March 22, 1932. A. WATKINSON 1,850,737

VENTILATING LOUVER FOR WINDOWS

Filed Feb. 26, 1930 2 Sheets-Sheet 1

Fig. 1.

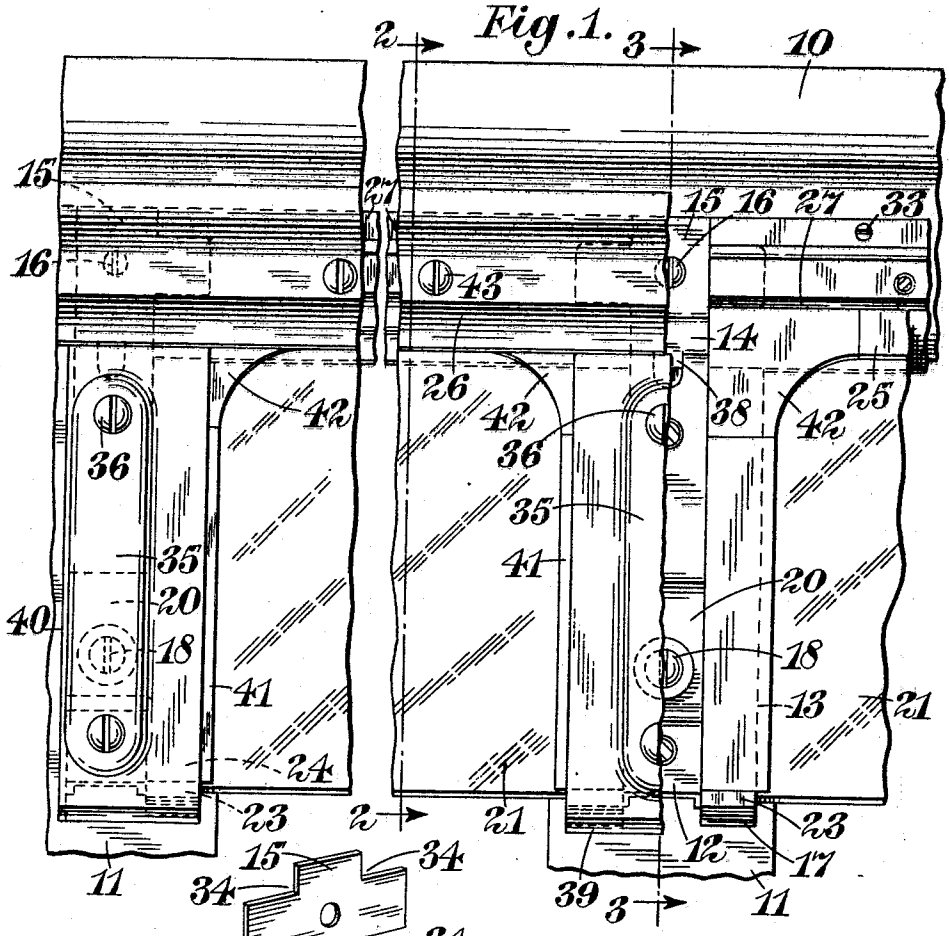
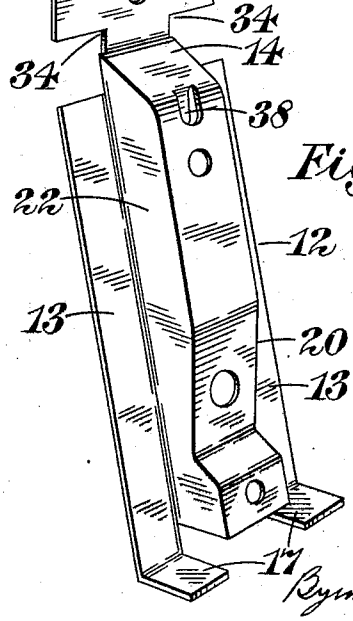


Fig. 4.



INVENTOR
Arthur Watkinson
by his attorneys
Byrnes, Stebbins, Parmelee & Blenko

March 22, 1932. A. WATKINSON 1,850,737

VENTILATING LOUVER FOR WINDOWS

Filed Feb. 26, 1930 2 Sheets-Sheet 2

Fig. 2.

