March 15, 1949. G. K. MURPHY 2,464,749

SLEEPING CAR

Filed June 14, 1945 5 Sheets-Sheet 1

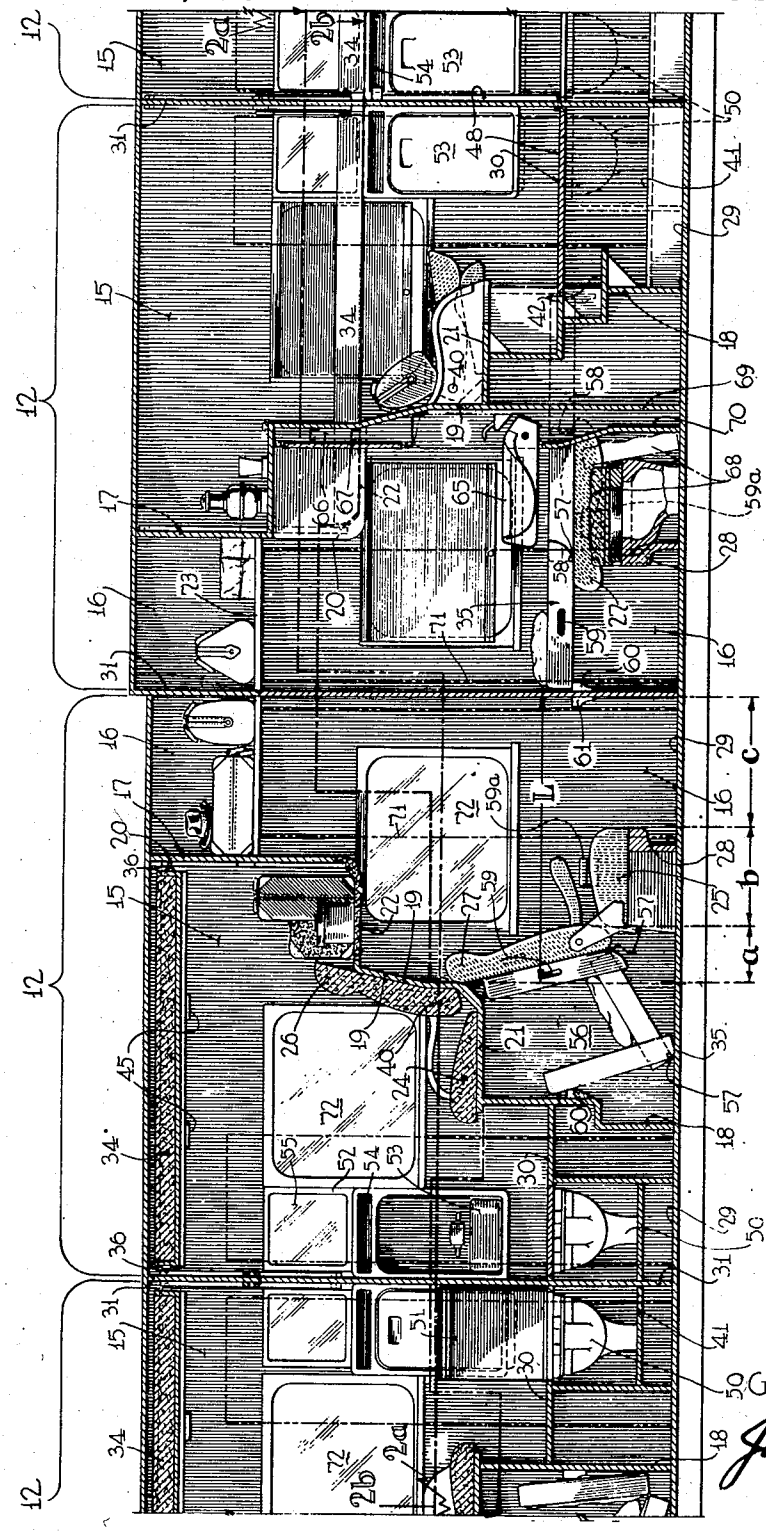


FIG. 1

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March 15, 1949. G. K. MURPHY 2,464,749

