

E. H. HARRIMAN & W. R. McKEEN, JR.
CAR WINDOW.

APPLICATION FILED JUNE 22, 1907.

973,502.

Patented Oct. 25, 1910.

2 SHEETS—SHEET 1.

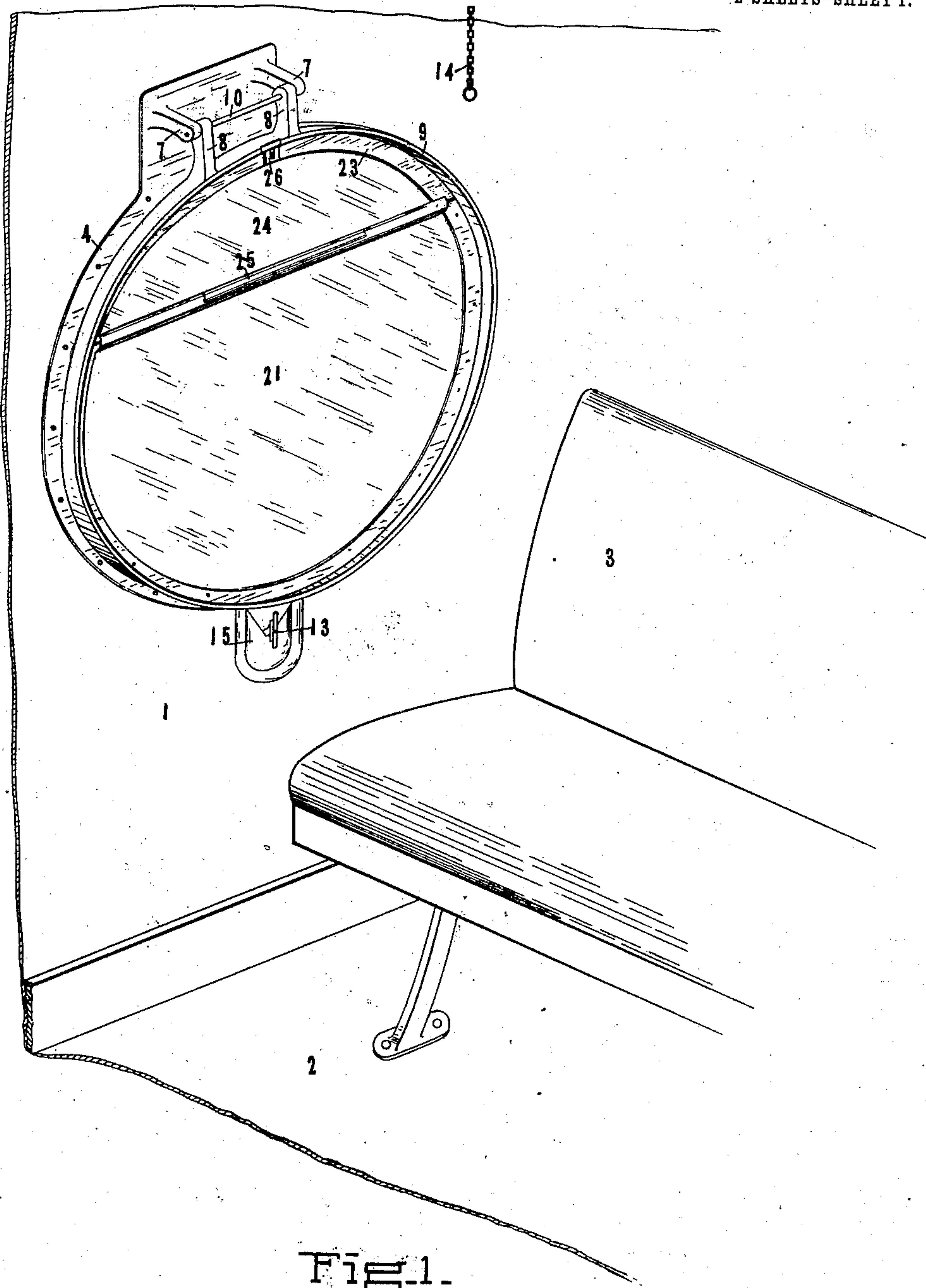


Fig. 1.

