Feb. 13, 1951 M. WATTER 2,541,898

BAGGAGE RACK AND SECURING MEANS THEREFOR

Filed Feb. 4, 1948 2 Sheets-Sheet 1

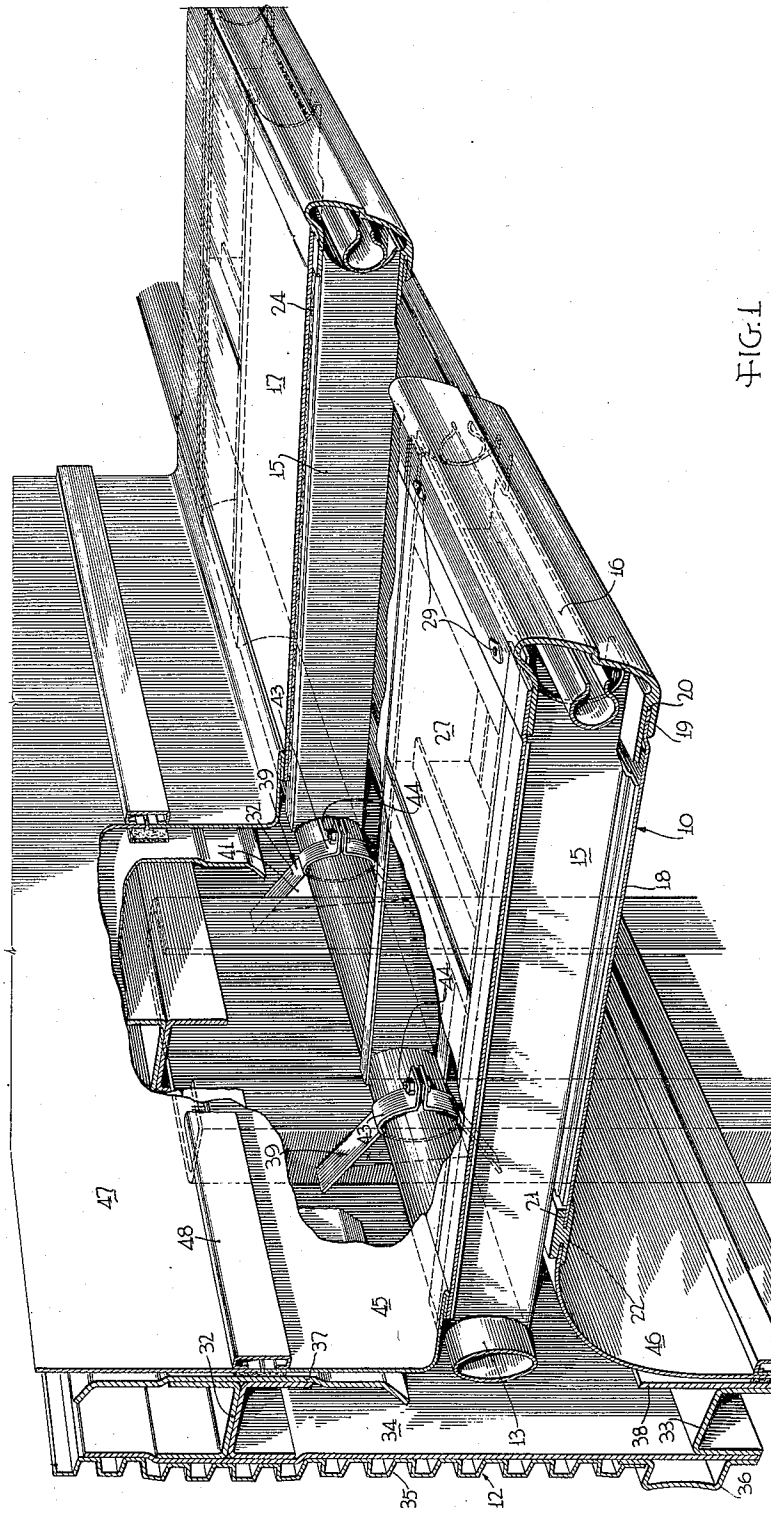


FIG. 1

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BAGGAGE RACK AND SECURING MEANS THEREFOR

