Feb. 2, 1943. P. PARKE 2,309,665

RAIL CAR

Filed May 29, 1939 6 Sheets-Sheet 1

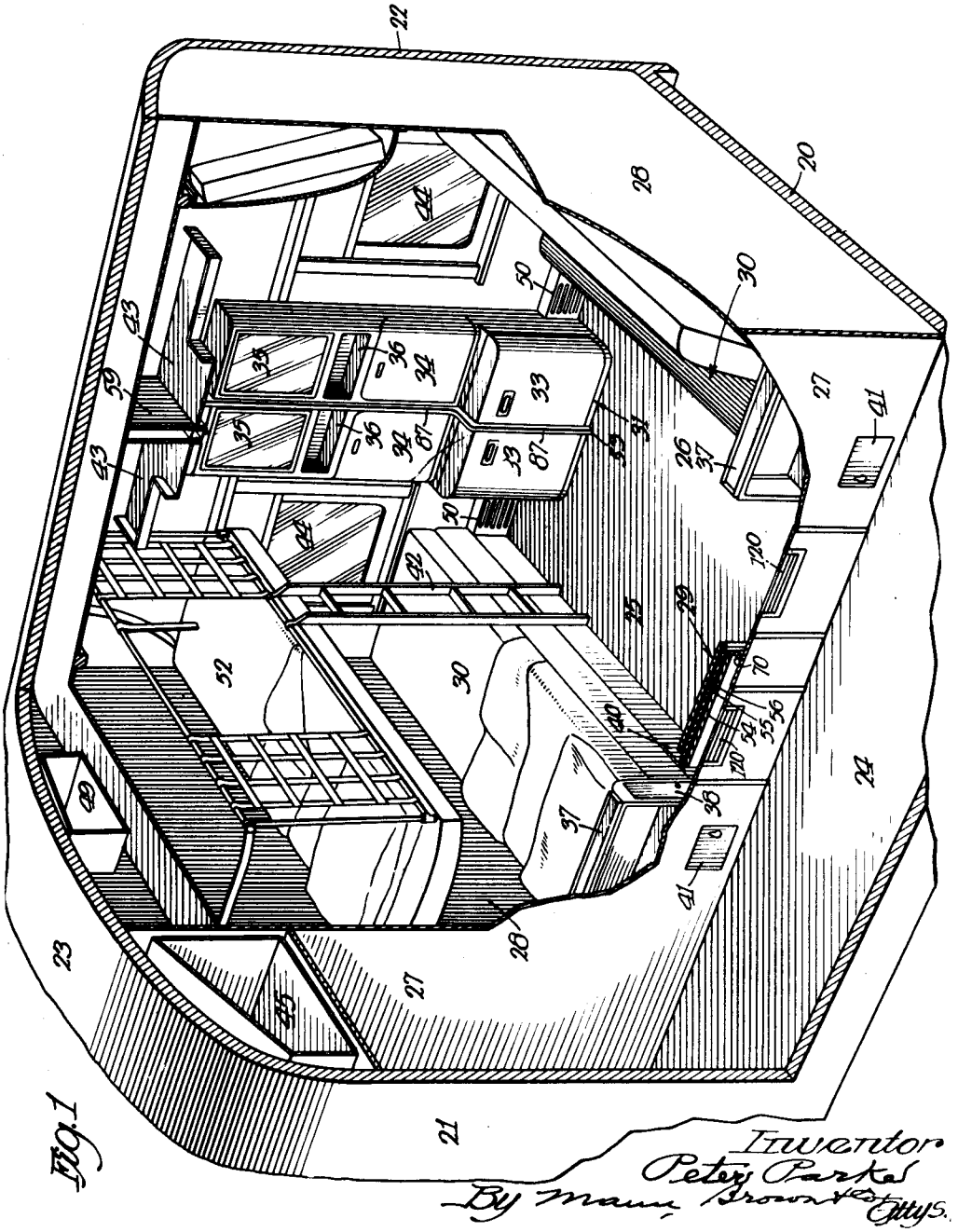


Fig. 1

