

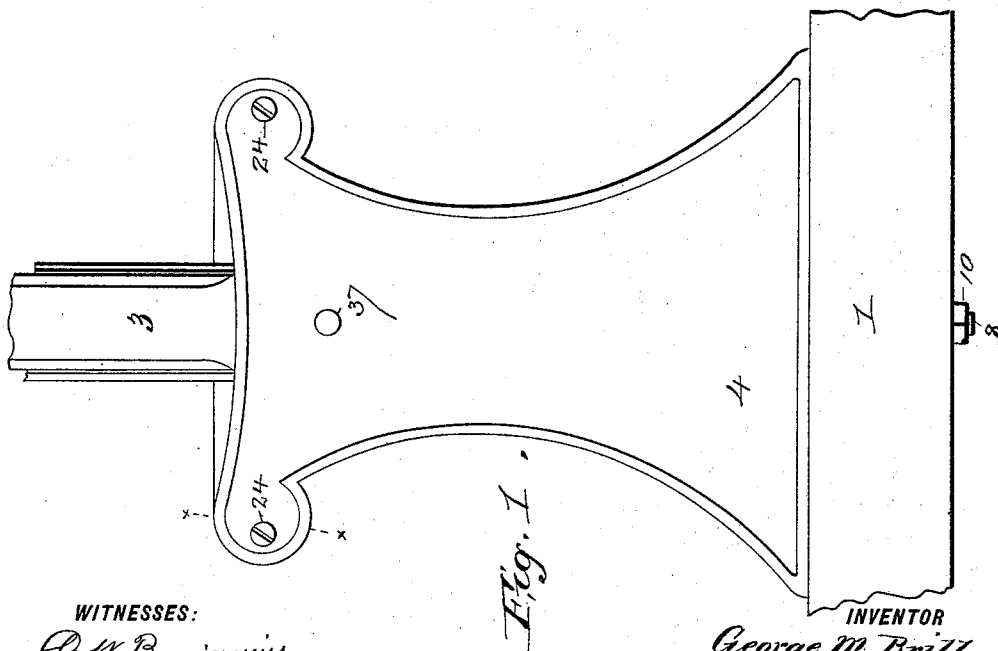
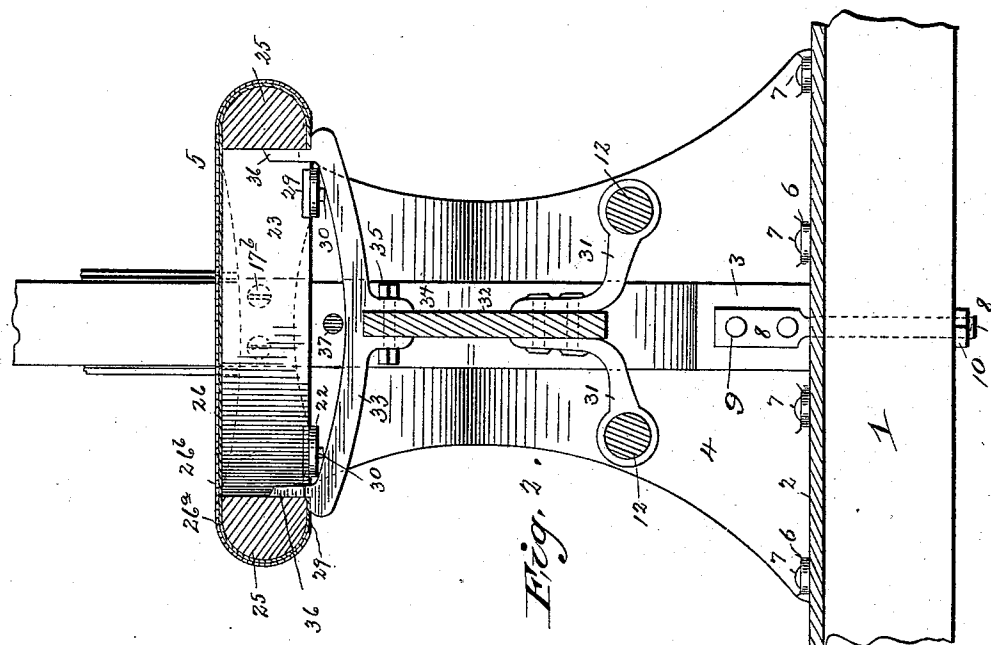
(No Model.)

3 Sheets—Sheet 1.

G. M. BRILL.
CAR SEAT CONSTRUCTION.

No. 538,036.