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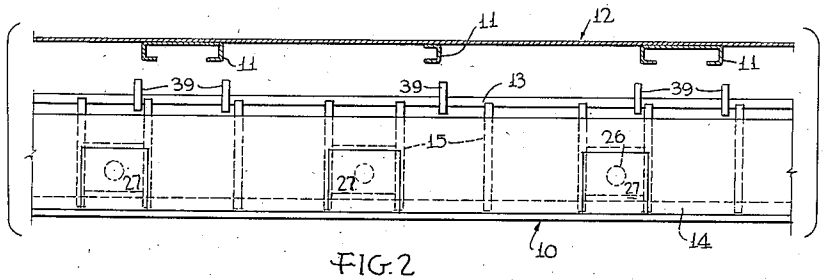


FIG. 2

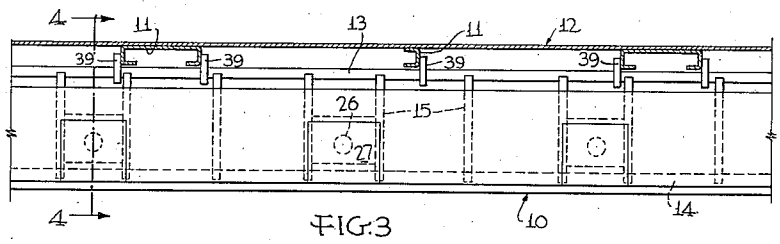


FIG. 3

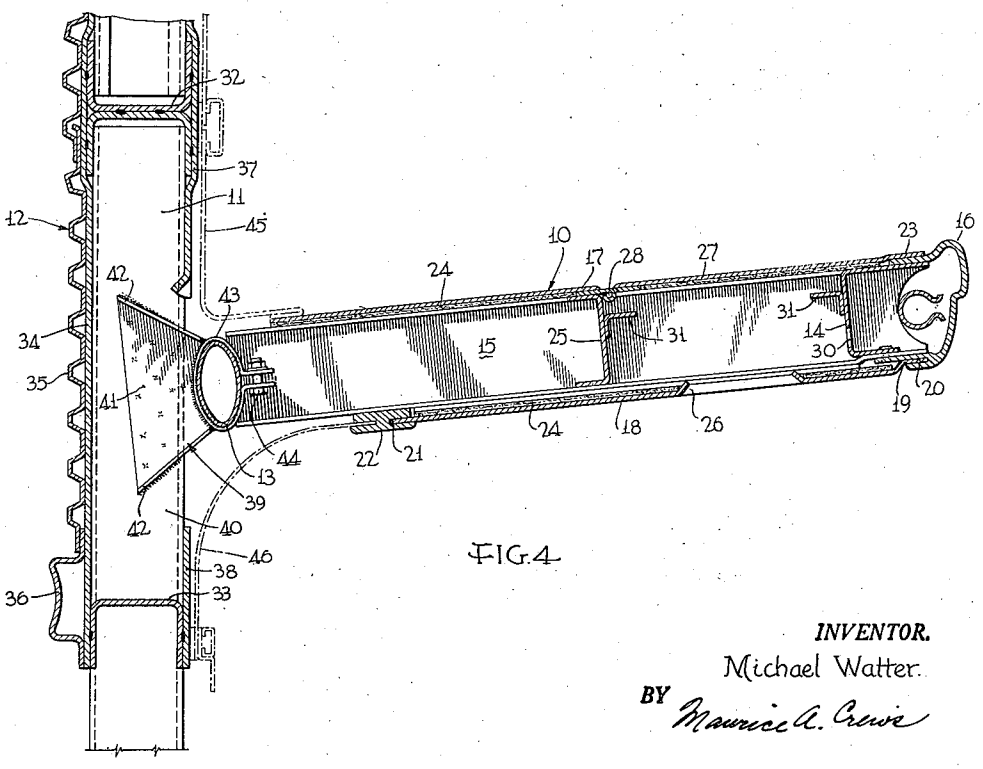


FIG. 4

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BAGGAGE RACK AND SECURING MEANS THEREFOR

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7 Claims. (Cl. 105—325)

1

The invention relates to passenger vehicle bodies, such as railway car and bus bodies, and particularly to baggage racks for such bodies, and to the manner of securement of such racks to the body walls.

It is among the objects of the invention to simplify the construction of such racks, and thereby decrease the cost of manufacture and assembly, to provide a simplified attachment of the racks to the body walls, and to provide a rack subassembly which is strong against bending and torsional stresses.

These and other objects and advantages and the manner in which they are attained will become evident from the following detailed description when read in connection with the drawings forming a part of this specification.