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RAIL CAR

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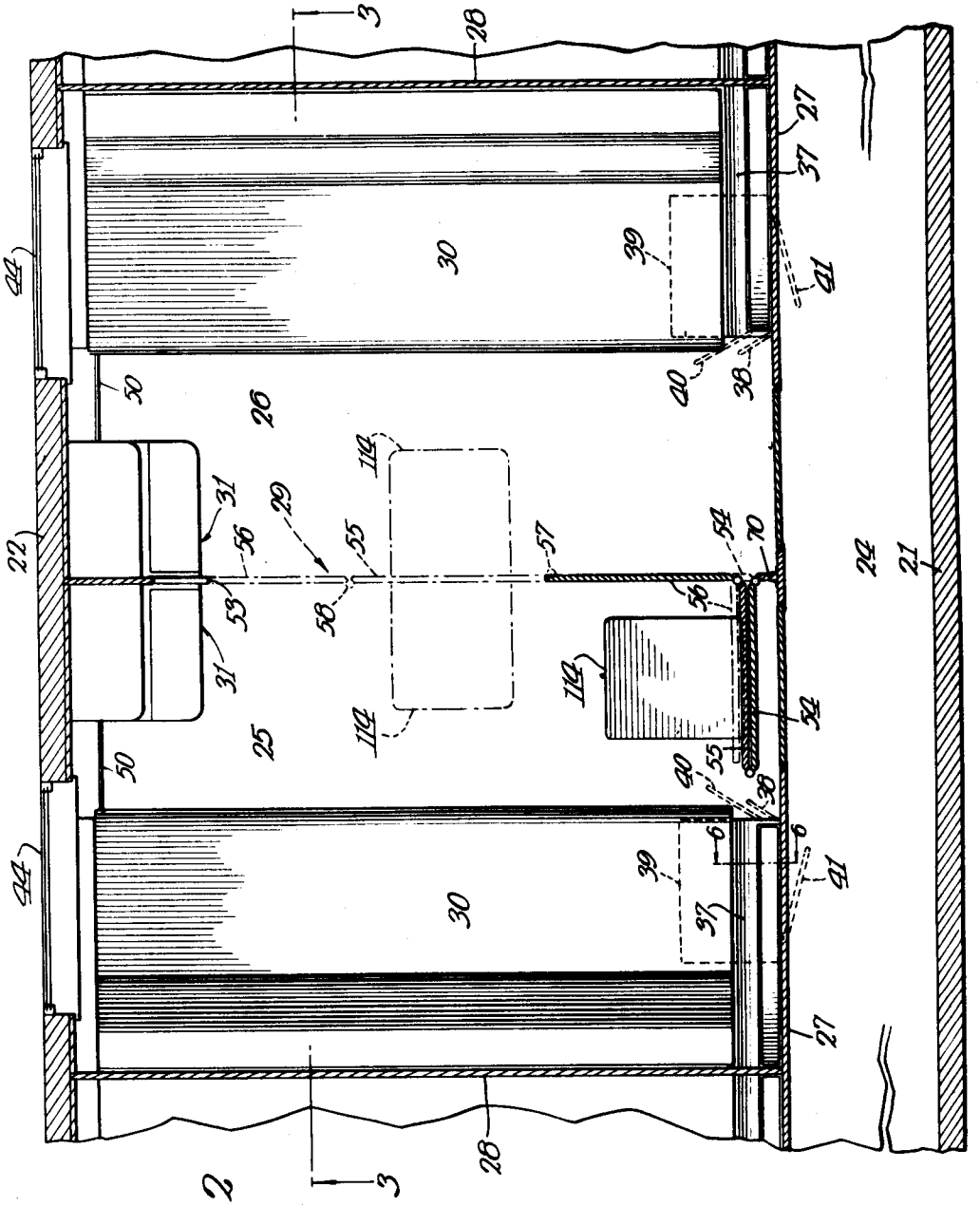


