

D. N. SIRE.

WINDOW.

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1,104,940.

Patented July 28, 1914.

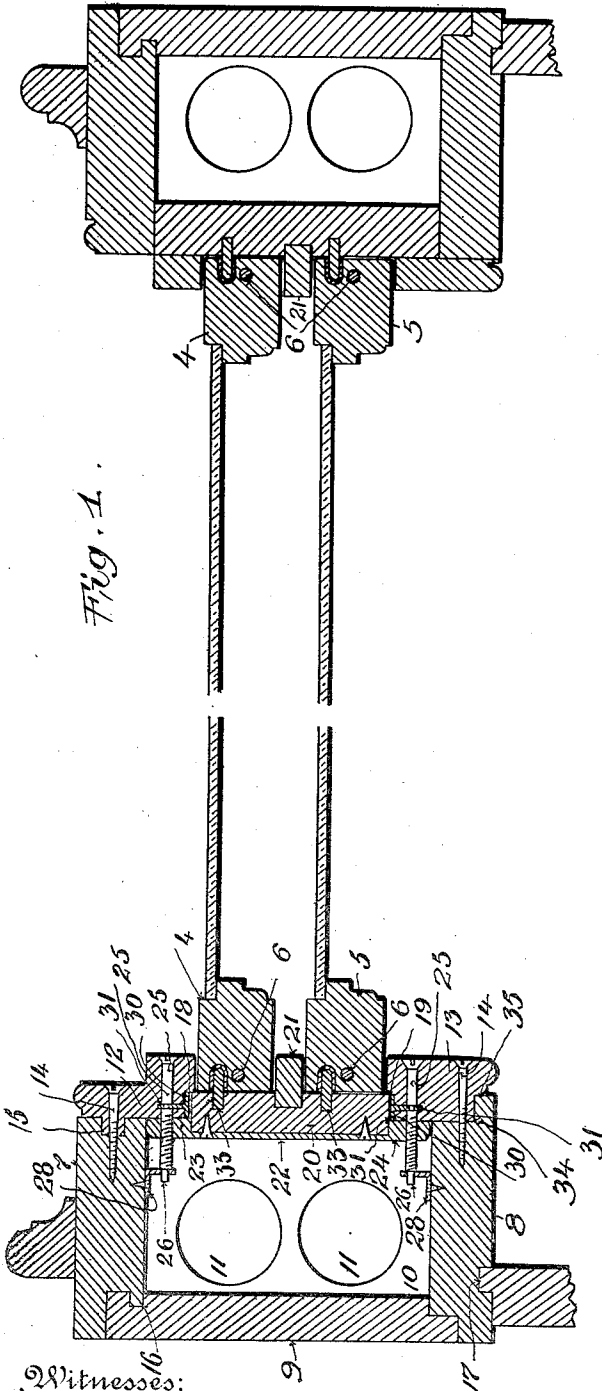


Fig. 1.

Fig. 2

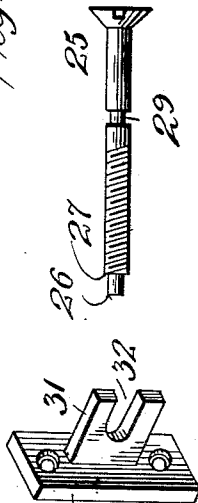
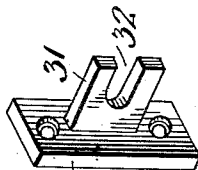


Fig. 3.



Witnesses:
W. A. Darby.

Inventor
D. N. Sire
By his Attorney
W. A. Darby

UNITED STATES PATENT OFFICE.

DIDRIK N. SIRE, OF MAYS LANDING, NEW JERSEY.

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1,104,940.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DIDRIK N. SIRE, a citizen of the United States, residing at Mays Landing, county of Atlantic, State of New Jersey, have made a certain new and useful Invention in Windows, of which the following is a specification.

This invention relates to windows, and window structures, and has for its objects the provision of a movable stile and means for supporting and adjusting the same in such manner as to prevent binding or undue looseness of the window sashes in their guides due to swelling, shrinking or warping of the parts, settling of the frame, or other cause.

A further object is to provide a window structure which permits the ready removal or insertion of the sash from or into their frame, and adjustments to take up looseness or to relieve binding while at the same time maintaining the joints dust and weather proof.

The invention consists substantially in the construction, combination, location and relative arrangement of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawing and finally pointed out in the appended claims.

In the drawing:—Figure 1 is a view in horizontal section of a window constructed in accordance with my invention. Fig. 2 is a detached detail view showing one of the grooved stile adjusting screws. Fig. 3 is a similar view showing the key which cooperates with the grooved screw to hold the latter against longitudinal movement when rotated.

In carrying out my invention I provide the window sashes 4, 5, one of which may be the upper and the other the lower sash in the usual way. To the sashes 4, 5, are connected cords 6, designed to counter balance the sashes in any well known, suitable or convenient manner, the details of which do not enter into the present invention. The sashes are mounted in side frames to slide vertically in guides therefor. The window frame on one side is composed of the side members 7, 8, connected together at their outer edges by the outer member 9 which serves to space the side members apart, the members 7, 8, 9, cooperative to force a chamber 10, to receive the sash weights, indicated at 11, where such weights are employed.

