Feb. 21, 1928. 1,659,657

J. F. LEVAN

SASH GUIDE

Filed May 5, 1926 2 Sheets-Sheet 1

Fig. 1

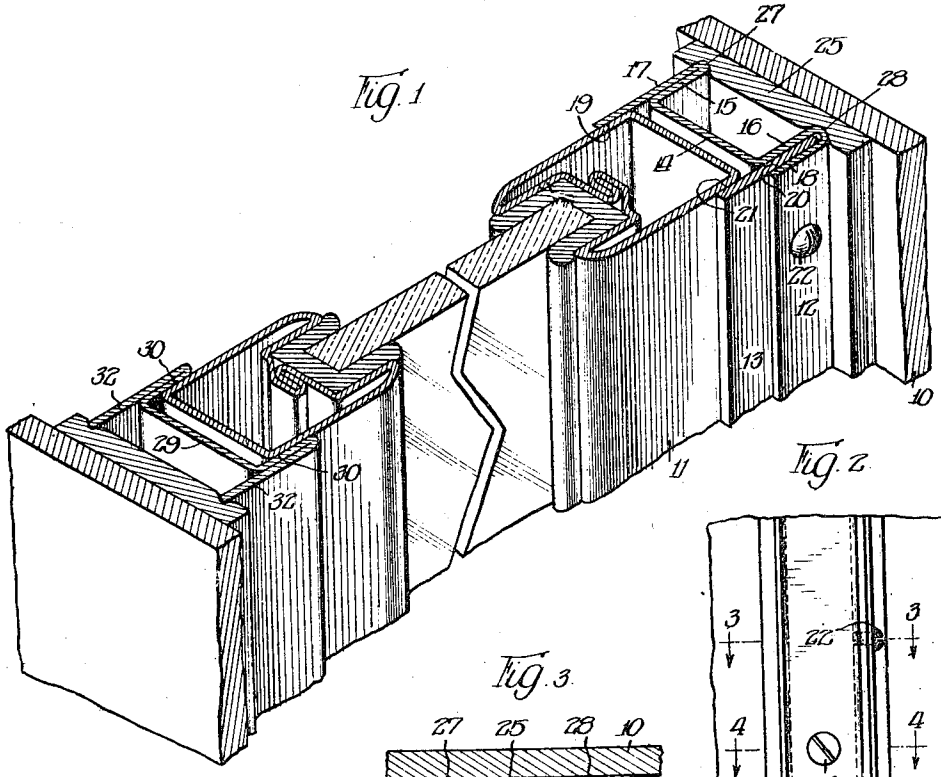


Fig. 2

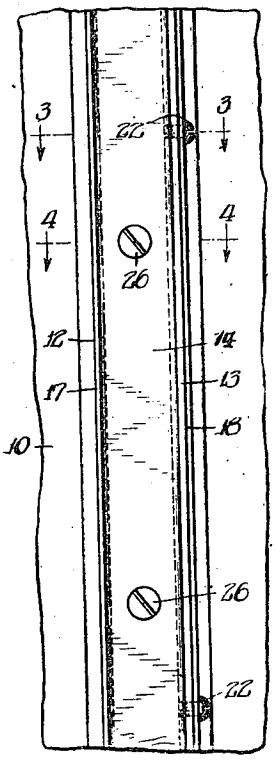


Fig. 3

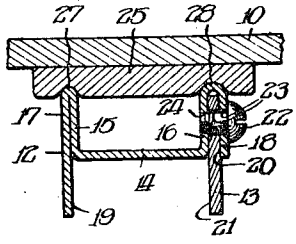


Fig. 5

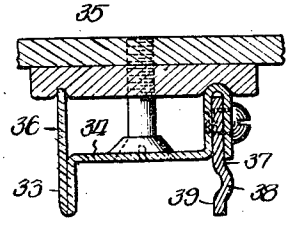


Fig. 4

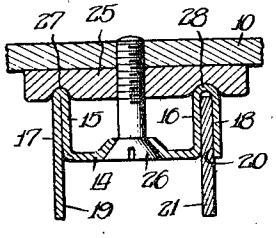
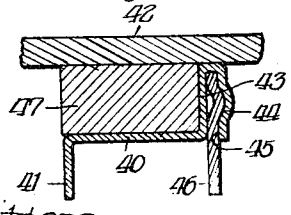


