Dec. 8, 1936. A. J. HERSEY ET AL 2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

Filed Feb. 20, 1936 7 Sheets-Sheet 1

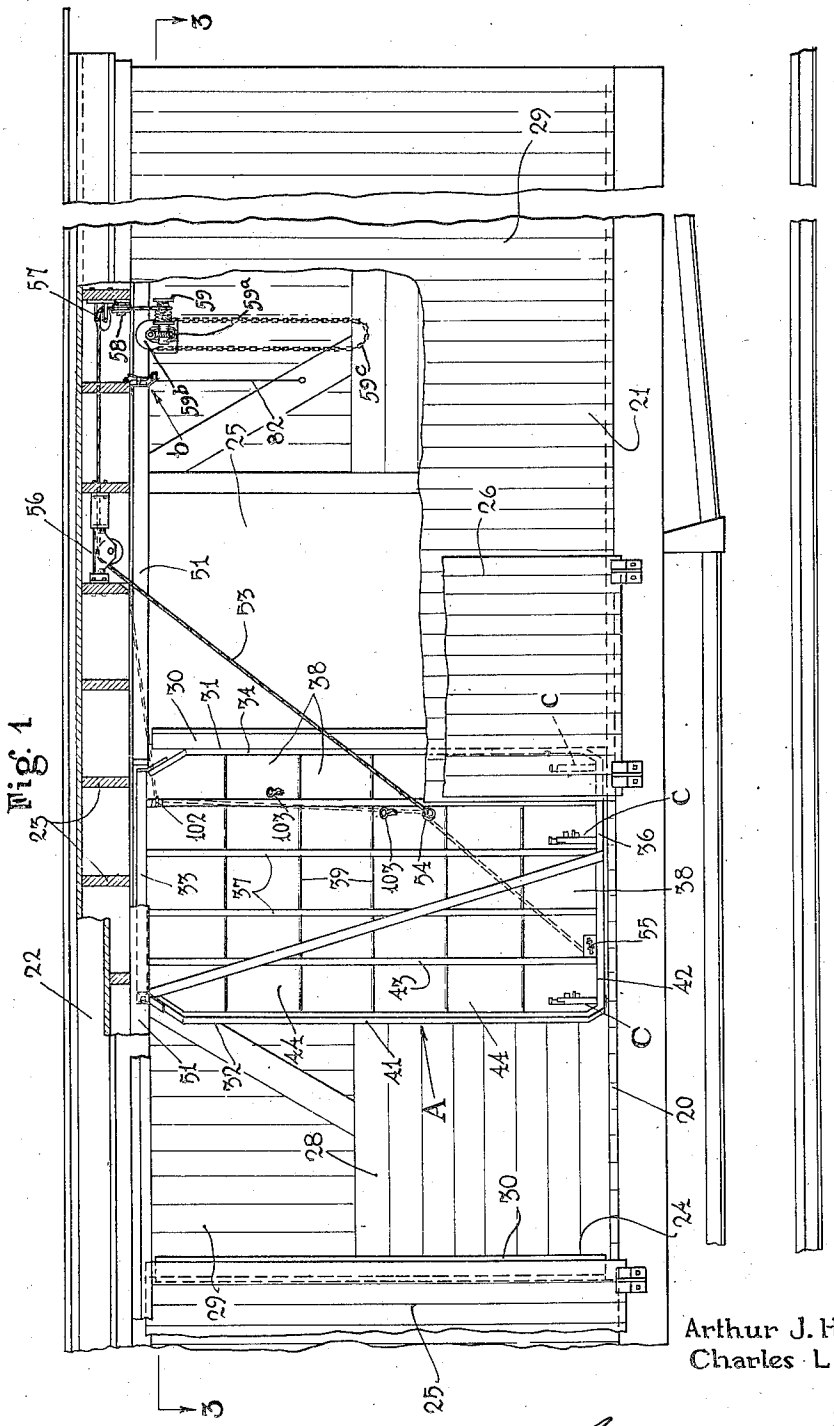


Fig. 1

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CONVERTIBLE RAILWAY FREIGHT CAR