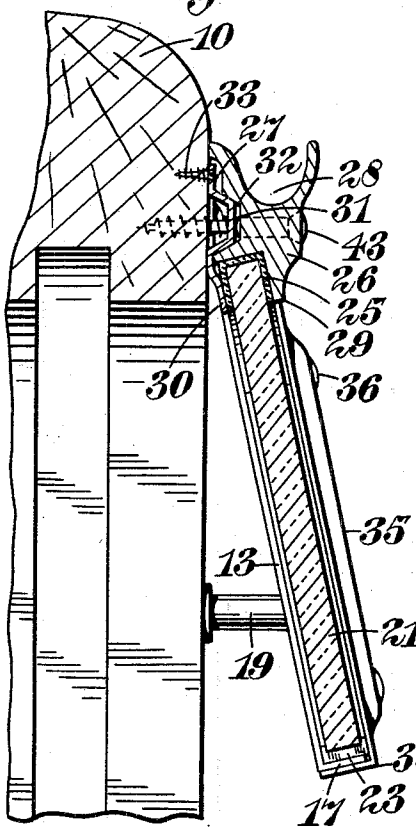


Fig. 3.

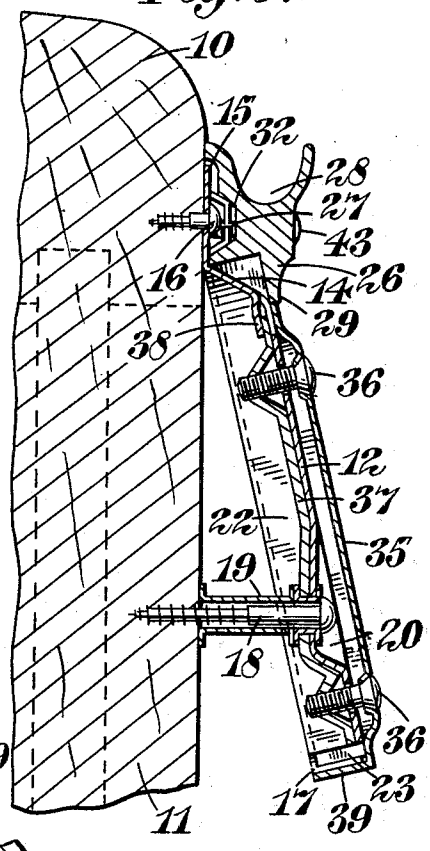
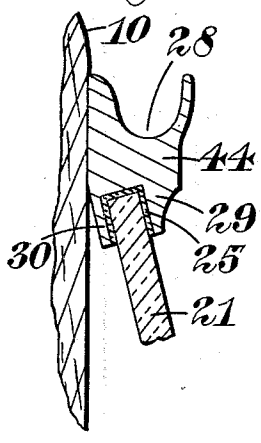


Fig. 5.



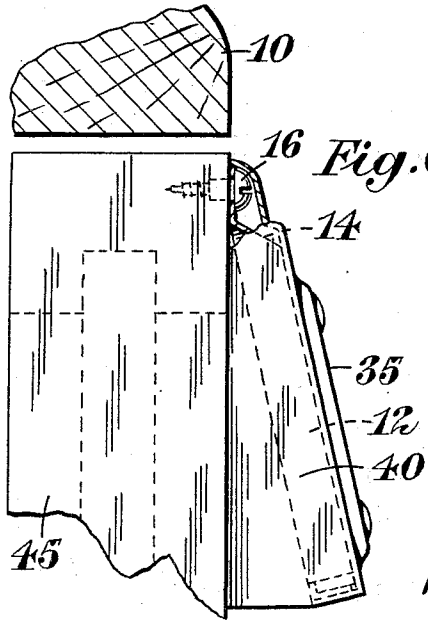


Fig. 6.

INVENTOR
Arthur Watkinson
by his attorneys
Byrnes, Stebbins,
Parmelee & Blenko

Patented Mar. 22, 1932 1,850,737

UNITED STATES PATENT OFFICE

ARTHUR WATKINSON, OF WEMBLEY, ENGLAND, ASSIGNOR TO BECKETT, LAYCOCK & WATKINSON LIMITED, OF LONDON, ENGLAND, A BRITISH COMPANY

VENTILATING-LOUVER FOR WINDOWS

Application filed February 26, 1930, Serial No. 431,613, and in Great Britain March 12, 1929.