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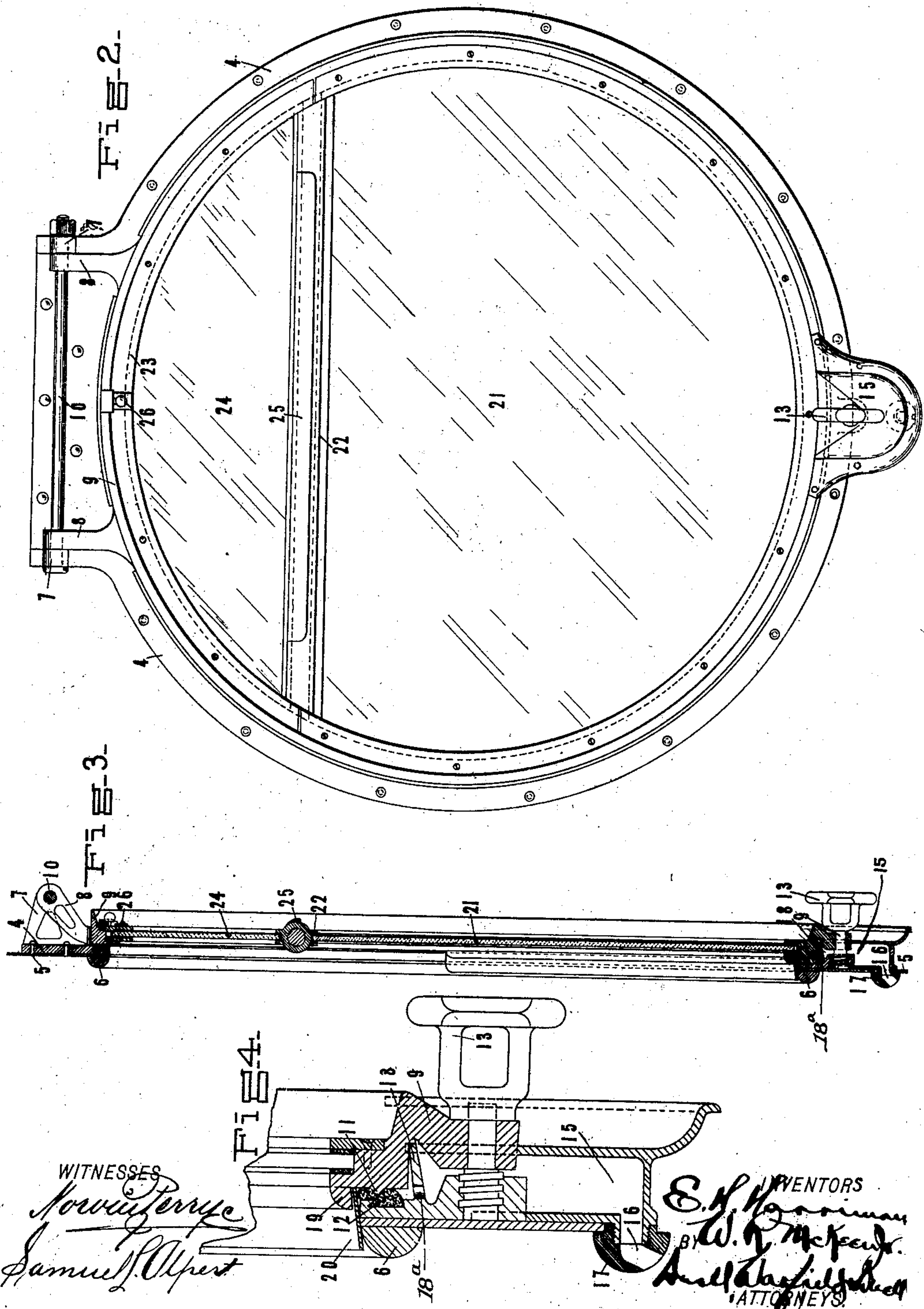
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UNITED STATES PATENT OFFICE.

