March 3, 1942. N. C. CLARK ET AL 2,274,824

WINDOW VENTILATOR WING

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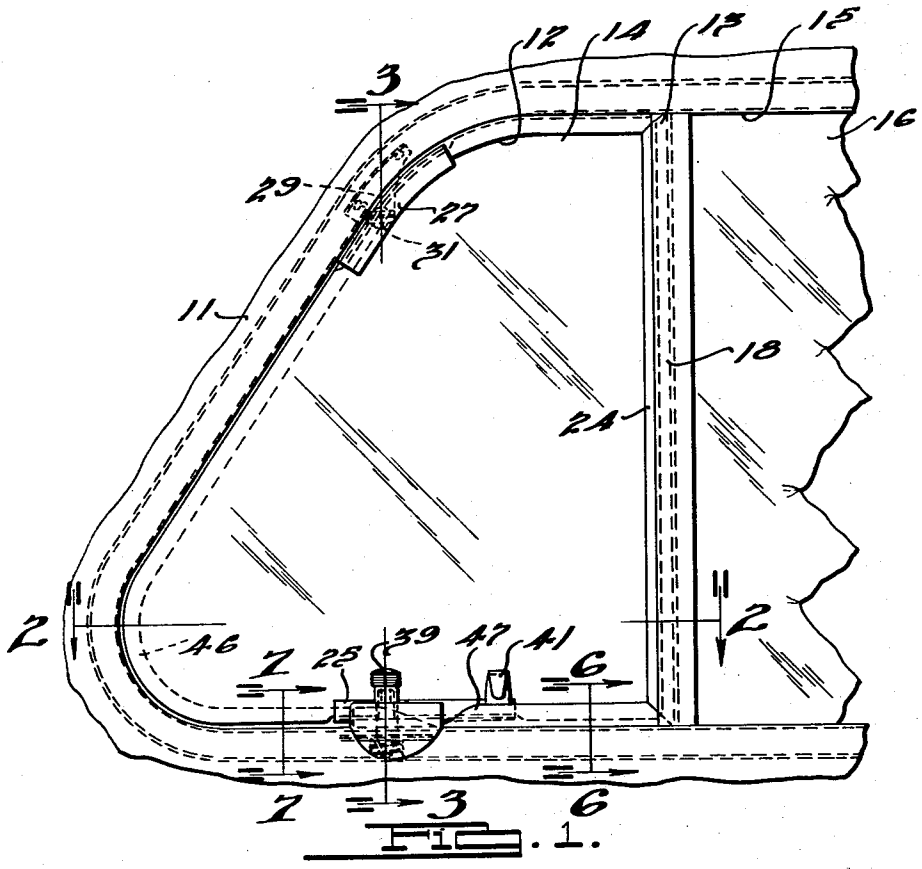


FIG. 1.

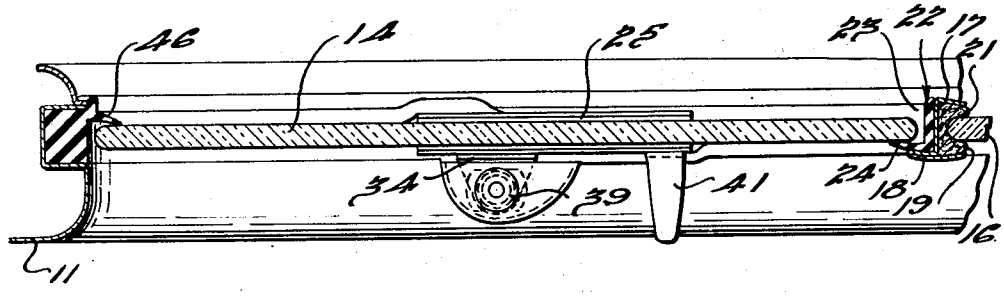


FIG. 2.

