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2,609,760

SLEEPING CAR

Filed Dec. 14, 1948

3 Sheets-Sheet 2

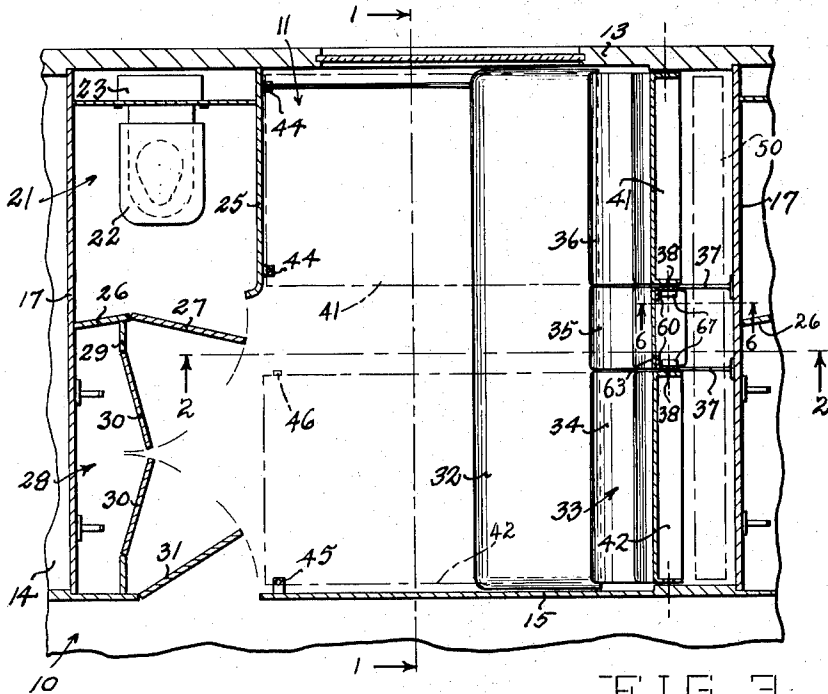


FIG. 3.

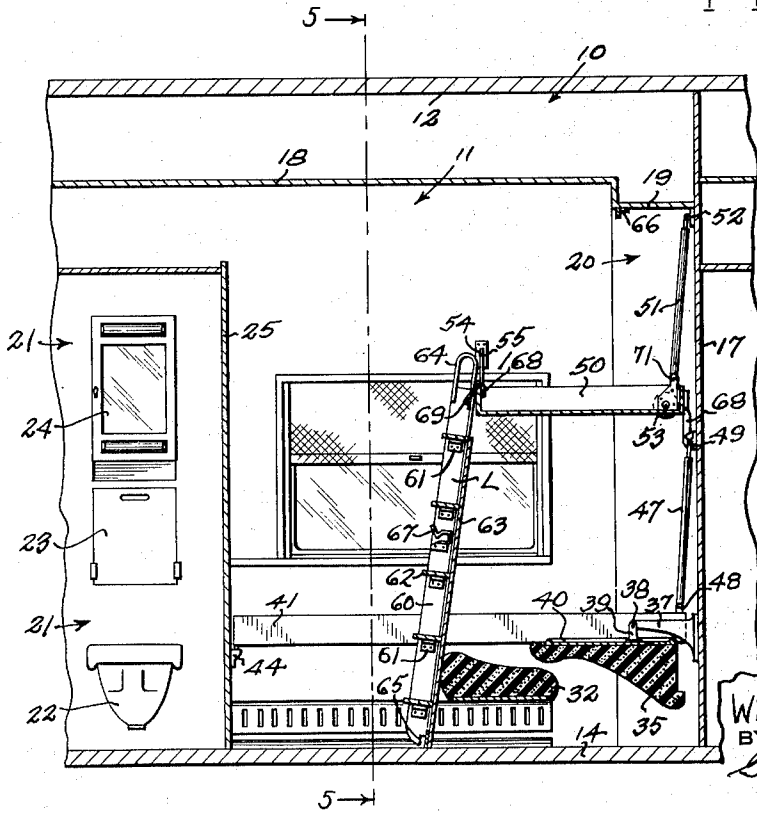


FIG. 4.