SLEEPING CAR

Filed June 14, 1945 5 Sheets-Sheet 2

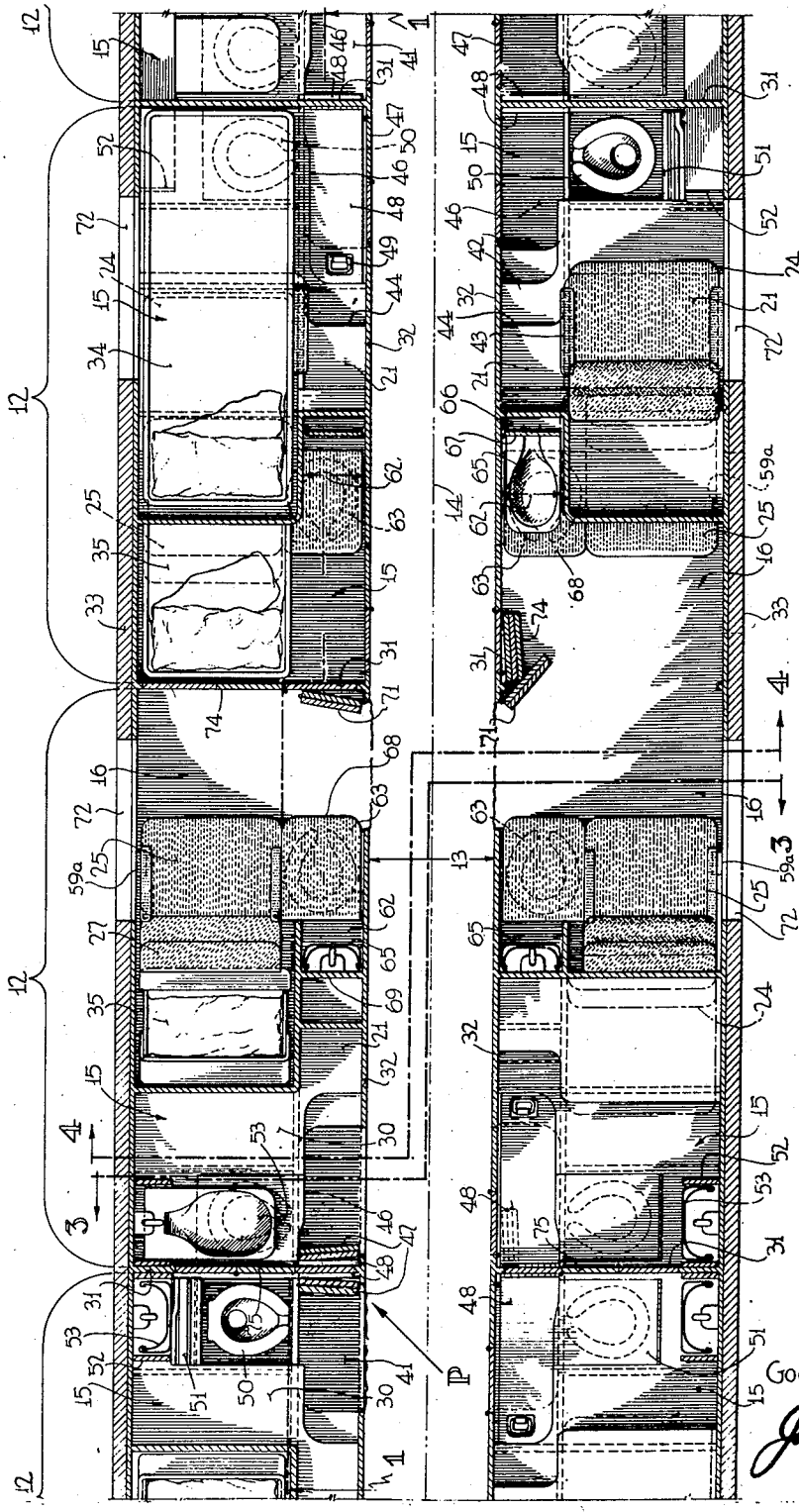


FIG. 2

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March 15, 1949. G. K. MURPHY 2,464,749

SLEEPING CAR

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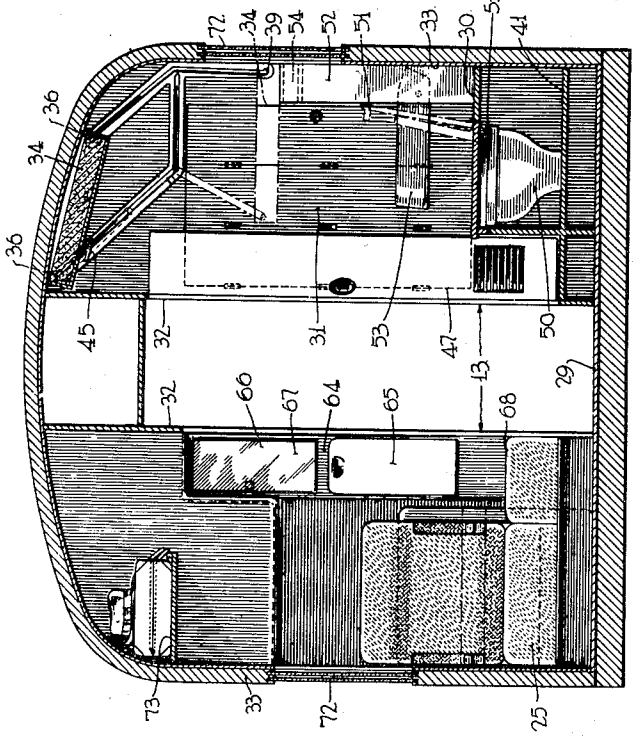


