April 29, 1969 D. J. RUST 3,440,768

DUAL SASH WINDOW UNIT

Filed Dec. 26, 1967 Sheet 1 of 2

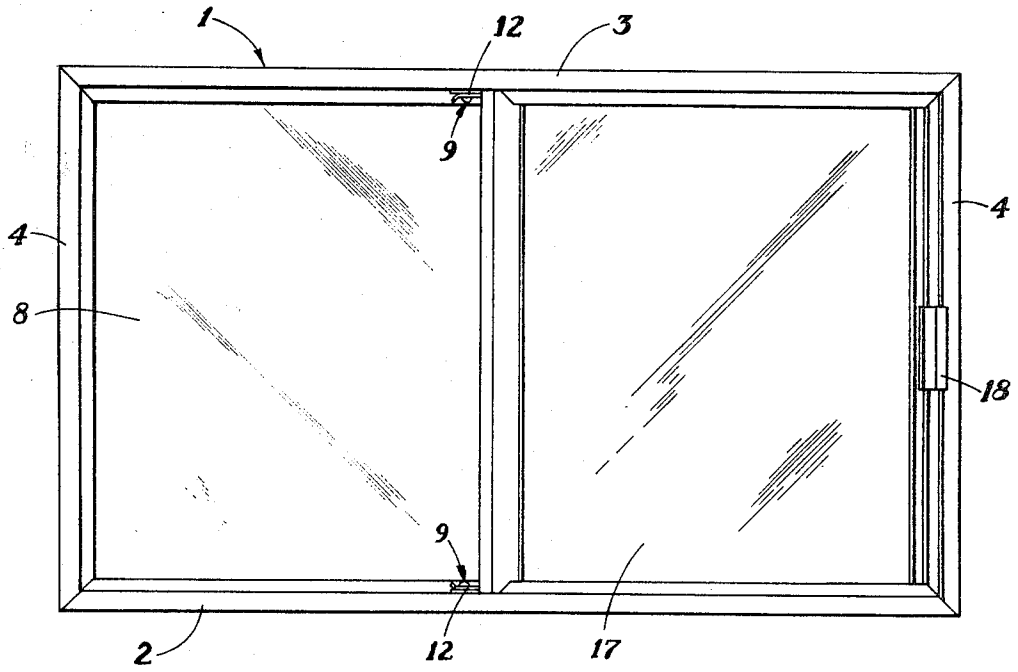


Fig. 1

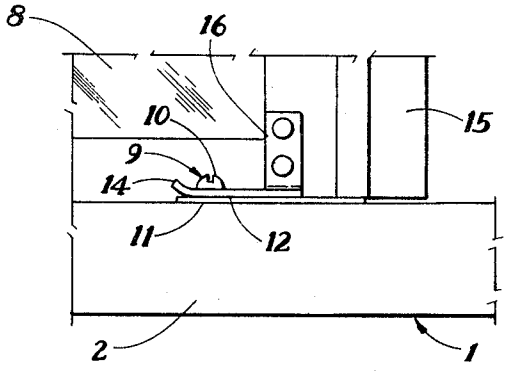


Fig. 4

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April 29, 1969 D. J. RUST 3,440,768

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Filed Dec. 26, 1967 Sheet 2 of 2