Fig. 6



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SASH GUIDE

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Fig. 7

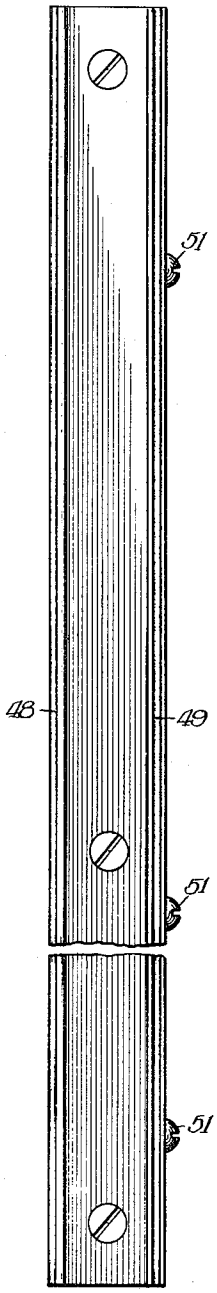


Fig. 8

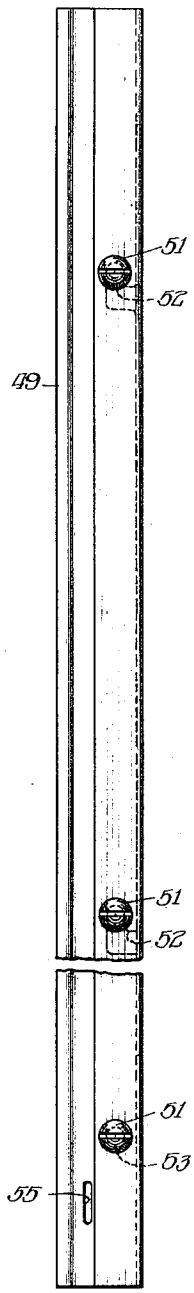


Fig. 9

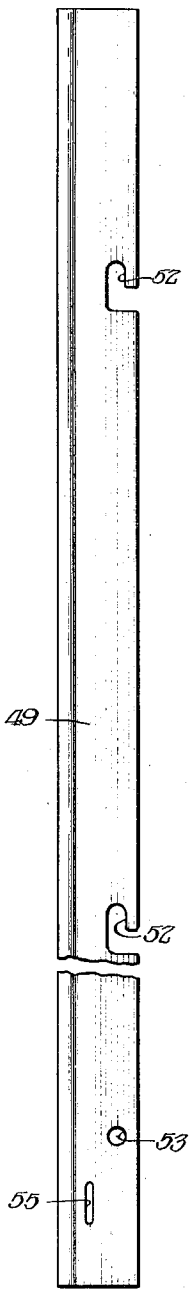


Fig. 10

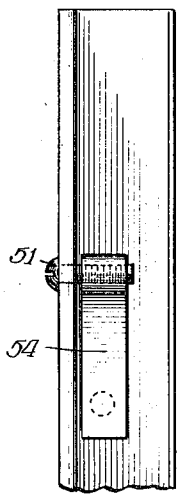
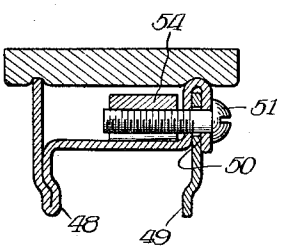


Fig. 11



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Patented Feb. 21, 1928. 1,659,657

UNITED STATES PATENT OFFICE.

JOHN F. LEVAN, OF ELKHART, INDIANA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE ADAMS & WESTLAKE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SASH GUIDE.

Application filed May 5, 1926. Serial No. 106,841.

The principal object of the invention is to provide a light, durable, inexpensive, and easily applied sash guide in which one of the side walls is detachable to facilitate insertion or removal of the associated sash.