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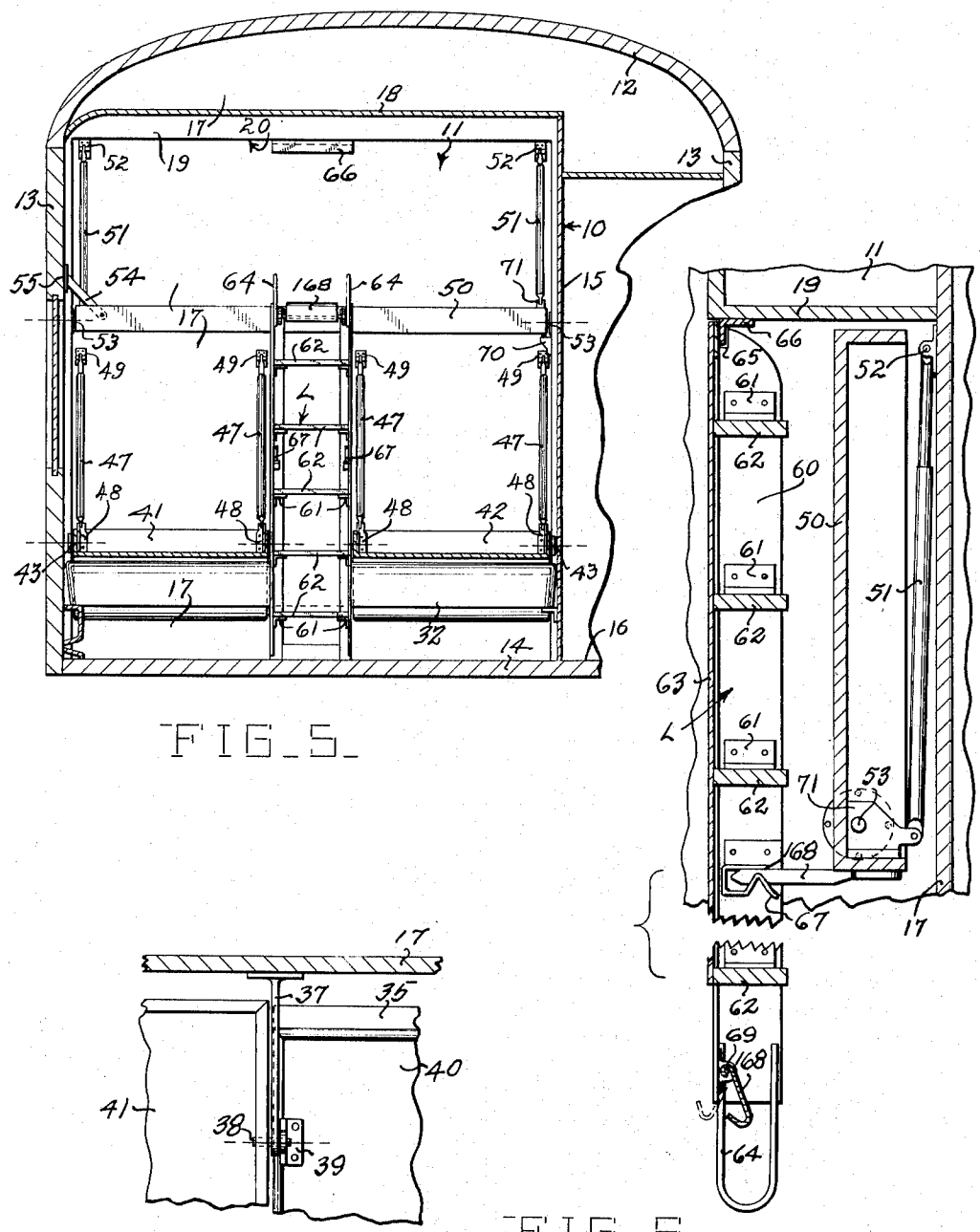


FIG. 5.

FIG. 6.

FIG. 7.

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SLEEPING CAR

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8 Claims. (Cl. 105—316)

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This invention relates to railroad cars and more particularly to furniture and its arrangement in sleeping car bedrooms.

In sleeping car bedrooms having upper berths it is customary to provide a ladder for the upper berth and a night table adjacent the lower berth arrangement. The night table is usually fixed in the room while the ladder is usually detachable and stored in any convenient space.

An object of the invention is to provide a furniture arrangement for sleeping car bedrooms whereby maximum space will be available for passengers when the bed structures are in stored position.

