

July 23, 1929.

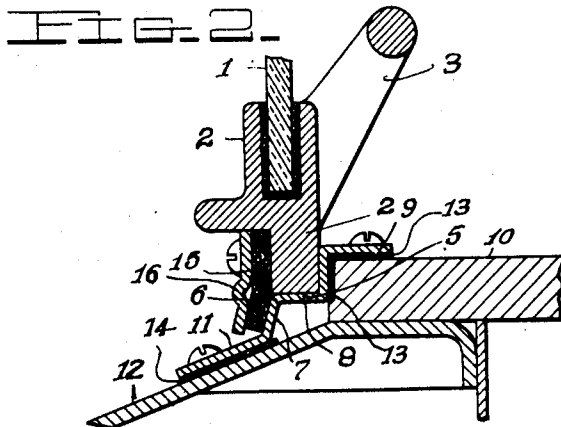
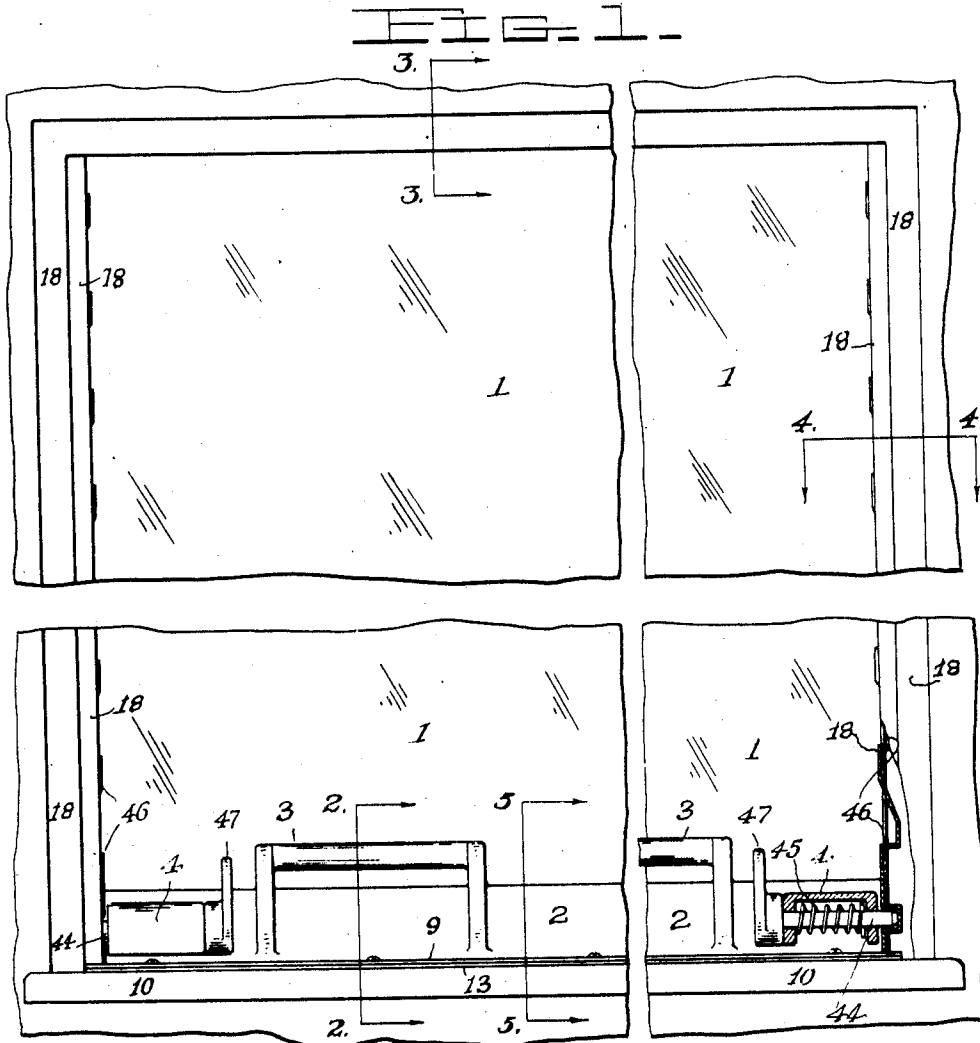
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1,721,828

RAILROAD CAR WINDOW CONSTRUCTION

Filed March 12, 1928

4 Sheets-Sheet 1



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RAILROAD CAR WINDOW CONSTRUCTION

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4 Sheets-Sheet 2

FIG. 3.

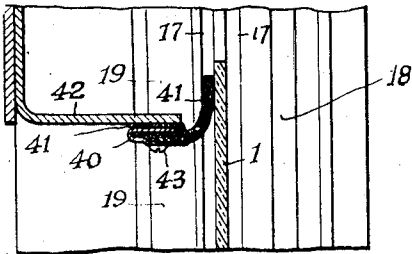


FIG. 4.

