

Jan. 17, 1933.

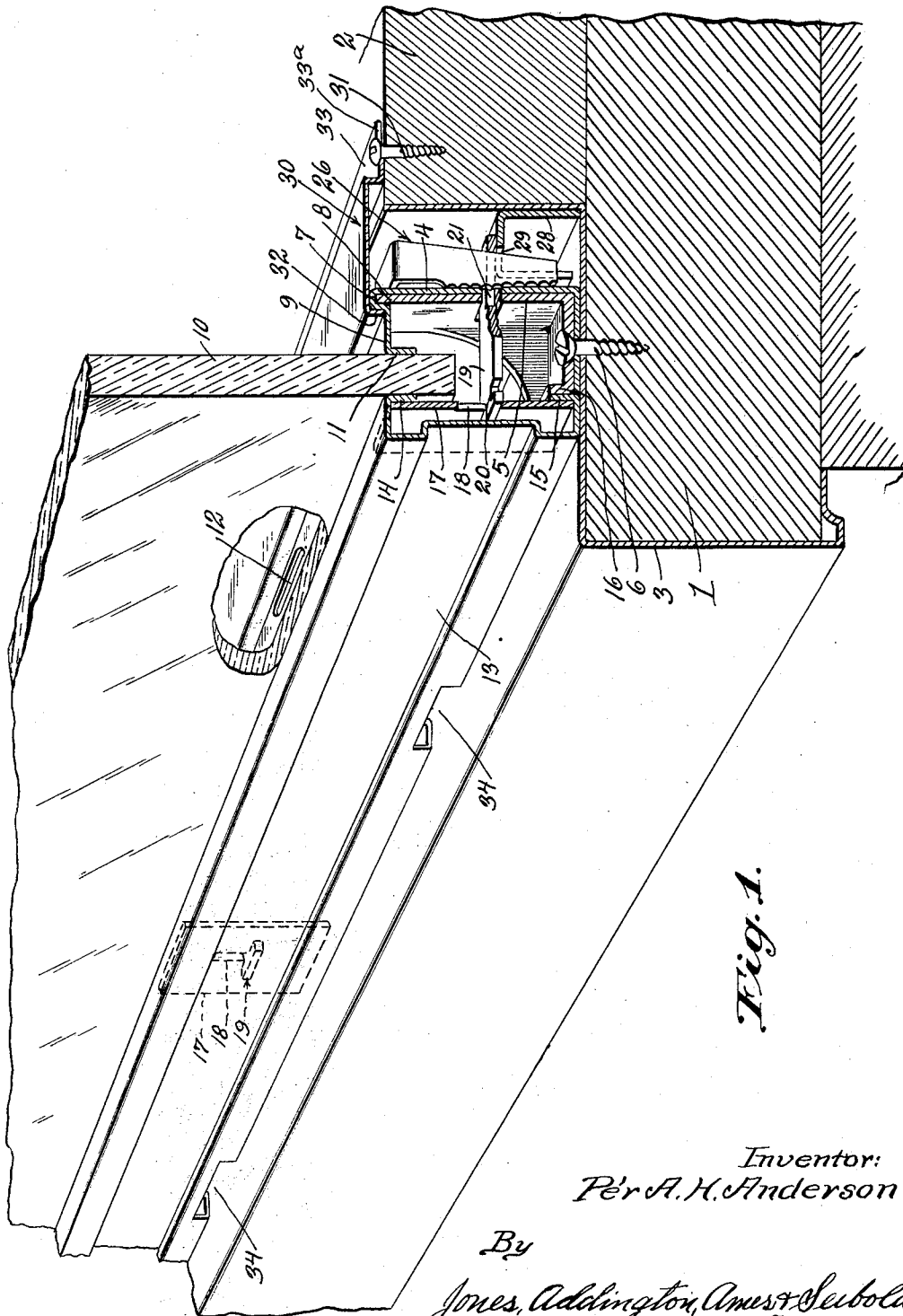
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1,894,529

