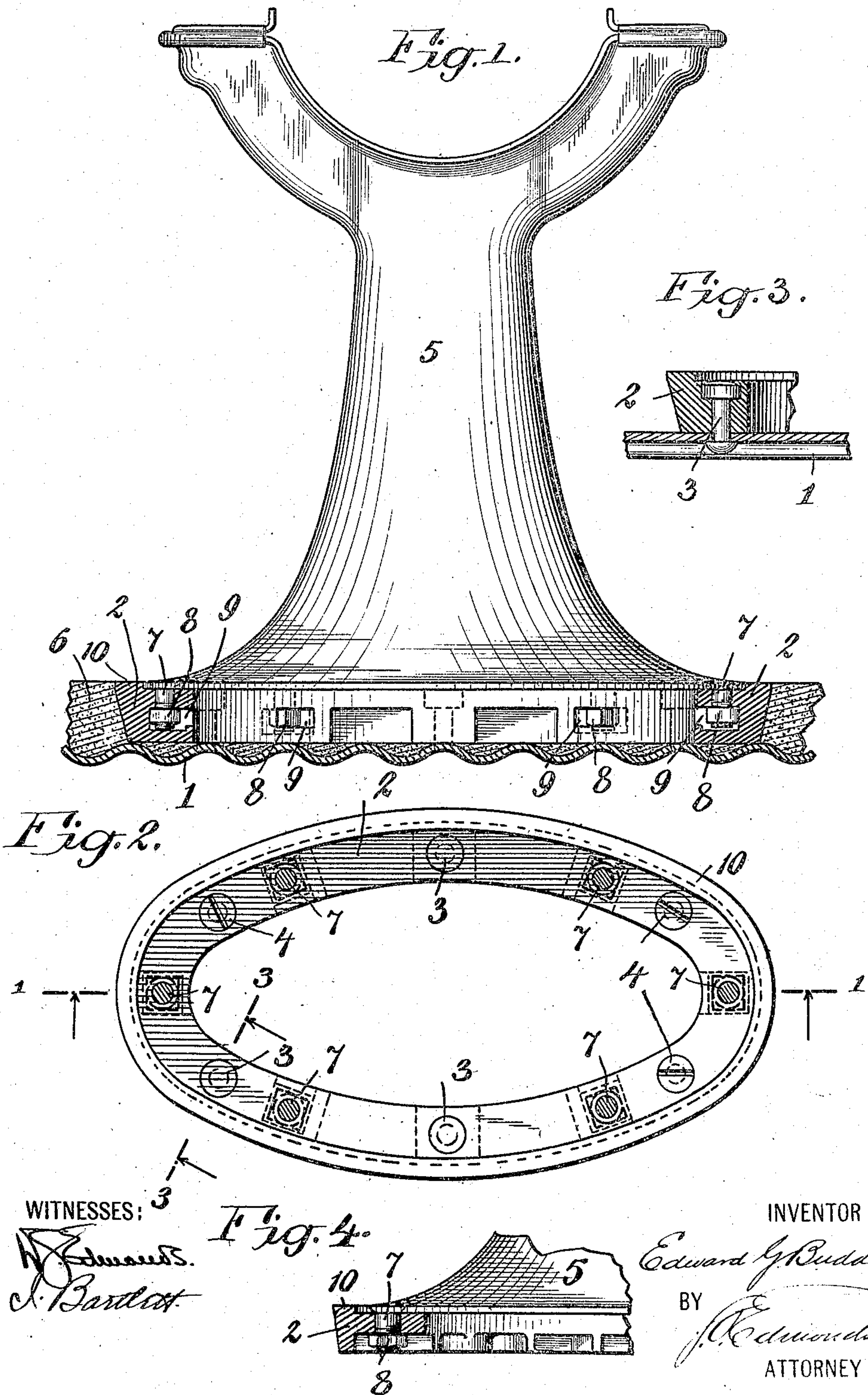


E. G. BUDD.
CAR CONSTRUCTION.
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923,811.

Patented June 8, 1909.



WITNESSES:
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CAR CONSTRUCTION.

No. 923,811.

Specification of Letters Patent.

Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, EDWARD G. BUDD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Car Construction, of which the following is a specification.

This invention relates to the construction of passenger railway-cars, and has reference particularly to the means whereby the seats of such cars are secured in position.