FIG.3

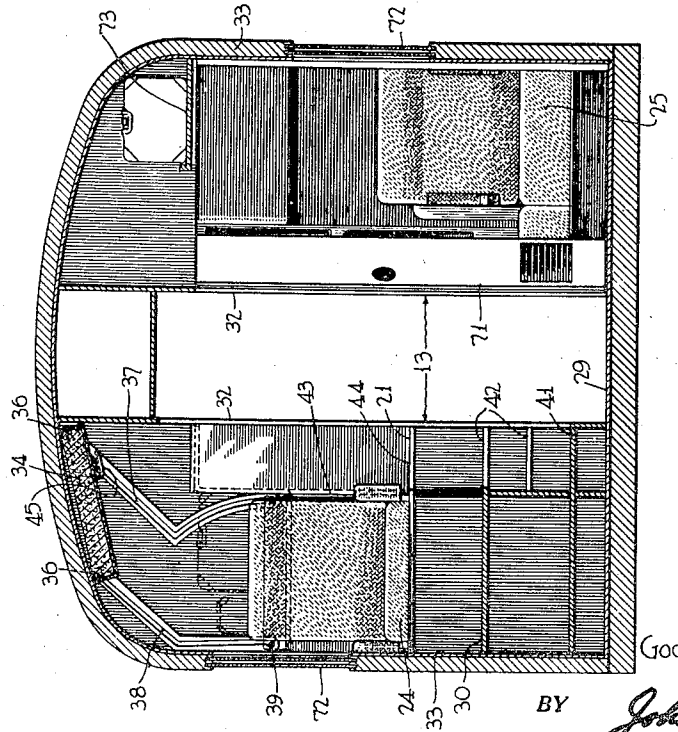


FIG.4

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SLEEPING CAR

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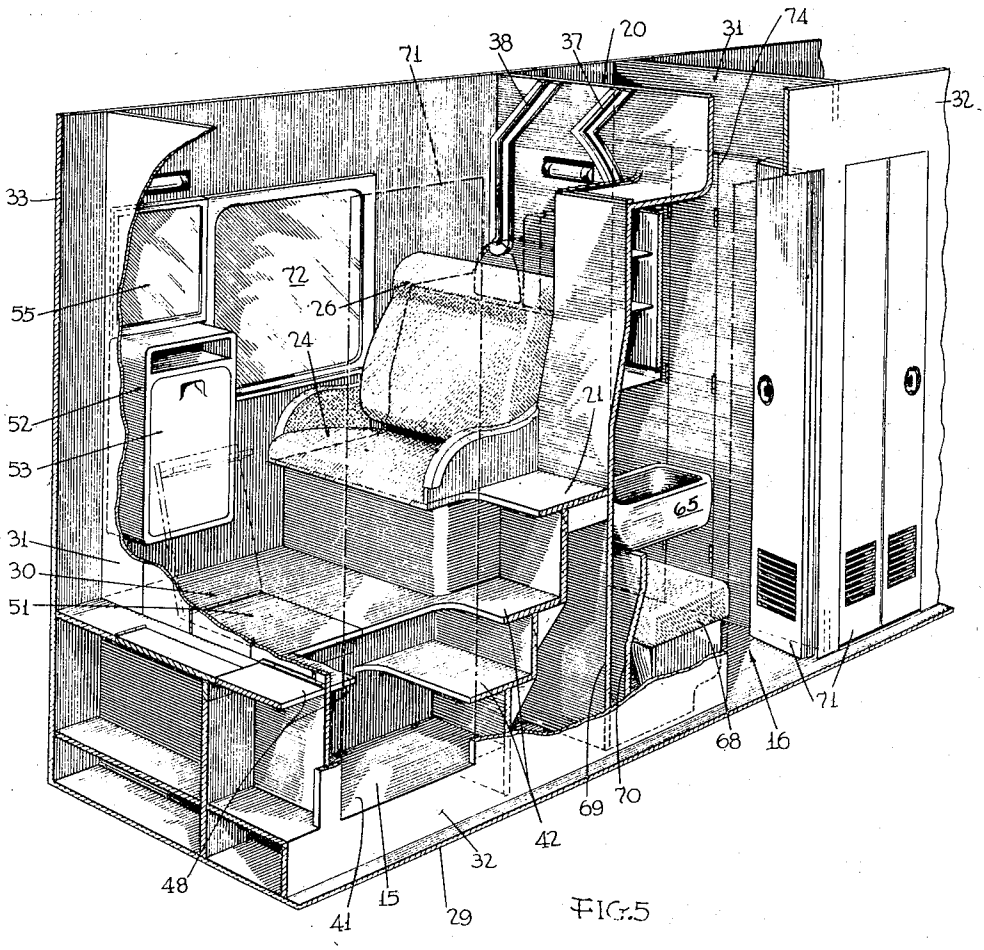


FIG. 5

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March 15, 1949. G. K. MURPHY 2,464,749

SLEEPING CAR

Filed June 14, 1945 5 Sheets-Sheet 5

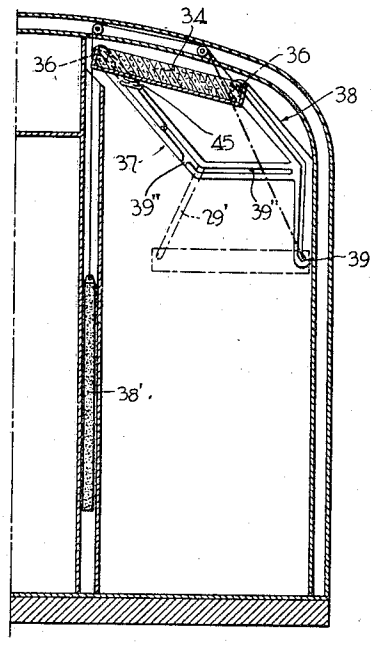


FIG. 6

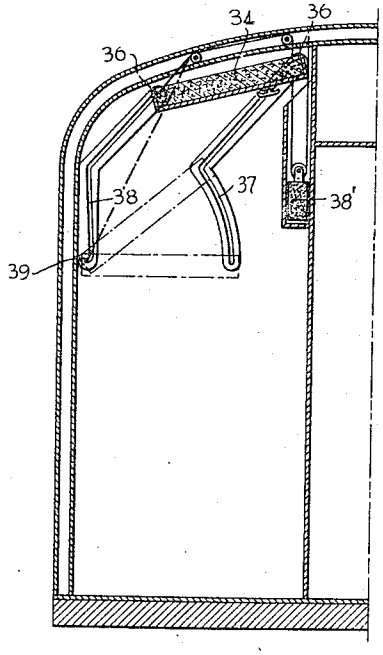


FIG. 7

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Patented Mar. 15, 1949 2,464,749