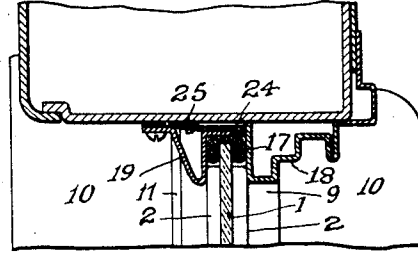


FIG. 5.

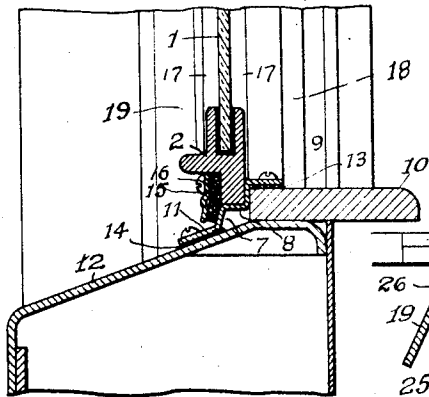
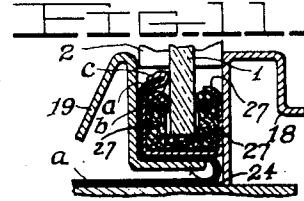
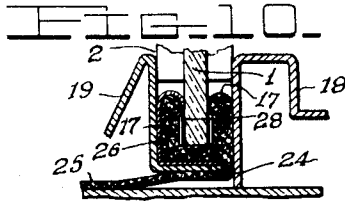
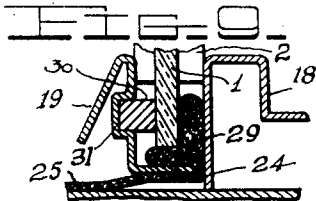
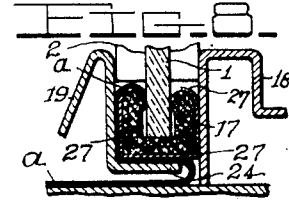
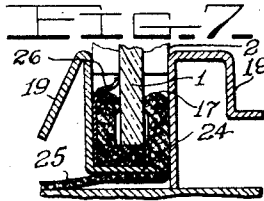
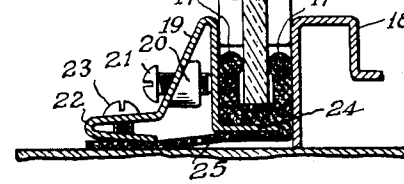


FIG. 6.



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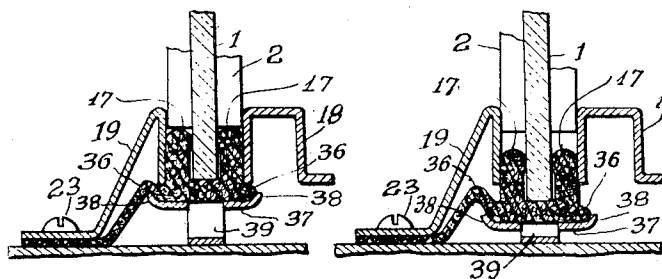
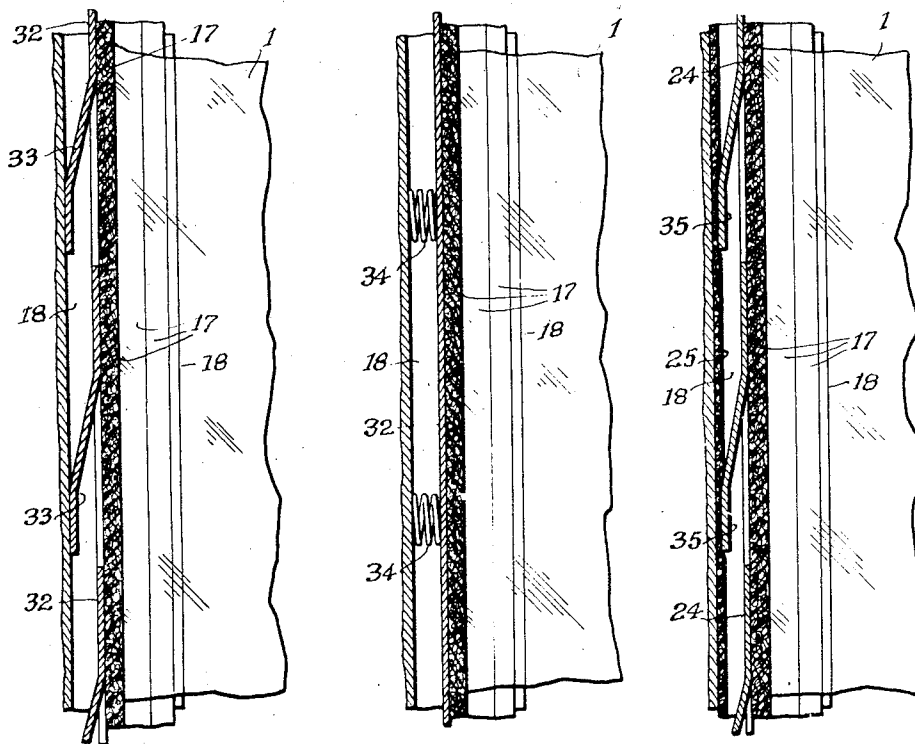
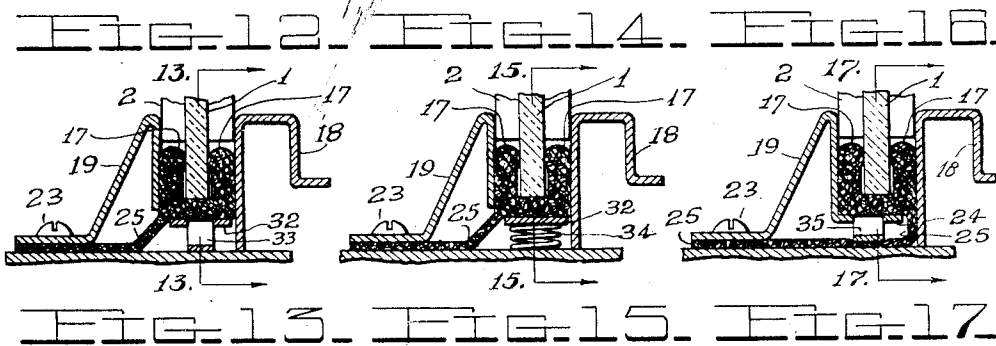
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RAILROAD CAR WINDOW CONSTRUCTION

