June 11, 1935. L. E. MARCHANT 2,004,898

SLEEPING CAR CEILING

Filed Jan. 4, 1934 2 Sheets-Sheet 1

Fig. 1.

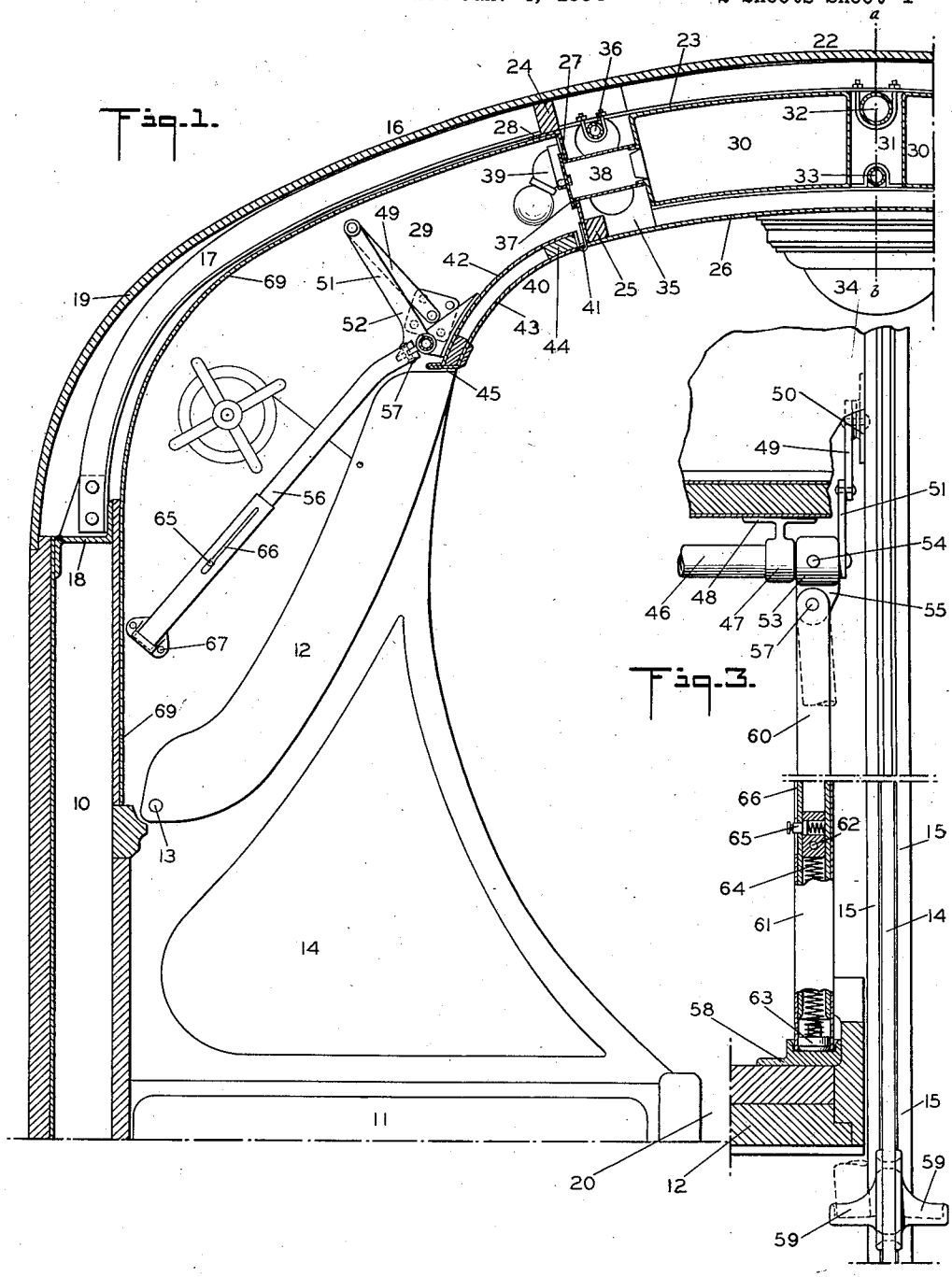

Fig. 3.