UNITED STATES PATENT OFFICE

2,464,749

SLEEPING CAR

Goodrich K. Murphy, New Canaan, Conn., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application June 14, 1945, Serial No. 599,348

9 Claims. (Cl. 105—315)

1

The sleeping car of my invention is of that type in which the car is provided on each side of a central aisle with a series of single occupancy rooms, which rooms have their longitudinal dimensions in the direction of length of the car and contain each a single made-up bed which extends longitudinally of the room when in a position of use. Cars of this type have hitherto been restricted in capacity by reason of the fact that the longitudinal dimension of the rooms has been so great as to limit the maximum number which could be placed within a railway car of standard dimension. It is the outstanding aim of my invention to markedly increase the maximum number of such single bed, single occupancy rooms which can be accommodated in a sleeping car of standard dimensions, for that matter, in a car of any longitudinal dimension.

While the number of longitudinal series of rooms is limited, by reason of the necessity in American railway practice for the provision of a longitudinal aisle in the car, to two such series in a central aisle car, and the widths of the rooms are limited outstandingly by the same consideration, the lengths of rooms are on the other hand limited outstandingly by transverse partition constructions and room furniture arrangements and constructions. In achieving my invention I make use of both of these factors, achieving its objects by novel transverse partition constructions, novel furniture constructions and novel furniture arrangements, and these three in combination with ancillary factors as floor and seat level and direct and intercommunicating doorway arrangements.

According to my invention I constitute the unit of each longitudinal series of rooms an adjoining pair of rooms separated from each other by an intermediate transverse partition comprised of a vertically extending portion arranged to afford a seat level length to each room not substantially greater than the sum of the horizontal projection of upright seat back, horizontal seat cushion and horizontally extending foreleg length of an adult occupant, and provide this partition further with offsets extending oppositely from said vertical portion thereof respectively into the adjoining room and of a longitudinal extent sufficient to accommodate that portion of the length of the extended bed in the position of use which exceeds combined seat back, seat cushion and foreleg dimension of the room into which the offset projects. Under such an arrangement the number of rooms accommodatable in a car of given length becomes an absolute maximum, making it possible to afford single occupancy

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rooms for 32 passengers in a car of standard length. The construction and arrangement of transverse partitions and furniture outlined affords the minimum seat level length which will accommodate a seated passenger with the comfort requisite for a long journey.

The contributing correlated constructions and arrangements of the same are partitions, articles of furniture, floor and seat levels and doorways, and will become fully apparent from the accompanying description which is based upon the accompanying drawings, in which

Figure 1 is a longitudinal section comprehending two unit pairs of rooms of one longitudinal series in a correlated arrangement of the pairs, this section being taken on line 1—1 of the plan view of Figure 2;

Figure 2 is a sectional plan view showing the same correlated pairs of rooms of each of the two longitudinal series in one and the same car, respectively on opposite sides of the central aisle, the upper series being sectioned on line 2*a*—2*a* of Figure 1 looking in the direction of the arrows and the lower series on the opposite side of the aisle being sectioned on line 2*b*—2*b* of Figure 1;

Figure 3 is a transverse section of the car taken on line 3—3 of Figure 2 looking to the left;

Figure 4 is a similar cross-section taken on the line 4—4 immediately adjoining the line 3—3, but looking in the opposite direction;

Figure 5 is a perspective view, with parts of both aisle and transverse partitions broken away and these and other parts in section, showing in perspective particularly the internal constructions and arrangements of that one of the rooms of the illustrated pair of higher seat, floor and bed level.

Figure 6 is a sectional elevation of an end wall of a room, similar to the showing of Figure 3, showing diagrammatically the upper bed-supporting trackways and counterweights; and

Figure 7 is a similar showing of the opposite end wall of the room.

Referring first to Figures 1 and 2, note that the showing is a complete showing of two unit pairs of rooms 12 and small portions of the lengths of the next adjoining pairs 12, of each of the two longitudinal series of the car, one series on each side of the central aisle 13, the whole being symmetrically disposed with respect to the center line 14 of the car. Note further that each complete unit pair 12 of the showing is comprised of two adjoining rooms, the one 15 and the other 16. As designated on the drawing the rooms 15 are of one construction and arrangement of parts

throughout the car, while the adjoining rooms of the unit pair are of another construction and arrangement throughout the car.

The adjoining rooms 15 and 16 of different construction and arrangement of which the unit pairs 12 of my invention are comprised, are separated from each other by an intermediate partition wall 17 of zig-zag or stepped form and in this case of diagonal extent. These walls comprise three vertically extending portions, a bottom portion 18, a middle portion 19, and a top such portion 20, interconnected by horizontally extending platforms or offsets 21 and 22 respectively at lower and upper levels. The one such offset 21 projects into the lower space of the room 15, and provides a recess opening into the room 16, while the other 22 projects into the upper space of the adjoining room 16 and provides a recess opening into the room 15. Thus the major longitudinal dimension of the room 15 lies above the offsets 21, 22 while the major longitudinal dimension of the room 16 lies below these offsets.

