This invention relates to weather stripping particulars for railway cars and bus windows, and especially a transverse weather strip for sealing the joint between the frame and the top rail of a sash that is capable of being raised and lowered when the sash is closed, and has for its object, a weather strip construction which can be readily applied to standard window or car frames, and located in such position that the weather strip member can flex in one direction, or the other, in accordance with the movement of the sash without becoming wedged between the top rail of the sash and the transverse member of the window frame, or car structure.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a vertical, sectional, view through the top railing, weather stripping, and the contiguous portion of the window frame.

Figure 2 is a fragmentary view, similar to Figure 1, illustrating the action of the weather strip when the sash is raised.

Figure 3 is a fragmentary plan view of the weather strip, the contiguous portion of the top rail of the sash being also shown.

Figure 4 is a fragmentary, sectional view through one of the lower corners of the sash illustrating the wedging action of the sash holder on the sash to push it toward the outer stop.

1 designates the window frame, and 2 the sash, which is capable of being raised and lowered in sash guides provided on the frame in any suitable manner.

The sash is provided with the usual sash holders 3, which hold the sash in closed position, or in different elevations, and which serve to thrust the sash bodily outwardly toward the outer window stop, and toward the weather stripping forming the subject matter of this application. The mounting of the sash and the action of the sash holders and compression devices thrusting the sash bodily outwardly toward the outer window stop per se, forms no part of this invention, and is well understood by those skilled in the art.

4 designates the upper transverse member of the window frame, which when the sash is closed is opposed to and extends close to the outer face of the top rail of the sash with a relatively small clearance at 5 between it and the top rail, this clearance varying more or less but being insufficient to permit a weather strip to pass freely into and out of the same. Herefore, the weather strips often became jammed in this clearance, damaging the strip, and making the sash hard to operate.

The car or window frames, or the portions thereof, are also provided, by the car builders, with openings at 6 to receive fastening members or screws by which the weather stripping has heretofore been secured to the lower faces of the members 4, in which position they become jammed in the clearance 5.

The object of this invention is a weather stripping and mounting therefor by which it can be applied to the standard car construction that is, to the member 4, and the openings 6 utilized to secure the weather strips in position and also, permit the adjustment thereof so that they will not jam or rub on the sashes. The holes 8 vary in location slightly, within limits, in different car structures and these holes are not exactly the same in any two car structures, or in any two windows of the same car structure, that is, they are not precisely or accurately located.

This weather stripping comprises a weather strip member 10, a mounting therefor providing a space at 11 into which the weather strip member is free to deflect, without jamming, when the sash is raised, and a backing 12 for the weather strip for limiting the deflection thereof downwardly when the sash is lowered.

13 designates the mounting which is here shown in the form of a channel arranged with its open side toward the lower face 14 of the member 4.

15 designates the backing of sheet metal, this being angular in cross section, having one flange 16 lapping the outer side of the channel 13, and another flange opposed to the lower face of the channel 13 and forming therewith a channel in which the base of the weather strip member is located, which channel opens upwardly toward the top rail. The latter flange is provided with the part 17 for limiting the deflection of the strip.

The weather strip member itself is in the form 100 of a strip of flexible resilient material, as rubber, or similar material folded upon itself along a line extending lengthwise thereof to provide a base and a head, or loop, 17 for wiping on the sash, the base or body part of the strip being located in the channel. The parts of the weather strip and the mounting are held together by rivets 18 and are secured to the member 4 by means of screws 19 extending through the backing, the base of the weather strip member, and through

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the channel of the mounting 13, and threading into the openings 6. The mounting 13, weather strip member, and backing 15, are provided with aligned slots as at 20 for receiving the screws, these slots permitting an accurate location of the mounting regardless of variations in the location of the various holes 6, and bodily adjustment of the weather strip member 10, backing 15, and mounting 13, as a unit to locate the weather strip member 10 in wiping contact with the sash. The usual weather strip member extending along the upper edge of the top rail of the sash may be used, if desired.

By reason of this weather stripping and its mounting, the weather stripping can be applied to standard window or car frames, and the clearances 11 provided for the head or flexible portion of the weather strip which wipes on the sash, and at the same time, the mounting accurately located so that the weather strip member coacts most efficiently with the sash.

What I claim is:
1. The combination with a window frame and a sash movable in the frame including a member extending crosswise of the top of the rail of the sash, when the sash is closed, and terminating close thereto, said member having holes extending through its lower face; of a weather strip comprising a member having a flexible wiper portion for wiping on the sash and deflectable in opposite directions in accordance with the direction of movement of the sash, a support therefor for spacing the same from the frame member and providing a clearance between the sash and the support for the flexible portion of the weather strip when the same is deflected in one direction, and fastening screws extending through the support and threading into said holes.
2. The combination with a window frame and a sash movable in the frame; of a weather strip carried by the frame and extending transversely of the sash, the weather strip having a flexible wiper portion engaging the sash and arranged to flex in opposite directions in accordance with the direction of movement of the sash, means for supporting the weather strip from the frame and providing a clearance for the flexible portion of the strip between the sash and the frame, when the sash is moved in one direction and the flexible portion deflected in that direction, and the support having a flange extending toward the sash and extending at an inclined angle to the direction of movement of the sash and lapping one side of the wiping portion of the wiper for forming a backing therefor and limiting the deflection of the flexible portion of the wiper in the opposite direction, when the sash is moved in the opposite direction.

3. The combination with a window frame and a sash movable in the frame including a member extending crosswise of the top of the rail of the sash, when the sash is closed, and terminating close thereto, said member having holes extending through its lower face; of a weather strip comprising a member having a flexible wiper portion for wiping on the sash and deflectable in opposite directions in accordance with the direction of movement of the sash, a support therefor for spacing the same from the frame member and providing a clearance between the sash and the support for the flexible portion of the weather strip when the same is deflected in one direction, and fastening screws extending through the support and threading into said holes, the weather strip lapping the support and having transverse slots through which the screws extend, the slots permitting an edgewise adjustment of the weather strip relative to the support.

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