It is now common to construct passenger railway-cars largely of metal and to provide such cars with a flooring of a cement composition, this being laid over a metallic supporting structure, preferably of corrugated sheet-metal.

The object of my invention is to provide means for holding the seats of such cars securely in position, this means being of attractive appearance, of light weight and sanitary in that no ledges are provided where dirt may collect.

The preferred embodiment of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation showing the flooring of a car and the pedestal for supporting one end of the seat secured thereto, the section being on line 1—1 of Fig. 2; Fig. 2 is a top view of the member for securing the pedestal to the floor, showing the bolts by which the pedestal is secured to the member in section; Fig. 3 is a detail view in section on line 3—3 of Fig. 2; and Fig. 4 is a sectional elevation of a modification of my invention.

Referring to these drawings, 1 indicates the supporting structure for the seat, this consisting of the under flooring of a car. It is preferably of sheet-metal, corrugated as shown. A member 2 is secured in position upon this supporting structure in any suitable manner, as by means of rivets 3, shown in Fig. 3, or bolts, as indicated at 4 in Fig. 2. This member 2 is preferably shaped to correspond to the cross-sectional shape of the pedestal which supports one end of the seat. In the present instance, I have shown the pedestal 5 as of oval cross-section, and member 2 is therefore of oval cross-section also. A cement composition 6 is laid over the supporting structure 1 and around the member 2, its surface being flush with the upper sur-

face of the member. The outer edge of member 2 is beveled as shown, as when thus constructed it serves to hold the cement down and make it less likely to chip and crumble off at the edge abutting the member 2. Member 2 is preferably of annular form, as shown in the drawing, and as the space within the member 2 is not filled in, a reduction in the weight of the complete structure is effected. The pedestal 5 is of oval cross-section, as above stated, and is flared outwardly at its lower edge, this lower edge bearing upon and being secured to the member 2. For this purpose, openings are provided through the lower edge of the pedestal to receive bolts 7 and the heads of these bolts are countersunk in the edge of the pedestal 5, so that their surfaces are flush with the surface of the pedestal. The member 2 is formed to coact with the nuts 8 on these bolts, so as to preclude turning thereof, for convenience in assembling the parts.

In Figs. 1 and 2, member 2 is shown as provided with nut-pockets 9, closed at the bottom but open to the interior of the annular member 2, so that the nuts 8 may be placed in these pockets and will be engaged by the bolts 7 when the latter are inserted in position.

In Fig. 4, a slight modification of the construction of annular member 2 is shown, this differing from the construction shown in Fig. 1, in that the member 2 is of less depth and the nut-pockets are not closed at the bottom.

In the preferred form of the invention, annular member 2 is cut away at the inner edge of the upper surface thereof, to form a raised portion 10 at the outer edge of the member, and a ledge at the inner edge, on which the flaring lower end of the pedestal 5 may rest with its upper surface flush with the upper surface of the raised portion 10 and the surface of the cement composition 6. The lower edge of the pedestal 5 and the member 2 are preferably true ovals, so that the member 2 may be machined to the desired shape in an ovaling lathe and the edges of the pedestal and the raised portion 10 match perfectly, giving the complete structure a neat appearance and avoiding the formation of grooves in which dirt may collect. As thus constructed, the pedestal 5 has the appearance of rising smoothly from the cement flooring, and this construction

has the further advantage that the car may be readily cleaned about the pedestal. This and the sanitary advantage, owing to the fact that there are no ledges against which dirt may accumulate, are also due to the countersinking of the heads of the bolts by which the pedestal is secured in position. By seating the edge of the pedestal in a recess formed in the annular member 2, the pedestal is in effect doweled to the floor, so that side strains are taken from the bolts 7 and these bolts merely perform the function of holding the pedestal down upon the member 2. This is of particular importance in cars constructed of metal, for the reason that the pedestal cannot sink into its supporting structure as it does when secured upon a wooden flooring, and it would therefore be more apt to slip under the sudden jerks due to quick starting and stopping of the car. The provision of the member 2 also avoids crumbling of the cement composition, such as would take place if the pedestal were secured directly upon the composition floor without a metallic base-plate. A further advantage obtained by this construction is that the nuts and bolts can be readily replaced when damaged, and this with much less trouble and annoyance than in cases where the bolts extend entirely through the flooring, including the supporting structure 1, and the nuts are accessible only from the under side of the car.