Filed March 12, 1928

4 Sheets-Sheet 3



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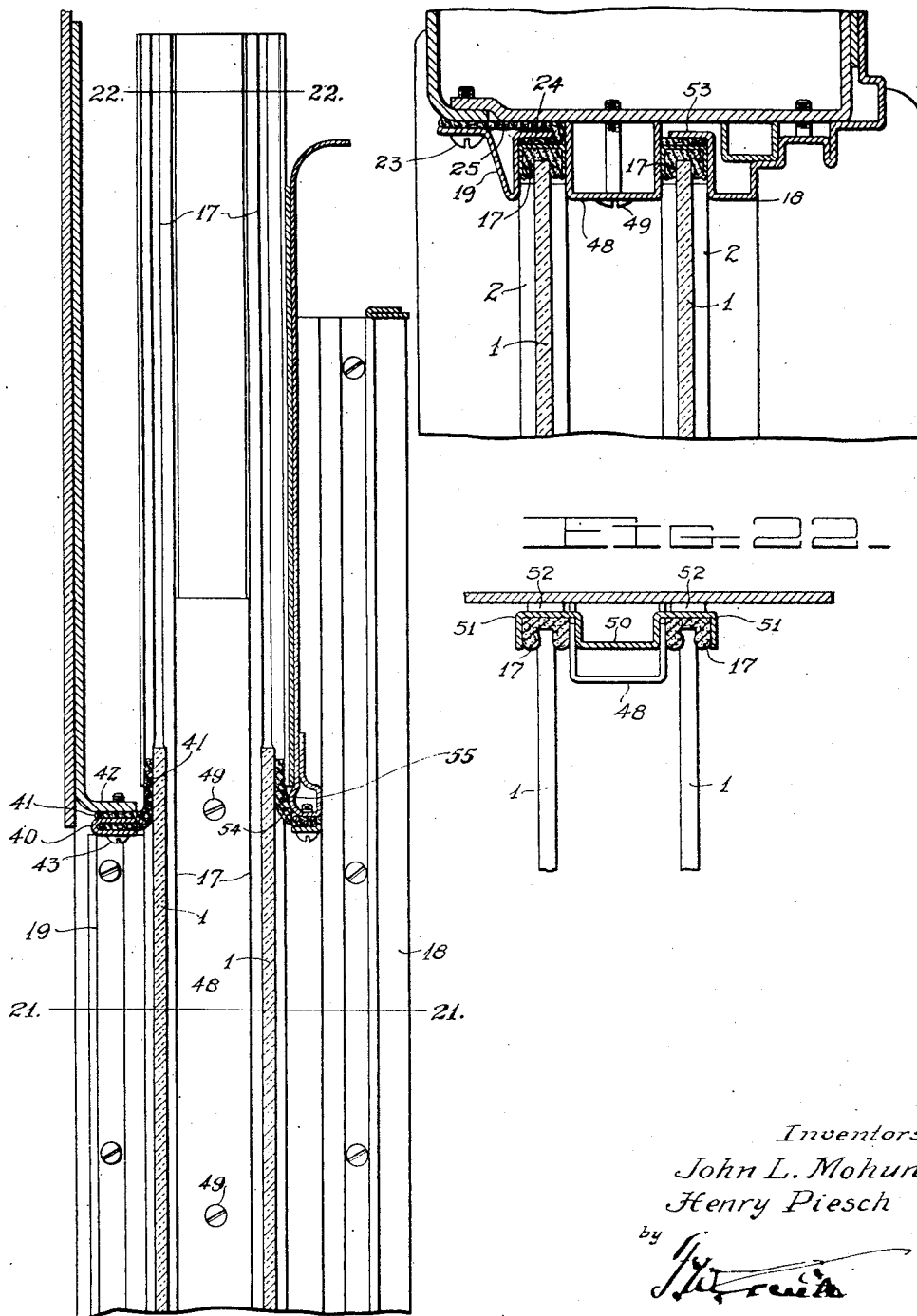
RAILROAD CAR WINDOW CONSTRUCTION

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FIG. 20.