Patented Apr. 23, 1895.



WITNESSES:

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Wm Jacobson

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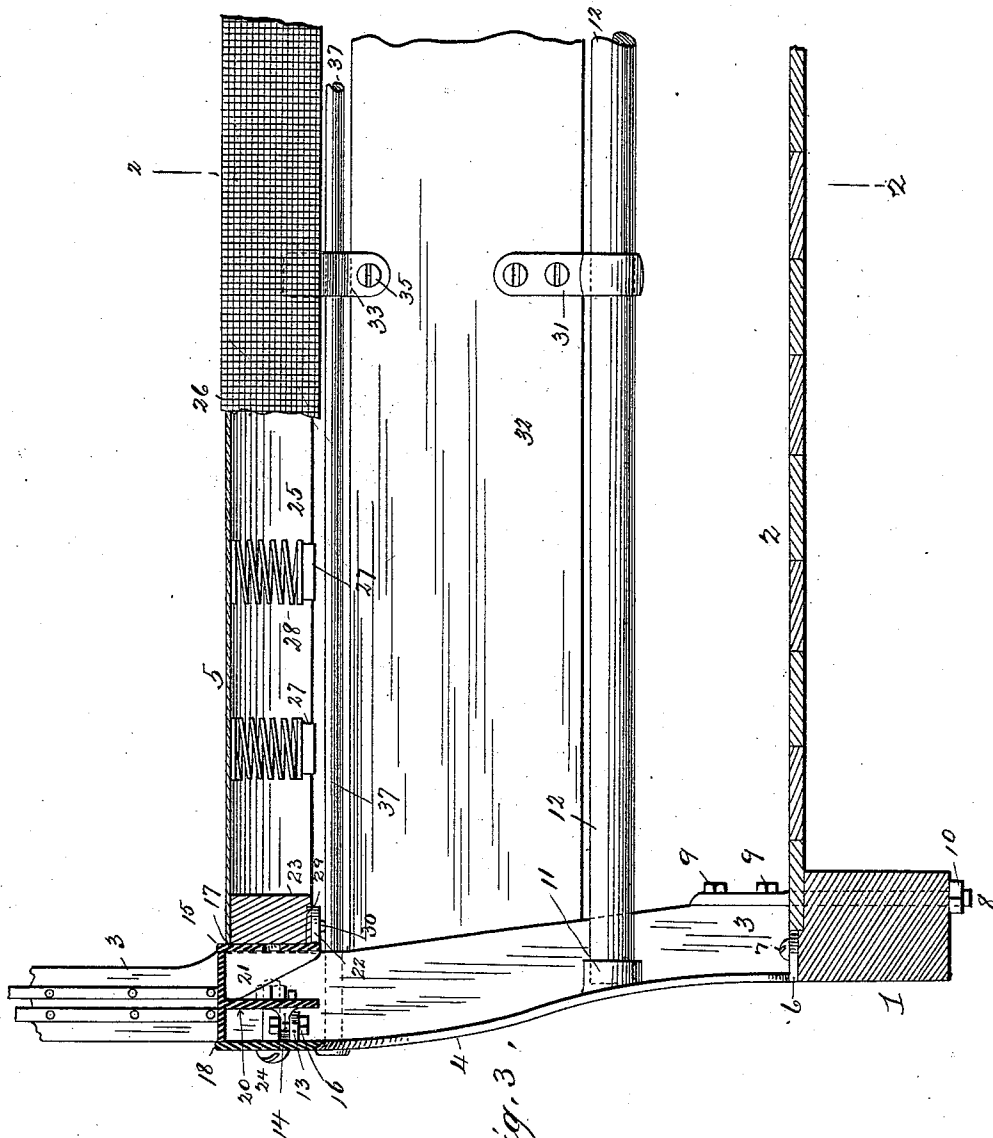
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Fig. 3.

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(No Model.)

3 Sheets—Sheet 3.

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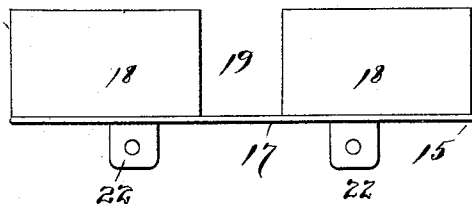


Fig. 4.

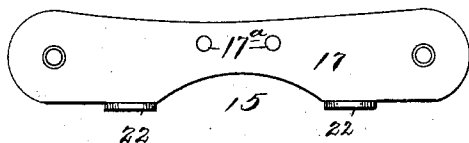


Fig. 5.

