

Jan. 22, 1952

J. B. SKELLY
SASH CORD HOLDER

2,583,395

Filed Nov. 23, 1946

2 SHEETS—SHEET 1

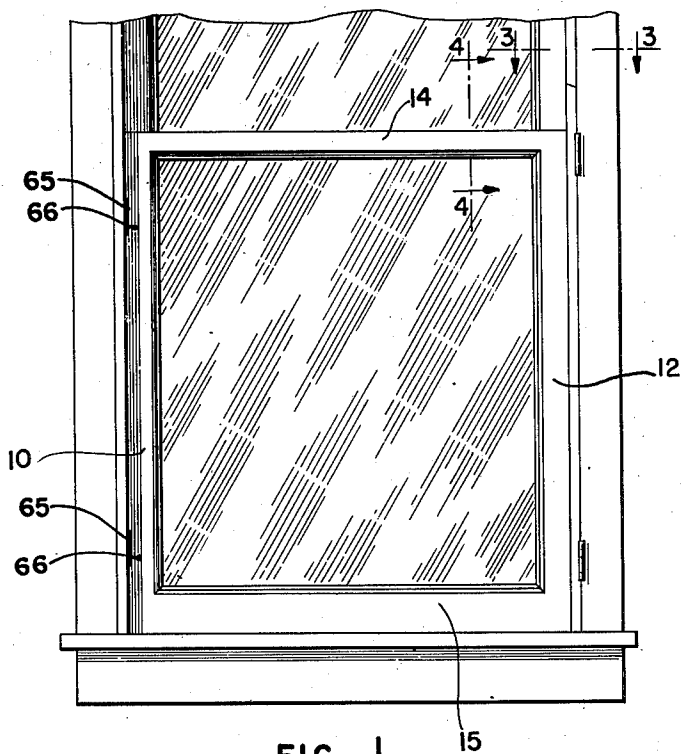


FIG_1

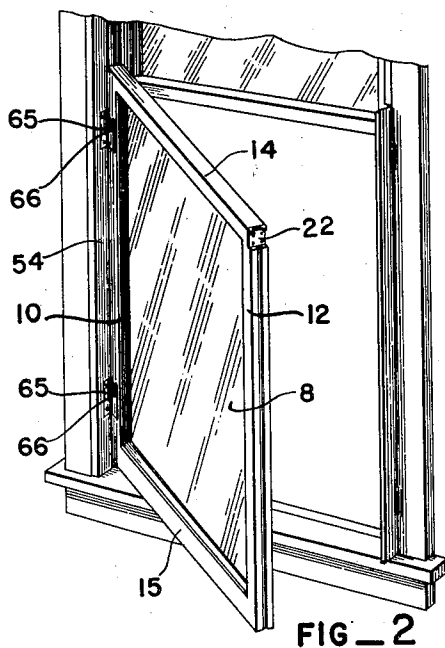


FIG_2

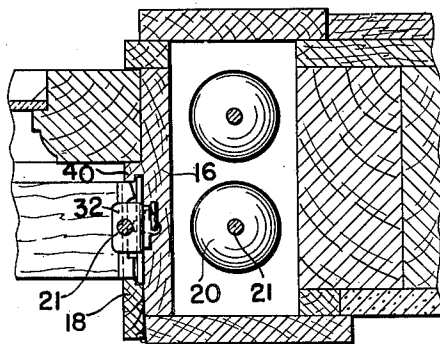


FIG_3

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2 SHEETS—SHEET 2

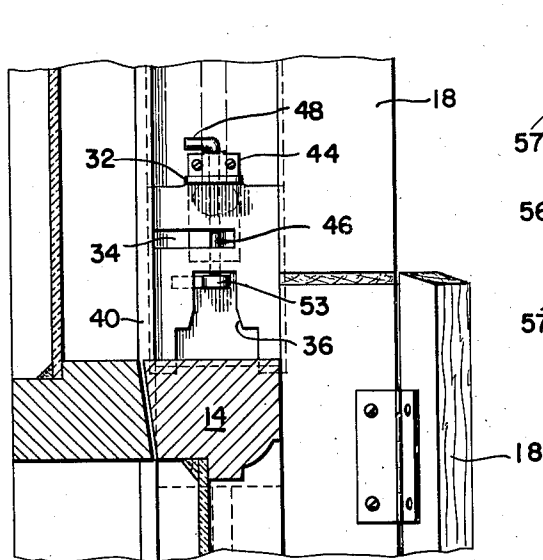


FIG_4

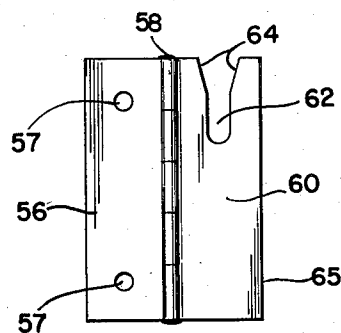


FIG_5

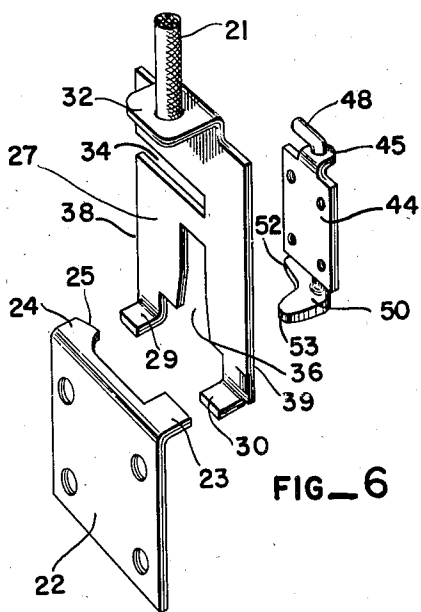


FIG_6

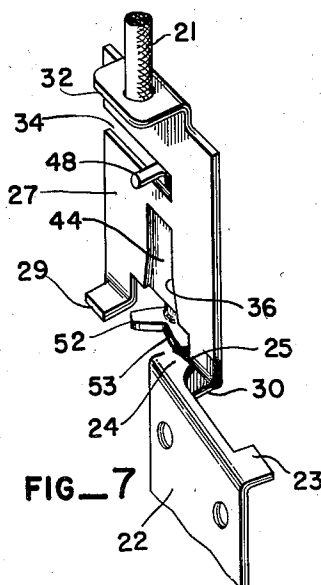


FIG_7

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2,583,395

SASH CORD HOLDER

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1 Claim. (Cl. 16—202)

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The present invention relates to the general art of window and sash construction and, more particularly to a sash cord holder.

In my present construction I provide means for handling the conventional style of double hung window so that it may be used as normally, and at the same time be capable of being raised and lowered by means of counter-balancing weights or springs, and when it is desired the window may be disconnected from one of the supporting ropes or cables and hinged about one edge so that it may be revolved in order that the outside of the window will be available for easy washing, polishing, and the like.

Many arrangements have been created, ostensibly for the purpose of making it easy to clean the outside of the window glass from the inside of the room. However, those that have been observed have been characterized on one hand by intricate, expensive structure, which would entail very substantial first costs, and would require very expensive fittings in their installation, in most cases requiring that special window frames and sash be provided.

Other devices of this general character have provision for disconnecting the supporting cable or rope which is manually disconnected, and must be secured as by looping a ring or knot under a hook provided for the purpose. This requires a great deal of skill on the part of the user and where heavy sash weights or heavy counter-balancing springs are used, there is a considerable element of risk and danger in this use.

It is believed that with my present structure I have overcome the deficiencies of these devices that have been used in the past and, therefore, one of the principal objects of my present invention is to provide means for reversing a window in which the disconnecting and reconnecting of the window supporting means is simple and fool-proof in its operation, so that the average housewife, without the exercise of any mechanical skill or the application of great strength, can satisfactorily operate my mechanism.

A further object of my present invention is to provide a reversible window structure that makes use of the conventional double-hung windows, and thus makes it possible to apply my device as an attachment to existing windows already in place.

A further object of my present invention is to provide means whereby, as a window is swung inwardly, the window supporting means on one side is automatically disconnected and the supporting rope or chain is automatically engaged so as to hold it in its extended position.

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A further object of my invention is to provide means whereby, after a window has been cleaned and it is desired to swing it back into its normal position of use, engagement is effected between the window and the supporting means without attention from the operator, other than to swing the window back into place.