FIG. 2

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RAIL CAR

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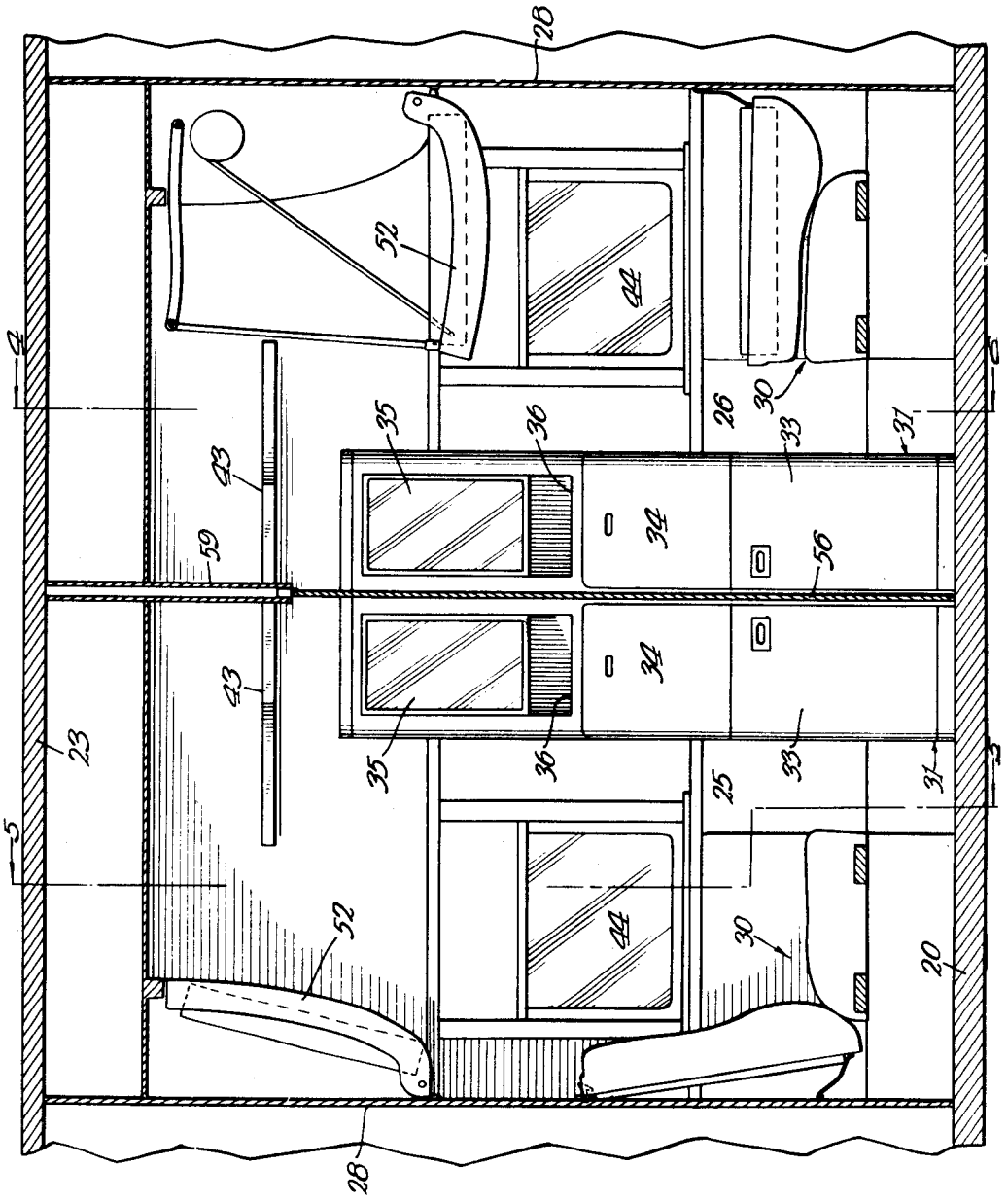


Fig. 3

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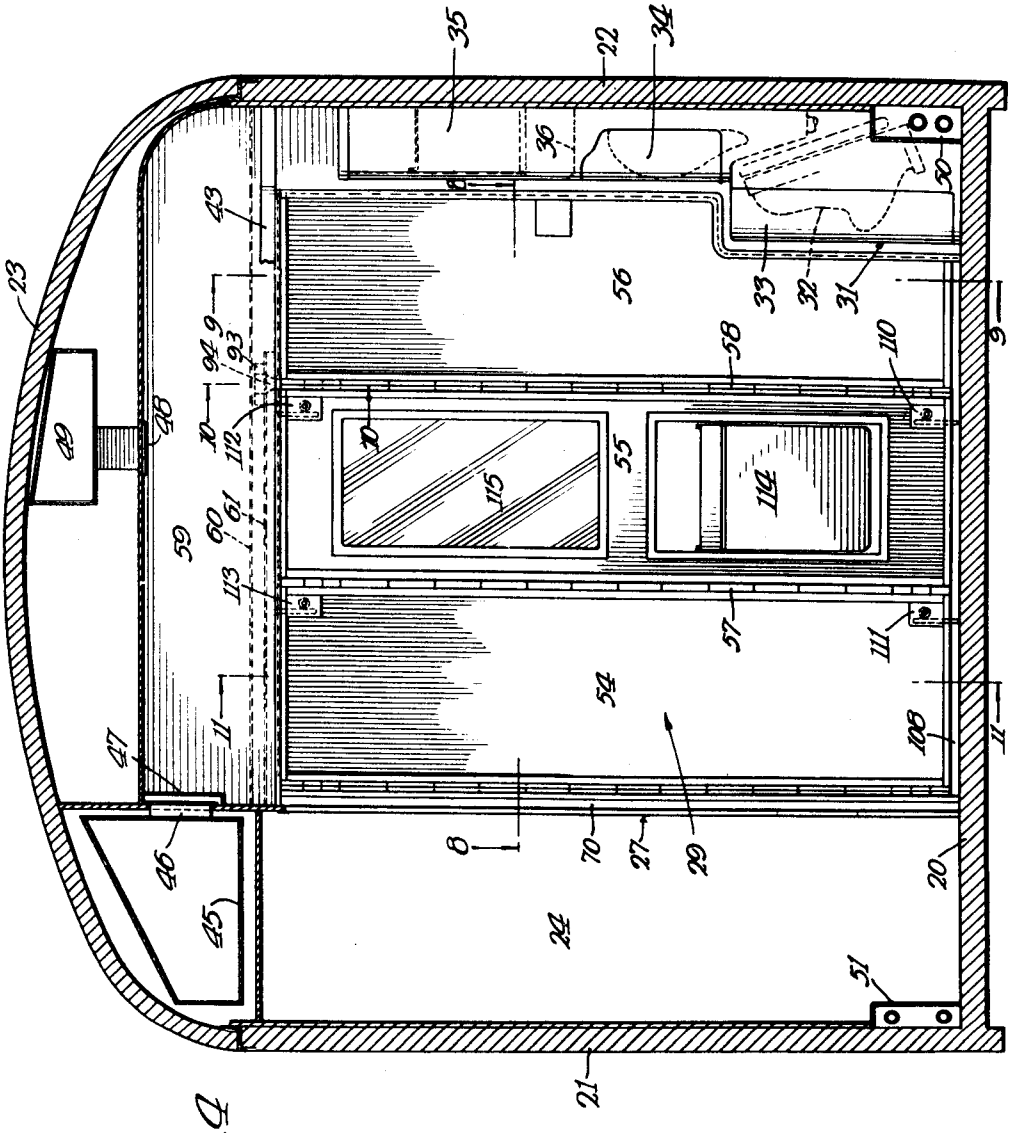