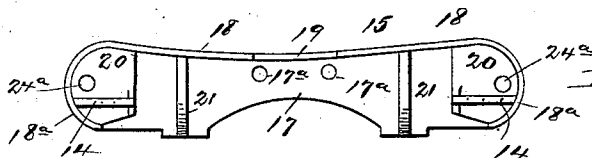


Fig. 6.

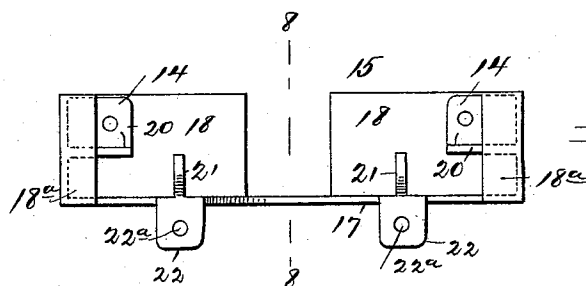


Fig. 7.

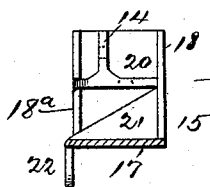


Fig. 8.

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UNITED STATES PATENT OFFICE.

GEORGE MARTIN BRILL, OF PHILADELPHIA, PENNSYLVANIA.

CAR-SEAT CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 538,036, dated April 23, 1895.

Application filed October 9, 1894. Serial No. 525,327. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MARTIN BRILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Seat Construction for Open Cars, of which the following is a specification.

This invention pertains more particularly to the class of open cars having cross seats, and one object of the invention is to permit cane seats to be used and to so arrange the connections of the seat with its support that the cane portion can be completely fitted to its supporting frame without the necessity of providing openings in the cane for the passage of stanchions or other supports. By this means each strand of the cane seat can be firmly held without leaving unsecured ends, and no special construction of cane seats need be provided, as the usual rectangular form can be employed without alteration.

A further object of the invention is to provide an improved construction of seat supporting panel which can be secured to the stanchions or posts at the ends of the seat, so as to produce a strong and rigid structure. In carrying out this feature a light yet strong casting or frame is provided for attachment to said panel as well as to the seat frame, so that the latter may be attached to the side of said casting, thereby enabling the stanchions to pass through said casting without reference to the seat frame or the cane seat carried thereby.

The invention also consists in the novel details of improvement and the combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein—

Figure 1 is a face view of the seat panel looking from the exterior of the car. Fig. 2 is a cross sectional view through a seat, on the plane of the line 2, 2, in Fig. 3, showing the inner side of the seat panel. Fig. 3 is a partly sectional edge view of the seat panel and seat frame, showing the connections between said panel and seat frame. Fig. 4 is a plan view of the frame or casting that connects the panel with the seat. Fig. 5 is a side elevation there-

of. Fig. 6 is an edge view thereof looking from the opposite side. Fig. 7 is a bottom view thereof, reversing Fig. 4; and Fig. 8 is a detail section thereof on the plane of the line 8, 8, in Fig. 7.

In the accompanying drawings, in which similar numerals of reference indicate corresponding parts in the several views, the numeral 1 indicates the longitudinal or side sill of a car. 2 is the flooring and 3 are stanchions or posts leading from said sill to the car roof (not shown). At 4 are panels located at the stanchions 3 and at the opposite ends of the seats 5 which extend across the car. The panels 4 are preferably made of thin cast metal having any desired contour. In Fig. 3 the panel 4 is shown inwardly and downwardly curved, and at its lower part is provided with lugs 6 that may rest on the sill 1 and be secured thereto, by screws or bolts 7. The stanchions 3 pass along the inner side of the panels 4 and they are cut to follow the surface of said panels, so that a close fit between the stanchions and panels will be assured. The stanchions 3 are also preferably firmly secured to the sills 1, and for this purpose said stanchions are shown provided with bolts or plates 8 secured by screws or the like 9, and passing through suitable apertures in the sill, being secured by nuts 10; or secured to the sill in any other desired way. Thus a rigid structure is produced. The panels 4 are shown provided on their inner faces with hollow lugs 11 cast integral therewith, said lugs being adapted to receive and hold foot bars 12 that extend across the car beneath the seat 5.