EDWARD H. HARRIMAN, OF ARDEN, NEW YORK, AND WILLIAM R. McKEEN, JR., OF OMAHA, NEBRASKA, ASSIGNORS, BY MESNE ASSIGNMENTS, TO McKEEN MOTOR CAR COMPANY, OF OMAHA, NEBRASKA, A CORPORATION OF NEW JERSEY.

CAR-WINDOW.

973,502.

Specification of Letters Patent.

Patented Oct. 25, 1910.

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To all whom it may concern:

Be it known that we, EDWARD H. HARRIMAN and WILLIAM R. McKEEN, Jr., residing at Arden, in the county of Orange, State of New York, and Omaha, in the county of Douglas, State of Nebraska, respectively, have invented certain new and useful Improvements in Car-Windows, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the construction of railway cars and the like.

One of the objects thereof is to provide efficient and practical means in connection with a car whereby a person upon a seat thereof may have an unobstructed view outside the car and yet be fully protected from draft or the entry of foreign matter as dust and cinders.

Another object is to provide an inexpensive car window construction in which access to the outer air is quickly and conveniently gained and in which, upon the sash being closed, no leakage or percolation of water, air or foreign matter can reach the interior of the car.

Another object is to provide a car window construction so formed and related to the car seat as to permit the entry of any desired quantity of fresh air without exposing the passenger upon the seat to a draft.

Other objects will be in part obvious and in part pointed out hereinafter.

This invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, wherein is shown one of various possible embodiments of our invention, Figure 1 is a perspective view thereof; Fig. 2 is a front elevation of a portion of the same. Fig. 3 is a sectional view taken substantially on the line $x-x$ of Fig. 2; and Fig. 4 is a detail view of certain parts shown in Fig. 3.

Similar reference characters refer to simi-

lar parts throughout the several views of the drawings.

In order that certain features of this invention may be the more readily and fully grasped, it may here be noted that in the construction of car windows there has been experienced considerable difficulty in the prevention of the entry of cinders, dust and air or water within the car. If it be attempted to remedy this by the use of double sliding sashes, there is not only a consequent doubling of all the inherent objectionable features of the individual sash, as difficulty in opening and closing and a tendency to fall, with a possible injury to the passenger, but there is an increased expense in first cost and cost of maintenance and a high degree of difficulty in keeping the sashes in clean condition. Difficulty is also found in connection with car windows of the ordinary type in preventing the accumulation of dust in the corners of the frame which gradually sifts into the car or is blown in upon the sash being raised.

The above and other defects are remedied in constructions of the nature of that hereinafter described.

Referring now to Fig. 1 of the accompanying drawings, there is diagrammatically shown a car wall 1 and floor 2 having mounted thereon a seat 3 of the ordinary type. Secured within the car wall 1 is a frame 4 which is preferably riveted to the sheathing 5 as indicated in Fig. 3 of the drawings. This frame is of a general round or rounded contour and there is disposed upon the outer surface of the car sheathing the beading or batten 6, which affords a finished appearance to the window and is otherwise advantageous.

Formed upon the upper portion of the frame 4 are a pair of perforated lugs 7, between which are fitted the corresponding lugs 8 of a rounded sash 9, these lugs with the bolt 10 forming a hinged mounting for the sash. Sash 9 is provided with a rib 11 which engages and is pressed into a gasket 12 mounted in the window frame 4 upon the sash being forced into closed position by the hand-screw 13 at its lower edge. When it is desired to open the entire window, this hand-

screw is withdrawn and the window swung inwardly and upwardly and held in raised position as by the chain 14 shown in Fig. 1 of the drawings.

5 Secured to the lower edge of the frame 4 is a pocket 15 having at its lower portion an outlet 16 passing through the car sheathing 5 and bearing a spout 17, as best shown in Fig. 4 of the drawings. This pocket is
10 adapted to receive any water or other foreign matter which may pass between the rib 11 and gasket 12, the same being guided to this point by the shoulder or rib 18 formed upon the inner surface of the frame 4, and pro-
15 vided with a discharge opening 18^a.