Fig. 4

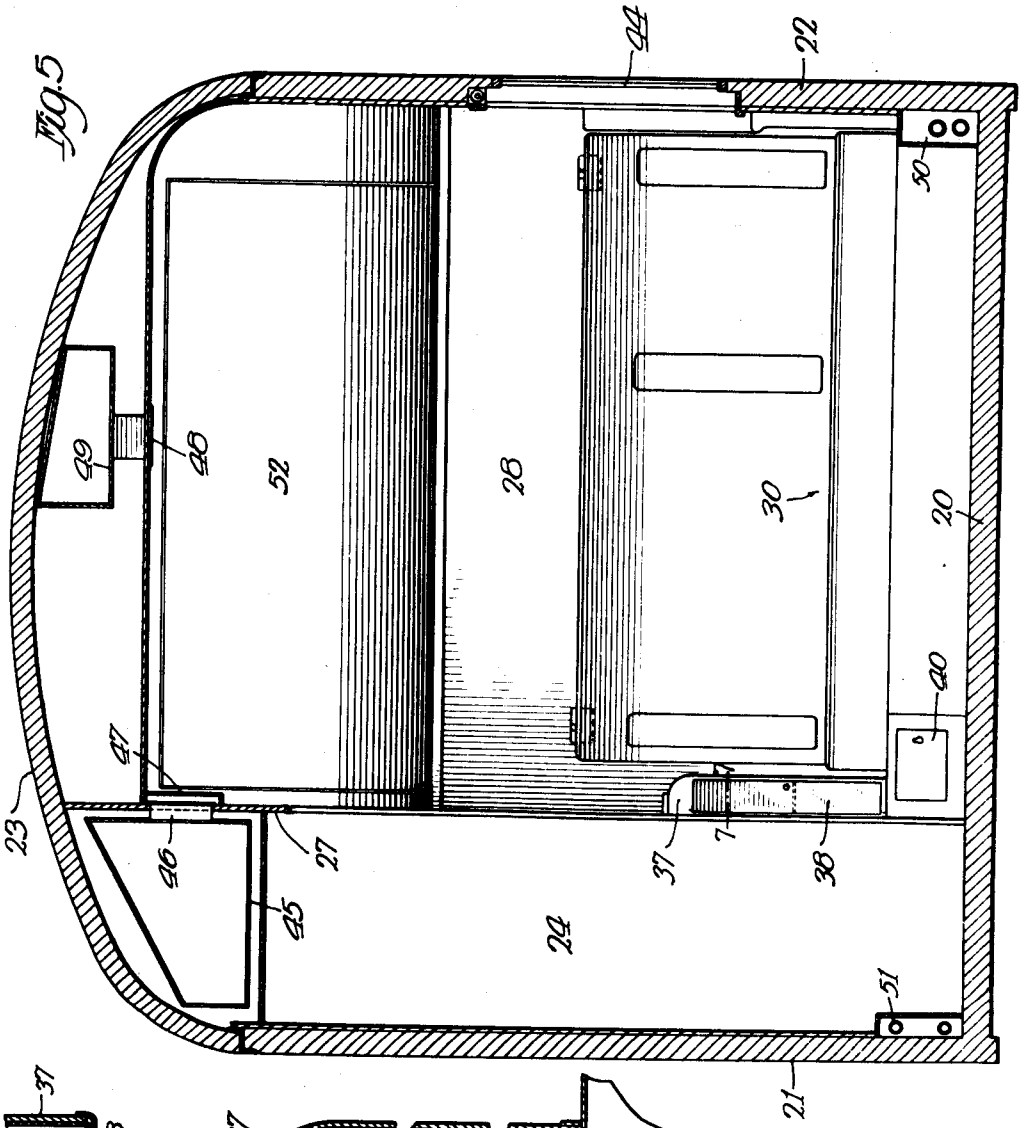
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RAIL CAR