FIG. 21.



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UNITED STATES PATENT OFFICE.

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RAILROAD-CAR-WINDOW CONSTRUCTION.

Application filed March 12, 1928. Serial No. 280,946.

Our invention relates to window construction generally, but more particularly has reference to such a construction as is especially adapted for installation in the modern steel passenger railway cars, and while the description to be herein given will be identified with such cars, it will be obvious that the invention is serviceable in the instance of wooden cars and steel buildings.

Car window constructions have heretofore been the subject of considerable discussion among railroad officials owing to the continued and increasing demands of the public that such constructions should conform to the following requirements:—

First. Such constructions should be absolutely weather and dust proof.

Second. The sashes should operate easily and without sticking or binding.

Third. The constructions should be free from squeaking or rattling.

Fourth. There should be a greater area of clear vision.

Fifth. There should be lift handles conveniently located with respect to the sash holders, and the manipulation of these members should be easy and self evident.

The present invention is devised to answer these requirements, and at the same time we have borne in mind that such invention can be readily manufactured and applied to the usual car construction, that the first and the maintenance cost shall be reasonable, that the use of anti-rattle compression springs is undesirable, and that the structure shall be such that repairs can be quickly and easily made in case of broken glass and failed parts.

Wooden sashes do not meet these requirements, since, if they are reasonably tight for dust proof purposes, they swell and stick fast, and if fitted loosely they rattle, and, since they have side rails that are necessarily wide, clear vision is interfered with.

Metal sashes have not heretofore been entirely satisfactory, since they are not weather and dust proof, they soon rattle, and, although they may not stick within the stops, they do bind and are frequently difficult of operation.

Our invention dispenses entirely with top and side rails for the glass pane, and the side edges of the latter track in soft channels

throughout the entire range of the movement of the sash, the latter is resiliently supported in all directions so as to withstand the weaving, twist and expansion of a steel car, and is dust and weather proof at sides, top and bottom.

A striking feature of the invention, and one that distinguishes from prior car window constructions, is, that not only is the window sash weather stripped at the top, bottom and sides, so that water or dirt cannot enter the car at any location in the window structure, but also every part of the outside of such structure is insulated from the portion of the latter that is within the car, and therefore noise from the outside is deadened, and the transmission of heat and cold from outside the car resisted.

The following detail description is to be read in connection with the accompanying drawings which show a preferred embodiment of the invention as applied to a steel railroad car, and in these drawings

Figure 1 is a front elevation, partly broken and sectioned, showing our improved window construction as it appears from the inside of a railway car.

Figure 2 is a detail broken section at the line 2—2 of Figure 1.

Figure 3 is a detail broken section at the line 3—3 of Figure 1.

Figure 4 is a detail broken section at the line 4—4 of Figure 1.

Figure 5 is a detail broken section at the line 5—5 of Figure 1.

Figures 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, and 19, are fragmentary cross sections through the inside and outside stops showing different ways in which the felt channels for the glass sash may be adapted for use.

Figures 13, 15, and 17, are respectively sections at the lines 13—13, 15—15, and 17—17 of Figures 12, 14, and 16.

Figure 20 is a broken and partly sectioned fragmentary view showing the adaptation of our invention to a double window construction.

Figure 21 is a section at the line 21—21 of Figure 20, and

Figure 22 is a section at the line 22—22 of Figure 20.

Similar numerals of reference will be used

to denote the same parts in the several figures of the drawing.

1 is the pane which may be of the best clear cylinder glass or of suitable plate, and 2 is the bottom rail which is secured to the lower edge of the glass pane in any suitable manner, this rail being preferably an aluminum alloy casting, with the lift handles 3 and the sash lock casings 4 cast integral therewith.

These lift handles and lock casings may, of course, be separate elements secured to the bottom rail by screws or the like, but when cast integral with the bottom rail they will not rattle, as would be the case in the event that they were separate elements and the screws or other fastenings worked loose.

The bottom of the rail is square so as to set flat on its sill seat 5, and the latter, immediately beyond the portion contacted by the rail when seated, has a step 6 whose riser 7 is slightly inclined outwardly.

The portion of the sill of the window against which the rail seats is a separate sheet metal stop denoted generally by the numeral 8, and this stop has a flat extension 9 which is secured to the main car sill 10 of the window, and an inclined portion 11 which is secured to the water shed 12 of the sill, and beneath the parts 9 and 11 are weather strippings 13, 14, so that it will be clear that dirt or water cannot pass between this stop 8 and the main sill portion of the window.