The middle vertical portion 19 of wall 17 divides the length of the unit pairs 12 substantially, though not exactly, in half. Transversely arranged seats 24, 25 in the respective rooms 15 and 16 are arranged with their backs 26, 27 against this middle vertical portion 19. Seat 24 of room 15 is arranged with its horizontal seat cushion upon the offset 21 which projects into the lower space of this room, while seat 25 of room 16 is arranged at a lower level, its seat cushion being carried by the car floor level support 28. The seat backs 26 and 27 are inclined rearwardly of the seats toward each other with the result that the upper end of the lower seat back 27 where it contacts partition portion 19 lies closely adjacent the lower end of seat back 26 and actually underlies somewhat in vertical projection the upper end of seat back 26. The middle portion 19 of partition 17 is somewhat inclined in its upper portion to accommodate the incline of the seat back 26. By reason of the elevated position of seat cushion 24 in room 15 the seat floor level of this room is raised above the car floor level 29 of room 16 through the provision of a raised floor 30 at a proper height to give the same rest to one's depending legs as is afforded by the car floor level 29 of room 16.

The end walls of the pair of rooms 12 opposite the seats 24, 25 and the intermediate wall 17 are designated 31. They are essentially in this form of my invention of geometrically plane form and extend transversely from aisle wall 32 to the side wall 33 of the car.

The arrangement and construction of these parts relative to each other is such that in each of the rooms 15 and 16 of a pair 12 the sum of the longitudinal extent of the vertical or plan form projection of the upright seat back and horizontal cushion of the seat taken together plus the extended foreleg length of an average adult seated occupant is substantially equal to and not substantially greater than the distance between the middle vertical portion 19 of wall 17 against which the respective seats are backed and the opposite end wall 31 of the room. These components together make up the seat level length L of the rooms of the unit pair of my invention. They are designated respectively the dimension lengthwise of the car of the upright seat back *a*, the similar dimension of the horizontal seat portion *b*, and the dimension of the horizontally extended foreleg length *c*. In thus constituting seat

level length of the rooms, I constitute horizontally extended foreleg length *c*, standing room width in each room.

Standing room in room 15, while of the same width as that in room 16, is of a less height by reason of the raised floor 30 which affords leg rest for the occupant of seat 24. This height, however, is ample for entering and leaving the seat. Standing room width *c* in the room 16 is of the full height of the car.

The horizontal extent of the respective offsets 21, 22 I construct substantially of the difference in extent between the length of a longitudinally extended bed for a passenger and the seat level dimension L, and I arrange the lower and upper vertical portions 18 and 20 of the intermediate partition 17 at the extremities of these offsets 21 and 22. In each of the rooms 15 and 16 accordingly I provide a full-length bed, in the one case the bed 34 and the other the bed 35, which when in the position of use is accommodated full length in the one case above the offset 22 and in the other case below the offset 21. When so accommodated one end of each bed adjoins and is supported by the adjacent portion of the intermediate wall 17 and the opposite end adjoins and is supported by the opposite end wall 31.

The bed 34 of room 15 is a non-folding bed which when not in use is stored full length as shown in Figures 1, 3 and 4 at the ceiling or roof of the car. At its opposite ends it is supported and guided by pairs of ball bearing rollers 36 which travel in inboard and outboard trackways 37 and 38 respectively. A system of counterweights 38' shown diagrammatically in Figures 6 and 7 facilitates the movement of the bed to its elevated position. To lower it one grasps the provided handles 45 and pushes toward the side wall of the car and downwardly, carrying the bed along the trackways against the action of the counterweights 38' successively through the dotted-line positions shown in Figure 7. Traverse of the outboard trackway 38 which is first inclined to a point adjacent the car side and then extends substantially vertically proceeds at a greater rate than traverse of the inboard trackway 37, with the result that the first dotted-line position, Figure 7, is reached before the arcuate portion of trackway 37 has been traversed. At this period the outboard rollers 36 rest in the outwardly offset terminal portions 39 of trackways 38. At this juncture the translatory movement of the beds 34 becomes an angular movement about an axis defined by these lower termini 39 of trackways 38 downwardly to horizontal position. Both ends of the bed may be guided and supported by trackways similar to the showing of Figure 7 and as above described. Where, however, a doorway is utilized, as proposed herein, between the adjoining rooms 15, the end of the bed adjacent the wall 31 is supported and guided as appears in Figure 6. Here, instead of the arcuate portion of the inboard trackway 38, there is substituted a link 29' having its one end pivoted to the bed and its other end guided by a pin and anti-friction roller in the trackway 37 terminating in a horizontal way 39'' provided to allow movement of the link to folded position. The roller of this link is designed not to leave the trackway, but the roller 36 supporting this corner of the bed leaves the trackway through a slot 39''' when the bed is lowered as above described. Suitable releasable latch means may be provided to lock said roller of the bed in the slot to hold the bed in an intermediate inclined

position. Seat backs 26 having in the meantime been lowered by movement forwardly about their transverse pivots 40 to the position shown in the right-hand pair 12 of Figure 1, the bed 34 may be moved to rest as there shown immediately above the offset 22, the position of its use by the occupant. Restorage of the bed after use is accomplished merely by lifting the bed through the reverse of its positions, first angularly through the arcuate portion of inboard way 37 to the intermediate position and then by a combined vertical and angular movement of translation bodily upwardly under the combined guidance of ways 37 and 38. This construction of bed mounting, counterbalance, guiding and operation toward and from its positions of use I have borrowed from a contemporaneous invention made by John C. Lyon and disclosed and claimed in an application Serial No. 599,349 filed of even date herewith and entitled "Sleeping car." However, I wish it understood that any desired mechanism of the prior, present or subsequent art may be used in lieu thereof. There are numerous such mechanisms known to the art for vertical translatory movement of fully extended beds to and from positions of use. Any suitable locking means may be employed to lock the bed in the position of use, in the intermediate position, or in the stored position but here again I may use the locking means disclosed in the application above referred to.