Other important objects and advantages not herein specifically mentioned will be apparent upon a full understanding of the novel construction, arrangement and operation of a guide embodying the invention.

For the purpose of exemplification, four different embodiments of the invention are presented in the accompanying drawing and following description. It will be understood, however, that the invention is susceptible of embodiment in various other modified forms coming equally within the comprehensive scope of the claims.

In the drawing:

Fig. 1 is a fragmentary perspective view, showing a window assembly in which a guide constructed in accordance with the invention is used;

Fig. 2 is a view of the guide, looking toward the window jam against which the guide is positioned;

Fig. 3 is a transverse section through the guide, taken on the line 3—3 of Fig. 2;

Fig. 4 is a similar section, taken on the line 4—4 of Fig. 2;

Fig. 5 is a similar section taken through a modified form of the guide;

Fig. 6 is a similar section, taken through still another modified form of the guide;

Fig. 7 is a view of another modified form of the guide;

Fig. 8 is a side view of the same;

Fig. 9 is a side view of the sash-retaining strip when removed from the guide;

Fig. 10 is an inside view of the strip, showing one of the screw-positioning devices; and

Fig. 11 is a transverse section through the guide at the location of the device.

The sash guide of the invention is essentially a channel member which has a removable side wall. It is adapted to be secured to a window jam 10 in sliding engagement with a window sash 11.

The guide illustrated in Figs. 1 to 4 inclusive consists of an angle strip 12 and a sash-retaining strip 13 which is detachably associated with the angle strip. The strip 12 is formed of sheet metal, and is characterized by a central web 14, two side flanges 15 and 16 which extend from the web 14 toward the jam 10, and two other side flanges 17 and 18 which extend from the flanges 15 and 16 respectively away from the jam, the flange 17 being contiguous with the flange 15 and terminating a substantial distance beyond the web 14, in order to form a guide 19 for one side of the sash stile, and the flange 18 being spaced from the flange 16 and terminating about even with the web 14, in order to form a groove 20 between such flanges for the reception of the detachable sash-retaining strip 13.

The strip 13, like the strip 12, is formed of sheet metal, and, when positioned in the groove 20 of the strip 12, extends a substantial distance out of the groove beyond the web 14, in order to form a guide 21 for the other side of the sash stile.

The strip 13 is held in the groove 20 by means of a number of small screws 22 which pass through aligned apertures 23 in the flange 18 and the strip 13 and engage in threaded apertures 24 in the flange 16. The flange 18 may advantageously be spaced at its free edge a greater distance from the flange 16 than the thickness of the strip 13 necessitates, in order that when the flange 18 is drawn up as far as possible toward the flange 16 upon the strip 13, the flange 18 will react resiliently against the heads of the screws 22 and prevent loosening of the same in service.

The strip 12, instead of being positioned directly against the jam 10, may be mounted on an interposed weather-proofing strip 25. The strip 25 may be formed of felt, rubber, or other resilient material suitable for the purpose. The strip 12 may be secured to the jam through the strip 25 by means of a number of screws 26, and the edges 27 and 28 of the strip may be slightly embedded in the resilient material of the strip 25 by the clamping action of the screws 26, whereby to provide efficient weather closures along those edges.

The guide above described may be used in cooperation with a similar guide at the opposite side of the sash, or with one which is dissimilar in that it has no removable side wall, since when the side wall of one of the

guides is removed, sufficient clearance is given to permit insertion or removal of the sash. A guide without a removable side wall is shown at the left in Fig. 1. It is characterized by a central web 29, two flanges 30 of which extend from the web away from the jam 31, and two other flanges 32 which extend from the flanges 30 toward the jam in contiguous relation to such flanges.

A guide constructed in accordance with the invention is exceedingly light, durable and inexpensive, provides in cooperation with the felt lining strip an efficient weather closure, may be readily applied, permits the attaching screws to be located at close intervals throughout the length of the guides since both guides may be applied to the jams before insertion of the sash, and makes it possible for the sash to be easily inserted or removed. Obviously either one or both of the side walls of the guide may be made detachable in accordance with the invention to permit the sash to be inserted or removed from either or both sides of a window frame.