Other objects will no doubt be apparent from a study of the specification and its accompanying drawings.

In the drawings:

Fig. 1 is an elevational view showing a window of a double-hung type, modified to accept my mechanism;

Fig. 2 is an elevational view of the same window as shown in Fig. 1 but showing, in a perspective arrangement, the sash as pivoted along one of its vertical margins, and in the act of being swung inwardly into the room so that it may be easily and safely cleaned;

Fig. 3 is a cross-sectional view along the lines 3—3 of Fig. 1;

Fig. 4 is a vertical sectional view along the plane 4—4 of Fig. 1;

Fig. 5 is a face view of a slightly modified hinge as I prefer to use it in my device;

Fig. 6 is a perspective view showing in exploded relationship the essential metal members that I use in effecting my reversible window structure; and

Fig. 7 is a view similar to Fig. 6 but showing the metal parts in the position they assume when the window is being swung out of its normal position or is just being swung back to the same.

In the drawings, throughout which like reference characters indicate like parts, the numeral 8 designates the type of sash to which my invention may be most feasibly applied. This is the lower of a pair of double-hung windows, having right and left stiles 10 and 12, respectively, and upper and lower rails 14 and 15, respectively. This window is provided with the usual sill and window framing and has the usual frame stile 16 and the window stop 18. Windows of this type are normally counter-balanced for easy handling, as by weights 20, and the connecting cord or chain 21, although in certain instances spring units are used instead of weights 20. In each case, however, a tension member, as 21, is normally employed to transfer the upward counter-balancing effect on the window in a manner so that it will be applied at the various positions at which the window may be placed vertically.

In order to make a device which will permit the disengagement of the window counter-balancing means and to insure its accurate re-en-

gagement without special attention on the part of the user, I prefer to employ several parts which are secured, one to the window sash, one to the stile of the window frame and the third disposed for movement normally with the window sash, but which may be held in its lowermost position when it is desired to free the window from the counter-balancing means. A detailed description of these parts is as follows:

In order to employ my present invention, a sash latch member 22 is employed, the same being normally secured, as by screws, in the upper corner of the sash on the edge it is desired to free. I have found it desirable to form as part of plate 22, ears or lugs 23 and 24, and for most installations it is desirable that the outer surface of lug 24, as 25, be cam-shaped for a purpose which will be more apparent later on.

Adapted to co-act with plate 22, is the cord-end plate 27, which is provided with inturned lugs 29 and 30, so spaced as to operatively engage lugs 24 and 23, respectively. At its upper end, plate 27 has an inwardly directed bent portion 32, adapted to form an engagement for cord or chain 21. In the case of a cord, it is normal to knot the same below lug 32. In the case of a chain, other securing means would probably be employed. Intermediate its ends, a locking-bar groove 34 is provided and, bifurcating the lower portion of plate 27, is a cut-out portion 36, which is arranged to provide space for the cam member that operates the locking bar. It is to be noted that plate 27 has extended sides 38 and 39, which are adapted to ride in undercut grooves in the window-spacing member 40 and in the window stop member 18. This construction is probably best shown in Fig. 3.

Adapted to co-act with plates 22 and 27 is a third or lock-bar plate 44. This plate is adapted for fixedly mounting, as by screws, to the stile of the window frame, as 16. Plate 44 has backwardly bent lugs 45 at the upper and lower ends thereof, to form journals for the shaft 46 of the locking bar assembly. At its upper end shaft 46 is bent at right angles to form the locking bar 48 and, at its lower end, is either deformed or has secured to it, cam member 50. This cam member has two outstanding cam portions, as 52 and 53. The overall extent of lugs 45 and the inside dimensions between locking bar 48 and cam 50 should be substantially the same, so that cam member 50 and locking bar 48 will be accurately positioned so that they may effectively and with certainty co-act with plates 22 and 27.

In order that the entire sash may be pivoted freely and yet be held in a definite position at all times, I secure to stile 10 of the window and to window stop 54, preferably, a modified type of hinge made after the showing of Fig. 5. This hinge is provided with one member 56 made after the style of conventional hinges and having a plurality of screw holes 57. A conventional hinge and pin arrangement is employed at 58 and the other half of the hinge, as 60, need not have any screw holes, but at its upper end should have a longitudinally extending slot 62, which is preferably flared or tapered at 64, so that it will center and accurately position a screw.