SASH CONSTRUCTION

Filed Feb. 20, 1931

2 Sheets-Sheet 1



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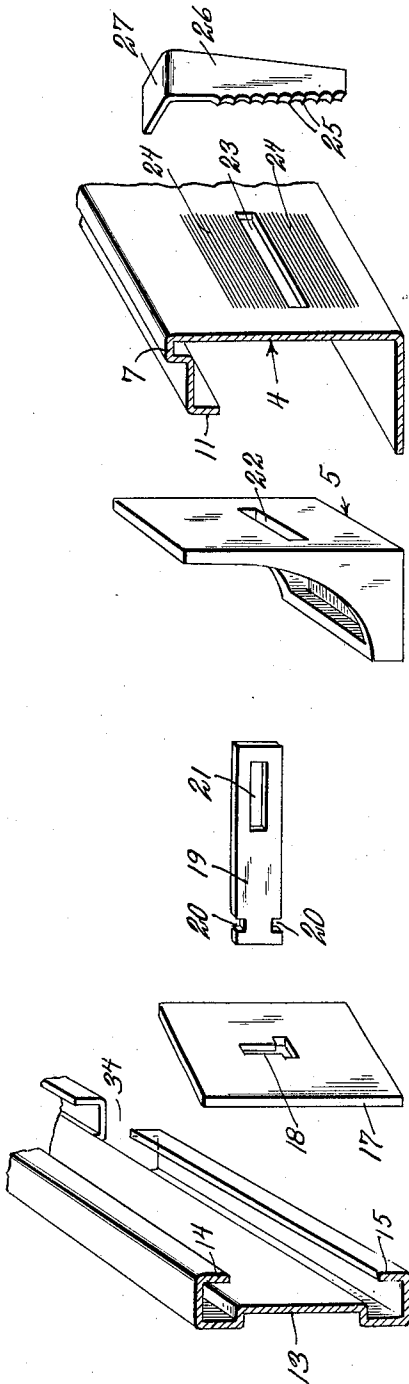


Fig. 2.

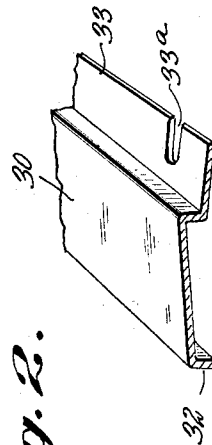


Fig. 4.

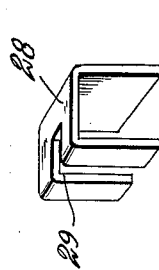


Fig. 3.

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UNITED STATES PATENT OFFICE

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SASH CONSTRUCTION

Application filed February 20, 1931. Serial No. 517,214.

This invention relates to improvements in sash construction with particular relation to a construction for supporting plate glass windows and the like.

5 A desirable feature of this invention resides in the provision of means for securing the glass between engaging surfaces of sash members and whereby the securing means is adjustable and may be securely locked in
10 position in such a manner as to automatically accommodate glass of varying thickness.

Means are also provided whereby the condensation from the glass is completely drained away and in which there are no
15 pockets in which the moisture may be retained.

It is also an object of the present invention to provide a construction whereby the glass may be inserted and securely locked in
20 place without the use of tools, the locking means being secured entirely by hand.

A further desirable feature is the provision of a sash construction in which the fastening means is completely covered and not
25 accessible from the front of the sash.

Other objects and advantages will appear from the consideration of the following detailed description in conjunction with the accompanying drawings, in which:

30 Figure 1 is a transverse sectional perspective view taken through an ordinary sill and the associated sash, a portion of the locking mechanism also being shown in section;

Fig. 2 is an exploded view of the sash and
35 locking means in position for assembling;

Fig. 3 is a perspective view of the key supporting clip; and

Fig. 4 is a sectional perspective view of a portion of the cover plate.

40 Referring to the drawings in detail, the embodiment illustrated comprises a sill 1 which constitutes a bottom support for the window. A rear support or riser 2 is mounted upon the sill 1 with its front edge set back
45 somewhat from the front of the sill. The

front surfaces of the supports 1 and 2 are usually covered with a sheet metal flashing 3 secured thereto. This is the usual construction for mounting plate glass windows and the like.