In the drawings,

Figure 1 is a fragmentary perspective view, with parts broken away and shown in section, showing the baggage rack of the invention applied to a railway car side wall;

Figure 2 is a fragmentary exploded plan view on a reduced scale showing a portion of the car side wall in section and the baggage rack subassembly in position for assembly;

Figure 3 is a similar plan view showing the parts in assembled relation; and

Figure 4 is a fragmentary transverse sectional view in the same scale as Figure 1, the section being taken approximately along the line 4—4 of Figure 3.

According to the invention, the baggage rack designated generally by the numeral 10 is fabricated as a separate subassembly extending over the greater portion of the length of the vehicle body with which it is associated, or in suitable lengthwise sections extending over a plurality of spaced vertical carlines or posts 11, as clearly shown in Figures 2 and 3, where it is shown extending across at least three carlines 11 forming part of the car side wall structure, designated generally by 12.

The rack subassembly may comprise a frame structure consisting of an outer longitudinal member 13 of tubular cross section stiff against bending and torsion stresses, and preferably of generally oval form with its long axis disposed generally vertically, and an inner longitudinal member 14 of hollow or channel cross section. These longitudinal members 13 and 14 are interconnected by spaced transverse members 15, which also may be of channel cross section and strongly secured, as by welding, to the longitudinal members to form therewith a stiff framework capable of carrying the required loads.

The rack subassembly may further comprise an inner longitudinally extending finish moulding 16 telescoped over the channel 14, secured thereto, and forming therewith a box section structure running lengthwise along the inner margin of the rack and forming a housing for electric wiring or the like. The framework of the rack is covered by top and bottom panels 17

2

and 18 suitably secured thereto. The bottom panel 18 may have its inner offset edge 19 received in a groove 20 of the moulding strip 16 while its outer edge is received in a groove 21 of a moulding strip 22 secured in any suitable manner to the transverse members 15 at a point some distance from their outer ends. The upper panel 17 has its inner offset margin 23 secured to the moulding 16 and terminates at its inner margin near the outer ends of the transverse members 15. Spacing means, which may comprise suitable sound deadening strips, as 24, are inserted between the panels 17 and 18 and the transverse members 15 of the frame.

Since the baggage rack is shown as designed to carry lighting fixtures, box shaped enclosures are provided between certain of the spaced transverse members where the fixtures are to be located. These enclosures are formed by extending short longitudinal members, as 25, between certain of the spaced transverse members intermediate their outer and inner ends and securing them thereto. In the region of these enclosures, the bottom panel 18 is provided with openings, as 26, through which the rays of the lighting fixture, not shown, may pass downwardly. To provide access to the enclosure and the lighting fixture therein, the top panel may be provided at the enclosure locations with a hinged section, as 27, which may be raised about the hinge axis 28 when access to the interior is desired. This hinged section may be held closed, by suitable means, such as the screws 29 indicated in Figure 1. At the location of the enclosures, the bottom wall of the longitudinal member 14 is provided with a hole or holes, as 30, for the passage of the electric wires from the longitudinal conduit to the lighting fixture. Suitable brackets, as 31, may be provided in the enclosure for the support of a lighting fixture.

As shown in Figures 1 and 4, the body side wall may comprise, in addition to the vertical posts or carlines 11, the longitudinal members 32 and 33 interconnecting the posts and also an outer reinforcing plate 34 extending between the members 32 and 33 and outer corrugated sheathing 35 and moulding 36. On the inner side and above and below the location of the baggage rack, suitable gusset plates 37 and a longitudinal plate 38 are secured to the inner side of the side wall frame members.

The rack subassembly as hereinbefore described may now be brought into final assembly relation with the body side wall and readily secured thereto as will now be described in detail.

Prior to bringing the rack subassembly into assembled relation with the side wall, suitable brackets 39 designed to provide a wide overlap with the posts 11 are temporarily secured in spaced locations longitudinally of the tubular member 13 at points approximating the locations of the flat side walls, as 40, of the posts. The brackets each may comprise a flat plate 41 having edge reinforcing flanges 42 facing away from the

adjacent post side wall, the inner margin of the plate conforming to the shape of the tubular members and being secured as by welding to a strap 43 designed to be clamped by the bolt 44 to the tubular member for temporarily holding the bracket in place.