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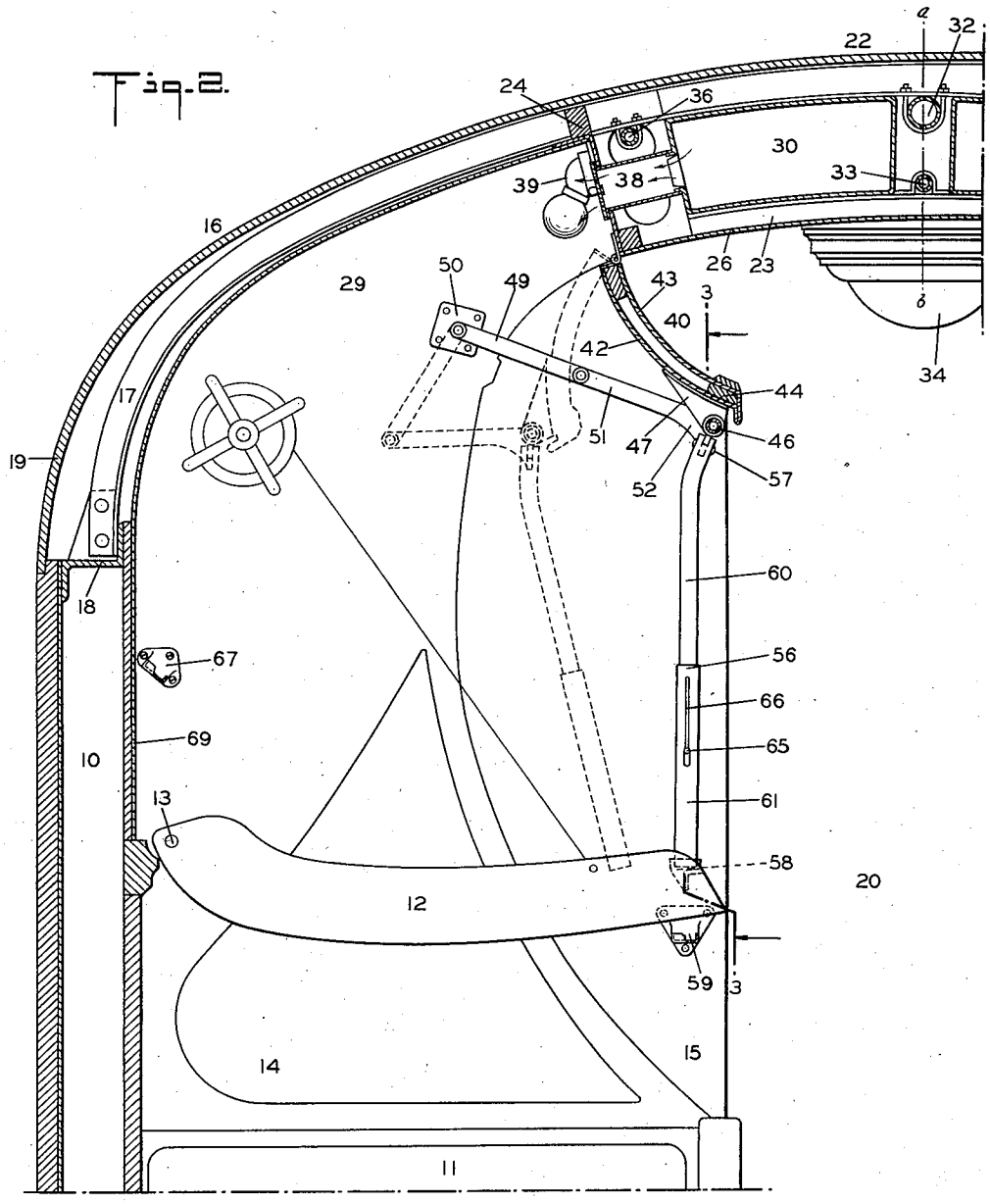
Fig. 2.



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SLEEPING CAR CEILING

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32 Claims. (Cl. 105—321)

The invention relates in general to a passenger railroad car construction, particularly to the upper interior portion of such a car including the ceiling and adjacent parts, and the invention specifically relates to a sleeping car and particularly to the structural parts which outline the upper berth sections. More particularly located, the invention relates to a sleeping car having an arched or turtle back type of roof and the invention herein particularly features the adaptation of this form of roof to conventional sleeping car constructions to provide an improved form of sleeping car over the usual storied types while retaining as far as possible the advantages inherent in standard constructions of known forms of sleeping cars and of known forms of turtle back car roof constructions.

The primary object of the invention is to provide a simplified form of passenger car, and particularly a passenger car of the sleeper type, which will provide for greater usable space within the available cross sectional area permitted within the prescribed all-over dimensions of railroad cars and incidentally to provide a car more rugged but of less weight than similar conventional cars now constructed.

The invention therefore features a space disposition and arrangement particularly in the acquiring of additional head room above the space occupied by the passengers, so as to provide in the case of chair cars the highest possible ceiling disposition with increase in volume of air space adjacent the ceiling and in the case of sleeping cars an increase in head room, particularly in the head room of the upper berths.

The invention has for another object incidental to the desire to provide for an efficient utilization of the available space within the car, a disposition of service features such as conditioned air conduits, electric light and power lines, train line conduits and the like, hereinafter collectively referred to as service fixtures, assembled in compact form and arranged in an out-of-the-way location, so as not to intrude in the passenger-occupying space. This object is attained in the instant case where a turtle back roof is employed by disposing such service fixtures in the otherwise lost space at the crown portion of the arch roof, thus leaving maximum dimensions of clear spaces beneath the relatively lower outside curved portions of the roof thus to provide maximum vertical height to the passenger occupying portions of the car on opposite sides of the center aisle.

Another and highly important aspect of the invention is to provide, particularly in the case of the sleeping car embodiment of the invention, an artistic, neat form of ceiling and adjacent parts which will cooperate with the upper berth bunks when the latter are in their elevated inoperative positions to form an artistic appearance to the upper interior portion of the car.