Upon the inner edges of the side members 7, 8, of the frame are mounted the stop beads, the stop beads respectively overhanging the inner sides of the side members 7, 8. The stop beads 12, 13, are secured to the edges of the members in any suitable manner, as, for instance, by means of the screws 14, and, preferably, the stop bead 7, is secured to its side member 7, by means of a blind stop 15, to make the joint dust and weather proof. For the same purpose, similar blind stops may be employed at the joints of other parts, as indicated at 16, 17.

The overhanging portions of the stop beads 12, 13, are formed with shoulders 18, 19 on their opposed faces. These shoulders form a stop to limit the inner movement of a movable stile 20, which is positioned between the side members 7, 8, at their inner edges. This movable stile 20, carries a parting strip 21, which cooperates with the opposed faces of the stop beads on the respectively opposite sides thereof to form vertical guide ways in which the edges of the sashes are received and slide during the raising and lowering movements of the sashes. Secured to the outer side of the movable stile 20, and extending transversely there across, is a bracket 22, having its ends extended beyond the edges of the stile, as indicated at 23, 24. The extended ends 23, 24, of the bracket 22, are provided with threaded openings to receive there through the threaded portions of screws 25. These screws pass through the stop beads 12, 13 and at their outer ends are reduced, as shown at 26, thereby forcing a shoulder 27. The reduced ends of the screws 25, are received in brackets 28, secured to the side members 7, 8, the shoulders 27 bearing against said brackets. The screws 25 are peripherally grooved as indicated at 29.

Plates 30, secured to the opposed faces, respectively, of the stop beads 12, 13, are provided with wings 31, inserted in slats formed in the stop beads transversely to the screws 25. The wings 31, are bifurcated, as indicated at 32, to straddle the peripheral grooves 29 of the screws 25. By this structure it will be seen that the screws 25 may turn axially but are held against longitudinal movement, and therefore, when said screws are turned the ends 23, 24, of the bracket 22, will be caused to move along the screws 25, after the manner of traveling

nuts. This movement of bracket 22, causes the stile 20 to be positively adjusted in and out, thereby taking up any looseness or relieving any undue tightness that might develop in the window structure, and always insuring a straight guide way in which the sash may slide. It will also be seen that the inner edges of the frame side members are efficiently connected together through the stop beads 12, 13, the screws 25, and the bracket 22, thereby preventing warping of the frame, or other undue relative movement of the side members 7, 8, of the frame, which would otherwise be liable to occur particularly if the side members 7, 8, are constructed of wood. It will also be seen that I provide a structure of window frame which is practically dust and weather proof, and capable of being maintained in that condition by ready and easy adjustment, while at the same time enabling the sashes to be readily and easily raised or lowered whenever desired. If desired the sash joints may be still further protected against ingress of dust or weather, by means of strips 33, carried by the movable stile 20, and fitting into vertical grooves in the outer edges of the sash. These grooves may be lined with felt or other dust proof material. In order to still further guard against ingress of dust or weather the stop bead 13, and also the frame member 8, may be rabbeted in interlocking relation, as indicated at 34, 35.

When it is desired to insert or remove a sash the stile 20 is moved outwardly a distance sufficient to enable the sash edge to clear the parting bead or strip 21, in a well understood manner. The sash is then inserted in place, or removed, as the case may be, and the stile 20, is then adjusted outwardly to the desired extent.

While, ordinarily, a window frame structure such as above described is sufficient at one side only of the window opening, the frame on the other side of such opening being of ordinary or any desired construction, as shown, it is obvious that the same structure as above described may be applied to both sides.

When access is desired to the sash weights, or to the interior of the box space in which said weights operate, the beads 12, 13, are

removed, carrying with them the movable stile 20.

Having now set forth the objects and nature of my invention, and a structure embodying the principles thereof, what I claim as new and useful, and of my own invention, and desire to secure by Letters Patent, is,—

1. The combination, in a window frame, of side members, a stop bead secured to the inner edge of each side member, and overhanging the proximate or opposed sides of said members, a movable stile interposed between said side members, a bracket secured to the outer face of said stile and having its ends projecting beyond the edges thereof, and adjusting screws passing through said stop beads and engaging the projecting ends of said bracket.

2. The combination, in a window frame, of side members, a stop bead secured to the inner edge of each side member and overhanging the opposed sides thereof, a movable stile positioned between said members, a bracket connected to said stile and having its ends extending beyond the side edges thereof, screws carried by said stop beads and engaging the projecting ends of said bracket, and means to hold the screws from longitudinal movement.

3. The combination in a window frame, of side members, a stop bead secured to the inner edge of each side member and overhanging the juxtaposed side thereof, said beads formed with stop shoulders, a movable stile positioned between said members, said stop shoulders forming stops to limit the movement of said stile in one direction, a bracket carried by said stile and having its ends extended beyond the edges thereof, and screws passing through said beads and engaging the projecting ends of said bracket, to adjust said stile, toward and from said stop shoulders.

In testimony whereof I have hereunto set my hand in the presence of the subscribing witnesses, on this seventh day of May, A. D., 1914.

DIDRIK N. SIRE.

Witnesses:

EDMUND H. SHOEMAKER,
CHARLES M. GODWIN.