C. B. WING.

WINDOW.

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1,395,074. Patented Oct. 25, 1921.

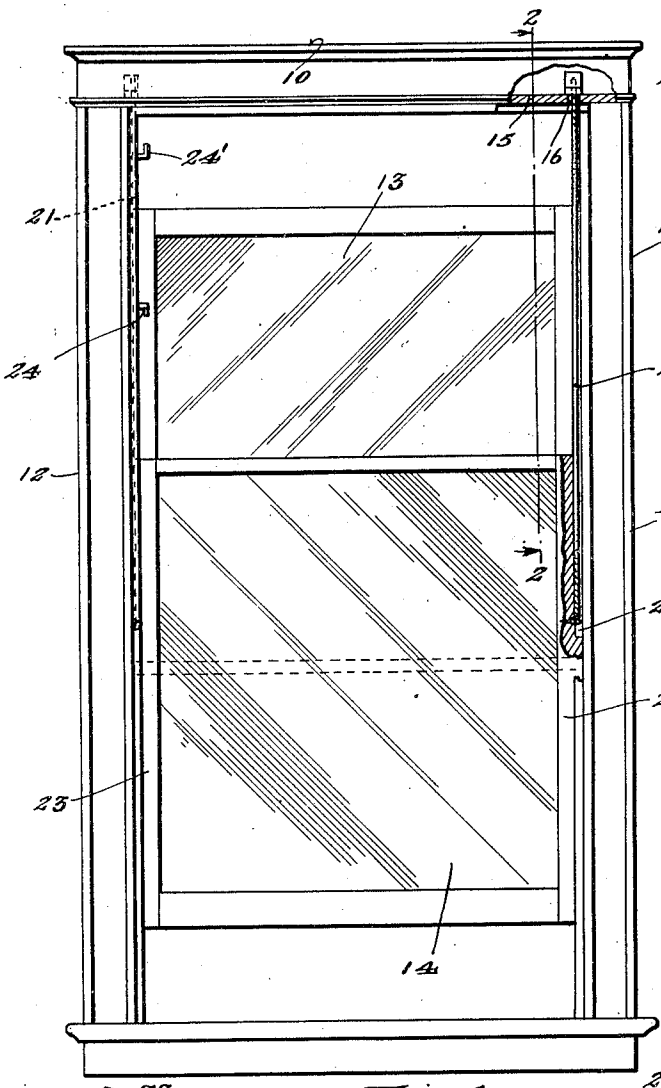


Fig. 1.

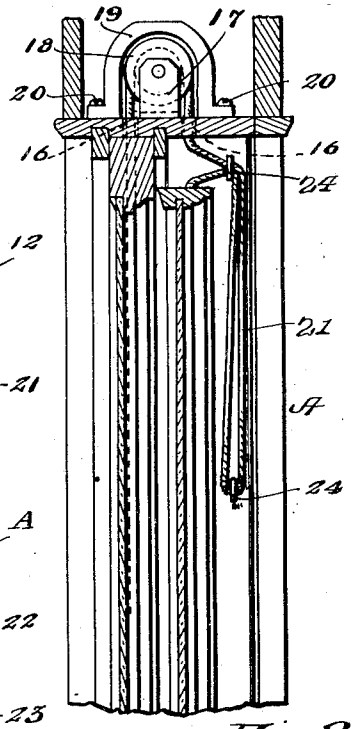


Fig. 2.

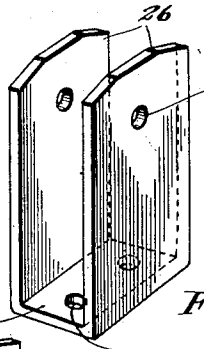


Fig. 3.

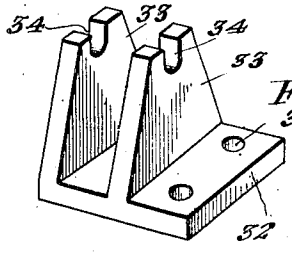


Fig 5.

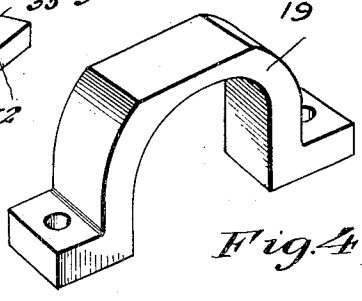


Fig. 4.

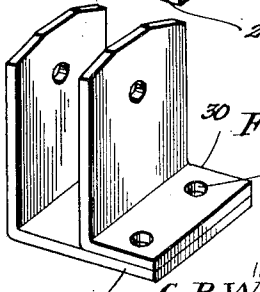


Fig. 6.

WITNESSES

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WINDOW.

1,395,074. Specification of Letters Patent. Patented Oct. 25, 1921.

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To all whom it may concern:

Be it known that I, CHARLES BENNETT WING, a citizen of the United States, and a resident of Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Windows, of which the following is a specification.

This invention relates to mounting means for window sashes.