Another object of the invention is to provide a night table in a sleeping car bedroom that is shiftable into the passenger room space when the bed structures are in prone position and out of the passenger room space when the bed structures are in stored position.

Another object of the invention is to provide a sleeping car bedroom having a seat structure with spaced back sections carried by hinged berth pans and a hinged upper berth above the seat, with a ladder that can be placed between the berth pans when in stored position and which with the bottoms of the berth pans will form a cover wall in front of the upper berth.

Another object of the invention is to provide a sleeping car bedroom with a ladder that can be detachably stored in position to form part of an alcove wall concealing an upper berth.

These and other objects of the invention will be apparent to those skilled in the art from a study of the following description and accompanying drawings, in which:

Figure 1 is a transverse sectional view of a sleeping car bedroom taken on line 1—1 of Figure 3.

Figure 2 is a longitudinal sectional view in the bedroom taken on line 2—2 of Figure 3.

Figure 3 is a horizontal sectional view of the bedroom taken on line 3—3 of Figure 1.

Figure 4 is a sectional view of the bedroom similar to Figure 2 showing the berths in prone position and the ladder in position for use with the upper berth.

Figure 5 is a sectional view in the bedroom taken on line 5—5 of Figure 4.

Figure 6 is a sectional view of the ladder taken approximately on line 6—6 of Figure 3.

Figure 7 is a fragmentary plan view in the bedroom showing the table carrying seat cushion section in its down position and one of the lower beds in prone position.

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Referring now to the drawings by characters of reference, numeral 10 represents generally a railroad sleeping car having bedrooms therein as indicated by numerals 11. The car has the usual roof 12, outside walls 13 and floor 14. Partition 15 extends longitudinally of the car adjacent one of the outer walls 13 and forms therewith an aisle 16. Partitions 17 extend between the aisle partition 15 and an outer wall 13 to divide the car into bedrooms 11 and a ceiling 18 having a depressed portion 19 extends beneath the roof 12 in each room and is suitably secured therein. Below this depressed portion of the ceiling is an alcove 20 and at the other end of the room, adjacent the outside wall remote from the aisle partition is arranged an annex 21 in which is hopper 22, folding washbasin 23 and cabinet 24. Such annex has a transversely extending wall 25 and a longitudinally extending wall 26 and between these two walls is an entrance having a door 27 associated therewith. At the same end of the room with the annex and between the annex and the aisle partition is a shallow clothes closet 28 formed by the adjacent partition 17, the aisle partition 15 and a transverse partition 29 having an opening therein with which doors 30 are associated. At the end of the room adjacent the clothes closet, the aisle partition is formed with a bedroom entrance with which a door 31 is associated. The space beside the annex outside of the clothes closet provides a foyer for the bedroom.

A couch is arranged in the end of the bedroom opposite that occupied by the annex and clothes closet and consists of a seat structure 32 suitably fixed to the floor and a back structure 33. This couch preferably extends substantially the full width of the room with the rear of the back structure substantially in vertical alignment with the forward end of the alcove 20. The back structure is formed by three side-by-side sections 34, 35 and 36. All of the sections are preferably mounted to be swung downwardly to partly overlie the seat structure. Brackets 37 extend forwardly in the alcove from the transverse wall 17 adjacent the couch and pivot pins 38 extend through the brackets and are engaged by supporting brackets 39 projecting from the middle seat back section 35. Table top 40 is fixed on the rear of back section 35 to serve as a night table top when the back section 35 is swung downwardly to overlie the seat structure 32 as shown in dotted lines in Figure 2. This back section 35 can be swung into alignment or out of alignment with the other back sections at will to provide a table structure in its lower position or to provide a por-

tion of the back structure in its upper position. The bottom wall of berth pans 41 and 42 are suitably fixed to the rear of the end sections 34 and 36 of the couch back structure and the adjacent side walls of the pans are pivotally mounted on pins 38. The outer side walls of the pans 41 and 42 are mounted on pivots 43 suitably secured to the adjacent outer wall and aisle partition in line with pivot pins 38. The berth pans are pivotally mounted behind the seat structure and provide the supports for the seat back structure sections 34 and 36. As the berth pans 41 and 42 are pivotally mounted, they can be swung down over the seat structure into prone position for use as spaced beds. When in prone position, the forward end of pan 41 is supported on brackets 44 fixed on annex wall 25 while the forward end of berth pan 42 is supported on bracket 45 fixed to the aisle partition and a suitable leg 46 carried by the berth pan 42. As previously stated, the central back section can be swung up or down at will to serve as a table between the berth pans when in prone positions or as a back rest for passengers reclining on the ends of the seat structure when the berth pans are in stored position.

