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W. D. BAYLEY

2,202,685

WINDOW

Filed Aug. 23, 1937

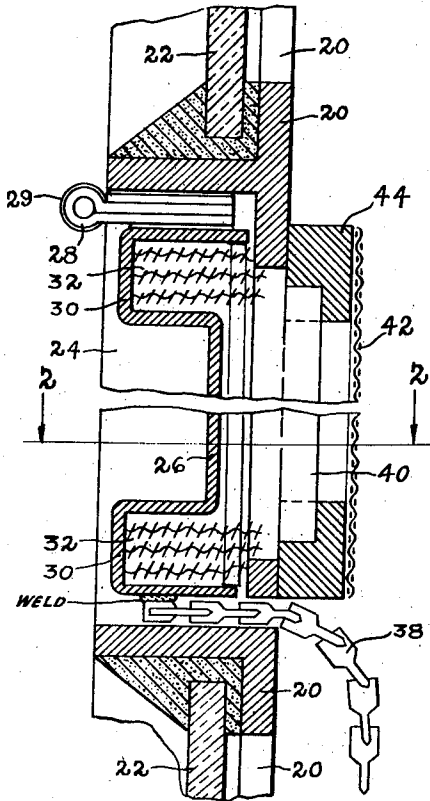


Fig. 1

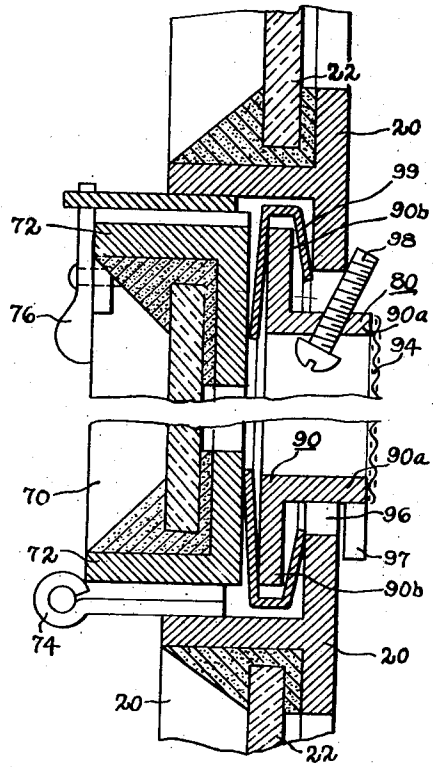


Fig. 2

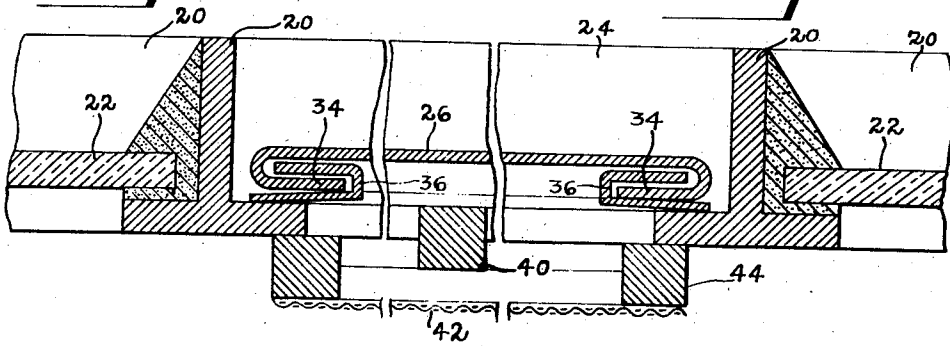


Fig. 3

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WINDOW

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7 Claims. (Cl. 189-64)

This invention relates to windows and in more particular to the closure assemblies for the ventilating areas in windows.

This is a continuation-in-part of my copending application Serial No. 129,669 filed March 8, 1937, for Window.

An object of this invention is to provide a closure provided with a flexible contact engaging the frame surrounding the closure.

Another object of this invention is to provide a closure for ventilating areas of windows that is cheap, efficient, durable and dependable, that makes good contact so as to protect the interior of the building from the elements.