This invention is for improvements in or relating to windows, and has for its object to provide an improved construction of ventilating louver of the kind which is used in conjunction with a sliding window, being situated at that end of the path of movement from which the sliding window moves when it is being opened. The louver which is generally somewhat inclined to the plane of the window, overlaps part of the path of movement of the window so that with a small amount of opening of the window, a tortuous path is provided which gives ventilation without draught. Windows fitted with such louvers are customarily used on vehicles, but it will be appreciated that their use is not thus limited.

The present invention comprises a ventilating louver of the kind above described, comprising a panel and supporting brackets, wherein the panel and its supporting brackets are independent of one another and so constructed that the supports can be mounted in place on the window-frame and the panel subsequently detachably secured to them.

According to a further feature of this invention, a ventilating louver of the type described comprises two brackets which are adapted to be secured on opposite sides of the window frame, and which are of open angle section facing one another to provide surfaces on each bracket to engage a face and an edge of the panel respectively when the panel is laid on the brackets.

According to another feature of the invention each bracket may be provided at its outer end with an upstanding lug to constitute an abutment for the outer edge of the panel, with or without a resilient packing interposed between the panel and the lug, and with or without means for maintaining said packing in compression.

When a louver according to the present invention is provided with a glass panel, the upper edge may be mounted in a metal channel which is secured to the window frame, and is so positioned as to press the panel against the resilient packing aforesaid at the outer end of the brackets.

According to a further feature of the invention, the bracket or the channel is provided with a recess to accommodate a part of the channel or of the bracket respectively, and this recess is preferably used also to locate the channel and the panel in the desired position on the bracket.

According to yet another feature of this invention, there is provided a gutter which extends lengthwise of the panel.

There will now be described with reference to the accompanying drawings, a particular construction of ventilating louver embodying the above-mentioned principal features of the invention, and also certain other novel details, it being understood, however, that this description is given merely by way of an example of the present invention.

In the drawings:—

Figure 1 is an elevation of two adjacent louvers mounted on the side of a vehicle with certain parts broken away,

Figure 2 is a section through a panel on the line 2—2 of Figure 1,

Figure 3 is a section through a bracket on the line 3—3 of Figure 1,

Figure 4 is a perspective view of a bracket,

Figure 5 is a section similar to Figure 2 of a modification, and

Figure 6 is an elevation partly in section showing a louver applied to a door.

Like reference numerals indicate like parts in the various figures of the drawings.

In fitting the ventilating louvers to the vertically-sliding windows of a vehicle, such as a saloon charàbanc, a separate louver is preferably provided for each window. Figure 1 shows a construction for two windows arranged side by side, but the windows are omitted for clearness. At the top of the window-frame, brackets are secured on the cant-rail 10 and the pillars 11. These brackets, preferably, take the form of sheet metal stampings of steel, so as to ensure adequate strength with economy in manufacture.

The bracket 12 which is situated between the two windows is of rectangular channel section, see especially Figure 4, with a flange 13 directed outwardly from each lip of the channel. At the upper end of the bracket, the depth of the channel is progressively de-

creased as shown at 14 and the flanges 13 are inclined to the general plane of the body part of the channel. The sloping portion 14 of the base of the channel merges into a portion 15 which lies in the same plane as the inclined portions of the flanges, and said inclined portions are secured to the cant-rail 10 by screws 16 so that the bracket is inclined outwardly away from the cant-rail at a suitable angle, say 15°–20°, as shown in Figure 3. At the lower end of the bracket, the flanges 13 are extended beyond the channel portion and their end portions are turned up at right angles to the flanges to form lugs 17. These upturned lugs are about the same length as the depth of the channel. When this bracket is thus mounted on the cant-rail, the open side of the channel faces the side of the vehicle.

A further support for the bracket is provided by a screw 18 passing through it near its lower end and screwed into the pillar 11. A distance sleeve 19 surrounds the screw and constitutes an abutment against which the bracket is drawn by the screwing in of the said screw. Preferably, a recess 20 is formed in the base of the channel of such a shape as to engage the head of the screw 18 squarely when it is screwed in at right-angles to the plane of the pillar 11.