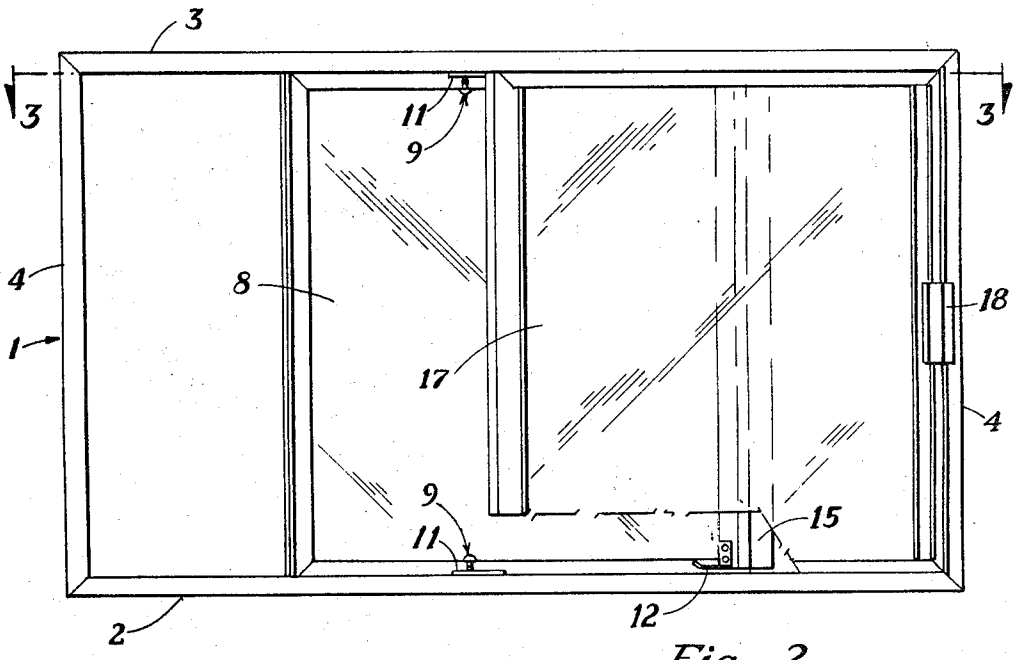


Fig. 2

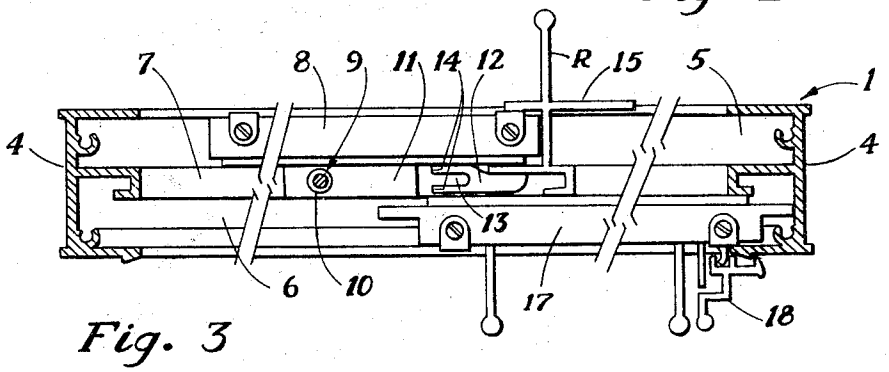


Fig. 3

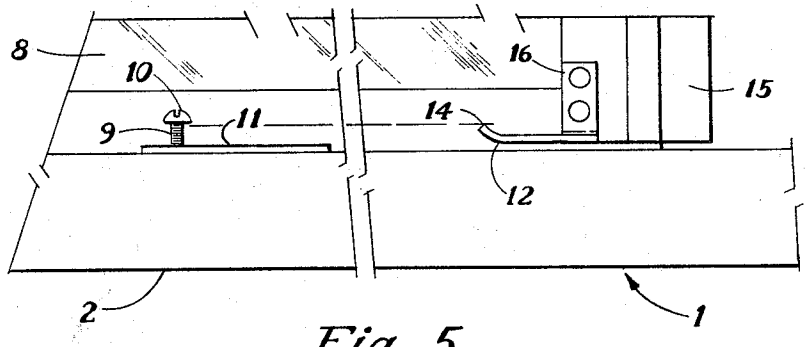


Fig. 5

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DUAL SASH WINDOW UNIT

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U.S. Cl. 49—449 3 Claims

ABSTRACT OF THE DISCLOSURE

A horizontal, dual sash window unit in which the sashes are slidably mounted in a supporting frame with one sash normally secured in a closed position and releasable only by a tool, while the other sash is latched in a closed position and releasable by hand; the sashes, when released, being relatively slidable to positions so that their outer faces can be conveniently washed from within the room and without the necessity of removing such sashes from the frame.