The pans 41 and 42 project well above the top of the seat structure sections and preferably substantially to the ceiling at the forward end of the alcove 20 to form a front closure wall for the alcove when in stored position. As the bottom surfaces of the berth pans are exposed to view when in stored position, they can be suitably finished to match with the other type of finish utilized in the bedroom. The berth pans have spring controlled telescoping links 47 connected with and attached at their lower ends to brackets 48 projecting from the open side of the pans and mounted at their other ends on brackets 49 on transverse wall 17 at the rear of the alcove. These spring links may be of a conventional type.

An upper berth pan 50 is suspended by links 51 mounted at their upper ends to brackets 52 on the alcove wall 17 and connected at their lower ends with the brackets 71 on the pan, the pan being carried by pivot means 53 suitably secured to the side walls of the room. This suspension means is associated with the rear side of the upper berth pan so that the pan can be swung upwardly into the alcove behind the berth pans 41 and 42 for stored position. After the lower berths have been moved downwardly, the upper berth pan can be swung down and is supported at its forward end by arms 54 pivoted at one end thereof and bracket 70 on the aisle partition. Arm 54 is movable into a slot in bracket 55 on the outer wall. Such supporting means for the upper berth may be of conventional form.

Ladder L is provided in the bedroom by means of which a passenger can climb to and descend from the upper berth structure 50. The ladder is constructed so that it may be stored in the space between the lower berths when stored and to provide with the bottom walls of the lower berths a continuous wall at the front of the alcove. The ladder is composed of side uprights 60, preferably formed as angle irons, to which brackets 61 are attached for the mounting of steps 62. One face of the ladder has a cover plate 63 extending thereacross and secured to the uprights and steps by welding or other suitable means. The upper end of the ladder uprights have U-shaped hand grips 64 suitably fixed thereto and the bottom end of the uprights are formed with a notch 65 engageable with a flange of retainer bracket 66 fixed beneath the forward

end of the depressed portion 19 of the ceiling. It will be noted that the U-shaped hand grips extend beyond the angle iron uprights of the ladder and when the ladder is stored, these hand grips extend below the top of the back section 35. The ladder is further retained in parked position by a spring latch 67 fixed thereto engaging in notched arm 68 fixed on one side of upper berth pan 50. Hook 68 is pivotally mounted on rod 69 fixed to the upper end of the ladder and is adapted to be swung over the front edge portion of the upper berth pan when it is in prone position for retaining the ladder in operative position.

This arrangement of the three berths at one end of the room reduces the space normally required for the present bed arrangements in drawing rooms of sleeping cars and without restricting passenger comfort.

The invention may be modified in various respects as will occur to those skilled in the art and the exclusive use of all modifications as come within the scope of the appended claims is contemplated.

What is claimed is:

1. In a sleeping car having an aisle, a room defined by an aisle wall, an outside car wall, a floor, a ceiling and spaced transverse walls extending between said aisle wall and outside wall, said room being of longer dimension longitudinally than transversely of the car, a couch seat structure secured on the floor and extending transversely of the room adjacent one of the transverse walls, a couch back structure comprising three side-by-side separate sections having cushions on the front thereof adapted to form a continuous aligned surface, said middle back section being hingedly mounted, hingedly mounted berth pan structures having the rear of the two end back sections secured to their bottom walls and of a length to extend substantially to the ceiling when in stored position, a table fixed on the rear of the middle couch back section, a ladder structure of a width and length to fill the space between the berths above the middle couch back section when in seat forming position, said ladder structure having a cover adapted to lie flush with the bottom walls of the berth pans when in stored position, and means for retaining the ladder in stored position between the berths.