It will therefore be clear that the sill stop 8 is so constructed that the seat for the rail is horizontal and is above the sill slope 12, so as to protect an inside wooden sill against the direct flow of water, this, of course, being a safeguard in addition to the stripping 15.

To the outside lower edge of the rail 2 is affixed a weather strip 15 by means of a resilient metal clip 16 which is secured to the rail and exerts a pressure sidewise against the stripping 15, so that when the sash is lowered the stripping 15 will contact the riser 7 and adapt itself resiliently and closely to the same, whereby dirt or water cannot pass into the car beyond the rail, and the sash is given a cushion support so that the seat 5 is relieved of part of the weight of the sash, thus militating against the sticking of the sash to this seat 5.

It is preferable to make this stop 8 separate from the main sill so that this invention may be readily adapted to railroad cars at present existing, and for the further reason that it is much cheaper to do this than to make specially formed sills.

The side edges of the glass panel track are contained within channels 17 that are made of felt or any other suitable material and these channels are confined between the inside stops 18 and the outside stops 19, and the ends of the bottom rail 2 extend between said stops immediately beyond the channels,

so that any force applied to the rail would be sustained by the stops and not by the glass.

The manner in which these felt channels are secured is an important feature of this invention, and is particularly illustrated at Figures 4, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, and 19, and these illustrations and the particular objects of the features shown therein will now be referred to in detail.

Referring to all the figures, the inside stops 18 are rigid and are secured as usual to the sides of the window casing while the outside stops 19 preferably have a resilient action against the felt channels 17, which latter, it will be remembered, are confined between the two stops, and the object of the resiliency in these outside stops is to cause the sides of the channels 17 to bear firmly against the glass, so as to prevent any rattling or undue movement of the latter, and also to effect a tight joint between the sides of the felt channels and the stops for the exclusion of water or foreign matter.

This resiliency of the outside stops may be adjusted, as shown particularly at Figure 6, in which a hub 20 is brazed or otherwise secured to the inner wall of the stop while a screw 21 driven through this hub acts against the inner wall of the stop to press the same with more or less firmness against the felt channels, and the outer portion of the stop is doubled upon itself so as to form a spring loop 22 and the screws 23 which secure the stop to the outer wall of the window casing can be manipulated so as to normally position the inner wall of the stop outwardly or inwardly and from this inner wall at the bottom portion thereof extends a ledge 24 behind the back portions of the felt channels and nearly across the width thereof, which ledge yields resiliently so as to cause the felt channels to closely hug the side edges of the window pane, while adjustments of the outside stops by the manipulation of the screws 23 will stiffen the resilient pressure against the channels.

This Figure 6 construction merely shows a manner in which the outside stops may be adjusted but this is a minor feature since, as a rule, adjustments of this sort will be entirely unnecessary, and these outside stops are ordinarily so formed that they will bear resiliently against the outer sides of the felt channels, the outer edges of the stops being secured directly to the wall of the window casing with the intervention of a weather stripping 25 which extends directly from the bottom of the channels, which stripping effectively prevents any foreign matter or water from passing beneath the stops, or beyond the backs of the felt channels.

It will, of course, be understood that the inside stop may, if desired, bear against the inner side walls of the channels resiliently but it is not believed that this is at all necessary.

At Figure 7 is shown a construction in which a brass strip 26 is brazed or otherwise secured to the outside stop between the latter and the felt, this strip extending inwardly and bearing resiliently against the glass, for the purpose of assisting to steady the same and to afford an auxiliary waterproof weather stripping to protect the outside legs of the felt channels.

By securing these strips 26 to the outside stops, there is no real necessity for making these stops resilient, and, as a matter of fact, while it is preferred to make them resilient at all times, nevertheless, the invention would be well served if these stops were rigid and abutted firmly against the felt channels, and the invention is therefore not limited in this respect.

Felt will absorb moisture more or less, and, as the outer leg of the felt channels is the only part of the latter that is exposed to the elements, we have in mind to protect it by means of a waterproof material, and have exemplified this in connection with the construction shown at Figure 8, in which the felt channel is seated within a metal trough 27 whose sides embrace the channel and extend slightly over the free ends thereof so as to confine it in place, and this metal trough is supported by the ledge 24 that extends from the outside stop, and a strip *a* of cloth rubber cork tape is located between the glass and the outer leg of the channel and extends over said leg and between said trough and the outside stop, and also between the trough and the ledge 24, and thence outwardly between the window casing and said stop, so as to take the place of the strip 25.

In Figure 11 is shown a construction like that shown at Figure 8 with the exception that the outer side of the metal trough 27 is extended so as to form the lip *b* that bears resiliently against the pane of glass, for the same purpose as that defined with respect to the structure shown at Figure 7, the inner end of the tape *a* being housed within a curled part *c* of the lip *b*.

Referring to Figure 10 the construction shown therein is like that at Figure 7 with the exception that the extremity of the strip 26 instead of bearing against the glass is bent inwardly down to about the bottom of the felt channel as shown at 28, so as to bring it in contact with the glass, and shield the outer leg of said channel against the elements.