Background of the invention

In dual sash window units, it is a common practice to permanently secure one sash in the supporting frame and with only the other sash capable of horizontal sliding between closed and open positions. As a result, the sashes cannot be relatively positioned to permit the outer faces of both to be washed from inside the room. The present invention was conceived in seeking a solution to such problem.

Summary of the invention

The present invention provides, as a major object, a horizontal, dual sash window unit in which the sashes are horizontally slidably mounted in a supporting frame with one sash (which is the outermost one) normally but releasably secured in a closed position by a novel device which requires the use of a tool to release said one sash; the other sash being manually releasably latched in its closed position. Upon release of the sashes—one by use of a tool, and the other solely by hand—both can be relatively slid to positions which permit the outer faces of said sashes to be washed from within the room and without removing either sash from the supporting frame.

The present invention provides, as an additional object, a horizontal, dual sash window unit, as above, in which the device—which normally but releasably secures such one sash in closed position—is constructed in a manner so that said device cannot be pried open or otherwise "jimmied" from outside the window unit, while at the same time providing for easy release of such device by means of a tool (specifically a screwdriver) manipulated from inside the window unit.

The present invention provides, as a further object, a horizontal, dual sash window unit, as described, which is designed for ease and economy of manufacture, and convenience of use.

The present invention provides, as a still further object, a practical, reliable, and durable horizontal, dual sash window unit and one which is exceedingly effective for the purpose for which it is designed.

Brief description of the drawings

FIG. 1 is an inside elevation of the improved window unit, with the sashes closed.

FIG. 2 is a similar view, but with the outer sash released and slid to a partially open position; the inner sash being broken away in part.

FIG. 3 is a foreshortened, sectional plan on line 3—3 of FIG. 2.

FIG. 4 is a fragmentary enlarged inside elevation of the outer sash, showing said sash closed and the lower holding device as engaged.

FIG. 5 is a similar but enlarged and foreshortened view, showing the outer sash open as in FIG. 2 and with the lower holding device disengaged.

Description of the preferred embodiment

Referring now more particularly to the drawings and to the characters of reference marked thereon, the window unit comprises a rectangular frame, indicated generally at **1**, consisting of a sill **2**, a header **3**, and side posts **4**; such frame being arranged to be secured in rigid relation with the related members of the framed window-receiving opening of the building.

Formed in the sill **2** and other parts of the frame **1**, and extending the full length thereof in facing relation to the area outlined by the frame, are transversely spaced outer and inner channels **5** and **6**, respectively. These channels are parallel to each other and are separated by a divider strip **7**.

Guided in the upper and lower portions of the channels **5** is a horizontally slidable outer sash **8**; the horizontal length of which is substantially equal to one-half the distance between the side posts **4**. Such outer sash **8** is normally releasably secured against movement—when said sash is closed and end-projected into the related portion of the channel **5** in the left-hand post **4**—by upper and lower holding devices, only the lower one of which will be described. While only the lower holding device will be described, both are shown and it will be understood that the upper holding device is identical in construction but occupies an inverted position.

Such lower holding device comprises an upstanding, slotted-headed screw **9** adjustably threaded in the divider strip **7** which is, of course, disposed inwardly of the outer sash **8**; said screw **9** having an enlarged head **10** on its upper end. The screw **9** also projects through a longitudinal filler strip **11** fixed atop the divider strip **7** and adapted to be flush-engaged—when the outer sash **8** approaches and reaches a fully closed position—by a longitudinal shoe **12**.

The shoe **12** is provided with a longitudinal slot **13** of a width sufficient to receive the screw **9** but of lesser width than the diameter of the head **10**. The slot **13** is open at the end of the shoe **12** which faces the left-hand post **4**, and at said open end the shoe to the sides of the slot is formed with upstanding lugs **14** adapted to pass under the head **10** when the screw **9** is adjusted upwardly a certain amount.