The outer surface of the sash member 9 is preferably provided with a shoulder 19 adapted to fit over the frame 4, and there is mounted upon the frame and resting imme-
20 diately beneath this shoulder a strip 20 downwardly inclined in an outward direction and tending to divert water and other matter from the joint between the gasket 12 and rib 11. The lower portion of the sash
25 frame 9 is preferably filled by the pane 21 rigidly held therein and resting at its upper edge within a cross member 22. Hinged to the latter part is an auxiliary frame 23 pro-
30 vided with a pane 24 and adapted to fill the remainder of the sash 9. This auxiliary sash swings downwardly and inwardly to a point limited by the shoulder 25 upon the hinge and is held in its uppermost closed position as by the latch 26 engaging the frame mem-
35 ber 4.

The method of use of the above described embodiment of my invention is substantially as follows: The window is securely held in its closed condition by the hand-screw 13, or
40 equivalent means, and in this condition, while it permits a free view from the seat 3, it, nevertheless, affords complete protection to a passenger. Any foreign matter is diverted first by the strip 20 and if it enters and
45 even passes the joint between the swinging sash and the frame proper, it is led by reason of the construction above set forth to the lowermost point of the frame and into pocket 15 from which it is discharged from
50 the car. If it be desired to admit air directly from without, the upper sash 23 may be released and swung inwardly, whereupon this result is accomplished without exposing the passenger to a direct draft. If it be de-
55 sired to open the whole window, the screw 13 is readily released and the sash swung inwardly and upwardly and retained in raised position, in which it not only does not obstruct the view, but can be quickly and
60 conveniently closed. Any dust or cinders which tend to accumulate upon the frame, moreover, are readily removed as there are no sharp corners in which they can collect and the glass is conveniently cleaned, it be-

ing unnecessary to leave the car for this pur- 65
pose. If, moreover, it be desired to use this construction in connection with a system of indirect ventilation, the windows are con-
veniently and tightly closed in such manner as not to interfere with the desired currents 70
of air.

It will thus be seen that there is provided a construction in which the several objects of this invention are achieved and the above-mentioned advantages are, among others, 75
present. The entire construction is simple, inexpensive and efficient, and, by reason of this simplicity and its durability, it is not likely to become deranged and is well adapt-
ed to meet the conditions of practical use. 80

As many changes could be made in the above construction and many apparently widely different embodiments of this inven-
tion could be made without departing from the scope thereof, it is intended that all mat- 85
ter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following 90
claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention, which, as a matter of lan-
guage, might be said to fall therebetween. 95

Having described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. In car window construction, in combination, a window frame mounted in a car 100
wall, a rounded sash upon said wall adapted to swing against said frame, a packing between said sash and said frame and means following the joint between said sash and
said frame and adapted to receive water 105
passing through the same and discharge said water outside said car wall.

2. In car window construction, in combination, a window frame mounted in a car 110
wall, a rounded sash upon said wall adapted to swing against said frame, and means following the joint between said sash and said frame and adapted to receive water
passing through the same and discharge said 115
water outside said car wall, said means extending across the bottom of the sash and upwardly at each side thereof.

3. In car window construction, in combination, a window frame mounted in a car 120
wall, a substantially round sash adapted to be swung against said frame, and means forming a channel following the joint between said sash and said frame throughout
substantially the entire lower half of the same and adapted to receive water passing 125
through said joint and discharge the same outside said car wall.

4. In car window construction, in combi-

nation, a window frame, a sash adapted to swing against said frame, means upon said sash adapted to project over the joint between said sash and said frame, and means upon said frame extending under said joint and adapted to receive and carry away water passing through the same.

5. In car window construction, in combination, a window frame, a rounded sash adapted to swing against said frame, means upon said sash projecting over the joint between the same and said frame, and means upon said frame extending beneath said joint across the bottom of said sash and upwardly at each side thereof and adapted to receive and carry away water passing through said joint.

6. In car window construction, in combination, a frame mounted within a car wall and provided with a gasket, a rounded sash adapted to swing against said frame and having a projecting portion adapted to engage said gasket, means upon said sash adapted to extend over the joint between said sash and said gasket, and means upon said frame beneath said joint extending across the bottom of said sash and upwardly at each side thereof and adapted to receive and carry away water passing through said joint.