Referring to Figure 9 there is shown an L-shaped piece of felt 29 which bears against the side of the glass pane while a block 30 of suitable material preferably soft lead, is contained within a recess 31 in the inner wall of the outside stop and bears against the other side of the glass pane so that the latter is confined between felt and metal, and the weather stripping 25 extends from the felt as and for

the purpose hereinbefore specified, this block 30 also serving to shield the felt against the elements.

In some instances, it is advisable that the felt channels be backed by a special spring element, and, in fact, such a construction is desirable because it will further insure that the side edges of the glass will be resiliently contacted by the felt channels, and therefore, we have shown at Figures 12, 13, 14, 15, 16, 17, 18, and 19, constructions in which spring means is interposed between the rear of the felt channels and the window casing.

Referring to Figures 12 and 13, 32 is a strip of metal having lanced therefrom bow springs 33, which will contact the sides of the window casing while the felt channels contact the strip.

It will thus be seen that the function of this spring element is to force the channels inwardly, and this will cause them to contact the side edges of the glass so that the latter will be resiliently mounted so far as lateral movements are concerned, while the felt channels will always maintain their grasp throughout their entire depth.

At Figures 14 and 15, the structure shown is the same as that shown at Figure 12 with the exception that the strip 32, instead of having bow springs lanced therefrom, is backed by coil springs 34 that abut the window casing and function precisely like the bow springs above referred to.

In Figures 16 and 17, which show a construction of outside stop and felt channel like that shown at Figure 4, bow springs 35 are lanced out of the ledge 24, and the weather stripping extension 25 contacts the window casing while the bow springs 35 bear against this strip. Since the stop 19 is of a resilient nature, these bow springs 35 will act to force the felt channels inwardly against the edges of the glass.

The construction shown at Figure 18 shows the felt channel confined laterally between the stationary stop 18 and the resilient stop 19, but the back of the channel along the edges has ribs 36, and the channels abut against separate plates or strips 37 whose edges are slightly upturned, as shown at 38 so as to embrace these ribs, and from this plate 37 are lanced bow springs 39 which normally contact the sides of the window casing so as to force the felt channels inwardly against the side edges of the glass.

The construction shown at Figure 19 is identical with that shown at Figure 18 but it shows the plate 37 forced nearer the window casing as it would be if a wider pane of glass was inserted between the channels.

But the provision of a spring element in the rear of the channels, while functioning to permit the use of a wider pane of glass, nevertheless, has a more important object,

namely, to enable a glass pane of a standard width to be properly assembled within the felt channels, when the window openings slightly vary in width or are out of square.

5 The construction shown at Figure 18 exemplifies an instance where the window opening between the side casings is slightly wider than usual but this extra width is taken care of by the expansion of the bow springs 35 so as
10 to normally position the felt channels so that they will extend as far inwardly as they ordinarily would in the instance of window openings of normal width. It will be observed in connection with this Figure 18 that
15 the felt channels resiliently contact the edge of the glass.

At Figure 19 is shown the adaptation of the glass in the instance of window openings of what might be termed normal width or at
20 least openings whose width is less than that previously described with respect to Figure 18, and in this Figure 19 construction it will be observed that the bow springs are compressed as would naturally be the case in
25 adapting the structure to the narrower window openings but at the same time the channels will, of course, resiliently contact the edges of the glass.

In all instances the felt channels will maintain their grasp on the glass throughout their
30 entire depth.

The constructions heretofore described show means whereby the window sash is weather stripped at the bottom and at the
35 sides, but it is quite essential, that dirt or dust should not enter the car at the top of the window, and therefore we have shown at Figure 3 a metallic clip 40 within which is a heavy and resilient weather stripping 41.
40 This clip is secured directly to a part of the car structure, as, for instance, the head 42, by means of suitable screws 43, and a portion of the stripping extends between the clip and said head so that it will be clear that this metallic clip is insulated from the head, and the
45 main portion of the stripping 41 is bowed and firmly contacts the outer face of the glass 1 throughout its entire width, so that it will be clear that no water, dirt or other foreign
50 matter can enter the car at the top of the window, and, moreover, this stripping, being of a resilient nature, coacts with the outside resilient stops in causing the glass to be properly embraced by the felt channels, and to
55 steady the glass as the sash is raised.

In all instances it will be observed that the parts of this window construction that are located at the outside of the window are insulated from the rest of the window structure. For instance, the bottom rail 2 and its
60 sill 5 are insulated from the water shed 12 and the main sill 10 by the strippings 14, 13, the outside stops are insulated from the inside stops and from the side of the window casing by the felt channels themselves and

the extensions 25 therefrom, while the metal clip 40 is insulated from the head 42 in the manner above described.

It will therefore be clear that, as a result of this complete insulation, all sound from
70 the outside of the car is deadened, and since there is no metallic connection between the outside and inside parts of this window construction, the transmission of heat or cold is resisted, and this insulation is an important
75 feature of the invention.