Another object of the invention is to provide in the case of the sleeping car arrangement an upper berth construction which will provide for greater privacy than is possible with present constructions; to provide a sectional form of ceiling which will provide a composite artistic finish to the upper portion of the aisle sides in both positions of the upper berth bunk; which will function to shut off the glare from the ceiling aisle lights shining into the head room of the upper berth in all positions of the berth bunks, and particularly to shield the occupant of the upper berth from the aisle ceiling light or lamps.

For these purposes the invention features in addition to the aisle ceiling, a continuation thereof on opposite sides and in each case comprising a swinging false ceiling or rather a section of a ceiling, one for each compartment or berth section and each having two operative positions, in one position forming a bridge member between the aisle ceiling and the adjacent elevated or raised upper berth, and in the other position forming a light and draft shield, as well as a ceiling portion, overlapping the outer edge of the berth bunks, upper or lower, when the associated section is made up for night occupancy.

Various other objects and advantages of the invention will be in part obvious from an inspection of the accompanying drawings and in part will be more fully set forth in the following particular description of one form of car embodying the invention, and the invention also consists in certain new and novel features of construction and combination of parts hereinafter set forth and claimed.

In the accompanying drawings:

Fig. 1 and Fig. 2 are each transverse, sectional views of the upper portion of a sleeping car taken through one of the upper berth spaces, with some of the parts shown in elevation and disclosing a preferred embodiment of the invention; the showing in each case being substantially one half of the complete cross section of the car, it being understood that the other half is of symmetrical form therewith on the opposite side of the longitudinal medial plane of the car. It will also be understood that the lower portion of the car not shown is of conventional design; Fig. 1 showing

the parts when in position with the upper berth bunk elevated into its raised, inoperative position; and Fig. 2 showing the disposition of the parts when the upper berth bunk is lowered into its horizontally extending, lowered, operative position; and

Fig. 3 is an enlarged fragmentary detail sectional view taken on the line 3—3 of Fig. 2, looking in the direction indicated by the arrows and looking into one of the berth spaces adjacent one of its headboards.

The drawings are intended to illustrate the application of the invention to a sleeping car of conventional construction including opposite car sides, one of which 10 is shown and which also includes lower berth section indicated diagrammatically at 11, an upper berth bunk 12 hingedly connected at 13 to the car side 10; permanent head boards 14 and removable head boards 15, all as is usual and well known in sleeping car constructions. Distinguishing from these known constructions is the utilization of an arched or turtle backed roof 16 designed to provide the advantages of such form of roof when applied to a sleeping car. The roof is of conventional construction including car lines 17 secured at the ends by means of Z brackets 18 to the car sides 10. The roof also includes canvas covered roof boards 19 and otherwise conforms to approved practices in forming turtle backed roofs to known forms of passenger and freight cars. The known structural parts define a central aisle 20 with spaces on opposite sides thereof to accommodate the passengers and which in the case of a chair car or coach, will form seat spaces, or in the case of a sleeping car, will form a compartment or section when the upper berth bunk is elevated to form a section, or will form an upper and lower berth space when the upper berth bunk is lowered as in the case of the showing in Fig. 2. While the illustrated showing is that where the berths extend lengthwise of the car it is obvious that the invention is adaptable at least in part or with obvious modification to an arrangement in which the berths extend transversely of the car in which case the car side 10 would be a partition, both structures being hereinafter referred to as a vertical support. It will also be appreciated that instead of a curtained space as herein shown the disclosure may be considered as applicable to a section or compartment car with the aisle located on one side rather than in the center.

Extending lengthwise of the car above the aisle 20 and below the central elevated crown portion 22 of the roof is a long box-like construction 23 formed of an outlining wooden skeleton frame and metal covering sheets. The frame includes on each side thereof two longitudinally extending girders 24 and 25, it being understood that corresponding girder forming members are symmetrically positioned on the opposite sides of the central medial plane of the car indicated by the center line *a*—*b*. The lower face of this box-like construction is formed of a slightly curved almost flat sheet of metal and forms a central fixed aisle ceiling 26 defining the top of the aisle and following conventional practices in extending lengthwise of the car. Opposite lateral sides of the long box construction 23 is defined by a long sheet metal inside partition 27 depending from the roof and secured therethrough by means of a flange 28 secured to the girder 24. The partition 28 extends perpendicularly to the arc of the curve of the roof so that it faces outwardly, that is towards the adjacent car side, and at a slight angle downwardly into the head room 29 forming the upper portion of the berth space.