It will be seen that this bracket provides on each side of it a surface on the flange 13 on to which a panel 21 is laid, and a surface on the side wall 22 of the channel against which the edge of the panel 21 can abut. Also, the lug 17 provides an abutment for the lower edge of the panel, and there is provided on this abutment a resilient packing, such as a block of rubber 23, against which the panel is pressed so as to maintain the packing in compression.

A series of brackets of this type are provided for the various windows of the vehicle, and at the two ends the brackets are similar except that one flange 13 is omitted. One end bracket is shown at 24 in Figure 1.

The panels 21 are preferably of sheet glass, and the upper edge of each sheet is mounted in a metal holder which extends throughout the full length of the sheet, any suitable packing 25 being interposed as is usual. In the construction shown in Figures 1–3, the holder is formed in two separate parts 26, 27. The part 26 is shaped to provide a gutter 28 and one limb 29 of a channel to receive the upper edge of the glass panel and is secured to the cant-rail 10 by screws 43. The other part 27 is a metal strip which is pressed out to provide the other limb 30 of said channel and a projection 31 which enters a recess 32 in the part 26. The part 27 of the holder is screwed on to the cant-rail 10 by screws 33, and it will be appreciated that the location of this part determines the location of the part 26 and, therefore, of the lower edge of the panel which is pressed against the resilient packing 23. The part 26 of the channel is of such a length that it overlaps the brackets 12 but the part 27 is made in separate strips and recesses 34, see especially Figure 4, are provided in the flanges 13 of the brackets to accommodate the parts of the ends of said strips which lie in the same plane as the portion 15 of the bracket. These recesses serve to locate the holder and the panel in the desired position on the bracket when assembling the whole device. It will be seen that interlocking engagement is provided between the bracket and the holder and also between the two parts of the holder. Further after the brackets have been mounted in place the panel can be very easily inserted in them and, moreover, it can be readily detached and replaced as is sometimes required in the case of a glass panel being broken.

In order to secure the panel in position and to enhance the appearance of the whole device, cover-plates 35 which may be nickel-plated or otherwise made of pleasing appearance, can be secured to each bracket by a pair of screws 36 engaging the bracket. Any convenient locking means may be provided at the back of the base of the channel-portion of the bracket, such as a locking-plate 37 the upper edge of which is held in place by a lip 38 depressed out of the channel. The cover-plates 35 may be in the form of flat plates, in the case of double-sided brackets, although preferably they are provided with an overhanging lip 39 to conceal the lower end of the bracket. Similarly, the cover-plate for an end bracket, such as 24, may be provided with a side wall of triangular shape, as shown at 40 in Figure 6 and hereinafter referred to, to conceal the side of the bracket and close the gap between the bracket and the pillar 11.

Strips of packing 41 are arranged along the side edges of the panel 21, and between these strips and the strip 25 corner pieces 42 of packing are provided. In Figure 1, the packing is shown as projecting beyond the cover-plates 35. This has been done in order to show the packing clearly; generally the packing will be concealed.

In the modification illustrated in Figure 5, the upper end of the panel is received in a metal channel 44 which is made in one piece comprising the gutter 28 and the two limbs 29, 30. This channel is secured to the cant-rail 10 by screws similarly to the part 26 of the two-part channel illustrated in Figures 1–3, and it will be appreciated that suitably shaped recesses are provided in its rear wall to accommodate the upper ends of the brackets.

Figure 6 shows a device according to the invention applied to a door 45 of a vehicle. In this construction, the brackets 12 are shaped and fixed in position as hereinbefore

described with reference to Figures 1–4, and the upper end of the panel is mounted in a metal channel. The panel is held in position by a cover-plate 35 which is of ornamental appearance and has a triangular-shaped outer end wall 40 to conceal the side of the bracket.

An important advantage of the present invention is that no special shaping is required for the glass panels, since they are of a simple rectangular shape, and that in the event of it being desired to replace one of the panels this can be effected without disturbing any other panel, and without operating on any of the exposed ornamental covers of the device beyond the removal and replacement of such covers.

The invention is not restricted to the precise constructional details described as they can be varied without departing from the invention as defined by the appended claims.