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Fig. 2

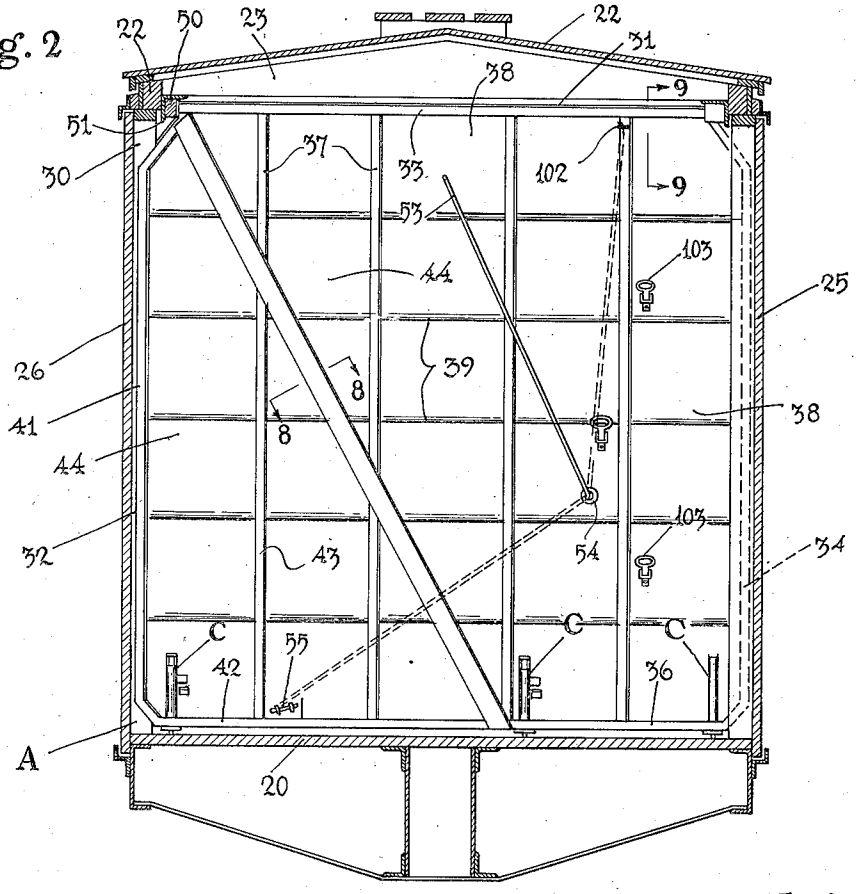


Fig. 7

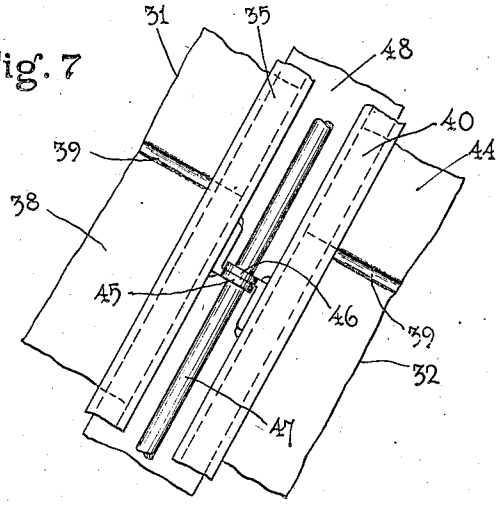
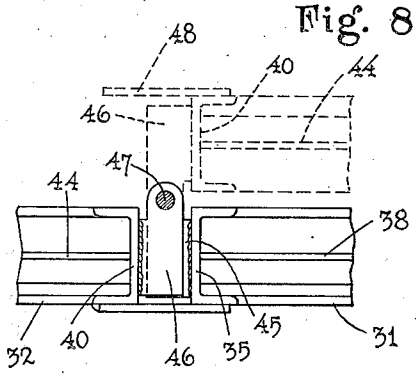


Fig. 8



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Dec. 8, 1936. A. J. HERSEY ET AL 2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