Co-acting with hinge 65, I provide, preferably, round-head screws 66, which are driven partially home within stile 10 of the window sash, leaving them to extend outwardly a sufficient distance so that they can engage slot 62 in hinge 65, and thus provide means for firmly supporting sash 8, when it is disconnected from its counter-

balancing means on the free side and is swung outwardly for purposes of cleaning and the like.

Method of operation

In using my reversible window, the first operation is to swing out on its hinges the window stop member 18. This member is mounted on hinges and extends upward sufficiently to take care of the upper portion of the window as it is unlatched and swung outward. The second step in the operation which can be performed either before or after opening stop 10, is to raise the sash and then unfold portion 60 of the supporting hinges of the type shown in Fig. 5, so that member 60 lies flat against the window stile. The window is then lowered until the outwardly extending screws 66 are engaged in slot 62. When this is achieved, the hinges are in a position to accept the full weight of the window. Actually, of course, with normal construction the hinges need only take half the weight of the window, as only one window weight is disconnected.

The next step in the operation is to grasp sash 8 and swing it outwardly, after the showing of Fig. 2. As the sash just begins to leave its normal position, we have the operation which is probably best illustrated in Fig. 7, wherein lug 24 of latch plate 22 engages one of the cam members as 53, and moves it about its axis and thus moves lock bar 48 into slot 34. Now, inasmuch as lock bar plate 44 carrying the lock bar 48 is fixedly secured to the stile of the window frame, the net result is to fix cord 21 in position against movement under urgency of weight 20. The window can then be swung out to the position as shown in Fig. 2 or may be swung approximately 90 degrees about the axis of hinges 65.

After the window has been processed, and it is desired to restore the same to its normal position of use, sash 8 is merely revolved back into its normal position. In so doing, cam surface 25 will abut the now outstanding cam member 52 of the lock bar assembly, and the final operation which is concluded just after lug 24 has come to a position above lug 29, is to so revolve lock bar 48 that the weight tension is again transferred to sash 8.

It is desired to point out, however, that in the operation of opening the window or closing it, aside from placing sash 8 upon hinges 65, the balance of the operation is one that requires no skill, no timing of sequence of events, and does not require the man-handling of the sash weight or the weight of the window sash itself.

The final operation now is to raise sash 8 slightly so as to disengage members 60 of the hinges, fold them back against the window stop that portion 56 is secured to, and the window is again capable of normal movement. To completely restore normal conditions, stop 18 is then swung back into position where it may be suitably secured.

It is believed that it will be clearly apparent from the above description and disclosure in the drawings that the invention comprehends a novel construction of a sash cord holder.

Having thus described my invention, I claim:

In a sash cord fastener adapted for use in a window frame having a vertical guideway, a window sash slidably mounted therein, a sash counterbalancing means, and a flexible connector joining the counterbalancing means and the window sash, said sash cord fastener comprising: a sash latch to be secured to a frame abutting edge of said sash, said latch having horizontally

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disposed lugs directed outwardly from said frame abutting edge and having a cam surface on one of said lugs; a connector plate juxtaposed to said sash latch having horizontally disposed lugs directed toward said sash latch and disposed with the lugs of said sash latch superposed there-
to whereby said latch and said connector plate are interengaged, said connector plate having a horizontally disposed locking bar groove and an upper lug for attachment to said flexible connector; and a lock bar plate to be secured in said guideway having upper and lower lugs, a vertical locking bar shaft journaled in said lock bar plate lugs and having at its upper end a horizontal locking bar and at its lower end a cam member adapted to coact with the cam surface of said sash latch, for pivoting said locking bar

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into said locking bar groove for fastening said connector plate when said sash is swung out of said guideway and for pivoting said locking bar out of said locking bar groove when said sash is swung back into said guideway.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
709,666	Davey	Sept. 23, 1902
1,011,734	Brown et al.	Dec. 12, 1911
1,932,906	Muir et al.	Oct. 31, 1933
2,392,997	Prentice	Jan. 15, 1946