To afford ready access to the floor 30 from the car floor level 29, and ultimately access to the bed 34 when in the position of use shown on the right of Figures 1 and 3, I provide, as clearly appears on the right of Figure 1, first a room floor 41 overlying the car level floor 29 and then, ascending to seat floor level 30 and ultimately to the platform of offset 21, a series of steps 42. There is one such step intermediate floor 41 and seat floor level 30, and the second such step 42 at the seat floor level 30. These steps occupy a free space left between the aisle wall 32 and the adjacent seat end 43 (see Figure 1, right, and Figure 4, left) of the seat 24. Seat 24 extends transversely from a point closely adjacent the side wall 33 of the car to this region removed from the aisle wall 32 for a distance which provides ample space for these steps. The offset 21 is cut back at 44 to constitute a platform in this space providing a landing at the head of the steps 42. It is of such an area that an occupant standing upon it, after mounting to it by means of the steps 42, can readily enter the bed when it is in use position, or raise the bed from the use position to the intermediate or storage position, when desired.

Seat floor 30 is cut away at 46 to provide access thereto and to platform 21 by way of the steps 42. Inwardly folding doors 47 rise from room floor 41 and when open, folding against the adjacent end wall 31, afford access to room 15 from the central aisle 13. Hinged to this wall 31 in position to be folded upwardly against the wall behind the folded room access door 47 is a floor trap door 48 adapted to close the access opening formed in seat floor 30 of the room when extended to horizontal position at the level of the upper step 42. Suitable stops (not shown) are of course provided upon which its periphery may rest when it is in extended position. Seat floor 30 of the room, once the room door 47 has been closed, may thus be made continuous over the whole room. To leave the room one has only to lift the trap door 48 by means of a floor ring 49 (see Fig. 2) to position against the end wall 31 where it may be held by a suitable catch, not shown, and then open the folding door 47.

In these rooms 15 of the unit pairs 12 toilet accommodations 50 beneath the floors 30 are provided with their seats almost but not quite as high as this floor level. These are arranged transversely facing doors 47 with their front portions substantially at the cut-away margin 46 of the floor, and the room floor 41 has its height regulated so as to afford convenience of use from this floor. Hinged covers 51 constitute a part of the seat floor 30 and normally hide these toilet accommodations from view. These covers when raised lie over against the cabinets 52 mounted on the side walls 33 in the corner adjacent the end wall 31. Housed within the lower portion of cabinet 52 is a folding wash basin 53 which when extended reaches out over the accommodations 50 and within easy reach of an occupant standing on the room floor 41, as clearly appears both in plan and in section at the left of Figures 2 and 1, respectively. In the upper portion of cabinet 52 are provided shelf spaces 54 and mirrors 55. All of these are very much of conventional type.

The beds 35 of rooms 16 of the unit pairs 12 are longitudinally foldable, each in the embodiment shown being made in three sections, a middle section and two end sections. The two end sections are foldable upwardly of the upper side of the bed, as clearly appears at the left of Figure 1, and the relative lengths of the sections are such that when so folded the bed can be readily stored in the space 56 back of seat 25, beneath the offset 21 of partition 17 and entirely outside the vertical projection of the standing space in room 15. In this stored position the mid section extends generally horizontally adjacent the floor 29, while the two end sections respectively lean toward each other, being prevented from collapse upon each other by the bent mattress and bedding and resting partly upon their transverse hingings and partly by their undersides against vertical portion 18 of intermediate partition wall 17 and against the back of the seat 27 of chair 25. The hinges 57 between the sections may extend all the way through transversely of the bed frame and be of a form to prevent pinching of the mattress, whether the mattress be of sections also hinged at these points or not, and provided with the bedding sheets, etc. The position of use for these beds of rooms 16 is illustrated at the right of Figure 1 and in the upper mid portion of Figure 2. In this position the three hinged-together sections of the bed are extended in horizontal alignment and retained in rectilinear alignment through the abutting ends 58 of the extended sections at the hinged joints 57. Movement of made-up bed 35 from the storage position illustrated at the left of Figure 1 to the extended position of use illustrated at the right of Figure 1 is achieved simply by folding seat back 27 forwardly to rest substantially truly horizontally across the seat cushion 25 and upon bracket 59a upon the side wall 33, and thereafter, while standing against transverse end wall 31, grasping the adjoining section of bed 35 by suitably provided end grips 59 and drawing it out into the room over the folded-down back 27. The back 27 is suitably smoothed or provided with appropriate guideways (not shown) to facilitate this movement. Movement may take place slightly up-grade over the slightly upwardly inclined back 27 or in the horizontal in accordance with the progressive freeing of the hindmost section

from the space 56. The foremost section is preferably somewhat upwardly inclined or elevated until the hindmost section slips downwardly against and over the top of a supporting shelf or bracket 60 on the lower vertical portion 18 of the intermediate partition wall 17. Thereupon the former section is lowered with the seat back 27 to truly horizontal position and to rest upon and be supported by a similar shelf support 61 upon the opposite end partition wall 31 of the room. In the final lowering of the forward end of the bed into use position, the operator may stand alongside the bed in the standing space provided between it and the side wall. Thus in this position of use the bed is supported with its sections in a rectilinear alignment, assured by the abutting portions 58, of its sections on the one hand, and by the rectilinear alignment of the rear face of the folded-down seat back 27 (as supported by bracket 59a) and the two shelf supports 60 and 61. With beds of a lightness available today through the use of frames of aluminum and magnesium metal and air mattresses and feather pillows, this operation can readily be performed by the average passenger, although porters may be requisitioned if desired, as indeed they may be in connection with the counterbalanced vertically translatable beds 34 of the complemental rooms 15.