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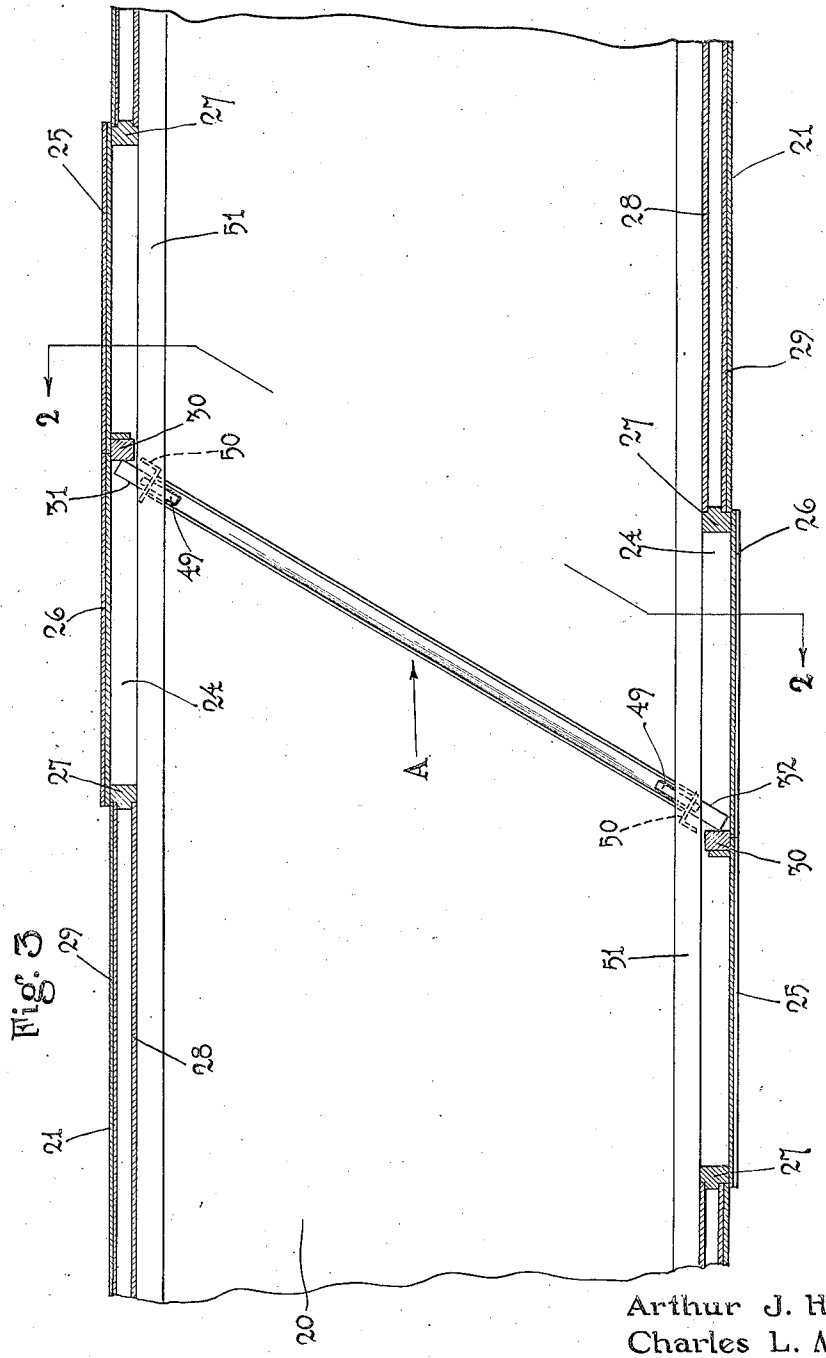