Now, with the brackets so spaced as to avoid striking the posts 11, as shown in Figure 2, the posts are brought into the final assembly relation, as shown in Figures 1, 3 and 4. When in this relation, the temporary clamping bolts 44, if the clamps are not free enough, are backed off to allow moving the brackets endwise along the member to overlapping engagement with the adjacent posts side walls. The brackets, when in this overlapping relation, are then securely fastened to the posts, as by welding. Since the brackets have a wide overlap with the adjacent sides of the posts, the securement is a firm one and takes care of any difference in spacing between the inner sides of the posts and the longitudinal member 13, such as is unavoidable under practical manufacturing conditions. The wide overlap of the brackets with the posts also allows for adjusting the angularity of the baggage rack with respect to the side wall. The brackets, being symmetrically arranged on opposite sides of the plane of the rack, are interchangeable, so that no rights and lefts need be provided for securement to opposite sides of a post.

To more positively secure the brackets in place on the longitudinal member, the clamping strips may be welded to the member in addition to the tightening of the clamping bolts. This welding would take place after the brackets have been moved into lapped engagement with the posts.

After the rack has been secured in place as described, suitable upper and lower moulding panels designated, respectively, by numerals 45 and 46 and shown in Figure 1 in full lines and in Figure 4 in dot-and-dash lines, are secured in place. These panels merge the upper and lower panels 17 and 19 similarly into the inner side wall trim paneling 47. The joints may be closed by suitable moulding strips 48.

While the invention has been herein described in specific embodiment, it will be understood that changes and modifications may be made by those skilled in the art without departing from the main features of the invention and such changes and modifications are intended to be covered by the appended claims.

What is claimed is:

1. In a passenger vehicle body, a lengthwise extending body wall structure having spaced carlines, a separately subassembled baggage rack structure comprising a rigid frame including an outer tubular section longitudinal member, said rack structure being of a length overlapping a plurality of said carlines when disposed in final assembly relation with said wall structure and brackets connecting said longitudinal tubular member of said rack structure with the carlines of said wall structure and having wide overlapping engagement with the side walls of said carlines and rigidly secured thereto in final assembly, said wide overlap being sufficient to take care of any variation in spacing between the inner faces of the carlines and the outer margin of said tubular member.

2. In a passenger vehicle body, a lengthwise extending body wall structure having spaced carlines, a separately subassembled baggage rack structure comprising a rigid frame including

spaced outer and inner longitudinally extending members of hollow cross section, and spaced transverse members interconnecting said longitudinal members, and means for rigidly securing said rack subassembly structure to the body wall structure comprising longitudinally spaced brackets secured to the outer longitudinally extending member of said subassembly and having, in final assembly, wide overlapping engagement with the side walls of the respective carlines and rigidly secured thereto, the wide overlap providing for the securement of the brackets to the carlines through a considerable range of angularity of the baggage rack with respect to the side wall.

3. In a passenger vehicle body, lengthwise extending body wall structure having spaced carlines, a separately subassembled baggage rack structure comprising a rigid frame including an outer oval cross section tubular structure, the long axis of the oval extending in final assembly generally vertically, said rack structure being of a length overlapping a plurality of said carlines when disposed in final assembly relation with said side wall structure, and means for securing said baggage rack subassembly to the body side wall structure comprising brackets lengthwise adjustable on said oval cross section member and having flat face overlapping engagement with the sides of the respective posts in final assembly and secured thereto.

4. A baggage rack subassembly comprising spaced inner and outer longitudinally extending members and spaced transverse members interconnecting said longitudinal members and forming therewith a rigid framework, the outer longitudinal member being a tubular member resistant against torsion and carrying longitudinally shiftable means adapted to be rigidly secured thereto at any desired point and designed for securing the rack subassembly to a body wall.

5. A baggage rack subassembly comprising a rigid frame including an outer longitudinally extending tubular member resistant against torsion, and brackets adjustably and rigidly clamped to said member and projecting therebeyond for securement of the rack subassembly to a body wall.

6. A baggage rack subassembly comprising a rigid frame including an outer longitudinally extending tubular member resistant to torsion, and brackets adjustably and rigidly secured to said member and extending outwardly of said member for flat face securing engagement with cooperating parts of a body side wall.

7. A baggage rack subassembly comprising a rigid frame including an outer longitudinally extending hollow section member, and adjustable brackets rigidly secured to said member and extending outwardly of said member symmetrically of the plane of said rack for overlapping and securing engagement with cooperating parts of a body side wall.

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