As in the instance of beds 34, beds 35 have their outboard sides arranged closely adjacent the outer walls 33 of the car and their transverse dimensions are less than the room widths, leaving in these rooms 16 aisle side spaces 62 generally of the same width as the aisle side spaces 21 of the rooms 15. In these spaces I arrange the toilet accommodations 63 and provide cabinets 64 which house the folding wash basins 65 and the shelf space 66 provided with a mirrored door 67. In these rooms, however, the arrangement of these conveniences is longitudinally of the car and not transversely as in the rooms 15. The toilet accommodation 63 has its front edge transversely in line with the front edge of the cushioned seat 25. Its raisable top 68 is cushioned as clearly appears in Figures 1, 2 and 3, the top of the cushion being transversely in extension of the top of the cushion 25. This top cushion may be removed and stored in the space behind the toilet 63 and between it and the face of the cabinet 64 as shown at the right of Figure 1. Thus these accommodations are usable from the general floor level 29 of the room, which is the same as that of the car at large.

The cabinet space 64 which houses the folding wash basin 65 is provided with a back wall 69 substantially in vertical extension of the aisle side of the middle vertical section 19 of partition wall 17, while its front is defined by a wall 70, the space in between accommodating drainage and other plumbing. The basins 65 when moved outwardly of cabinets 64 to a horizontal position extend out over the tops of the toilets 63 as shown at the right of Figures 1 and 2 in a position of easy access to an occupant standing on the floor opposite the room door. Here again the conveniences per se are in general of a well-known type.

Aisle access to the room 16 of the unit pairs 12 is had by means of a doorway the location of which is indicated in the drawings by door 71. As in the instance of room 15, these doorways are transversely immediately opposite the standing room space so that one walks straight into the room in front of the seat 25. These doors 71 are, like the doors 47, of the inwardly folding type

(see the mid section of Figure 2 and Figure 4). They are hinged to the aisle wall adjacent the end partition wall 31 of the unit pair. These doors commence, of course, at floor level 29, but they do not reach quite so high as the doors 47 because doors 47 commence at the higher level of floor 41.

In each of the rooms 15 and 16 of the unit pairs 12 there is provided a side window 72. This window in each case in horizontal projection overlaps the seat 24 or 25, as the case may be, substantially for its full longitudinal extent. Thus a seated passenger may look directly out of the window from any of his seated positions. The windows are of the usual height and of ample width. By reason of the difference in seat levels between the two rooms 15 and 16, however, the windows are at different elevations. Window 72 in room 16 reaches all the way up to the upper offset 22 of the intermediate partition 17.

The offset 22 which projects into the room 16 and the adjoining vertical portions 17 are at such height and longitudinally occupy such a position with respect to the front edge of seats 25 that an occupant in rising from a seat does not strike his head against offset 22, yet offset 22, like the window 72, overlaps seat cushion 25 in horizontal projection.

There is provided in each room ample room for storage of baggage. In rooms 15 until beds 34 are to be placed in a position for use, baggage may be stored on the tops of offsets 22 as shown. At the time of making ready the bed, the bags can be placed upon the floor vertically against the side 33 of the car. In the room 16 there is provided a special shelf 73 for baggage extending between the upper portion 20 of the intermediate partition wall 17 and the unit end wall 31 and against the side wall 33 of the car. The height of this is adjusted to convenient use.

The car of my invention is made up of an assembled series of these unit pairs of rooms 12. Rooms 15 and 16, however, of immediately succeeding pairs of the same series are reversed in position as shown clearly in Figures 1 and 2.

Adjacent rooms 16 separated by the transverse wall 31 can be readily thrown together into one large room by providing a folding door portion 74 in said wall. This door portion is shown folded in three sections against the aisle wall and against the closed door 71 of one of the rooms, Figure 2 center. Similarly, the adjacent rooms 15 can be made intercommunicating by disposing a doorway and folding door 75, as indicated at the left of Figure 2 and the right of Figure 3, in the transverse wall 31 separating them, this doorway being arranged above the seat floor 30. These folding door portions and doorways permit persons in adjoining rooms to pass readily from one room to the other, when desired, and permit them when seated to converse while facing each other.

The folding door between adjacent rooms 16 provides a particularly desirable and commodious intercommunicating room arrangement with ample space for a table to be disposed between the oppositely seated occupants of the respective rooms; see Figure 2 center.

Instead of the folding doors 71 between the aisle and the respective rooms, I may provide sliding doors movable longitudinally into recesses provided therefor in the aisle wall. In the case of the rooms 15, such sliding doors would have the advantage that they could be readily

opened, in case of emergency, without first raising the trap door 48. Curtains 76 may also be provided in the aisle doorways in addition to the doors so the doors may be left open, while still maintaining substantial privacy. Such curtain also affords more standing room at the side of the bed for persons of substantially greater than average girth.