Fig. 3

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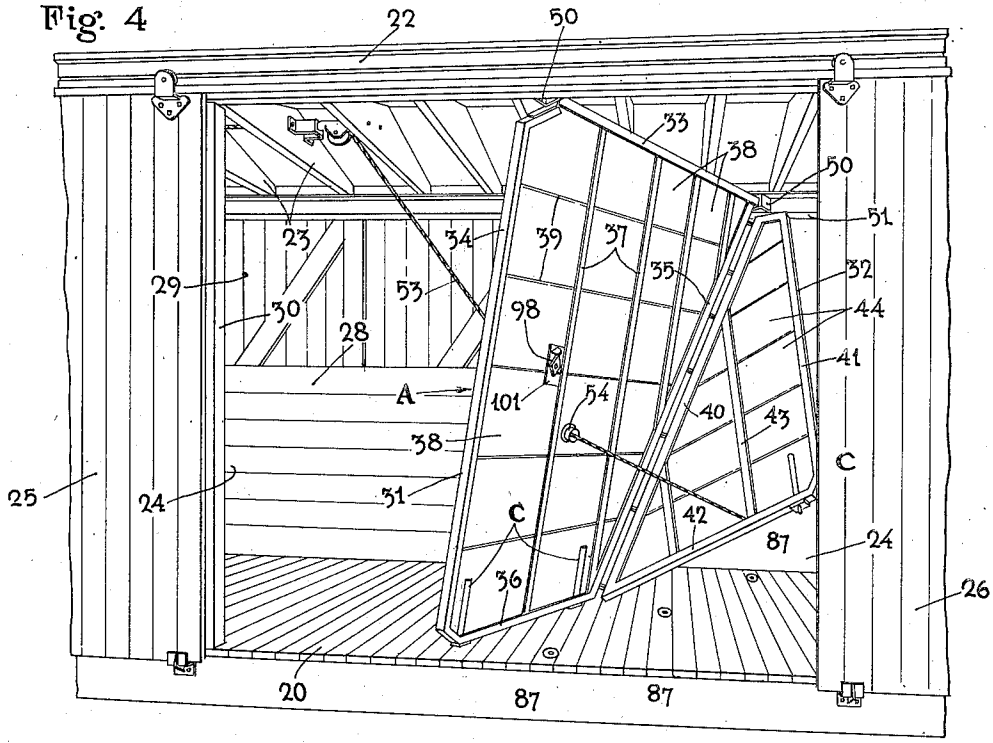
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Dec. 8, 1936. A. J. HERSEY ET AL 2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

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Fig. 4



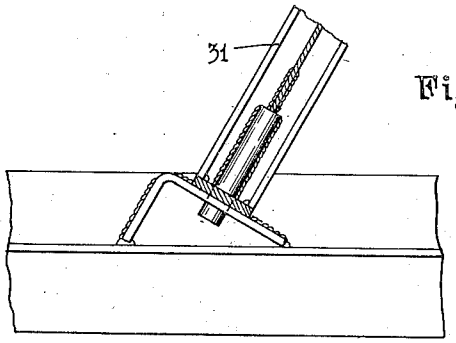


Fig. 10

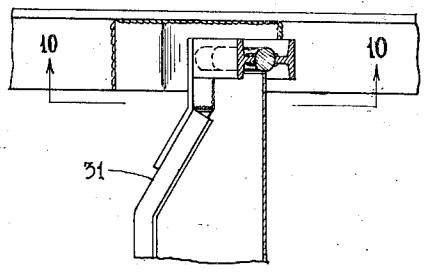


Fig. 9

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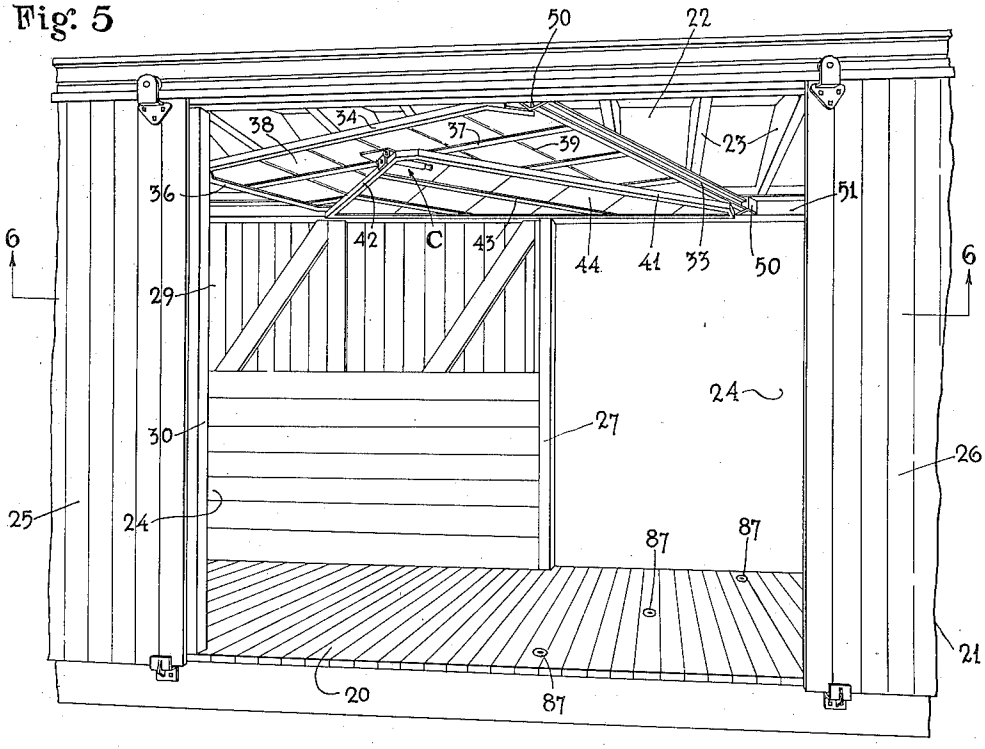
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CONVERTIBLE RAILWAY FREIGHT CAR