The panels 4 at their upper ends on their inner faces and near opposite sides are provided with lugs 13 upon which rest corresponding lugs 14 carried by an intervening casting or housing 15, which is attached to the panel 4 and primarily supports the seat 5. The lugs 13 and 14 are secured together by bolts or screws 16, as shown in Fig. 3. The housing 15 is composed of a plate 17 having on one side outwardly extending plates or webs 18 which, at the ends of plate 17, are preferably curved around to the opposite edge of said plate at 18^a forming a housing, the parts 17, 18 and 18^a being preferably cast in a single piece of thin metal. Between the parts 18 is a space 19

through which the stanchion 3 passes. From the plates or webs 18 depend longitudinal webs 20, which are preferably cast integral therewith as well as integral with the curved portions 18^a thereof, the lugs 14 being carried by the webs 20 and cast integral therewith. The plate 17 also carries bracket like webs 21 that unite the parts 17, 18, and act as braces to sustain the webs 18, the webs or braces 21 being cast integral with parts 17 and 18. At 22 are lugs carried by the lower edge of plate 17 and projecting outwardly therefrom to support the end bars 23 of the seat 5. By casting the parts 14, 17, 18, 18^a, 20, 21 and 22 in a single piece of metal, said parts are united into a strong and light structure capable of sustaining the seat 5 in the desired manner. The housing 15 thus organized is so placed that the edges of webs 18 rest against the inner side of the panel 4, the plate 17 extending parallel therewith, and the lugs 13 and 14 abutting, as shown in Fig. 3. The housing 15 is held against and supported on the panel 4 by screws or bolts 24 that pass through holes 24^a in the webs 20 (see Fig. 3), the curved portions 18^a of webs 18 bearing against the panel 4 to hold the housing 15 in proper position.

The plate 17 of the housing is provided with apertures 17^a through which screws 17^b pass (see dotted lines, Fig. 2) to secure the housing and stanchion 3 together.

The seat frame is shown composed of end cross bars 23, and longitudinal bars 25 preferably having curved outer edges corresponding to the curves of webs 18^a. At 26 is the seat covering, which may consist of a layer of cloth 26^a, and an outer layer 26^b of cane is suitably placed over the frame 23, 25, and secured thereto as desired. At 27 are cross bars extending between and secured to the bars 25, and 28 are springs resting on the bars 27 and bearing upon the seat cover 26 to strengthen the latter and resist weight thereon. The seat may be removably carried upon the lugs 22, and for this purpose the cross bars 23 may be provided with plates 29 having lugs or teats 30 to pass through apertures 22^a in lugs 22 or the seat frame may be secured to the lugs 22 by bolts or screws, if preferred.

The employment of the casting or housing 15 results in many advantages, among which are: it provides for the use of a cane seat without necessitating a special construction of cane seat, which are almost invariably made over a rectangular frame; enables the seat to be readily attached or detached; binds the seat and panel firmly together and prevents displacement of the seat; it is cheap and economical of construction and its use obviates the cutting away of the stanchion to make a clean fit between the seat and panel, as is usual in other constructions; and artistically finishes off the end of the seat; and enables the whole construction to be readily assembled or taken apart.

To assist in supporting the seat frame cen-

trally the bars 12 may be provided with arms 31 projecting inwardly and clamped or secured to the foot board 32, the latter being turned on edge beneath the seat, as shown in Fig. 2, and mortised into the inner face of the stanchion 3. At 33 is a cradle or cross bar secured to the upper edge of the foot board 32 centrally of the seat, the seat frame resting upon said cradle. The cradle 33 is shown provided with a bifurcated lug 34 to straddle the foot board 32, being clamped thereto by bolts or screws 35. The cradle 33 at its outer ends has upwardly extending lugs 36 that bear against the inner edges of the bars 25 of the seat frame, to hold the latter from side movement, and outwardly extending shoulders 36^a at the base of the lugs to support the said frame thereon. At 37 is a brace rod extending beneath the seat frame and passing through the respective panels and stanchions on opposite sides of the car, said rod being suitably secured to the said panels on the outside, whereby the latter are braced from side movement.

The panels 4 protect the ends of the seat 5 and prevent them from being seen, and said seats can be made in a complete structure without openings for the passage of the stanchions, as the latter pass through the housings 15 without reference to the seats. The seats are brought flush against the housings 15 at their ends, the housing 15 thereby forming a substantial continuation of the seat.

At 38 are the curtain guides, in which a suitable curtain can move up and down, the guides ending at the top of the housing, so as to enable the curtain, when down, to lie substantially flush with the top of the seat.

Many changes and modifications can be made in the structure described without departing from the spirit of my invention.