A gutter molding 4 is secured longitudinally on the sill 1 by means of brackets 5 and screws 6. These brackets 5 conform to the shape of the gutter molding 4. The upper extremity 7 of the gutter molding is
55 doubled over as indicated to provide a groove to receive the upwardly extending portions 8 of the brackets 5. In practice, these brackets are usually spaced about ten inches apart. The gutter molding 4 is provided
60 with an outwardly extending portion 9 arranged to provide a gutter to receive the condensation from the inside of the glass 10 and is turned downwardly at 11 to provide
65 a bearing or clamping surface to engage the glass. Openings 12 are provided in the gutter floor 9 through which the condensation from the inner surface of the glass may pass.

The glass is usually supported at each end by small blocks of suitable material usually
70 of wood, these blocks not being shown, as it is common practice to support the glass in this manner.

A sheet metal outer sash member 13 is provided with a downwardly extending flange
75 14 to bear against the glass 10 and an upwardly extending flange 15 which is arranged to bear against the upwardly extending flange 16 of the bracket 5. The outer sash member 13 is locked in position as shown in Figure
80 1 by means of a plate 17 having a key slot 18. The plate 17 is positioned as shown in Figure 1 to engage the flanges 14 and 15, and a link 19 is provided with notches 20 and is arranged to be inserted in the key slot 18,
85 the notches 20 being engaged in the transverse portion of the key slot 18. The link 19 is also provided with a locking slot 21 and extends through a slot 22 in the bracket 5 and a corresponding slot 23 in the gutter mold-
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ing member 4. The surface of the gutter molding member adjacent the elongated hole 23 is slightly corrugated or knurled at 24 in order to co-operate with the points of the corrugations 25 on a suitable tapered key 26. This key is inserted through the slot 21 and is pushed downwardly for the purpose of clamping all of the parts in assembled relation and securely holding the glass 10 in place.

The key 26 is bent at 27 to provide a handle, the object of this handle being to eliminate the necessity of the use of tools in assembling the device and to prevent the workmen from using tools to push the key in place and thereby exerting too great a pressure on the glass. The outer end of the link 19 is supported on an inverted U-shaped clip 28 which is provided with a slot 29 for the passage of the key 26.

A cover plate 30 is secured to the rear support 2 by means of screws 31. This cover plate is provided with a downwardly extending flange 32 which is arranged to engage over the folded portion 7 of the gutter molding member 4. This cover plate is formed in such a manner that the flange 33 stands in an angular position with relation to the support 2, as shown in Figure 4, when it is placed in position, the screws 31 tending to force the cover plate downwardly and the resiliency of the material causing it to clamp the gutter molding member 4 securely in position. The screws 31 are engaged in slots 33* in the flange 33 and the plate 30 may be removed or attached by sliding the plate to or from the glass 10.

As previously stated, the locking members are usually spaced about ten inches apart. However, they may be spaced at any desired distance. The condensation openings 12 in the gutter and corresponding openings 34 in the outer sash member 13 are positioned between the locking members. In order to provide an opening to allow the moisture to drain freely away, the lower flange 15 of the sash member 13 is entirely cut away at 34, as shown in Figure 2, so that any moisture which accumulates in the gutter molding member drains through the opening 34 directly onto the flashing 3.

In order to assemble these locking members, the plate 17 is inserted in the sash member 13, as shown in Figure 1, and the notched end of the link 19 is inserted in the vertical portion of the slot 18. The link is then forced downwardly and turned to a horizontal position, where the notches 20 are engaged in the transverse portion of the slot 18. The sash member 13 is placed against the glass and the lower portion of the brackets 5 with the link 19 extending through the openings 22 and 23 in the bracket 8 and molding 4 respectively, with the end of the link resting on the U-shaped clip 28 and with the slot 29 therein in alignment with the slot 21 of the link. The

keys 26 are then forced downwardly through the slots 21, the corrugated portions of the gutter member and the key causing the device to be securely locked and held in clamping position. The cover plate 30 is then secured in position by means of the screws 31, thereby clamping the gutter member securely in place.

