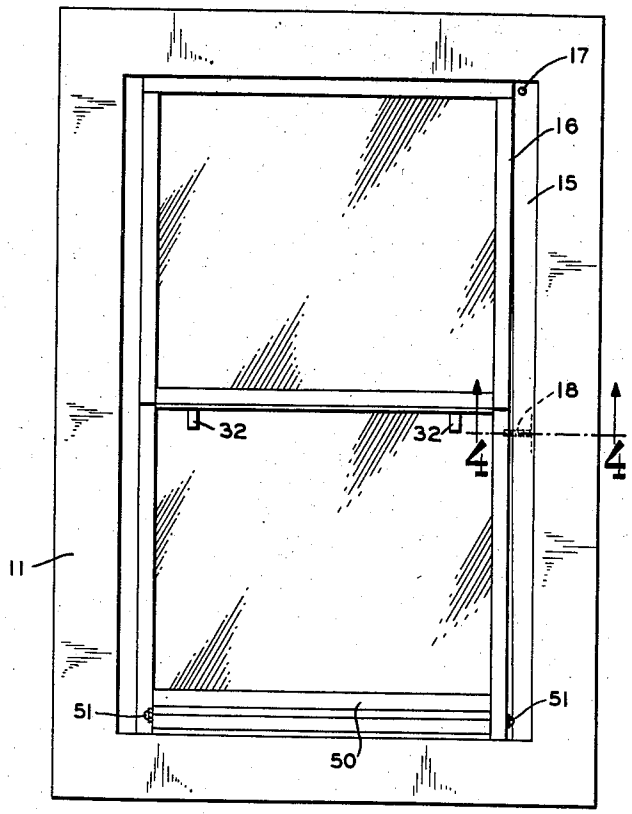
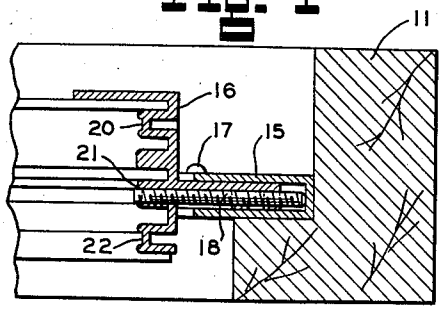


Fig. 4



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Fig. 5

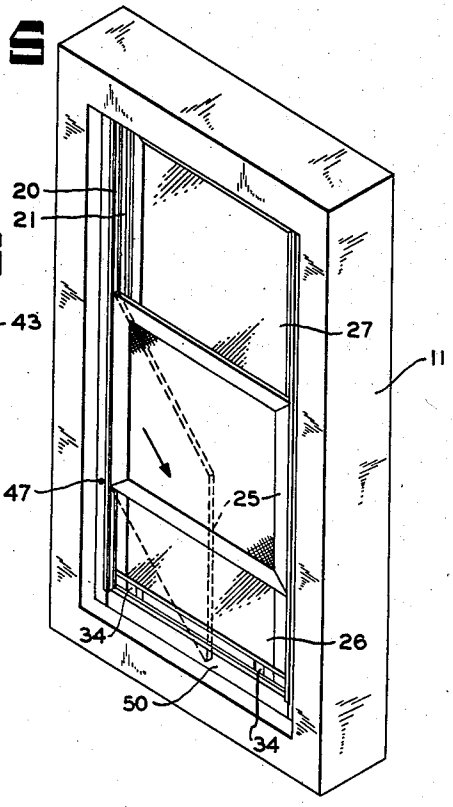


Fig. 7

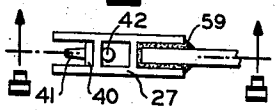


Fig. 6

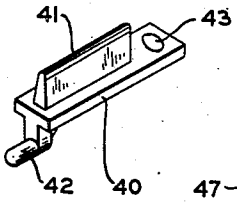


Fig. 8

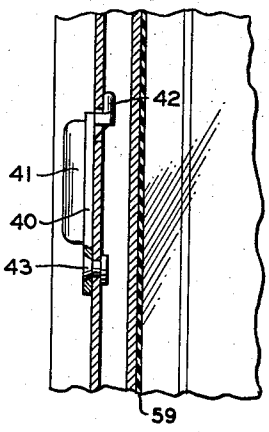


Fig. 9

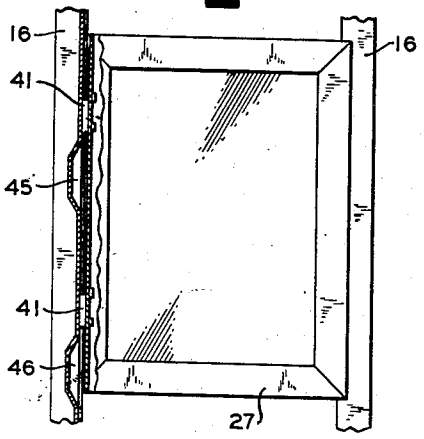
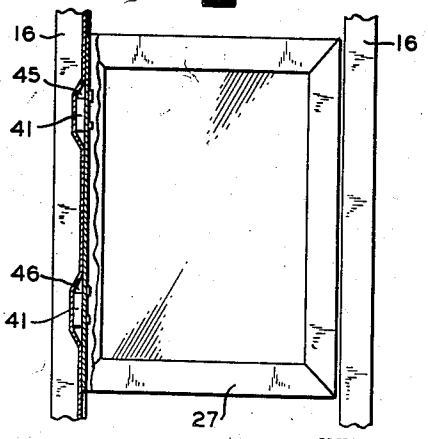


Fig. 10



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COMBINATION STORM WINDOW AND SCREEN

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Application October 10, 1955, Serial No. 539,434

2 Claims. (Cl. 160—90)

This invention relates to combination windows and more particularly a combination storm window and screen which can be made of aluminum in any desired size and readily adjusted to fit existing window frames and structures.