Another object of this invention is to provide a unitary structure for the closure and its screen that may be inserted as a unit into the ventilating area.

Another object of this invention is to provide a composite frame for a window wherein parts are molded from plastic molding material.

Other objects and advantages reside in the construction of parts, the combination thereof and the mode of operation, as will become more apparent from the following description.

In the drawing,

Fig. 1 shows a vertical sectional view of the preferred embodiment.

Fig. 2 is a sectional view taken substantially on the line 2-2 of Fig. 1.

Fig. 3 is a vertical sectional view of a modification.

Referring to the drawing, a plurality of transversely disposed T-shaped duo-functional muntin and detention bars 20 divide the window into a plurality of spaces, some of which are provided with window panes 22, leaving a group of spaces 24 vacant as a ventilating area. In order to protect occupants of the building during inclement weather it is desirable to provide a suitable closure for the ventilating area 24. The closure includes a sheet metal member 26 pivotally attached by hinges 28 to the muntin bar extending across the top of the ventilating area. The top and bottom portions of the sheet metal member 26 are provided with channels 30 preferably integral with the body portion 26. The channels 30 house sealing material 32, such as felt or the like. The felt is adapted to abut the inwardly projecting flanges of the muntin bars bounding the top and the bottom of the ventilating area.

The sides of the closure 26 are preferably provided with reentrant flanges 34 adapted to grip a metallic weather stripping member 36 substantially U-shaped in cross sectional area. One leg

of each of the weather stripping members 36 is mounted in the bight formed between the main body portion 26 and the reentrant flange 34, and clamped therein. The other leg of each of the weather stripping members forms a flexible contact intermediate the closure and the inwardly projecting flanges of the vertically disposed muntin bars bounding the ventilating area. From the foregoing description it can be readily seen that the closure is mounted within the confines of the muntin bars, the main body portion 26 being in substantial alignment with the glazing 22.

Although the main body portion 26 has been described as consisting of sheet metal, it may consist of a sheet of translucent or transparent material molded from a suitable plastic molding material, such as nitrocellulose or phenolic condensation products.

The closure is adjusted and held in closed position by a chain 38, which may be locked or held taut in any suitable manner. As it is not feasible to have the muntin bars 20 extend continuously across the ventilating area, suitable detention bars 40 are utilized to prevent escape of bodies through the closure. In order to prevent the passing of small bodies and in order to provide protection against insects, a screen 42 fixedly attached to a metallic frame 44 is mounted over the ventilating area in contact with the flanges of the muntin bars 20 bounding the ventilating area. For some installations the screen frame 44 and the detention bars 40 may be fixedly attached to each other.

Referring to the modification disclosed in Fig. 3, the closure and screen assembly have been mounted so as to be partially enclosed by the stems of the muntin bars 20. In this modification the movable closure 70 includes a frame made either from metal or from suitable molding material. Said frame includes members 72 substantially L-shaped in cross sectional area. The closure 70 is pivotally attached by hinges 74, only one of which is shown, to the web of the muntin bar 20 extending across the bottom of the ventilating area. The closure is held in closed position by a suitable latch 76.

The closure assembly 80, which has been shown as a screen, projects through the ventilating area. The screen frame 90 is formed from angle bars made either from metal or from a plastic molding material. These angle bars have the flanges 90a projecting through the ventilating area and supporting the screen 94 suitably attached thereto. An abutment or snubber 96 attached to the lower flange 90a holds the screen frame at a proper

height. A stop 97 is arranged in hooked relation with the flange of the detention bar 20 to prevent the screen frame from bodily removal inwardly. The upper flange 90a is held in position by a

5 diagonally arranged screw 98.
Flexible metallic members 99 are arranged in hooked relation over the outwardly projecting flanges 90b of the angle bars 90 forming the frame for the screen. The flexible members 99
10 are clamped between the inwardly projecting flanges of the muntin bars 20 bounding the ventilating area and the movable frame of the closure, so as to provide a double contact between the exterior of the window and the closure, that is, one contact between the inwardly projecting
15 flanges of the detention bars and the other contact with the frame of the movable closure.