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Fig. 5



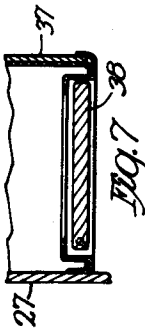
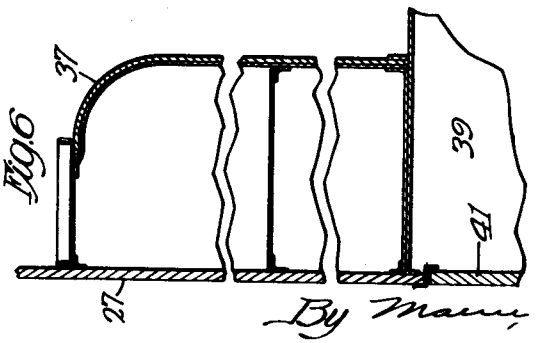


Fig. 7

Fig. 6

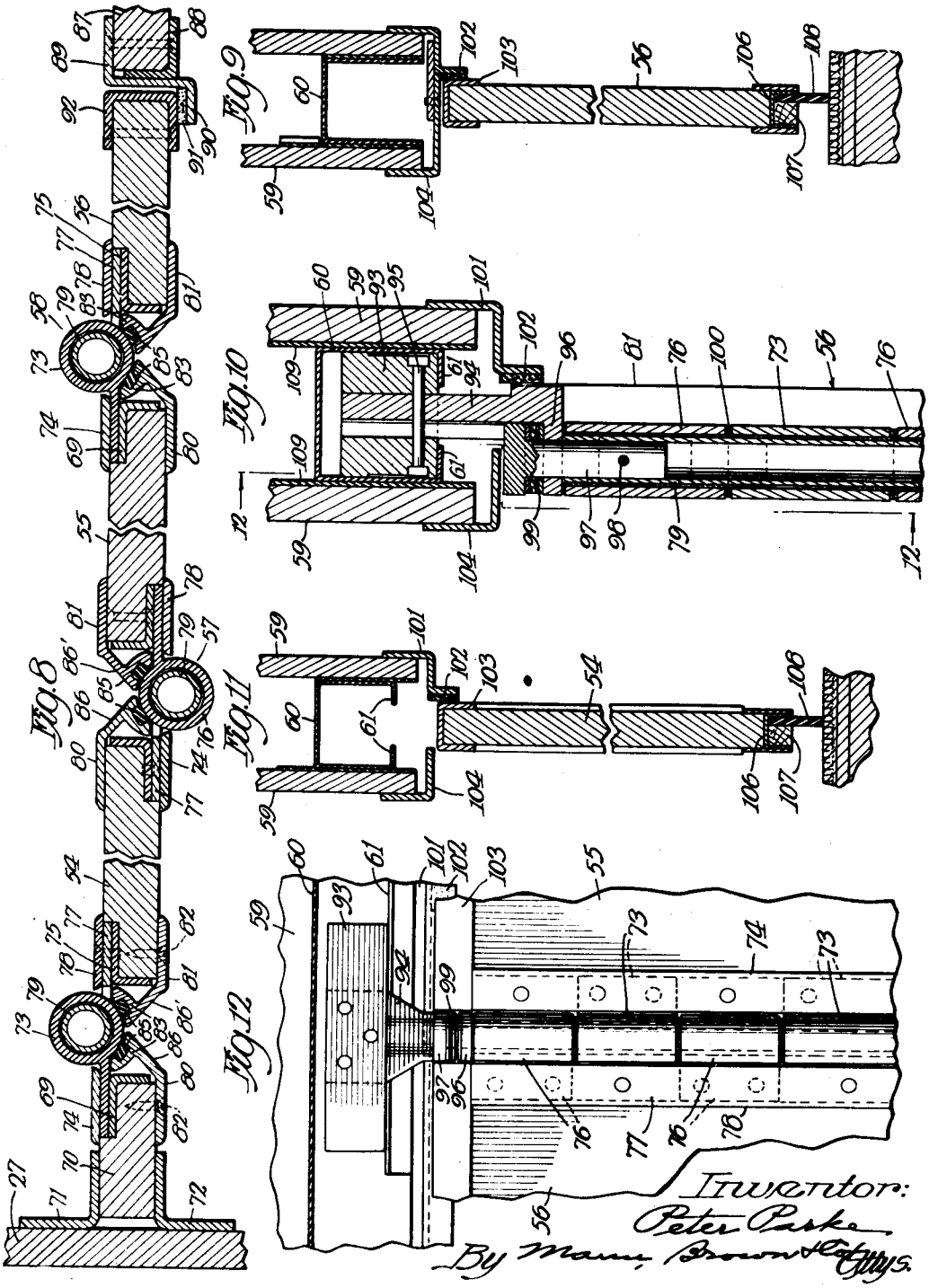


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RAIL CAR

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Patented Feb. 2, 1943 2,309,665

UNITED STATES PATENT OFFICE

2,309,665

RAIL CAR

Peter Parke, Chicago, Ill., assignor to The Pullman Company, Chicago, Ill., a corporation of Illinois

Application May 29, 1939, Serial No. 276,438

7 Claims. (Cl. 105—315)

The railway passenger of today is afforded more privacy and greater traveling comfort than ever before in the history of railroad transportation. These improved conditions are largely the result of more deluxe accommodations, ranging from the closed sleeping car section to the private rooms en suite; and it is this latter type of accommodation that forms the subject matter of the present invention.