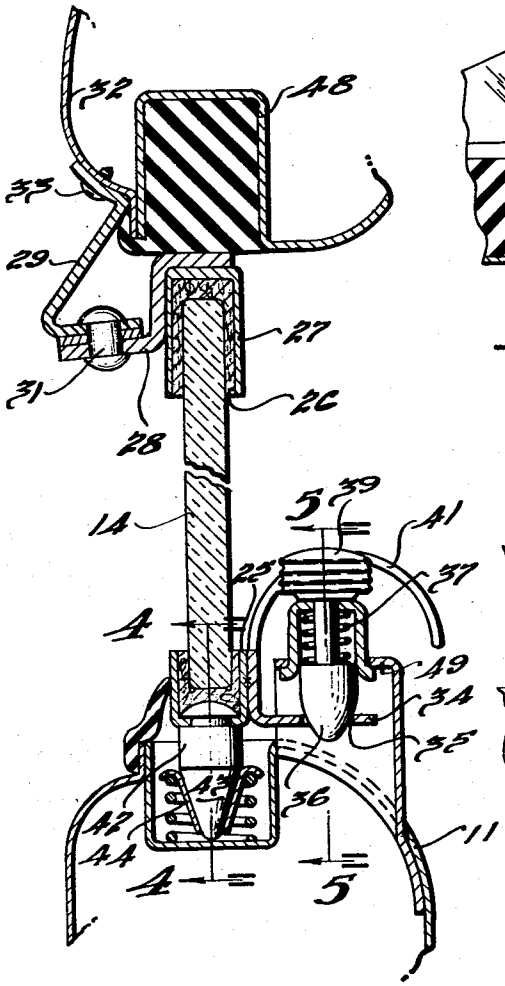
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Fig. 3.



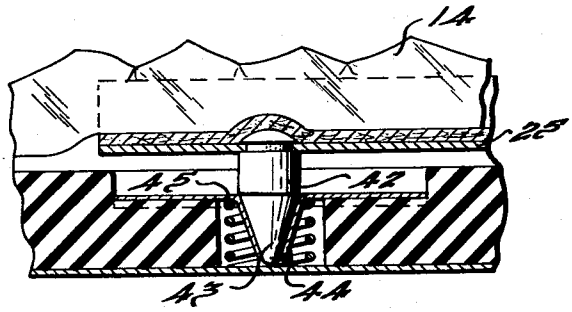


Fig. 4.

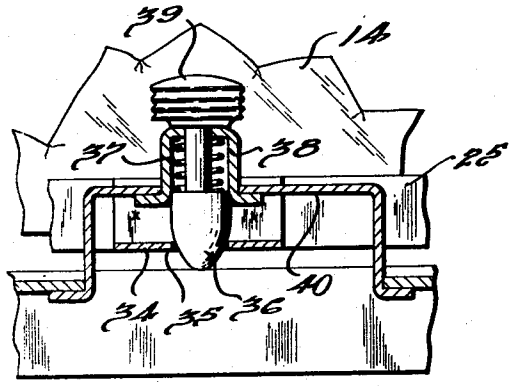


Fig. 5.

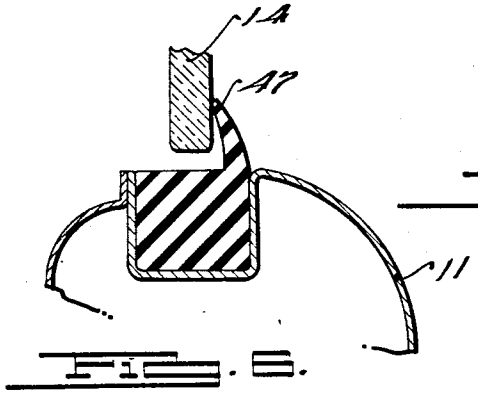


Fig. 6.

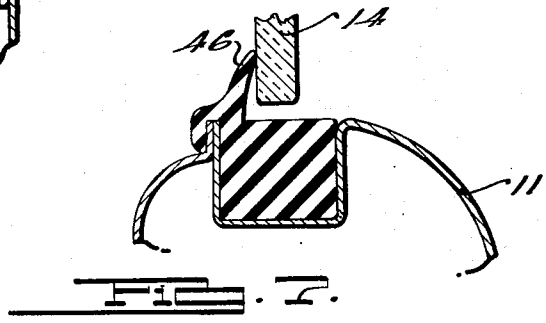


Fig. 7.