An object of the invention is to provide a window of the class described which will be sturdy in construction, require a minimum of maintenance and which will be tight against the weather.

A further object is to provide a window of the class described in which either of the window sections or screen may readily be removed for storage or cleaning without the use of any tools, keys, or other paraphernalia.

A still further object is to provide a window which requires no lubrication and which will not stick or bind.

A still further object is to provide a window which will have a self-adjusting closure strip to allow for expansion, contraction and settling of buildings and which may be tightened to adjust for slight inaccuracies in existing windows.

Other objects and advantages of my invention will be apparent from the following description and accompanying drawings.

In the drawings:

Fig. 1 is an inside elevation of the window with the window closed and the screen in the upward position.

Fig. 2 is a cross-sectional view taken on the line 2—2 of Fig. 1 but with the screen in a lowered position.

Fig. 3 is an outside view of the window showing the sealing clamp adjustment for untrue window frames.

Fig. 4 is an enlarged cross-sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a perspective view showing how the screen or window elements may be removed.

Fig. 6 is a perspective view of the slide or guiding member.

Fig. 7 is a sectional view of the window frame showing the slide in position.

Fig. 8 is a sectional detailed view taken on the line 8—8 of Fig. 7.

Fig. 9 is a diagrammatic view partly in section showing the window on the track.

Fig. 10 is a view similar to Fig. 9 but showing the window in a different position and ready for removal.

Referring more particularly to the drawings, my improved combination window is adapted to be positioned or mounted in a standard window frame 11. I provide an outer frame 15 which is fitted into the frame 11. The outer frame 15 is U-shaped in construction and pivotally engages an inner frame 16 at 17. An allen screw 18 is provided to force the outer frame 15 against the window frame 11 and to allow for unevenness or settling of the window frame.

The inner frame 16 is propided with a series of tracks 20, 21 and 22. The inner track 20 carries a screen 25 while the middle track 21 carries the lower middle section 26 and the outer track carries the upper window section 27. Each of the tracks is provided with a series of

apertures 28 which are adapted to engage latches on the various elements to selectively position the element. The screen element is provided with latches 30 which slide within the groove 31. Similar latches 32 are mounted in the lower groove 33 of the upper window. The latches 34 are slidably mounted in the bottom frame of the lower window 26. The aperture in the bottom of the frame is deeper than the others so that when the window is all the way down it is locked and cannot be opened from the outside. The latches 34, 32 and 30 have a bevelled face so that once they clear the locking recess the window or screen may be raised to the desired height where the latches engage the recesses along the tracks.

Each of the elements has mounted within its grooved edge a guide member 40 having a track engaging member 41. It is inserted into the grooved edge of the member by means of the foot 42 and a rivet 43. This slide is preferably made of the same or some other self-lubricating material.

Each of the inner tracks 20, 21 and 22 has a pair of recessed portions 45 and 46. When the screen or window is raised to a position where the bottom thereof coincides with the point 47 indicated on Fig. 1, the fins 41 of the guides 40 register with the recesses 45 and 46. The screen or window may then be moved slightly toward these recesses and swung clear of the frame, as shown in Fig. 10. The elements may thus be removed for storage or cleaning without the use of any tools or keys. When it is desired to return them to their respective tracks, the window is registered with the indication 47 and they are replaced in the same manner, it only being necessary to depress the latch on the opposite side of the window to place them in their respective tracks.

The sill, or lower member of the inner frame 16, as indicated at 50 is bolted to the side members by means of the bolt 51 and its face is recessed at 52 to form a channel into which the inner edges of the lower window and the screen fit, each of these being recessed as at 54 to form a channel and a tight fit.

The lower end 55 of the upper window 27 is provided with a diagonal lip 56 which when the windows are closed engages a similar lip 57 on the upper end 58 of the lower window 26, thus providing a tight closure when the windows are closed. The glass panes of the respective windows are set in a prefabricated glazing compound 59 to insure a snug fit and to avoid any possible leakage. The upper end 60 of the window 27 is provided with a channel 61 to engage a rib 62 on the inner frame when the window is closed. Thus, it will be seen that I have provided a combination storm sash and screen window which may readily be installed in existing window frames adjusted for tight fit.

By the same token the screens or window elements are readily removable for storage or cleaning or may be stored in place. The screen member may be kept in the upward position with both glass members raised to allow for ventilation. When the window is used purely as a storm window the screen member may be raised out of sight or removed.

I claim:

1. A combination storm window and screen having upper and lower window sashes and a screen including an outer frame having side and top members and a sill adjustable to engage a window frame, an inner frame supported by said outer frame having screw means to compensate for the adjustment of the outer frame, a plurality of tracks on the inner side of the inner frame, window and screen elements mounted on said tracks, said elements having bearing elements engaging the tracks, and means for removing said window and screen elements when they are in a predetermined position, said

means consisting of recesses in the tracks to accommodate the bearing elements a sufficient distance to allow the opposite end of the element to be disengaged.

2. A combination storm window and screen having upper and lower window sashes and a screen including an outer frame having side and top members and a sill adjustable to engage a window frame, an inner frame supported by said outer frame having screw means to compensate for the adjustment of the outer frame, a plurality of tracks on the inner side of the inner frame, window and screen elements mounted on said tracks, said elements having bearing elements engaging the tracks, and means for removing said window and screen elements when they are in a predetermined position, said means comprising recesses in said tracks to accommodate the

bearing members on one side of the element to allow the other side of the element to disengage the track on the opposite side so that the element may be removed.

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