Within the box-like construction are positioned two long metallic conditioned air conduits 30 spaced apart on opposite sides of the line *a*—*b* to form a central conduit containing space 31 therebetween. Within this space 31 are positioned a train line conduit 32, a main line electric conduit 33 for supplying electric lights or other supplies, such as a conduit for supplying the aisle lamps 34, electric fans and the like. Between the conditioned air conduits 30 and the adjacent partition 27 is an outside passageway 35 extending the length of the car, designed to contain conduits and other parts such as the berth light conduit 36 and which conduits and associated parts are referred to hereinafter collectively as service fixtures. At the center of each berth length is an adjustable ventilator grill 37 opening into the headroom 29 and supplied from the adjacent air conduit 30 through a laterally extending tubular outlet 38. The partition 27 also provides a support for other service fixtures such as the berth light or lamp socket 39, supplied from the conduit 36. From this construction it is seen that the ventilator, berth light and such service fixtures are positioned high in the upper berth space; are disposed in an out-of-the-way position thus tending to free the berth space from inwardly projecting parts which would otherwise tend to reduce the free available space.

Hingedly supported from the box-like construction and hung from the lower edge of the partition 27 is a transversely curved ceiling portion or section 40 having a length equal to the length of a berth space and which section is sometimes hereinafter referred to as a false ceiling. This swinging ceiling 40 is secured at its upper edge to the girder 25 by means of a concealed hinge 41. This ceiling is formed primarily of two spaced apart curved metal plates, an inner convex plate 42 and an outer concaved plate 43 with spacers 44 therebetween. The outer plate 43 conforms in appearance to the fixed ceiling 26 and has such curvature as will form a continuation of the ceiling when the ceiling section 40 is in its elevated position as shown in Fig. 1. The ceiling 40 constitutes a gap-filling bridge extending from the fixed ceiling 26 to the upper edge 45 of the berth bunk 12 when the latter is in its elevated position shown in Fig. 1. It is noted that in this figure the hinged ceiling 40 is in a relatively elevated position and is designed to be swung therefrom into a relatively lowered position such as shown in Fig. 2. Differently expressed, the lower edge of the ceiling 40 is swung from a position to the outside of a vertical line through the hinge connection 41, that is, towards the adjacent car side as shown in Fig. 1, into a position on the opposite side of this vertical line and into position overhanging the outer edge portion of the lowered bunk 12 and beyond the plane of the outer edges of the removable head boards 15 as shown in Fig. 2.

A curtain rod or equivalent curtain or screen supporting means 46 is supported from the inner or under side of the false ceiling 40 by means of hanging brackets 47 (see Fig. 3), a wide flange 48 engaging the plate 42 adjacent its lower edge.

The hinged false ceiling 40 is movable to and from the two operative positions shown and is locked selectively in either of such positions by means of a control mechanism arranged so as to

be conveniently accessible to the operator. This mechanism includes a locking toggle including two links pivotally connected, with one link 49 pivoted to an anchor pivot 50 secured to the adjacent permanent head board 14. The other link forms an arm 51 of a bell crank lever 52 having a hub 53 at its crotch portion secured to a projecting end of the curtain rod by means of a pin 54. The other arm 55 of the bell crank lever depends below the curtain rod and hub and has pivoted thereto the upper end of a manually actuated strut or safety stanchion 56. The stanchion is pivoted on a pin 57 and is so arranged that it may be swung lengthwise of the car to engage in either a socket 58 carried by the adjacent corner of the berth bunk 12, or it may engage in a fixed socket 59 carried by the removable head board 15 as hereinafter described. The strut is made of two telescopic sections, an upper tubular section 60 and a lower section 61 with a plug 62 in the upper section and a foot plug 63 in the lower section with a compression spring 64 therebetween tending to separate the sections and thus tending to project the lower section downwardly. The relative telescopic movement of the sections is limited by means of a spring pressed stop button 65 engaging in a slot 66 having a length just sufficient to permit the elongation of the stanchion from the full to the dotted line positions shown in Fig. 3. A spring clip 67 is mounted on the permanent head board 14 to receive the lower plugged end of the stanchion when the toggle control mechanism is in the position shown in Fig. 1.

The upper berth section is lined with a sheet metal facing 69 which extends in a curve from the flange 23, underlapping and closely conforming to the portion of the roof outline above the same and extending downwardly along the inner face of the car side 10 to the bottom of the upper berth space. The portion of this facing sheet which underlies the roof may be considered as a fixed ceiling to the berth section and thus forms a structural part of the roof construction. The vertically extending part of the facing may be considered as a structural part of the car side 10.