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WINDOW VENTILATOR WING

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Application November 23, 1938, Serial No. 241,918

2 Claims. (Cl. 296—44)

Our invention relates to closures for openings, and particularly to a ventilating wing for a window opening, employed alone or in combination with an adjacent window, having plane edges except for the attachment of pivots on which the wing is adjusted.

Heretofore in the art, to provide bearing supports for a ventilating wing it has been the practice to employ a frame about the wing edge to provide strength and to support the pivots on which the wing may be operated. In view of the exposed condition of the wing, the finish on the frame became rusted and unsightly, and the frame reduced the amount of visibility to be had through the opening when in open or closed position.

In practicing our invention, we provide a wing or closure for an opening which is moveable to ventilating position on supports which, while securing the wing for pivotal movement, maintain the edge of the wing free from frame structure. Additional area of visibility is provided through the opening by the omission of the frame when the closure is in either open or closed position. A channel element is employed, secured to the wing edge, having a pivoted bracket thereon which is securable to the reveal portion of the body at the window opening. In aligned substantially vertical relation, a second channel element is utilized for supporting a pivot on the opposite side of the wing. This pivot is seated, preferably, in a spring pressed cup to facilitate assembly and to provide friction for retaining said wing in adjusted position. In addition to said frictional engagement a bracket is provided on the channel element which is intercepted by a spring pressed plunger for locking the wing in closed position. A handle is provided on the plunger to permit the occupant of the vehicle to unlatch the closure and adjust it to a desired open position. An arcuate strap is likewise provided on the channel element providing a handle by which the wing may be adjusted. The wing may be employed as a closure for a unit opening or may close that portion of an opening defined by a pillar which is preferably secured to the framework forming the opening. A second closure element aligned with the wing may be employed for completing the closure for the entire opening.

Accordingly, the main objects of our invention are to provide a wing for an opening having pivots directly attached to the wing by spaced elements secured to the wing; to secure short lengths of channel elements on a closure to provide spaced means for supporting pivots therefor; to provide a closure or wing of glass having unconfined edges except for pivot supporting elements which are secured to the marginal edge of the glass at opposite sides thereof; to provide a closure for an opening embodying two elements, one movable in a vertical direction while the other is pivoted in a vertical plane with both sealed to a common element dividing the opening; to provide a closure for an opening having channel elements secured thereto on opposite sides thereof to which pivots, an operating handle, and a latch are secured; and in general, to provide a ventilating wing for an opening which is simple in construction and economical of manufacture.

Other objects and features of novelty of our invention will be either specifically pointed out, or will become apparent when referring, for a better understanding of our invention to the following description taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a broken view of an opening in an element having closure wings therefor embodying features of our invention;

Fig. 2 is an enlarged sectional view of structure illustrated in Fig. 1, taken on the line 2—2 thereof;

Fig. 3 is an enlarged broken sectional view of the structure illustrated in Fig. 1, taken on the line 3—3 thereof;

Fig. 4 is a sectional view of the structure illustrated in Fig. 3, taken on the line 4—4 thereof;

Fig. 5 is a sectional view of structure illustrated in Fig. 3, taken on the line 5—5 thereof;

Fig. 6 is an enlarged sectional view of the structure illustrated in Fig. 1, taken on the line 6—6 thereof; and

Fig. 7 is an enlarged sectional view of the structure illustrated in Fig. 1, taken on the line 7—7 thereof.

In Fig. 1, we have illustrated a body 11, the panel of which forms the marginal edge about an opening 12. The opening 12 may be that for a vehicle door and may be divided by a pillar 13 forming a forward opening for a ventilating wing 14 and an opening 15 rearwardly thereof in which a window pane 16 is slideably mounted. The pillar 13 forms a guide and sealing element for the forward edge of the window glass 16 and also the support for a sealing element for the rear edge of the ventilating wing 14.