The completed structure is of great strength, but this strength is obtained without an increase in weight, due largely to the fact that the space within the annular member 2 is open.

The structure illustrated may be modified in various respects without departing from my invention; as, for instance, the upper face of member 2 need not be provided with a recess to receive the edge of the pedestal 5, but I prefer to employ the construction shown, in which the line of the surfaces of pedestal 5, raised portion 10 and composition 6 is unbroken.

Having now described my invention, what I claim as new therein and desire to secure by Letters Patent is as follows:—

1. In a car, a supporting structure, a member secured thereon, a cement composition on said structure flush with the surface of said member and a pedestal secured on said member, substantially as set forth.

2. In a car, means for supporting a seat comprising a supporting structure, a member supported thereby having its edges cut away so that it is smaller at the bottom than at the top, a cement composition on said structure and about the cutaway edges of said member, its surface being flush with that of the member, and a pedestal for supporting a seat secured upon said member, substantially as set forth.

3. In a car, a supporting structure, a member secured thereon, a cement composition on said structure flush with the surface of said member, a pedestal, and bolts securing the pedestal to said member, said bolts having their heads countersunk in said pedestal, substantially as set forth.

4. In a car, a supporting structure, a member secured thereon, a cement composition on said structure flush with the surface of said member, a pedestal, bolts securing the pedestal to said member, and means coacting with the nuts of said bolts to preclude turning thereof, substantially as set forth.

5. In a car, a supporting structure, a pedestal, an annular member corresponding in shape to the base of said pedestal and secured to said structure, a cement composition on said structure flush with the surface of said member, and means securing the pedestal to said member, substantially as set forth.

6. In a car, a metallic supporting structure, a metallic pedestal of oval shape, an annular member of oval shape having a beveled edge, means securing said member to said structure, a cement composition on said structure flush with the surface of said member, bolts securing the pedestal to said member and having their heads countersunk in the pedestal, and means on the member for precluding turning of the nuts of said bolts, substantially as set forth.

7. In a car, a metallic supporting structure, a member secured thereon, a pedestal, means securing the pedestal to said member, and a cement composition on said structure, the line of the surface of the pedestal and said cement composition being unbroken, substantially as set forth.

8. In a car, a metallic supporting structure, a pedestal of oval shape, an annular member of oval shape secured to said structure, means for securing the pedestal to said member, and a cement composition on said structure, the line of the surface of said pedestal and said cement composition being unbroken, substantially as set forth.

9. In a car, a metallic supporting structure, a metallic pedestal of oval shape, an annular member of oval shape having a beveled edge, means securing said member to said structure, bolts securing the pedestal to said member and having their heads countersunk in the pedestal, means on the member coacting with the nuts on said bolts to prevent turning thereof, and a cement composition on said structure, the line of the surface of said pedestal and said cement composition being unbroken, substantially as set forth.

10. In a car, means for supporting a seat comprising a supporting structure, a member supported thereby having a raised portion at its edge, a cement composition on said structure and about said member having its

surface flush with the surface of said raised portion, and a pedestal for supporting a seat secured upon said member within the raised portion thereof, substantially as set forth.

5 11. In a car, a metallic supporting structure, a member secured thereon having a beveled edge and a raised portion about said edge, a cement composition on said structure about said member, and a pedestal secured
10 on said member within the raised portion thereof, the line of the surfaces of said composition, said raised portion and said pedestal being unbroken, substantially as set forth.

15 12. In a car, a metallic supporting structure, an annular member of oval shape secured on said structure, said member having a beveled edge and a raised portion about said edge, a cement composition on said
20 structure about the beveled edge of said member, its surface being flush with that of said raised portion, and a pedestal of oval section having a flaring lower edge secured on said member within the raised portion

thereof with the surface of said flaring edge 25 flush with the surface of said raised portion, substantially as set forth.

13. In a car, means for supporting a seat comprising a supporting structure, a metallic member supported thereby, a cement compo- 30 sition on said structure and about said member, and a metallic pedestal for supporting a seat secured upon said metallic member and rising therefrom, substantially as set forth.

14. In a car, means for supporting a seat 35 comprising a supporting structure, a member supported thereby, a cement composition on said structure and about said member, its surface being flush with that of the member and a pedestal for supporting a seat secured 40 upon said member, substantially as set forth.

This specification signed and witnessed this 31 day of March, 1908.

EDWARD G. BUDD.

Witnesses:

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R. M. FRIES.