In operation and assuming first that the parts are arranged as shown in Fig. 1 with the upper berth elevated and that it is desired to make up the upper berth, the operator unlocks and lowers the bunk 12 conventionally; then by reaching into the upper berth space, he lifts first one and then the other lower sections 61 of the stanchions out of their associated fixed spring clips 67 and then swings the lower ends of the stanchions towards each other a distance sufficiently far so that the operator may simultaneously grasp the lower ends of the stanchions with his two hands, simultaneously swinging both of the stanchions forwardly, that is, transversely of the length of the car and outwardly towards the center aisle, he pulls the false ceiling 40 downwardly and outwardly from the position shown in Fig. 1, into the position shown in Fig. 2. As an incident of this movement the toggle links will move from their bent, collapsed, former locking position shown in Fig. 1, into their straight, elongated, aligned locking position shown in Fig. 2. It will be noted that with the toggles elongated as in Fig. 2, the ceiling section 40 will be held in position and unable to move therefrom until the toggle has been positively unlocked by breaking its joint. In the event that the upper berth is not used after the false ceiling has been lowered, the berth bunk 12 may be swung back into its elevated position as shown in Fig. 1. In this case the lower ends of each of the stanchions are set in the associated fixed sockets 58 carried by the removable head boards indicated by dotted lines in Fig. 3. In the event that the upper berth bunk is to be used the lower end of the stanchion is located in the socket 58 carried at the outer corners of the bunk 12 as shown in full lines in Fig. 3. In either case the tendency of the compression spring 64 is to project and thus to maintain the lower end of the stanchion in bearing engagement in the socket, thus acting as a strut to maintain the ceiling and bunk in their vertically spaced apart relation as shown in Fig. 2 but more importantly acting to prevent any accidental unlocking of the toggle. It is appreciated that the toggle cannot unlock unless the lower end of the stanchion is moved inwardly, that is from the vertical position towards the left of the showing in Fig. 2 in order to break the toggle.

When it is desired to swing the ceiling section 40 back into its initial position as shown in Fig. 1, the lower section 61 of the stanchion is lifted vertically against the tension of its resisting spring until the lower end can be swung clear of its retaining socket either 58 or 59. Then, by a slight forward movement of the lower ends of the two stanchions that is a movement in a direction towards the aisle, the toggle joint is broken and the ceiling is free to swing downwardly from the elevated position shown in Fig. 2. The operator then reverses his direction of movement and swings the stanchions inwardly, past the dotted outline position shown in Fig. 2, and finally into the full line position shown in Fig. 1, after which he resets the lower ends of the stanchions into the fixed clips 67. The bunk 12 is then elevated back into its raised inoperative locked position as is usual with such constructions.

By means of a construction such as is herein illustrated it is possible to utilize a relatively light, highly reinforced, and comparatively inexpensive form of arch roof construction applied to sleeping cars with a resulting advantage in that ten to twelve inches can be added to the head room of the upper berth and still keep within the standard height dimensions permitted to sleeping cars. Obviously this added ten or twelve inch clearance can be apportioned to the head room of both the upper and lower berth spaces thus increasing both. This is a material advantage when it is considered that with present conventional form cars with their storied roof construction, it is impossible even for a short person to stand in the upper berth space and an additional foot of vertical space without loss of present advantages is highly desirable especially as it does not involve any material changes over known constructions of car roofs.

By employment of an arch roof to a sleeping car it is possible to otherwise economize in space disposition, for instance, ventilators, lamps and other projecting parts have been removed to a position against the ceiling and into an out-of-the-way position where they will offer the least obstruction to the use of the berth space. Differently expressed, the otherwise wasted space just below the crown portion of the roof is utilized without restricting the space necessary for aisle purposes. The construction herein illustrated provides for greater privacy to the berth occupants than is possible with present sleeping car constructions. In the arrangement herein suggested each occupant of an upper berth has control of his own berth ventilation with little if any

intrusion on the similar rights of the occupants of other berths. In this arrangement of berth constructions the privacy of the compartment is rendered more complete as the swinging ceiling section fits between the removable head board, thus rendering it impossible for an occupant to see into an adjoining berth. The swinging ceiling feature provides a finished closure for the usual open space above the curtain of the upper berth. Incidentally this false ceiling reduces the necessary length of the curtain itself and replaces the upper portion of the curtain by a fixed structural part of the car interior. The swinging ceiling in either of its two operative positions looks like a fixed, finished structural part of the car and tends to minimize the sleeping car appearance to the car interior when used as a chair or parlor car.

One of the most important features of this disclosure is that the hinged ceiling effectively blocks any light from the aisle from shining over the top of the curtain rod into the eyes of the occupant of the upper berth. The swinging ceiling section also acts as a shield to prevent aisle drafts from coming in over the top of the curtain. By such a construction it is possible to have a relatively low ceiling over the aisle and this permits the utilization of whatever space may be necessary beneath the crown portion of the roof to accommodate a roof ventilating system, heat pipes, steam lines, electric conduits or any other service features. Locating the ventilating system in this way permits the elimination of the usual side or roof ventilators and permits the forming of the ceiling and outer side wall of the upper berth as a continuous, artistically appearing metal facing free of projections of any kind. This unbroken ceiling and interior wall facing **69** incidentally permits the use of insulation back of the facing to avoid the cold wall which is so objectionable to occupants of an upper berth.

In practice it is suggested that the fixed ceiling **26**, the plate **43** and the underside of the berth bunk **12** be formed of the same artistic finish, metal or other usual finishes, so that when the car is made up for day time travel, as shown in Fig. 1, a highly artistic and pleasing appearance can be given to the upper ceiling portion of the car. This presents a pleasing means for camouflaging the appearance of the car so that it will not be too suggestive of being a sleeping car.