A spring 29, which may be a coil spring, tends to bias the closure 26 into open position, so that
20 when the chain 38 is released from the inside of the building the closure 26 automatically moves into open position.

Although the preferred modification of the device has been described, it will be understood
25 that within the purview of this invention various changes may be made in the form, details, proportion and arrangement of parts, which generally stated consist in a device capable of carrying out the objects set forth, in the novel parts, combination of parts and mode of operation, as
30 disclosed and defined in the appended claims.

Having thus described my invention, I claim:

1. A window assembly including a sash having a plurality of transversely disposed muntin bars
35 dividing the window into a plurality of spaces some of which are glazed leaving a space vacant for ventilating area, a closure assembly for the ventilating area, said closure assembly including a movably mounted closure having flanges extending in parallel relation with respect to the
40 glazing, and U-shaped weather stripping members arranged in hooked relation with respect to the flanges of the movable closure and movable therewith so that as the movable closure is moved
45 into closed position the weather stripping members are clamped between a portion of the movable closure and the muntin bars bounding the ventilating area.

2. A window assembly including a sash having
50 a plurality of transversely disposed muntin bars dividing the window into a plurality of spaces some of which are glazed leaving a space vacant for ventilating area, a closure assembly for the ventilating area, said closure assembly including
55 a movable closure having a pair of reentrant flanges extending in a direction substantially parallel to the glazing, and U-shaped weather stripping members arranged in hooked relation with respect to the reentrant flanges, one leg of the weather stripping members being biased by
60 the closure, the other leg being biased by the muntin bars bounding the ventilating area when the closure is in closed position.

3. A closure assembly for a ventilating area
65 having a frame bounding the same, said frame having contacting surfaces, said closure assembly

including a closure removably mounted and provided with reentrant flanges extending in parallel relation with respect to the plane of the ventilating area, and U-shaped members arranged in hooked relation with respect to the
5 reentrant flanges, said U-shaped members contacting the contacting surfaces of the frame bounding the ventilating area to provide a seal when the closure is adjusted into closed position.

4. A window assembly including a plurality of
10 transversely disposed T-shaped muntin bars dividing the window into a plurality of spaces, some of which are glazed leaving at least one space vacant for a ventilating area, the flanges of the T-shaped bars cooperating with the webs to form
15 glazing rabbets for the glazed window spaces, a closure assembly for the ventilating area, said closure assembly including a sheet metal closure movably mounted between the webs of the muntin bars bounding the ventilating area, said
20 sheet metal closure terminating in a reentrant flange cooperating with the main body of the closure to form a U-shaped bight, and a sheet metal weather stripping member clamped in said bight for contact with the flanges of the muntin
25 bars extending into the ventilating area to seal the same when the closure is in closed position.

5. In a window having a frame bounding a ventilating area, a closure assembly for the ventilating area including a movably mounted sheet
30 metal closure terminating on at least one side thereof in a reentrant flange cooperating with the main body of the sheet metal closure to form a substantially U-shaped bight and a flexible sheet metal weather stripping member clamped
35 by the bight and adapted to engage the frame bounding the closure so as to seal the ventilating area when the closure is in closed position.

6. In a window having a frame bounding a ventilating area, a closure assembly for the ventilating
40 area including a movably mounted closure terminating on at least one side thereof in a reentrant flange cooperating with the main body of the closure to form a substantially U-shaped bight and a flexible U-shaped weather stripping
45 member having one leg clamped between the flange and the main body portion of the closure, said weather stripping member being adapted to engage the frame bounding the closure so as to seal the ventilating area when the closure is in
50 closed position.

7. In a window having a frame bounding a ventilating area, a closure assembly for the ventilating area including a movably mounted closure formed from sheet material provided with a
55 flange extending along at least one side thereof, said flange cooperating with the main body portion of the closure to form a bight, and a flexible weather stripping member having a portion thereof fixedly clamped between said flange and
60 the main body portion of the closure, said weather stripping member being adapted to engage the frame bounding the ventilating area when the closure is in closed position.

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