The object of the invention is to provide means for connecting a pair of sliding window sashes in such a manner that the weight of one sash will counter-balance the weight of the other and thereby permitting the sashes to be moved to an open position simultaneously or closed simultaneously.

It is also an object of the invention that means be provided whereby the lower sash may be held in a substantially raised position, while the upper sash remains in its normal or closed position.

The invention is illustrated by way of example in the accompanying drawings, in which;

Figure 1 is a front elevation of a window casing or frame inclosing a pair of vertically slidable sashes which are mounted in accordance with the present invention, parts being broken away and shown in section to more clearly illustrate the invention.

Fig. 2 is a vertical section taken substantially on the line 2—2 of Fig. 1,

Figs. 3, 5 and 6 are detailed views showing different forms of bearings for journaling the grooved pulley,

Fig. 4 is a perspective view of the housing for the grooved pulley.

Referring to the drawings more particularly A indicates generally a window casing or frame comprising the top sill 10 and the bottom sill 11 and sides or jambs 12. Each of the sides 12 is provided with the usual pair of contiguous guide ways in which the sashes 13 and 14 are adapted to slide. Near each end of the bottom 15 of the top sill 10 there is provided a pair of spaced openings 16. Each pair of openings is in alinement with the pair of guide-ways of the associated jamb 12. Between each pair of openings there is secured a bearing 17 adapted to journal the shaft of a grooved pulley 18. A housing 19 shown in Fig. 4 is positioned over each of the pulleys 18 and secured by means of the screws indicated at 20. A sash cord 21 is provided for each pulley and passed thereover. One end of each of the cords is extended through one of the openings 16 which are in alinement with the runways for the lower sash and secured at the lower end of a groove 22 provided in the outer edge of each side member 23 of the sash 14, said grooves being adapted to receive the cords 21 so that the same may not interfere with the raising and lowering of the sash. The other end of each cord 21 is extended through one of the openings 16 which are in alinement with the runways for the sash 13 and connected to the sash 13 in the same manner described for connecting the other end of the cord to the sash 14.

On each side 12 of the frame A there is provided a pair of L-shaped hooks 24, the purpose of which will later become evident.

It may be here mentioned that any suitable design of bearing 17 may be used; however I have shown in Figs. 3, 5 and 6 detailed views of different forms of bearings, each of which is suitable to serve the same purpose. The bearings shown in Figs. 3 and 6 are formed of strips of malleable iron while the bearing shown in Fig. 5 is cast; this latter form is of course the most inexpensive to manufacture. The bearing shown in Fig. 3 is formed of one piece and comprises a base portion 25 and a pair of bearing standards 26. Each standard is provided with an opening 27 in which the shaft of the pulley 18 may be journaled. The standards 26 would of course have to be slightly sprung apart in order to permit the shaft of the pulley 18 to be positioned. The base 25 has a pair of openings 28 adapted for the reception of screws by which the bearing may be secured in position.

The bearing shown in Fig. 6 comprises the two L-shaped members 29 and 30, each member having a horizontal portion provided with registering openings 31 by which they may be secured in position. The members are separable which is an advantage when positioning the pulley 18. The bearing shown in Fig. 5 comprises a base 32 upon which is formed a pair of bearing standards 33. Each standard is provided with a recess 34 in which the shaft of the pulley 18 may be journaled. Also the base has the openings 35 formed therein for the reception of screws by which the bearing may be secured and held in position.

When it is desired to open either of the

sashes 13 or 14, it is only necessary to urge one of them upward or downward, and the other will move in the opposite direction. The sashes counterbalance one another and therefore may be easily raised or lowered.

In case it is desired to raise the lower sash 14 without lowering the upper sash 13, one of the cords 21 may be held while the sash 14 is raised, and then the surplus portion of the sash cords made possible by the raising of the lower sash may now be formed into a loop and passed over the uppermost hooks 24 and then connected with the lowermost hooks 24 as shown in Fig. 2. The sash 14 will now be securely held in the raised position as shown while the upper sash remains in its normal or closed position.

I claim:

1. In combination, a window frame or casing, a pair of vertically slidable sashes therein, a pulley mounted in the top of the frame, a cord passing over the pulley and having an end attached to each of the sashes, a plurality of projections extending from the window jamb, the uppermost projection occurring adjacent the upper end of the jamb and the remainder therebelow whereby with the overlapping of the sashes the surplus cord so made possible may be utilized for holding the sashes in their overlapping positions by passing the cord over the uppermost projection and then securing the same to a projection therebelow.

2. In combination, a window frame or casing, a pair of vertically slidable sashes therein, a pulley mounted in the top of the frame, a cord passing over the pulley and having an end attached to each of the window sashes, and a pair of L-shaped hooks extending from a side or jamb of the window casing, one hook being adjacent the upper end of the jamb and the other therebelow, whereby with the raising of the lower sash while the upper sash remains in its normal or closed position, the surplus cord so made possible may be utilized for holding the lower sash in its raised position by passing the cord over the uppermost hook and then securing the same to the lower hook.

CHARLES BENNETT WING.