Within the sash lock casings 4 are bolts 44 and springs 45, the latter functioning to normally throw the bolts outwardly into engagement with racks 46 formed in the inside
80 stops, and from the inner ends of the bolts adjacent the handles 3 project thumb pieces 47, so that the bolts may be withdrawn and the sash raised simultaneously.

However, this invention has nothing to do
85 with any special sash holding devices, except as to their juxta-position with respect to the lifting handles, and reference to such devices is made merely because the sashes of car windows are necessarily equipped with
90 some means of this sort.

The felt channels and the inner and outer stops may be continued for some distance above the window openings, as shown at Figure 3, in order that the glass pane may be
95 guided and properly held throughout its range of operation.

In car construction, the window openings are seldom, if ever, of uniform width throughout their height, hence it is most important that a resilient backing be interposed
100 behind the retaining channels, but this invention is not limited to constructions wherein this resilient backing must be used, as, in the ideal condition, wherein the window opening would be in parallelism, the type of construction described could be used without
105 springs or resilient members interposed behind the felt channels.

As hereinbefore stated, the sash has no
110 top rail or side stiles, but merely a bottom rail, and this is an innovation in railroad car window construction where the sashes are raised and not lowered to open a window. Moreover, the felt channels which are at the
115 sides of the window opening not only act as runways for the glass but are also weather strips, thus distinguishing from the similar channels that are used with drop windows, and the elimination of the side stiles and top
120 rails reduces to a minimum the likelihood of the sticking or binding of the sash, and, of greater importance still, adds materially to clear vision through the windows.

Double windows are common both in
125 coaches and Pullmans, and the present invention is followed in the installation of such windows, it being merely necessary to provide a middle stop to cooperate with the outside and inside stops, and in this instance both
130

of the latter are constructed like the outside stops hereinbefore described.

There is, however, one feature of our invention that is important in connection with double windows, namely, the construction of the middle stop, and referring to Figures 20, 21, and 22, we will call attention to the manner in which our invention is applied in the instance of double windows.

48 is a center stop secured to the inside of the casing in any suitable manner as by screws 49, and 50 is an extension piece which is secured in any suitable manner to the stop 48 as by one or more of the screws 49, this extension piece having portions which extend laterally beyond the stop 48 and are formed into gutter-like parts 51.

The center stop and likewise the outside and inside stops end at any desired distance above the window opening, while the extension stop projects upwardly within the head of the car as far as is necessary, and this extension stop preferably has lanced from the bottoms of the gutters 51 springs 52 which bear against the wall of the car or a part thereof, the form and function of these springs being the same as in the instance of the springs 35 shown at Figure 16.

The outer stop 19 is the same in all respects as the outer stop heretofore described, and the felt channel 17 for the outer window is confined between this stop and the center stop 48, while the felt channel for the inner window is confined between the center stop and the inside stop 18, the latter having a ledge 53 which extends back of the felt channel which ledge is the same in structure and function as the ledge 24.

In the instance of double windows there are, of course, two sets of felt channels one set for each window, and the channels must all be properly supported and backed, and the inside and outside stops are the same so far as their functions are concerned, and although we have not shown in these figures the various details heretofore set forth, nevertheless the felt channels will be adapted for windows that vary in size or are out of square, in the same manner as has been heretofore described, detailed illustrations and descriptions in these respects being deemed superfluous.

The gutters 51 in the extension stop 50 are in alinement with the space between the center stop and the inside stop and between the center stop and the outside stop, and the felt channels 17 are extended within these gutters and secured thereto in any suitable manner.

A weather stripping 54 is secured to a clip 55 and is affixed to any suitable part of the car structure, and this clip causes this strip to bear against the inner face of the inside window pane at a point slightly above the window opening, and the object of this strip is not so much to serve as a weather stripping

as it is to steady the window in its movements.

When a car window is raised its movement is limited owing to the fact that there is comparatively little room in the head of the car for the accommodation of the raised sash, and since the main portion of the window when raised is always within that part of the felt channels that is confined and equipped in the manner hereinbefore described, it is merely necessary that these channels where they are contained within the gutters 51 shall act as supports for the sash when raised.

Of course, all supports for the sash in the way of felt channels could be omitted above the window opening, but there would always be the danger of accident to the glass by shocks or the twisting or weaving of the car, and it has therefore been deemed best to provide supports for the glass above the sash opening.

If desired, the weather stripping like that heretofore shown and designated by the numeral 25 may be adopted in the instance of the inside stops, but this is not deemed necessary.

Whether the windows are single or double, it will be observed that there is no metallic connection between any part of the outside and inside members of the window construction, the weather stripping and the felt channels heretofore described acting as insulators against the transmission of heat or cold between these members, preventing water or dirt from entering the inside of the car and also serving to deaden all sound from the outside.

Attention is particularly called to the fact that the glass is provided with shock absorbing elements along the sides, top and bottom, and, moreover, the flexibility of the glass supports and mounting will take care of the weaving, twist and expansion of the car, particularly if constructed of steel, and will also permit of the necessary tolerances in applying the window to a car.