The hinge section **40** may be utilized not only as forming part of the car ceiling as a whole as shown in Fig. 1, or as part of the ceiling for the section as shown in Fig. 2, but also tends to form a light reflector. In the position shown in Fig. 1 light from the aisle lamp **34** strikes the usual polished ceiling surface **26** and is reflected downwardly. In this case light strikes the concaved plate **43** from which it likewise is reflected downward, thus tending to attain the maximum floor illumination from the lamp **34**. When the section **40** is swung into the position shown in Fig. 2, any light striking the curved plate **43** is more or less reflected backwards toward the lamp and adjacent portion of the fixed ceiling **26**, so that the false ceiling when so arranged has a tendency to minimize the amout of light directed from the aisle lamp towards the floor thus tending to give a soft illumination to the car aisles during night travel.

While there has been shown, described and pointed out in the annexed claims, certain novel features of the invention, it will be understood that various omissions, substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the art without departing from the spirit of the invention.

I claim:

1. A sleeping car, a curved multiple part continuous ceiling beneath and spaced from the roof to form a chamber therebetween, said ceiling including a fixed aisle portion, the underside of an upper berth bunk and a bridge portion between the upper edge of the bunk when in elevated position and the adjacent edge of the fixed aisle portion.

2. A sleeping car provided with a hingedly mounted upper berth bunk, a centrally extending fixed ceiling, a hingedly mounted false ceiling extending between the fixed ceiling and the upper edge of the bunk when the bunk is in elevated position, said false ceiling adapted to be swung down from said position to locate its lower edge approximately above the outer edge of the bunk when the bunk is in its lowered position, and means for securing the false ceiling in both positions.

3. A sleeping car provided with a hingedly mounted upper berth bunk, a centrally extending fixed ceiling, a hingedly mounted false ceiling extending between the fixed ceiling and the upper edge of the bunk when the bunk is in elevated position, said false ceiling adapted to be swung down from said position to locate its lower edge approximately above the outer edge of the bunk when the bunk is in its lowered position, means for securing the false ceiling in both positions, and a curtain rod secured to the false ceiling adjacent its free edge.

4. A sleeping car construction comprising a turtle back roof, a car side supporting one side edge of the roof, means coacting with the central portion of the roof to form a longitudinally extending box-like construction with its upper side formed by the roof and its underside constituting a fixed aisle ceiling, spaced beneath the center of the roof an upper berth bunk hingedly supported from the car side, and a false ceiling having its upper edge hingedly supported from the box-like construction and coacting with the bunk when in elevated position to bridge the gap between the upper edge of the bunk and the box-like construction and forming an unbroken continuation of the fixed ceiling.

5. A sleeping car construction comprising a turtle back roof, a box-like construction extending longitudinally beneath the central medial portion of the roof, service features housed in said box-like construction, the bottom of said box-like construction providing a fixed aisle ceiling, a false ceiling having its upper edge hinged to the box-like construction and capable of swinging into two positions and adapted in one of said positions to constitute a continuation of the fixed ceiling, the space considered laterally between the outer curved side edge of the roof on the one side and the box-like construction together with the false ceiling on the other side forming upper berth head room extending upwardly to the roof.

6. A sleeping car including a car side, a roof, an enclosed space-forming construction extending longitudinally of the car, beneath the longitudinal center of the roof and providing head room to one side of the same and extending to the roof, service features housed in said construction, a berth bunk hinged to the car side and a false ceiling hinged to the said construc-

tion, the underside of the false ceiling and the bunk when in elevated position coacting to form an upper side ceiling to the interior of the car and providing a closed storage space between the same and the roof.

7. A sleeping car construction including a hingedly mounted upper berth bunk, a depending false ceiling having its upper edge hingedly supported to turn about an axis of swing extending longitudinally of the car, said ceiling having its lower swinging edge movable outwardly towards the center of the car beyond a position beneath its axis of swing to form a light and draft shield and movable inwardly in a direction away from the center of the car and beyond a position beneath its axis of swing to cooperate with the bunk when in an elevated position to form an upper side ceiling.

8. A sleeping car construction comprising a car side, an arch roof curving laterally of the car length downwardly and outwardly to the upper edge of the car side, an upper berth bunk hingedly connected to the car side, a two-part ceiling comprising a fixed aisle portion and a swinging portion hingedly connected, said swinging portion movable into two positions and disposed when in an elevated position to form a bridge between the fixed ceiling and upper edge of the bunk when said bunk is elevated, and disposed when lowered from its elevated position to form a ceiling above the outer edge portion of the lowered bunk and underlapping the adjacent portion of the fixed ceiling.

9. A sleeping car construction comprising a car side, an arch roof curving laterally of the car length downwardly and outwardly to the upper edge of the car side, an upper berth bunk hingedly connected to the car side, a two-part ceiling comprising a fixed aisle portion and a swinging portion hingedly connected, said swinging portion movable into two positions and disposed when in an elevated position to form a bridge between the fixed ceiling and upper edge of the bunk when said bunk is elevated, and disposed when lowered from its elevated position to form a ceiling above the outer edge portion of the lowered bunk and underlapping the adjacent portion of the fixed ceiling, and means for securing the swinging portion in both of said positions.