As one of the principal objects, it is intended to provide adjoining private rooms in a railway car, fully equipped for day and night use, separated by a partition foldable against one of the room walls in such a manner as to have a maximum amount of floor space available for the occupant's use. Each room is intended to have access to and from the train aisle; and, when the partition is folded back against one of the walls, at least one door is to remain available into the enlarged room for passage to and from the aisle.

Other objects and advantages will become apparent as the description is read in conjunction with the accompanying drawings, in which

Fig. 1 is a perspective view of a portion of a rail car with the side of the car and the room walls broken away so as to show the general arrangement of a pair of bedrooms en suite;

Fig. 2 is a fragmentary plan view of a car showing two adjoining rooms separated by a folding partition, the dotted lines indicating the partition in the closed position;

Fig. 3 is a vertical, longitudinal sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a vertical, transverse sectional view through one of the bedrooms taken on the line 4—4 of Fig. 3;

Fig. 5 is a vertical, transverse sectional view taken on the line 5—5 of Fig. 3;

Fig. 6 is an enlarged detail view of the storage cabinet and shoe locker taken on the line 6—6 of Fig. 2;

Fig. 7 is an enlarged fragmentary, horizontal sectional view through the storage locker taken on the line 7—7 of Fig. 5;

Fig. 8 is an enlarged horizontal sectional view taken through the folding partition on the line 8—8 of Fig. 4;

Fig. 9 is a vertical sectional view through one of the partition sections on the line 9—9 of Fig. 4, a portion of the partition being broken away;

Fig. 10 is an enlarged fragmentary, vertical sectional view taken through one of the hinges of the partition on the line 10—10 of Fig. 4;

Fig. 11 is an enlarged vertical, sectional view taken on the line 11—11 of Fig. 4, a portion of the partition being broken away; and

Fig. 12 is an enlarged fragmentary, detail view of the top portion of one of the partition hinges.

A specific embodiment of the present invention has been selected for the purpose of disclosure in compliance with section 4888 of the Revised Statutes, but, obviously, many modifications may be made without departing from the scope of the invention.

The present application is a continuation in part of the co-pending application by Peter Parke, Richard Cunningham, and Lewis A. Lutherman, Serial No. 223,964, and filed August 9, 1938.

Referring to Figs. 1, 4, and 5, the car body includes an underframe generally indicated at 20, a pair of sides 21 and 22, and a roof 23. Along the car interior adjacent to wall 21, an aisle 24 extends throughout the length of the car and a plurality of bedrooms, two of which are shown at 25 and 26 in Figs. 1, 2, and 3, extend from the aisle to car side 22 and are separated from the aisle by partition 27.

These rooms as shown are what are termed double bedrooms, and are bounded on one side by a partition 28, on the ends by car side 22 and aisle partition 27, and along the other side by a folding partition 29, shown in its closed position in dotted lines in Fig. 2.

Each room is equipped with a sofa 30, suitable for either day or night use, both forms of which are shown in Fig. 1, an upper berth 52, a toilet stand comprising a cabinet member indicated at 31, including a hopper unit 32 (shown in Fig. 4), enclosed in a housing 33, a washstand 34, a medicine cabinet 35, and an open shelf 36. Positioned at the end of the sofa 30 adjacent to the aisle partition 27 is a storage cabinet 37 having a door 38, and extending beneath the sofa is the usual shoe box 39 (Figs. 2 and 5) having a door 40 opening into the room and a second door 41 providing access into the shoe box from the aisle.

When the upper berth 52 is made up for night use, it assumes the position shown in room 25 of Fig. 1, and a ladder 42 hooks onto the edge of the berth. A baggage rack 43 is provided above the washstand.

Each room is provided with a window 44 suitably positioned with respect to the sofa 30.

Extending throughout the length of the car directly over the aisle is a conditioned air duct 45 adapted to furnish conditioned air to each room through branch duct 46 and grill 47, as

shown in Fig. 5. The return air passes from the room through grill 120, positioned in the door near the floor line, and aisle 24 serves as the return duct to the air conditioning equipment.

As shown in Fig. 4, each room is provided with an exhaust vent 43 (Fig. 5) through which smoke and a certain amount of vitiated air passes and an exhaust duct 49 carries this air to one end of the car, where it is discharged into the atmosphere. The conditioned air passing through air duct 45 is either heated or refrigerated, depending on outside temperature conditions, and auxiliary floor heating coils 50 serve to warm the air at the floor line. Heating coils 51 extend throughout the length of the car on the aisle side, as shown in Fig. 5, and serve to supply heat to the aisle.