As above stated, the use of the word "felt" as the material of the channel is not to be construed as a limitation since different materials are fully within the scope of this invention.

By the elimination of the top rail and the side stiles, a considerable area of clear vision is added to the window, and this is a valuable feature and is very desirable.

What is claimed is:

1. A railroad car window construction, comprising a glass sash having a bottom rail only, felt channels at the sides of the window opening within which the side edges of the glass track, stops at the sides of the window opening which resiliently embrace the sides only of said channels, means independent of said stops for resiliently backing the rear faces of said channels, lift handles and sash holders carried by said rail in

juxtaposition, and co-operating means at the sides of the window casing for holding the sash in different elevations.

2. A railroad car window construction, comprising inner and outer stops at the sides of the window opening, channels of suitable material confined between said stops, a window sash consisting of a glass pane without top rail or side stiles the sides of which pane track within said channels, a bottom rail secured to the lower edge of said pane and confined at its ends between said stops, and means for causing at least one of said stops to bear resiliently against the sides of the felt channels.

3. A construction as in claim 2, further distinguished in that the felt channels are backed by resilient elements that are independent of the inside and outside stops, whereby glass panes of uniform width may be adapted to window openings of varying widths.

4. A construction as in claim 2, in which a separate sill stop is provided which has a horizontal seat for the bottom rail and an inclined portion which is secured to the slope of the car sill which seat is elevated above all portions of the stop outside the seat.

5. A construction as in claim 2, in which the window sill is provided with a stop having a step whose riser is inclined, while the bottom rail carries a depending weather stripping throughout the length of said rail, said stripping impinging resiliently against said riser when the sash is closed.

6. A construction as in claim 2, in which a weather stripping is secured at the top of the window opening independent of the glass pane and constantly bears against the latter throughout its width.

7. A construction as in claim 2, in which weather strippings extend from the backs of the channels and are interposed between the inside stops and the outside stops, said stripping being confined between the window casing and the outer edges of the outside stops.

8. A construction as in claim 2, in which a weather stripping is adjacent to the backs of the channels and guards the inner stop against water or dirt that may enter between said channels and the outside stop, the outer portion of said stripping being confined between the window casing and the outer edge of the outside stop to guard against water or dirt entering at that point.

9. A double window construction for railroad cars, comprising outside and inside stops and center stops, the latter provided with extensions that have lateral gutters which project up within the head of the car and are aligned with the spaces between the center stops and the outside and inside stops, felt channels confined between the center stops and the outside and inside stops and extended

within said gutters, and window glasses without top rails or side stiles but having bottom rails that are secured to the lower edges of the glasses, the sides of the latter extending beyond the ends of the bottom rails into said channels, whereby the window glasses may be supported throughout their entire range of operation.

10. The herein described improvement in window construction, comprising inner and outer stops at the sides of the window opening, resiliently backed channels of suitable material confined between said stops which latter exert a resilient action against the sides of the channels, a glass pane without top rail or side stiles, the side edges of which pane track within said channels, a weather stripping secured adjacent the top of said opening and constantly bearing against said pane throughout its width, a weather stripped sill stop having an elevated horizontal seat and provided with a step whose riser is inclined, a rail secured to the bottom edge of the pane and extending between said stops and normally contacting said seat, and a weather stripping depending from said rail throughout its length and adapted to impinge resiliently against said riser when the sash is closed, whereby the window closure is weather stripped at top, bottom and sides, while the glass pane is resiliently mounted at the top, sides and bottom and is adapted to window openings of varying widths.

11. The herein described railroad car window construction in which the top, bottom and sides of the glass are weather stripped and all parts of the construction outside the sash are insulated from the inside parts.

12. A construction as in claim 2, in which the outer exposed legs of the channels are shielded as against water or dirt by a waterproof material which is in contact with the outside surface of the glass.

13. A construction as in claim 2, in which the channel is contained within a metal trough whose outer side is bent inwardly and curled back and bears resiliently against the outer face of the glass, a waterproof tape between said side and the outside stop and having its edge housed within said curled back portion and extending beneath the trough and confined between the outside stop and the window casing.

14. A railroad car window construction, comprising a glass pane without top rail or side stiles and having a bottom rail secured to its lower edge, suitable channels at the sides of the window opening in which the edges of the glass track, and independent means for respectively and resiliently supporting said channels at the sides and at the rear.

15. A window construction comprising a glass pane mounted in a bottom rail, said rail normally seated on a fixed window sill, the

glass pane resiliently mounted at the sides and top thus permitting the window casing to become distorted without affecting the alinement of the bottom rail in relation to
5 the fixed sill.

16. A railroad car window construction, comprising a glass sash, felt channels at the sides of the window opening within which

the side edges of the glass track, inside and 10 outside stops which embrace the sides of the channels, and means for resiliently backing the rear faces of said channels.

In testimony whereof we affix our signatures hereto.

JOHN L. MOHUN.
HENRY PIESCH.