The key 26 is preferably made of considerably harder material than the gutter molding member, thereby allowing the points of the corrugations 25 to cut into the surface of the gutter member, thereby preventing the key from coming loose.

It will be obvious that modifications may be made without departing from the spirit of the invention, and therefore I wish to be limited only by the prior art and the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. A sash construction comprising an inner sash member to be secured to a sill, an outer sash member, said members being arranged to clamp a plate of glass therebetween, and connecting means including a cam operable to engage the back of said inner molding for frictionally securing said members in clamping relation.

2. A sash construction, comprising an inner molding member, an outer molding member, means for clamping a glass plate between said members comprising a link connection between said members and extending through said inner member and cam means cooperating with said link and the back surface of said inner member for tightening said connection.

3. A sash construction comprising an inner molding member, an outer molding member, means for clamping a glass plate between said members comprising a link connection between said members and having a slot therein and cam means engaging in said slot and retained therein by frictional engagement with the back of said inner molding member for tightening said connection.

4. A sash construction comprising an inner molding member, an outer molding member, means for clamping a glass plate between said members comprising a link connection between said members and extending through said inner molding member and having a slot therein and a key in said slot and arranged to frictionally co-operate with the back of said molding member and said link to clamp the glass between said members.

5. A sash construction comprising an inner sash member arranged to be secured to a sill, an outer sash member, said members being arranged to engage a glass plate therebetween, means for securing said members together comprising means engaging said outer sash member and extending beyond said inner member, locking means co-operating be-

tween said inner member and said engaging means for locking said members in clamping relation and a cover member secured to said sill and engaging said inner member.

5 6. A locking means for inner and outer sash members of the character described comprising a plate engaging said outer sash member and having a T-shaped slot therein, a link engaged in said slot and extending
10 through said inner sash member and having a slot therethrough, and a tapered key in said slot and engaging said inner sash member.

7. The combination with a window frame having a riser forming a step thereon, an inner molding member spaced from said riser to form a recess therebetween, an outer molding member, means cooperating with said outer molding member and extending into said recess, and removable means in said recess
20 for clamping said molding members together to secure a glass therebetween.

8. The combination with a window frame having a riser forming a step thereon, an inner molding secured to said frame and spaced
25 from said riser to form a recess therebetween, said molding having an outwardly extending glass engaging portion, an outer molding member having a glass engaging portion, means for clamping said molding members together to engage a glass therebetween, said
30 clamping means extending into said recess, removable means in said recess for locking said clamping means, and a removable cover over said recess and engaging said inner molding.

9. The combination with a window frame having a riser forming a step thereon, an inner molding member spaced from said riser to form a recess therebetween, the upper portion of said inner molding member being
40 formed to provide a gutter and a glass engaging portion, a removable cover engaging said gutter portion and removably secured to said riser, an outer molding having a glass engaging portion, said outer molding having an arm associated therewith extending into said recess, and locking means in said recess and cooperating with said arm and said inner molding to clamp said moldings in glass engaging position.

10. A glass clamping means comprising an inner and an outer molding having glass engaging portions, an arm on said outer molding and extending through said inner molding
55 and having a slot therein, a wedge in said slot having a serrated surface cooperating with the surface of said inner molding for locking said moldings in clamping relation.

11. The combination with a window frame having a riser forming a step thereon, of an inner molding member spaced from said riser to provide a recess therebetween, said inner molding member having a glass engaging portion, an outer molding member having
65 ing a glass engaging portion, a link means

cooperating with said outer molding member and extending into said recess and having a slot therethrough, a wedge-shaped key in said slot and frictionally engaging the back of said inner molding member, means in said recess for supporting the end of said link, and a cover over said recess and cooperating with said inner molding member to form a gutter.

In witness whereof, I have hereunto subscribed my name.

PER A. H. ANDERSON.

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