In Fig. 5 is shown a different embodiment of the invention in which the fixed side wall of the guide is of double as distinguished from single thickness, being formed by a flange 33 which extends from the central web 34 away from the jam 35, and another flange 36 which extends from the flange 33 toward the jam in contiguous relation to such flange. In this guide, the removable sash-retaining strip 37 is arched throughout its length at 38 to obtain a narrow spring contact between the sash and the strip 37 when such strip is drawn up resiliently against the sash at 39.

In Fig. 6 is shown a still different embodiment of the invention in which the angle strip consists of a central web 40, a flange 41 which extends from one side of the web 40 away from the jam 42, a flange 43 which extends from the other side of the web toward the jam, and another flange 44 which extends from the flange 43 away from the jam and terminates about even with the web 40. The flanges 43 and 44 are spaced apart in order to form therebetween a groove 45 for the reception of the sash-retaining strip 46, and the cooperating portions of the groove 45 and strip 46 may be so shaped as to permit the strip to be snapped into the groove and held resiliently therein without the use of screws. A relatively thick weather proofing strip 47 may be positioned between the web 40 of the guide and the jam.

In Figs. 7 to 11 inclusive is shown another embodiment of the invention in which the fixed and removable side walls 48 and 49 of the guide are deflected toward each other along their outer margins, which shape provides narrow contacting areas between the guide and the associated sash. The removable sash-retaining strip 49, which is held in position in the groove 50 of the guide by means of a number of screws 51, is provided at the locations of the screws with bayonet slots 52 for hooked engagement with the same. One of the screw apertures in the strip 49, however, is not in the form of a bayonet slot, but is of such shape as to hold the strip against movement in any direction when the screw is positioned in the same. This aperture, 53, is preferably the lowermost one. As a result of the bayonet slot arrangement above described, the sash-retaining strip 49 may be moved laterally into the groove 50 in the guide with the open portions of the slots 52 in alignment with the screws 51 which are already in position in the guide, and the strip 49 may then be shifted downwardly a sufficient distance to cause the vertical portions of the slots 52 to interlock with the screws 51, in which position the aperture 53 will be brought into register with the corresponding screw apertures in the guide, and the bottom screw may be thereupon inserted. As will be appreciated, it is only necessary to manipulate but a single screw in applying or removing the sash-retaining strip 49. The screws 51, other than the one which positions the strip by engagement in the aperture 53 thereof, are so adjusted in the guide as to apply the desired amount of spring tension on the sash, and may be adjusted readily from time to time. Spring clips 54 may be secured to the inside of the guide in such positions as to bear resiliently with a certain amount of friction against the shanks of the screws 51, whereby to prevent the same from loosening in service. The strip 49 may be provided at a suitable point with an inconspicuous slot 55 into which the point of a screwdriver or other tool may be inserted in shifting the strip vertically in the groove in the guide to lock or unlock the bayonet joints.

I claim:

1. In a sash guide, a channel member having a fixed sash-engaging wall at one side thereof and a removable sash-engaging wall at the other side thereof, said removable wall being seated in a groove in the member.

2. In a sash guide, a channel member having a fixed sash-engaging wall at one side thereof and a removable sash-engaging wall at the other side thereof, said removable wall being embraced by an integral portion of the fixed wall.

3. In a sash guide, a channel member having a fixed sash-engaging wall at one side thereof and a removable sash-engaging wall at the other side thereof, said removable wall being seated in a groove which extends in a direction generally parallel to the fixed wall.

4. In a sash guide, a one-piece sheet metal angle strip, one or more screws extending through the back of the angle strip in the median plane of the guide for securing the angle strip to a window jam, a sash-retaining strip, and one or more other screws extending through the sash-retaining strip into the angle strip at right angles to the median plane of the guide for securing the sash-retaining strip to the angle strip.