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Fig. 5



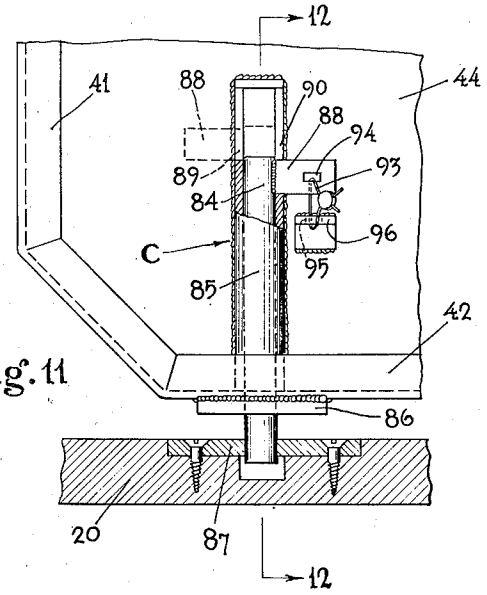


Fig. 11

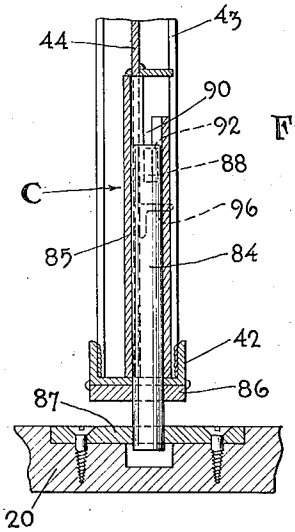


Fig. 12

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Dec. 8, 1936. A. J. HERSEY ET AL 2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