7. In car window construction, in combination, a frame mounted in a car wall, a sash adapted to swing against said frame, a member mounted upon said wall and extending over the joint between said sash and said frame and adapted to drain water away from the same, and means extending beneath said joint and adapted to receive and carry away water passing through the same.

8. In car window construction, in combination, a frame mounted within a car wall, a sash adapted to swing against said frame, a member upon said wall extending over the joint between said sash and said frame and tending to drain water away from the same, and means upon said sash adapted to project over said member.

9. In car window construction, in combination, a frame mounted within a car wall, a sash adapted to swing against said frame, a member upon said wall extending over the joint between said sash and said frame and tending to drain water away from the same, means upon said sash adapted to project over said member, and means extending beneath said joint and adapted to receive and carry away water passing through the same.

10. In car window construction, in combination, a frame mounted in a car wall, a rounded sash mounted to swing upwardly away from said frame and to swing downwardly against the same and form a tight joint therewith, a glass fixed within a portion of said sash, a second sash mounted

upon said first sash and adapted to swing with respect thereto, means at the top adapted to hold said second sash in closed condition with respect to said first sash, and means at the bottom adapted to hold said first sash in closed condition with respect to said frame.

11. In car window construction, in combination, a frame mounted in a car wall, a rounded sash mounted to swing upwardly away from said frame and to swing downwardly against the same and form a tight joint therewith, a glass fixed within a portion of said sash, a second sash mounted upon said first sash and adapted to swing with respect thereto, means at the top adapted to hold said second sash in closed condition with respect to said first sash, and means at the bottom adapted to hold said first sash in closed condition with respect to said frame, both of said sashes being mounted to swing inwardly with respect to said car wall.

12. In car window construction, in combination, a frame mounted in a car wall, a sash adapted to swing upwardly away from said frame and downwardly into closed position with respect to said frame, a glass fixed within the lower portion of said sash, a second sash mounted upon said first sash and adapted to swing downwardly and inwardly with respect to said car wall and provided with a glass adapted to complete said first sash upon being swung upwardly into closed position, and means adapted to limit the downward swinging movement of said second sash.

13. In window construction, in combination, a sash mounted to swing upwardly and inwardly with reference to the window frame, a second sash mounted upon said first sash and adapted to swing inwardly with reference thereto in the opposite direction, said sashes being mounted to swing in a substantially vertical plane, and retaining means at the lower portion of said first sash and the upper portion of said second sash adapted to hold said sashes respectively in closed condition.

14. In car window construction, in combination, a frame mounted in a car wall, a sash adapted to swing upwardly away from said frame and downwardly into closed position with respect to said frame, a glass fixed within the lower portion of said sash, and a second sash mounted upon said first sash and adapted to swing downwardly and inwardly with respect to said car wall and provided with a glass adapted to complete said first sash upon being swung upwardly into closed position, said first sash being of rounded form.

15. In car window construction, in combination, a window-frame mounted in a car

wall, a sash adapted to swing against said frame, a rib on said frame extending adjacent the joint between said sash and said frame and adapted to receive water passing
5 therethrough, a pocket in said frame beneath said rib, and an outlet from said pocket projecting through said car wall and adapted to receive and transmit water from said rib to the outside of said car.
10 16. In window construction, in combination, a round frame, a round sash mounted to swing with reference to said frame, retaining means at the lower portion of said sash adapted to hold the same in closed condition, a cross member upon said sash, and
15 an auxiliary sash mounted upon said cross

member and adapted to swing with respect thereto in the opposite direction, said sashes being mounted to swing in a substantially vertical plane. 20

In testimony whereof we affix our signatures in the presence of two witnesses.

EDWARD H. HARRIMAN.

WILLIAM R. McKEEN, JR.

Witnesses to the signature of Edward H. Harriman: 25

ALEXANDER MILLAR,

JOS. HELLEN.

Witnesses to the signature of William R. McKeen, Jr.:

CHAS. W. LOUCKS,

SAMUEL L. SMITH.