As shown in Figs. 1 and 2, rooms 25 and 26 are separated by a folding partition 29, and the toilet stands 31 in the two rooms are positioned against the car side 22 in such a manner that their dividing line, indicated at 53, lies in the plane of the folding partition 29; and when this partition is in its closed position, as shown in Fig. 2, it is sealed against the toilet stands.

Partition 29 is hinged to aisle partition 27, as best shown in Figs. 1 and 2, and is made up of three partition sections, 54, 55, and 56, the first two of which are hinged together by vertical hinge 57, and sections 55 and 56 are hinged together by a vertical hinge 58. The partition is supported at its top from a pair of stationary panels 59, shown in Figs. 1, 3, and 4, spaced to receive a track 60, shown in Fig. 10. This track is inverted U-shaped with inwardly extending flanges 61, and serves to guide the partition 29.

The details of the folding partition 29 are best disclosed in Figs. 8–12, inclusive. A ply metal section 70 is secured to the aisle partition 27 by means of angle bars 71 and 72, one positioned on each side of the ply metal panel. Along the free edge of this panel, an angle bar 69 is secured, to which is attached hinge elements 73, suitably spaced throughout the height of the folding partition. A facing strip 74 is secured to the ply metal panel so as to finish off the panel by hiding the hinge sections 73 where they are secured to the panel. To section 54 of the folding partition is secured an angle bar 75, to which is applied a plurality of hinge sections 76, suitably spaced throughout the height of the partition to serve as complementary hinge members to elements 73. Between spaced elements 73 on each partition section and each element 76 on the adjoining partition section a filler 77 is employed, and then a finishing strip 78 is used to cover these filler and hinge members on each partition section. A tube 79 extends through the hinge members 73 to 76 to serve as a pin and complete the vertical hinge.

Referring to Fig. 8, in order to seal the hinge so as to make it sound proof and light proof, metal strips 80 and 81 are secured to ply metal panel 70 and partition section 54, respectively, by means of screws 82; and these strips are provided with flanges 83, having pockets for receiving a sealing strip 85 of felt, rubber, or other suitable material, which bears against the vertical hinge.

The strips 80 and 81 extend throughout the height of the folding partition, and are provided with a finger guide made up of inclined surfaces 86 and 86', which forces the finger of the operator away from the hinge itself to prevent pinching of the finger.

The various angle members, fillers, hinge members, and finishing strips are all secured to the ply metal panel and partition sections by means of riveting, screws, or other suitable means, and the construction of hinges 57 and 58 is identical with the one connecting partition section 54 to the ply metal panel 70.

Between the toilet stands for the adjoining rooms is placed a door jamb means which may comprise a ply metal strip 87 (Fig. 1) which extends from the floor to the top of the folding partition and, as shown in Fig. 8, an angle bar 88 is secured to the free end of this strip. A Z bar 89 is then fastened to the end of the ply metal strip 87, and along the inner face of flange 90 of the Z bar 89 is cemented a felt pad 91. A channel strip 92 is riveted or otherwise secured to the free end of partition section 56, and when the partition is closed, this channel strip rests against the felt pad 91.

As best shown in Fig. 10, the folding partition is swung from overhead on the track 60 by a block 93 riding on the track; and a supporting arm 94, secured to this block by means of a rivet 95, extends downwardly, and terminates with a flanged portion 96. A pin 97, mounted on the flange 96 of the arm 94, projects downwardly into the tube 79, and is secured thereto, as indicated at 98. Between the head of the pin 97 and the flange 96 is inserted some suitable type of bearing, such as ball bearings 99. Between each of the adjoining hinge members 73 and 76 and at the top of the hinge member 73, located at the top of the partition, are inserted bushings 100, which seal the hinges to prevent passage of sound and light.

As shown in the drawings, particularly Figs. 1 and 2, the partition 29 folds into room 25, and consequently the panel 59 (Figs. 10 and 11), which is located in room 26, is provided with a Z bar 101, having a felt or other suitable strip 102, against which the partition closes to form a seal across the top of the partition. A channel strip 103 extends across the top of the partition sections.

A finishing strip in the form of an angle 104 (Figs. 10 and 11) is provided along the bottom of the panel 59 on the side facing room 25. As best shown in Figs. 9 and 11, the bottoms of the folding partition sections are provided with channel members 106, which are adapted to receive wooden blocks 107. Sealing strips 108 of rubber or other suitable material are inserted into the wooden blocks 107 and serve to seal the folding partition at the floor.

Between the panel sections 59 and the track 60 are inserted fillers 109.

As indicated in Figs. 1 and 2, partition 29, when opened, is folded back against the aisle door leading into room 25; and, when closed, the partition is locked in place by means of floor bolts 110 and 111 (Fig. 4) and overhead bolts 112 and 113, which are inserted and locked into suitable slots. In order to open the partition, it is necessary to manipulate bolts 110 and 112 from one side of the partition and bolts 111 and 113 from the other side, so that the partition can be opened only after manipulation from both rooms.