2. In a sleeping car having an aisle, a room defined by an aisle wall, an outside car wall, a floor, a ceiling and spaced transverse walls extending between said aisle wall and outside wall, said room being of longer dimension longitudinally than transversely of the car, a couch seat structure secured on the floor and extending transversely of the room adjacent one of the transverse walls, a couch back structure comprising three separate side-by-side sections, the middle back section being hinged at its base and all of the sections having cushions on the front thereof adapted to form a continuous aligned surface, pivoted berth pan structures having their bottom walls secured with the rear of the two end back sections and of a length to extend substantially to the ceiling when in stored position, a ladder structure of a width and length to fill the space between the berths above the middle couch back section, said ladder structure having a cover adapted to lie flush with the bottom walls of the berth pans when in stored position, and means for retaining the ladder in stored position between the berths.

3. In a sleeping car having an aisle, a room

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defined by an aisle wall, an outside car wall, a floor, a ceiling and spaced transverse walls extending between said aisle wall and outside wall, said room being of longer dimension longitudinally than transversely of the car, a couch secured on the floor and extending transversely of the room adjacent one of the transverse walls, a couch back structure comprising three separate side-by-side sections having cushions on the front thereof adapted to form a continuous aligned surface, the middle back section being hingedly mounted, hinged lower berth pan structures having their bottom walls secured with the back of the two end back sections and adapted to extend substantially to the ceiling when in stored position, an upper berth pan hinged for storage behind the other berth pan structures, an anchor member on the upper berth pan, a ladder structure of a width and length to fill the space between the lower berth pan structures and above the middle couch back section, said ladder structure having a cover adapted to lie flush with the bottom walls of the lower berth pan structures when in stored position, and a latch on the ladder for engaging the anchor member for retaining the ladder in stored position between the lower pan structures.

4. In a sleeping car having an aisle, a room defined by an aisle wall, an outside car wall, a floor, a ceiling and spaced transverse walls extending between said aisle wall and outside wall, said room being of longer dimension longitudinally than transversely of the car, an anchor bracket on said ceiling, a couch seat secured on the floor and extending transversely of the room adjacent one of the transverse walls, a couch back structure comprising three separate side-by-side sections having cushions on the front thereof adapted to form a continuous aligned surface, the middle back structure section being hingedly mounted, lower berth pans having their bottom walls secured to the backs of the two end back sections and adapted to extend adjacent the ceiling when in stored position, a ladder structure of a width and length to fill the space between the berth pans above the middle couch back section when in stored position, said ladder structure having a cover adapted to lie flush with the bottom walls of the berth pans and having a notch in one end, and a ceiling anchor bracket for engaging in the ladder notch to secure the ladder in stored position between the berth pans.

5. In a sleeping car, a bedroom formed by an outside wall, an aisle wall and transverse walls, said aisle wall having an entrance opening adjacent one of the transverse walls, a toilet annex in the entrance end of the room adjacent the outside wall having an inner transverse wall, a couch extending across the full width of the room adjacent the transverse wall remote from the annex having a seat structure and a back struc-

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ture, said back structure having transversely separated sections mounted to swing down over the seat structure, and hinged berth pans having their bottom walls fixed against the rear of the two end back structure sections, said pans extending beyond the top of the back structure sections and being substantially the length of the space between the annex inner transverse wall and the room transverse wall adjacent the couch when in horizontal position.

6. In a sleeping car, a bedroom formed by an outside wall, an aisle wall, transverse walls and a ceiling with a lower end forming an alcove, an upper berth hinged to room walls and adapted to be stored in the alcove adjacent the transverse wall, a couch extending across the end of the room outside the alcove, said couch having a fixed seat structure and a back structure having spaced end sections mounted to swing down over the seat structure, and hinged berth pans having their bottom walls secured to the rear of the back sections and extending beyond the tops thereof to form a cover wall when the seat back sections are in seating accommodation position.

7. In a sleeping car, a bedroom, a couch in the bedroom having a fixed seat structure and a back structure, said back structure being formed of three separate side-by-side sections adapted to be swung down over the seat structure, said middle back structure section being hingedly mounted, hinged berth pans having their bottom wall attached to the back of the outer sections of the couch back structure and a table top attached to the back of the center section of the couch back structure.

8. In a sleeping car having a bedroom, a couch extending across one end of the bedroom, said couch having a seat structure and a back structure, said back structure including at least two transversely separated sections independently mounted to swing down over the seat structure, and berth pans hingedly mounted behind the seat structure and having their bottom walls fixed to the back structure sections, said pans projecting beyond the tops of the back structure sections a distance such that they approach the bedroom ceiling when in vertical stored position.

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