10. In a sleeping car, structural means within the car forming an aisle or standing space and a compartment, an upper berth bunk hingedly mounted in said compartment, a fixed ceiling for the aisle space, a member forming a bridge between the aisle ceiling and the bunk when said bunk is in its elevated closed position, and said aisle ceiling, bridge member and underside of the bunk having the same finish and forming a compound continuous curve to give an artistic appearance to the upper portion of the car and to present a continuity of ceiling from side to side of the car when the bunk is in its elevated closed position.

11. In a sleeping car, structural means within the car forming an aisle or standing space and a compartment, an upper berth bunk hingedly mounted in said compartment, a fixed ceiling for the aisle space, a member forming a bridge between the aisle ceiling and the bunk when said bunk is in its elevated closed position, and said aisle ceiling, bridge member and underside of the bunk forming a compound continuous curve to give an artistic appearance to the upper portion of the car when the bunk is in its elevated closed position, and means carried by the bridge member for supporting the upper edge of a berth curtain, and said bridge member forming a closure between the curtain supporting means and the aisle ceiling thereby to avoid any open gap between the top of the curtain and the ceiling when the upper berth is in its lowered operating position.

12. In a sleeping car, structural means within the car forming an aisle or standing space and a compartment, an upper berth bunk hingedly mounted in said compartment, a fixed ceiling for the aisle space, a member forming a bridge between the aisle ceiling and the bunk when said bunk is in its elevated closed position, and said aisle ceiling, bridge member and underside of the bunk forming a compound continuous curve to give an artistic appearance to the upper portion of the car when the bunk is in its elevated closed position, and means carried by the bridge member for supporting the upper edge of a berth curtain, said bridge member forming a closure between the curtain supporting means and the aisle ceiling thereby to avoid any open gap between the top of the curtain and the ceiling when the upper berth is in its lowered operative position, and said bridge member being hingedly mounted and movable from a relatively elevated position when forming a continuation of the elevated bunk into a relatively lower position when forming a closure between the top of the curtain and the ceiling.

13. In a sleeping car berth construction, the combination of a permanent head board, a hinged false ceiling adapted to be swung to and from two positions, an anchor pivot carried by the head board, a locking toggle comprising two links pivotally connected, with one link pivoted to the anchor pivot and the other link forming one arm of a bell crank lever pivoted to the false ceiling, a manually actuated control means including a stanchion pivoted to the other arm of the bell crank lever, a socket for receiving the lower end of the stanchion and coacting therewith to secure the toggle in position locking the false ceiling in one of its positions, and said stanchion being of two telescopic parts with a spring tending to separate the parts and acting to force the lower end into the socket.

14. A sleeping car provided with a turtle back roof, structural means within the car forming a central aisle space and compartments on opposite sides of said aisle space, the ceilings at the top of the compartments forming part of and conforming substantially to the contour of the outer top surface of the portion of the roof above the same whereby all of the compartment spaces considered vertically between the floor and the roof can be utilized as such, such structural means including a fixed structural box-like hollow part beneath the crown portion of the roof with its bottom outlining the top of the central aisle space and forming the ceiling therefor and the sides of said box-like hollow part defining the inner sides of the top of both compartments.

15. In a device of the class described, the combination of a swinging member having two positions and forming part of a berth construction, control and self-locking mechanisms for securing the member selectively in either of its two positions, said mechanism including a locking toggle, and a manually actuated strut for actuating the toggle and a fixed socket for securing the strut against accidental movement.

16. In a car construction provided with a fixed ceiling, the combination of a false ceiling depending from the fixed ceiling and having its upper edge hingedly supported, an anchor pivot, a locking toggle between the false ceiling and the pivot for locking the false ceiling in one of two prefixed positions and means for releasing the toggle to permit the ceiling to be swung into its other position.

17. In a car construction, the combination of a fixed roof construction, a swinging member constituting a false ceiling depending from said construction and hingedly supported therefrom and manually actuated control mechanism therefor including toggle linkage for locking the swinging member in a fixed position.

18. In a car construction, the combination of means forming an enclosed space, a ceiling lamp positioned exteriorly of said space, said means including a hinged member located horizontally between the lamp and the head room of said space to prevent light from the lamp shining into said head room and means for swinging and securing the hinged member in a plurality of light shading positions.

19. A sleeping car construction including a turtle back roof, a hollow construction depending from the crown portion of the roof and providing spaces on opposite sides thereof forming upper berth head rooms, just below the roof, conduits located in said construction, the roof being continuous from side to side extending over said hollow construction and free of openings therethrough.

20. A sleeping car construction including a turtle back roof, means within the car forming a central aisle and passenger occupying space on opposite sides of the aisle, a central construction extending lengthwise of the car, depending from the crown portion of the roof defining the top of the aisle space and providing spaces on opposite sides thereof forming upper berth head rooms, above the passenger occupying space, a central aisle light depending from said central construction and a light shield hinged to the central construction depending therefrom in two operative positions and located in all operative positions thereof between the aisle light and each of said head rooms.