Positioned on the middle partition section 55 on each side is a folding table 114, which may be opened and used as a writing table, and a mirror 115, directly above the table. When the partition is in its open position, as shown in Fig. 2, one of the tables and its corresponding mirror

are made accessible by bending the partition section **56** to its closed position.

I claim:

1. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities in the two rooms adjacent to the side wall and to each other and projecting into the rooms, the top surfaces of the toilet facilities being disposed below the eye level of persons normally seated in the room, door jamb means mounted between said toilet facilities and extending from the floor upwardly toward the room ceiling and in the region above the toilet facilities being spaced from the innermost edge of the toilet facilities toward the side wall a distance substantially corresponding to the depth of the toilet facilities, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with said beds being oppositely disposed and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

2. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities in the two rooms adjacent to the side wall and to each other and projecting into the rooms, each of said toilet facilities being a cabinet member extending vertically from the floor toward the upper region of the room and including a hopper unit projecting into the room beyond the innermost face of the remainder of the cabinet member, the innermost face of each cabinet member being substantially vertical and substantially parallel with the said car side wall, the upper surface of each hopper unit being disposed below the eye level of persons normally seated in the room, door jamb means mounted between said cabinet members and extending from the floor upwardly toward the room ceiling and in the region above the hopper units being spaced outwardly from the innermost edge of the hopper units and disposed closely adjacent to the innermost faces of the remainder of said cabinet members so as to provide an unobstructed area above the hopper units affording the maximum amount of intervision between said two rooms, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with oppositely disposed beds and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

3. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a floor for each room extending from the side wall to the aisle wall, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities disposed in the two rooms adjacent to the side wall and to each other and utilizing a portion of the floor area in the rooms, said toilet facilities each including a folding washbasin adapted to pivot about a horizontal axis parallel to the side wall and when folded assuming a position closely adjacent to the side wall, and each including a hopper unit below the washbasin, door jamb means mounted between said toilet facilities and disposed closely adjacent to the vertical outer faces of the washbasins when the latter are in their folded positions and stepped around the hopper units, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with oppositely disposed beds and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

4. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a floor for each room extending from the side wall to the aisle wall, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities disposed in the two rooms adjacent to the side wall and to each other and utilizing a portion of the floor area in the rooms, said toilet facilities each including a folding washbasin adapted to pivot about a horizontal axis parallel to the side wall and when folded assuming a position closely adjacent to the side wall, and each including a hopper unit below the washbasin extending into the room a greater distance than the folded basin, door jamb means mounted between said toilet facilities and extending upwardly from the floor and following generally the profile of the toilet facilities, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with oppositely disposed beds and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

5. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a floor for each room extending from the side wall to the aisle wall, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities disposed in the two rooms adjacent to the side wall and to each other and utilizing a portion of the floor area in the rooms, said toilet

facilities each including a folding washbasin adapted to pivot about a horizontal axis parallel to the side wall and when folded assuming a position closely adjacent to the side wall, and each including a hopper unit below the washbasin extending into the room a greater distance than the folded basin, door jamb means mounted between said toilet facilities and extending upwardly from the floor in front of the hopper units to a position above said units, and then toward the side wall to a position adjacent to the front faces of the folded basins and then upwardly toward the room ceiling, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with oppositely disposed beds and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor spaced between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

6. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a floor for each room extending from the side wall to the aisle wall, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in each room adjacent to the permanent partition thereof, similar toilet facilities disposed in the two rooms adjacent to the side wall and to each other and utilizing a portion of the floor area in the rooms, the toilet facilities for each room including a hopper unit having a vertical face projecting into the room, door jamb means mounted between said toilet facilities and extending upwardly from the floor adjacent to the innermost vertical faces of the hopper units and being stepped around the hopper units so as generally to correspond to the contour of the units, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room with oppositely disposed beds and substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space between said oppositely disposed beds and being extensible to engage said door jamb means for dividing said one large room into two rooms.

7. In a railway car, a side wall and an aisle wall defining the longitudinal sides of a pair of contiguous rooms, a door for each room in the aisle wall, permanent transverse partitions connecting said walls and each defining an opposite end of one of the rooms, a bed positioned in one of the rooms adjacent to the permanent partition thereof, toilet facilities disposed in said last named room adjacent to the side wall and to the other room, said toilet facilities including a hopper unit having a vertical face projecting into the room, door jamb means mounted closely adjacent to the front face of said toilet facilities and extending upwardly from the floor adjacent to the innermost vertical face of the hopper unit and being stepped around the hopper unit so as generally to correspond to the contour of said unit, and a multi-panel, foldable partition hinged to the aisle wall between the two doors therein, said partition being foldable against one of said doors to convert the two rooms into one large room substantially free of any intermediate partition obstruction to provide a maximum amount of unobstructed floor space and being extensible to engage said door jamb means for dividing said one large room into two rooms.

PETER PARKE.