The pillar 13 may be formed from a sheet of metal bent at 17 in the shape of a Z having a reversely bent web 18 which forms therewith a

channel 19 in which a guide element 21 of rubber, fiber or other material is secured for encompassing the edge of the window glass 16. The opposite side of the pillar 13 from the channel 19 is of L shape, having a rubber sealing element 22 secured thereto embodying a base portion 23 and a lip or sealing portion 24. The strip 22 extends entirely around the marginal edge of the opening 12 and is preferably a unit element, the cross section of which varies on different sides and points along the marginal edge of the opening.

The wing 14 at its lower side has an upwardly presented channel element 25 having securing and cushioning material 26 disposed between the glass pane forming the wing and the channel element. A downwardly presented channel element 27 is disposed on the opposite side of the window to that of the first channel element and likewise has material 26 between the wing and channel. The channel 27 is provided with a Z shaped bracket 28 which is pivotally attached to a Z shaped bracket 29 by a pivot 31. The opposite flange of the bracket 29 is secured to the reveal portion 32 of the body by screws 33.

The upwardly presented channel 25 has an L shaped bracket 34 welded or otherwise secured to the side thereof providing an extended web having an opening 35 therein in which a spring pressed finger 36 is urged by a spring 37. The spring is encased in a housing 38 supported by a channel shaped element 40 secured above the door opening. A handle 39 provides means whereby the plunger 36 may be axially moved upwardly to release it from the aperture 35 in the element 34, to permit the ventilating wing to be manually positioned. An inwardly projecting arcuate element 41 provides means for manually controlling the position of the wing 14.

The channel 25 has projecting therefrom in the plane of the wing 14 a rivet 42, having a conical end 43. The conical end of the rivet rests within a conical shaped cup 44 which is supported on a spring 45 which urges the cup upwardly on the rivet to provide a degree of friction to resist the operation of the wing in the opening. The cup and pin relationship permits the ready assembly of the wing within the opening as it merely requires the insertion of the rivet 43 into the cup 44 and the attachment of the screws 33.

The unit sealing strip 22 surrounds the marginal edge of the opening and since the wing is moved to open position in an outer direction, that portion of the strip forwardly of the pivots 31 and 43 is provided with a lip 46 on the outside of the strip. Rearwardly of the pivots 31 and 43 the unit strip 22 is provided with a lip 47 on the inside of the opening. The lips 46 and 47 effectively seal the wing 14 against the entrance of wind and rain when closed and permits the outward movement of that portion of the wing which is rearward of the pivots. The body 23 of the strip 22 along the pillar 13 is thin while that within an inwardly presented channel 48 is much larger in cross-section.

A closure is provided having a free edge, giving greater vision through the opening, and having pivots which are attached to its edges. The pivots permit the free swinging of the closure except for the resistance to movement offered by one of the pivots having a conical end resting in a spring pressed conical cup. When it is desired to open the closure, the handle 39 is raised upwardly to release the plunger 36 from the aperture 35 and the element 34, and by grasping the handle 41, the window may be moved to any desired ventilating position.

While we have described and illustrated but a single embodiment of our invention, it will be apparent to those skilled in the art that various changes, omissions, additions and substitutions may be made therein without departing from the spirit and scope of our invention, as set forth in the accompanying claims.

What is claimed is:

1. In a vehicle body or door having an opening, a transparent closure for said opening, a sealing strip carried by the marginal edge of said opening, spaced channel elements sealed to said closure having pivotal connection to said marginal edge for pivotally supporting said closure, one of said channel elements having a flange with an aperture therein, and a spring pressed plunger on said body or door projectible in the aperture of said flange when the closure engages said sealing element.

2. In a vehicle body or door having an opening, a transparent closure for said opening, a sealing strip carried by the marginal edge of said opening, spaced channel elements sealed to said closure having pivotal connection to said marginal edge for pivotally supporting said closure, one of said channel elements having a flange with an aperture therein, a spring pressed plunger on said body or door projectible in the aperture of said flange when the closure engages said sealing element, and a handle secured to said one channel by which said closure is adjusted.

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