21. In a sleeping car construction, the combination of a hingedly mounted berth bunk, a ceiling lamp offset from the berth space above the bunk when the bunk is in its lowered, operative position, a swinging shield between the lamp and the head room of the berth space, said shield having two operative positions in both positions constituting a screen for preventing light from the lamp shining into the head room of the berth space, in one of said positions forming a bridge between the ceiling and the elevated bunk and acting when in this position to reflect light from the lamp downwardly towards the portion of the floor beneath the lamp and in the other position acting to reflect light from the lamp upwardly towards the portion of the ceiling about the lamp.

22. In a sleeping car, the combination of a roof structure including a fixed aisle ceiling and providing enclosed space above the ceiling to accommodate light, air, heat, or other service fixtures above the car aisle, a car upright, a berth bunk hingedly mounted on said upright, the car upright and the roof structure above the berth space being continuous and free of openings and a vertically extending inside partition between the roof and said ceiling provided with outlets into the upper berth space for the service fixtures.

23. A sleeping car provided with a turtle back roof, a fixed ceiling including a relatively low aisle portion and a curved portion defining the top of the upper berth space and curving downwardly from a position above the aisle portion, an air conduit positioned between the aisle portion and the part of the roof above said portion, a vertically extending partition connecting the adjacent edges of the aisle and curved portions and said partition provided with an air vent leading from the air conduit and opening into the head room of the berth space above the level of the aisle portion ceiling.

24. A sleeping car provided with a turtle back completely closed roof, a fixed ceiling including a relatively low aisle portion and a curved portion defining the top of the upper berth space and curving downwardly from a position above the aisle portion, a vertically extending partition connecting the adjacent edges of the aisle and curved portions and said partition provided with service fixtures carried thereby and projecting therefrom into the head room of the berth space above the level of the aisle portion ceiling, and a shield depending from and hingedly connected to the partition, co-acting therewith to define one side of the berth space head room and in all positions thereof and movable without contacting with the service fixtures.

25. A sleeping car provided with a turtle back roof, a fixed ceiling including a relatively low aisle portion and a curved portion defining the top of the upper berth space and curving downwardly from a position above the aisle portion, a partition connecting the adjacent edges of the aisle and curved portions and said partition provided with service fixtures carried by the partition and exposed to the head room of the berth space above the level of the aisle portion ceiling, a shield depending from the partition and co-acting therewith to define one side of the berth space head room, and means carried by the shield to support a curtain or other berth closure.

26. In a sleeping car, the combination of a berth supporting upright, a berth hingedly mounted on the upright, a portion of a roof including a fixed ceiling defining the top of the berth space, a fixed partition depending from the ceiling and in transversely spaced relation to the plane of the upright to form head room to the berth space and said partition provided with fixtures secured thereto and projecting therefrom into said head room.

27. A sleeping car provided with structural parts including a turtle back roof free of openings therethrough, certain of said parts coacting to form a central aisle and opposing compartments on opposite sides of the aisle, another structural part located beneath the crown portion of the roof, defining a relatively low fixed ceiling for the aisle and providing between the aisle ceiling and the raised crown portion of the roof vertical space to accommodate service fixtures and the like and said compartments extending upwardly above the level of the aisle ceiling to the outer curved portions of the roof to form head rooms on opposite sides of said other structural part located beneath the crown portion of the roof.

28. In a car construction, structural parts forming a turtle back roof, a central aisle beneath the crown portion of the roof with opposing passenger-occupying spaces on opposite sides of the aisle and which spaces extend upwardly

to the roof to form head spaces just below the roof above the level of the top of the aisle, means forming a conduit extending lengthwise of the car and located in the raised space beneath the crown portion of the roof, and said conduit provided with a laterally extending outlet leading into one of said head rooms.

29. In a car construction, structural parts forming a turtle back roof, parts forming a central aisle beneath the crown portion of the roof and forming opposing passenger-occupying spaces on opposite sides of the aisle and which spaces extend upwardly to the roof to form head rooms just below the roof, a conditioned air conduit located beneath the roof and above the aisle, and a ventilator supplied from said conduit and opening horizontally therefrom into one of said head rooms.

30. In a sleeping car, a false ceiling hingedly mounted, and having two operative positions, manually actuated control mechanism for moving the ceiling selectively into either of said positions, and said control mechanism including means for locking the ceiling in both of its operative positions.

31. A sleeping car berth construction including a permanent head board, the combination of a hinged false ceiling, a curtain rod carried thereby, an anchor pivot carried by the head board, a locking toggle comprising two links pivotally connected, with one link pivoted to the anchor pivot and the other link forming one arm of a bell-crank lever with a hub portion secured to the curtain rod, a stanchion having its upper end pivoted to the other arm of the bell crank lever and means for securing the lower end of the stanchion thereby to secure the toggle in its locking position.

32. In a device of the class described, the combination of a berth curtain rod, means for mounting the rod to swing into two positions, a fixed anchor, a locking toggle comprising two links pivotally connected with one link pivoted to the anchor and the other secured to the curtain rod, and means for operating the toggle including a safety stanchion having its upper end pivoted to the link which is secured to the curtain rod, and a socket for receiving the lower end of the stanchion.

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