I claim:

1. In a ventilating louver of the kind described, the combination of a panel, two supporting brackets therefor which are adapted to be secured on opposite sides of a window-frame and which have surfaces on each bracket arranged to be engaged by a face and an edge of the panel respectively when the panel is laid on the brackets, a lug on the outer end of each bracket arranged to constitute an abutment for the outer longitudinal edge of the panel, a resilient packing interposed between the panel and said lug, and a holder made of substantially non-resilient material which is arranged to be secured to the window-frame and comprises a channel to receive the inner longitudinal edge of the panel, which holder is so positioned as to press the panel against the resilient packing aforesaid.

2. In a ventilating louver of the kind described, the combination of a panel, supporting brackets therefor, which panel and supporting brackets are independent of one another, and a separate holder for maintaining the panel in place but permitting ready removal thereof, which holder comprises a channel to receive one edge of the panel, said brackets and holder having interlocking parts which serve to locate the holder and the panel in the desired position on the brackets.

3. In a ventilating louver of the kind described, the combination of a panel, supporting brackets therefor, which panel and supporting brackets are independent of one another, and a saparate holder for maintaining the panel in place but permitting ready removal thereof, which holder comprises two channels whereof one is shaped to constitute a gutter extending lengthwise of the panel and the other to receive one edge of the panel.

4. In a ventilating louver of the kind described, the combination of a panel, supporting brackets therefor, which panel and supporting brackets are independent of one another, and a separate holder for maintaining the panel in place but permitting ready removal thereof, which holder is arranged to be secured to a window-frame and is formed by two separate parts whereof one part is shaped to form a gutter and to provide one side limb of a channel in which an edge of the panel is received and the other part is shaped to provide the other limb of the channel and has a projection arranged to enter a recess in the first-mentioned part for locating purposes.

5. A ventilating louver of the kind described, comprising in combination a glass panel, two supporting brackets therefor in the form of sheet metal stampings, a holder formed with a channel to receive an edge of the panel, and cover-plates detachably mounted on said brackets for the purpose set forth.

6. A ventilating louver of the kind described, comprising in combination a glass panel, two sheet metal supporting brackets therefor each having a lug to constitute an abutment for the lower longitudinal edge of the panel and a surface on which the panel rests, a two-part holder whereof one part is shaped to provide a gutter extending lengthwise of the panel and the other part has interlocking engagement with the brackets and with the first-mentioned part, which parts are also shaped so that when assembled they provide a channel to receive the inner longitudinal edge of the panel, and a cover-plate secured to each bracket.

7. The combination in a ventilating louver of the kind described of a glass panel, two brackets each of which has a bottom wall and a side wall arranged so that the panel can be laid on said bottom walls from the front of the louver between the said side walls of the brackets, an abutment on each bracket for the outer longitudinal edge of the panel, a separate resilient packing interposed between the panel and said abutment, and a metal channel in which the opposite longitudinal edge of the glass panel is received, which metal channel is secured to the window frame in such a position as to press the panel against said resilient packing.

8. In a ventilating louver of the kind described, the combination of a panel, a supporting bracket therefor which is situated at one end of the panel and is spaced away from the window frame so that a gap is left between the end of the panel and the front face of the window, and a cover mounted on said bracket and provided with a side wall to close said gap, for the purpose specified.

9. The combination in a ventilating louver of the kind described of two support brackets spaced apart and attached to the window frame at their upper ends, which brackets extend outwards and downwards away from

the frame below their attachment to it, a support for each bracket adjacent to its lower and outer end whereby said bracket is attached to the window frame and spaced away from the frame, a rectangular panel laid between the two brackets, a bottom wall along the length of each bracket, which bottom walls underlie the panel adjacent to the two opposed side edges thereof, a side wall on each bracket for preventing movement of the panel between the brackets, means for clamping the panel down against the bottom walls of the brackets, said means comprising cover plates removably attached one to each bracket and overlying the panel adjacent to the two opposed side edges thereof, a holder attached to the window frame and engaging the upper longitudinal edge of the panel, and lugs on the brackets engaging the bottom longitudinal edge of the panel.

In testimony whereof I affix my signature.

ARTHUR WATKINSON.