5. In a sash guide, a strip having a groove therein, and a sash-retaining strip positioned in the groove.

6. In a sash guide, a strip having a groove therein, a sash retaining strip positioned in the groove, and means for holding the sash-retaining strip in the groove.

7. In a sash guide, an angle strip having a fixed sash-engaging wall at one side thereof and a groove at the other side thereof, and a strip seated in the groove and forming outwardly of the same a removable sash-engaging wall.

8. In a sash guide for application to a window jam, a channel member having fixed and removable side walls for engagement with a sash, a strip of resiliently yieldable material adapted to be positioned between the channel member and the jam, and means for drawing the channel member toward the jam in embedded relation with the material of the strip, whereby to obtain a weather proof closure between the channel member and the jam.

9. In a sash guide for application to a window jam, a channel member having two inwardly extending flanges for engagement with the jam and two outwardly extending flanges for engagement with a sash, said inwardly extending flanges constituting supporting legs for the member and one of the same forming an oppositely opening groove into which one of said outwardly extending flanges is removably seated.

10. In a sash guide for application to a window jam, a channel member having two inwardly extending flanges for engagement with the jam and two outwardly extending flanges for engagement with a sash, said inwardly extending flanges constituting supporting legs for the member and one of the same forming an oppostiely opening groove into which one of said outwardly extending flanges is removably seated, a strip of resiliently yieldable material adapted to be positioned between the jam and the channel member, and means for drawing the two inwardly extending flanges of the channel member into embedded relation with the material of the strip, whereby to obtain a weather proof closure between the channel member and the jam.

11. In a sash guide, an angle strip having a central web, a flange which extends outwardly from one side of the web and a grooved flange which extends inwardly from the other side of the web, and a strip removably seated in the groove.

12. In a sash guide, an angle strip having a central web, two flanges which extend both outwardly and inwardly from one side of the web and a grooved flange which extends inwardly from the other side of the web, and a strip removably seated in the groove.

13. In a sash guide, a channel member having a fixed sash-engaging wall at one side thereof and a removable sash-engaging wall at the other side thereof, and a bayonet joint connection between the removable wall and the member.

14. In a sash guide, a one-piece sheet metal angle strip having one portion which is adapted to serve as a guide for one side of a sash and another portion in spaced generally parallel relation to the first mentioned portion, and a sheet metal retaining strip which is adapted to serve as a guide for the other side of the sash and is detachably secured against the second mentioned portion of the angle strip.

15. In a sash guide, a fixed strip, a sash-retaining strip detachably associated with the fixed strip, and means for causing the sash-retaining strip to bear resiliently against a sash associated with the guide, said strips being so arranged as to permit a sash to be moved into or out of register with the fixed strip in a direction laterally of the latter when the sash-retaining strip is removed.

16. In a sash guide, a fixed strip, a sash-retaining strip detachably associated with the fixed strip, and means to flex the sash-retaining strip whereby to cause the same to bear resiliently against a sash associated with the guide, said strips being so arranged as to permit a sash to be moved into or out of register with the fixed strip in a direction laterally of the latter when the sash-retaining strip is removed.

17. In a sash guide, a fixed strip, a sash-retaining strip detachably associated with the fixed strip, and screws mounted in the fixed strip and cooperating with the sash-retaining strip to move the latter whereby to cause the sash-retaining strip to bear resiliently with an adjustable amount of pressure against a sash associated with the guide, said strips being so arranged as to permit a sash to be moved into or out of register with the fixed strip in a direction laterally of the latter when the sash-retaining strip is removed.

18. In a sash guide, a fixed strip, a sash-retaining strip, and a bayonet joint connection between said strips for permitting ready removal of the latter.

19. In a sash guide, a one-piece sheet metal strip which is open along one side to

permit a sash to be moved into or out of register with the strip in a direction laterally of the guide, and a sash-retaining strip detachably secured to the first mentioned strip in such position as to close the otherwise open side of the same, said second mentioned strip when removed permitting the sash to be moved into or out of register with the first mentioned strip in a direction laterally of the latter.

In testimony whereof I have hereunto subscribed my name.

JOHN F. LEVAN.