The shoe **12** is fixed against the inner face of the adjacent right-hand post **15** of the outer sash **8** by an upstanding strip **16** integral and rigid with said shoe. The screw **9** is positioned relative to the slotted shoe **12** so that when said shoe engages the screw with the latter in the slot **13**, the left-hand end of said outer sash **8** is projected into the portion of the channel **5** in the adjacent post **4**.

With this arrangement, it will be seen that when said outer sash **8** is in closed position, and the screw **9** tightened down so that the head **10** presses against the slotted shoe **12**, said outer sash is securely but releasably held against opening movement. This is the normal position of the outer sash, and from which it cannot be moved solely by hand, i.e. without the aid of a tool to first release each holding device.

Should the screw not be fully tightened against the shoe **12**, or should such screw loosen slightly, the outer sash **8** still cannot be opened either from the inside or outside; this for the reason that the lugs **14** form a stop for the

screw head **10** and prevent the screw from escaping the slot **13**.

When it is desired to open the outer sash **8**, it is necessary—by use of a screwdriver—to adjust the screw **9** upwardly to an extent that the head **10** will clear the tips of the lugs **14**. This enables the outer sash to then be readily manually opened by sliding the same to the right; said sash being provided with a full-height rib R on the outside and at the right-hand end to serve as a handle for pushing or pulling said outer sash.

It should be noted that the terms "right" and "left" refer to the window unit when looking at the same from inside the room.

Guided in the upper and lower portions of the inner channel **6** is a horizontally slidable inner sash **17**; this sash being free for manual opening movement upon release of a hand-controlled latch **18**.

When both sashes are closed, the adjacent posts of the frames of such sashes overlap each other as shown and as is conventional.

When it is desired to wash the outer faces of the outer sash **8** and inner sash **17** from the inside of the room, the screws **9** of the holding devices are adjusted by means of a screwdriver so that the screw heads **10** will clear the lugs **14** whereby, as previously described, said outer sash may be opened. Also, the inner sash **17** may be opened upon manual release of the latch **18**. Thus, with both sashes capable of being opened partially or fully, said sashes can be selectively positioned as necessary to permit the outer faces thereof to be conveniently washed from within the room. Thereafter, the outer sash **8** is returned to closed position; the screws **9** entering the slots **13** of the holding devices, and said screws then being tightened against the shoes **12**.

From the foregoing description, it will be readily seen that there has been produced such a dual-sash window unit as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the dual sash window unit, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

I claim:

1. A horizontal, dual sash window unit comprising a frame, an outer sash and an inner sash in the frame, means mounting the sashes in the frame for independent longitudinal sliding movement and for closure against opposite ends thereof, latch means between the frame and the inner sash on the inside thereof manually releasably holding said inner sash closed, and a device between the frame and the outer sash on the inside thereof normally releasably holding said outer sash closed; the frame including a longitudinal divider strip between the sashes, and said holding device being releasable only by a tool and comprising a longitudinal shoe overhanging said strip and fixed to said outer sash, an adjustable screw threaded in and projecting vertically from the divider strip, and an enlarged head on the screw; the shoe having a longitudinal slot which receives the screw, the slot being open to that end of the shoe which permits escape of the screw when loosened and upon sliding of the outer sash in an opening direction, and the screw normally being tightened with the head against the shoe when the outer sash is closed.

2. A window unit, as in claim **1**, with a filler strip fixed on the divider strip; the screw projecting through the filler strip and the latter extending a relatively short distance from the screw in a direction such that the shoe engages on the filler strip as the outer sash approaches closed position.

3. A window unit, as in claim **1**, with vertically outturned lugs on the end of the shoe corresponding to and on opposite sides of the open end of the slot; said lugs being adapted to pass under the screw head only when the screw is loosened to dispose said head a predetermined distance from the shoe.

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