While a specific embodiment of the invention has been herein described, 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 sleeping car, a pair of adjoining rooms arranged between a side wall and an aisle wall of the car, transverse vertical end walls defining the remote ends of the rooms of said pair, a transverse wall separating the rooms of said pair, said separating wall being constituted of interconnected generally vertically extending and generally horizontally extending portions providing vertically offset recesses opening into the respective rooms, a longitudinally facing seat and seat back and a longitudinally arranged bed in each room, the bed in each room being movable between stowed and horizontal use positions and when in use position projecting at one end thereof into the associated recess, and at least a portion of the combined seat and seat back in each room being likewise movable between stowed and use positions, the bed being disposed in stowed position when its associated seat is in use position and in use position when its associated seat is in stowed position, the longitudinal dimension of at least one of said rooms at seat level being not greater than the longitudinal extent of the vertical projection of the combined seat and seat back plus the fore leg length for an average adult occupant, and the overall longitudinal dimension of the pair of rooms being not greater than twice said longitudinal seat level dimension of said one room.

2. In a sleeping car having a central aisle extending longitudinally thereof, a pair of rooms disposed longitudinally of the car adjacent said aisle and adjacent each other with one room partially over the other, the wall separating said rooms having upper, intermediate and lower substantially vertical, horizontally offset portions, an upper horizontal portion interconnecting said upper and intermediate vertical portions and a lower horizontal portion interconnecting said intermediate and lower vertical portions, said upper and lower vertical portions being spaced sufficiently from the opposite end walls of the respective rooms to provide standing room space in said rooms, a seat for the upper room overlying said lower horizontal portion, a seat for the lower room underlying said upper horizontal portion, a bed for the upper room movable for night travel across the upper room standing room space to overlie said upper horizontal portion and movable for day travel to render the standing room space available, and a bed for the lower room movable for night travel across the lower standing room space to underlie both said upper and lower horizontal portions and movable for day travel to render the lower room standing room space available, both said beds when moved to position for night travel extending longitudinally of the car.

3. In a sleeping car, a pair of rooms extending longitudinally of the car and defined by end transverse walls and a permanent intermediate transverse partition separating the rooms, said transverse partition having an intermediate vertical portion disposed substantially in the middle of said pair of rooms, and offsets in said transverse partition above and below said intermediate portion and extending in opposite directions, and beds in said rooms extending, when in use position, substantially from the inner ends of the respective recesses formed by said offsets to the end transverse wall opposite.

4. A sleeping car according to claim 1 in which the seat in one room is at a higher elevation than the other, and an elevated seat floor is provided in front of it and steps within the room leading to said elevated seat floor and providing ready access to the upper bed.

5. A sleeping car according to claim 1 in which the bed in one of the rooms is stored adjacent the ceiling and in the other room the bed is stored in folded condition under the offset projecting into the first-named room.

6. In a sleeping car, a room having a full-height standing room floor and a seat floor above the level of said standing room floor, toilet facilities below the level of said seat floor, and a movable panel in said seat floor for rendering said toilet facilities accessible from the standing room floor.

7. In a sleeping car, a room having in plan its greatest dimension longitudinally of the car, said room having a transverse wall provided with a longitudinally extending recess in its lower portion and a folding made-up bed comprising at least three hinged sections and disposed, when in folded condition, in said recess with its central section adjacent the floor and its end sections extending upwardly therefrom, the bed being extensible to horizontal use position, and when so extended, extending from the inner end of said recess to the opposite end wall of the room.

8. In a sleeping car, a pair of rooms disposed between a side wall and an aisle wall of the car, transverse end walls defining the remote ends of the rooms of said pair, an intermediate wall separating the rooms having an upper offset formed by horizontal and vertical wall portions and providing a recess opening into one of said rooms and a lower offset formed similarly and providing a recess opening into the other of said rooms, a movable bed in the room associated with the upper offset, when in use position, overlying the horizontal portion of said upper offset, a longitudinally facing seat in said room disposed on the horizontal portion of said lower offset, a longitudinally facing seat in the other room supported at car floor level and disposed under said upper offset, a window in the side wall of each room, the horizontal portion of said upper offset being so vertically related to the seat thereunder that adequate headroom is provided for an occupant rising from said seat, and being further so related to the height of the window in the room associated with said upper offset as to allow an occupant lying in the bed therein to see through the upper portion of the window.

9. In a sleeping car having a longitudinally extending center aisle, a pair of adjoining rooms disposed between one wall of said aisle and a side wall of the car, transverse vertical end walls connecting said aisle and side walls and defining the remote ends of the rooms of said pair, a stepped transverse wall separating the rooms, each room

having a seating space and a standing space in front of said seating space, the width of said seating and standing spaces approaching the width of the respective rooms, and the combined standing and seating spaces of one room having substantially the same dimension lengthwise of the car as the combined standing and seating spaces of the other room, the stepped wall providing an upper portion in one room and a lower portion in the other room both of greater length than said dimension of the combined seating and standing spaces of the respective rooms, a made-up bed in each room normally stowed for daytime travel outside the seating and standing spaces of the respective rooms, each bed in such stowed position being arranged longitudinally beyond the vertical projection of the standing space of the other room, the stowed bed in each room being movable from its stowed position to a horizontal use position, one of said beds, when in use position, extending for substantially the full length of the greater-length upper portion of the one room and the other of said beds, when in use position, extending for substantially the full length of the greater-length lower portion of the other room.

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