I claim—

1. In a car, the combination of a sill or floor, a stanchion, a panel extending along the outer side of the stanchion, a housing laid against the inner side of the stanchion and secured to the panel, and a seat frame having end cross bars, the said bars being supported by the housing, the housing forming a substantial continuation of the seat frame between the panel and cross bars, substantially as described.

2. In a car, the combination of a seat frame, stanchion and a panel, with a housing attached to the seat frame and panel and forming a substantial continuation of the seat frame, said housing having a medial recess as deep as the stanchion, the stanchion passing through said recess and extending parallel with the panel, substantially as described.

3. In a car, the combination of a panel having inwardly extending lugs, a seat frame having end cross bars, and a seat supporting housing having lugs resting upon the lugs of the panel, the end cross bars being detachably secured to said housing which forms a substantial continuation of the seat between the

panel and cross bars, substantially as described.

4. In a car, the combination with a panel and a seat, of an intermediate housing having a vertical face adapted to lie against the end of the seat, and a vertical web within the housing for securement to the panel, substantially as described.

5. In a car, the combination, with a panel and a seat, of an intermediate housing having a vertical face, adapted to lie against the end of the seat, horizontal lugs extending therefrom to support the seat, and horizontal lugs extending in the opposite direction to support the housing upon the panel, substantially as described.

6. In a car, the combination, with a panel and a seat, of an intermediate housing having its upper surface carried round the ends to the under side, and supporting webs at the ends joining the upper and under surfaces, substantially as described.

7. In a car, the combination, with a panel and a seat, of an intermediate housing having a vertical side adapted to lie against the end of the seat, and having its upper surface carried round the ends to the under side, and webs uniting the upper surface with the vertical side and under surface, substantially as described.

8. In a car, the combination, with a panel, a stanchion and a seat, depressed medially and rounded at the edges, of a housing having its upper surface and ends conformed to the said depression and rotundity, and having a recess in which said stanchion is received, substantially as described.

9. In a car, the combination, with a panel, a stanchion and a seat, of a housing having a vertical face adapted to lie against the end of the seat and having means for supporting the seat, and flanges extending one on each side of the stanchion to the panel, and means for supporting the housing, substantially as described.

10. In a car, the combination, with a panel, a stanchion, and a seat, of a housing having flanges, one on each side the stanchion, covering the space between the panel and seat, said flanges being carried round to conform to the sectional configuration of the seat, said housing being open at the bottom, and provided with means, covered by said flanges, for securing it in position, substantially as described.

11. In a car, the combination of a panel, a seat, and a seat-supporting housing having horizontal flanges 18 and vertical webs 20 depending from said flanges and connected with said panel, substantially as described.

12. In a car, the combination of a panel having lugs, a seat, and a seat-supporting housing having flanges 18 continuous with the seat, webs 20 supported by said flanges, and lugs carried by said webs and secured to the lugs on the panel substantially as described.

13. In a car, the combination of a stanchion, a panel, having inwardly extending lugs, and a seat-supporting housing consisting of a plate 17, outwardly extending flanges 18 having a space 19 for the passage of the stanchion, webs 20 depending from said flanges 18 and lugs carried by said webs and resting upon the webs of the panel, substantially as described.

14. In a car, the combination of a panel, a seat, and a housing consisting of a plate 17 provided with means for supporting the seat, flanges 18 connected to the panel, and braces 21 extending from the plate 17 to the flanges 18, substantially as described.

15. In a car, the combination of a panel and a housing consisting of a plate 17 having flanges 18 provided with curved ends 18^a, webs 20 extending between the flanges 18 and their curved ends, lugs 14 carried by said ends 18^a and the webs 20, and lugs 13 on said panel to sustain said lugs 14, substantially as described.

16. In a car, a frame for supporting a seat consisting of a plate 17 having flanges 18 and 18^a, braces 21 between said plate and flanges 18, webs 20 depending from said flanges and lugs 14 carried by said webs, all cast in a single piece of metal and adapted to be connected with a seat, substantially as described.

17. In a car, the combination of panels, a seat-supporting housing carried thereby, comprising a vertical web having lugs for sustaining a seat and a horizontal web or flange abutting against the panel, and a seat frame consisting of longitudinal and cross bars, and a covering therefor, said cross bars resting on said lugs, substantially as described.

Signed at Philadelphia, in the county of Philadelphia and State of Pennsylvania, this 31st day of August, 1894.

GEO. MARTIN BRILL.

Witnesses:

WM. H. HEISLINGS, Jr.,
HENRY C. ESLING.