Filed Feb. 20, 1936 7 Sheets-Sheet 6

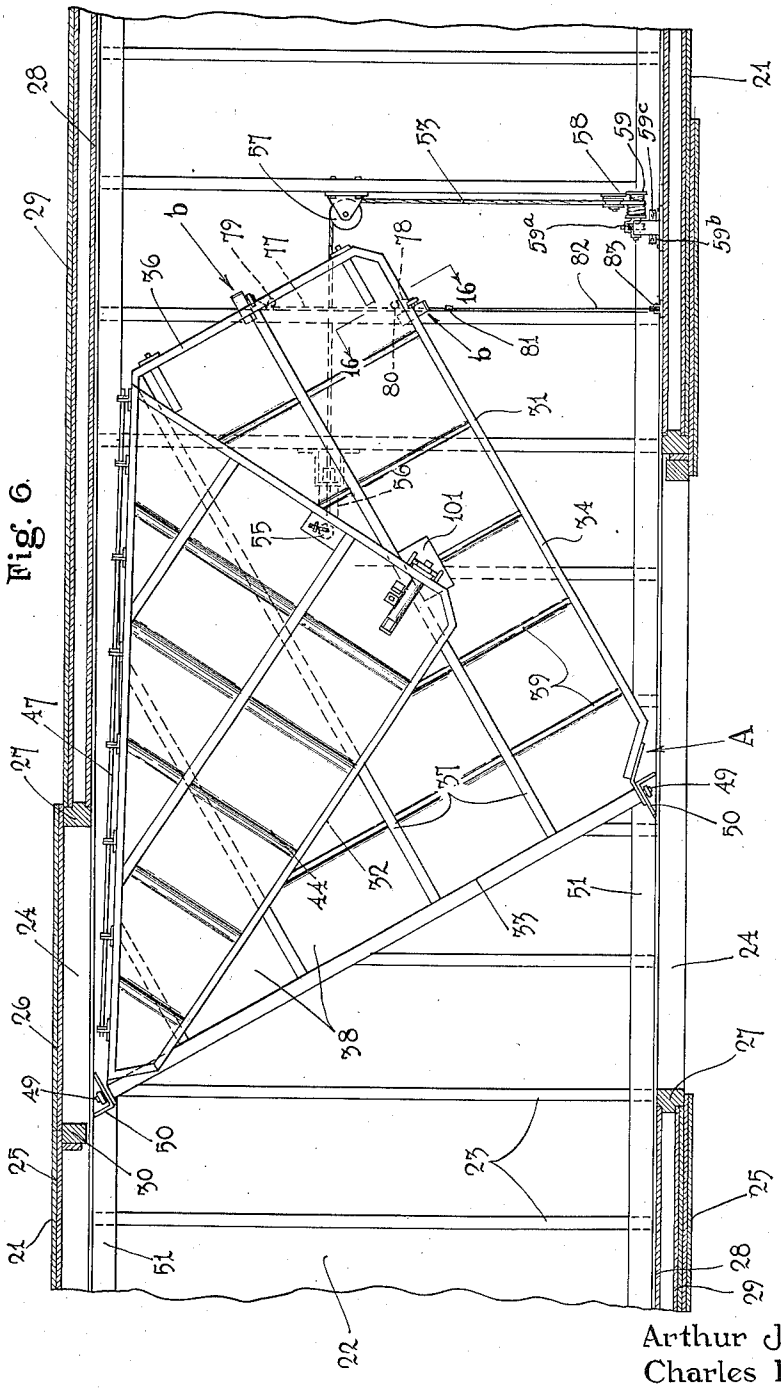


Fig. 6.

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Dec. 8, 1936. A. J. HERSEY ET AL 2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

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Fig. 16

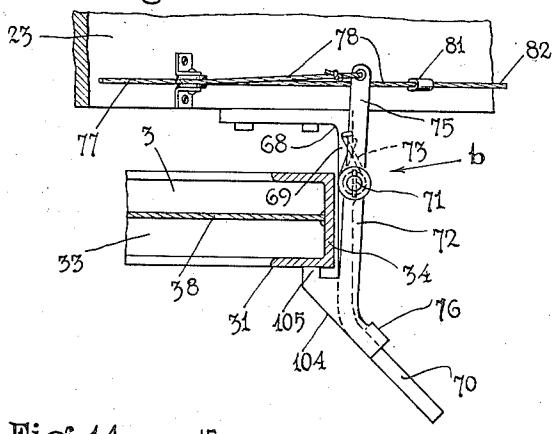


Fig. 17

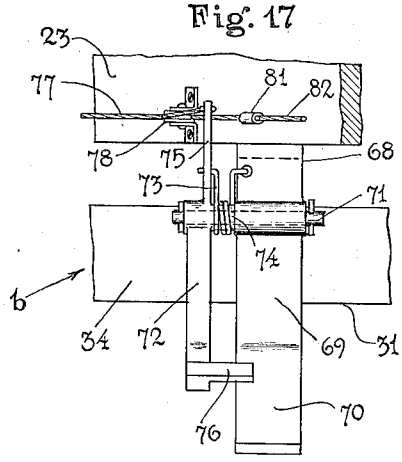
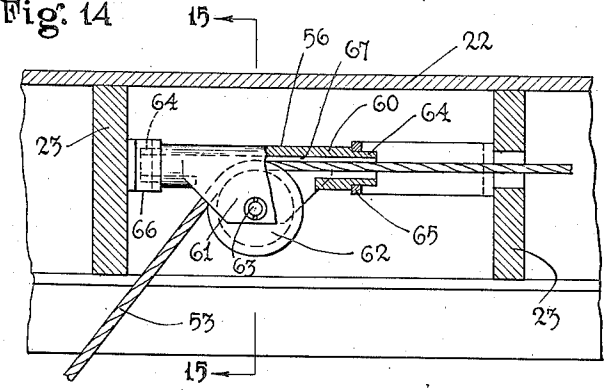


Fig. 14



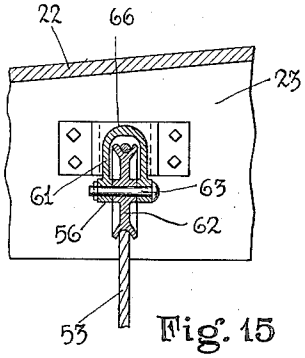


Fig. 15

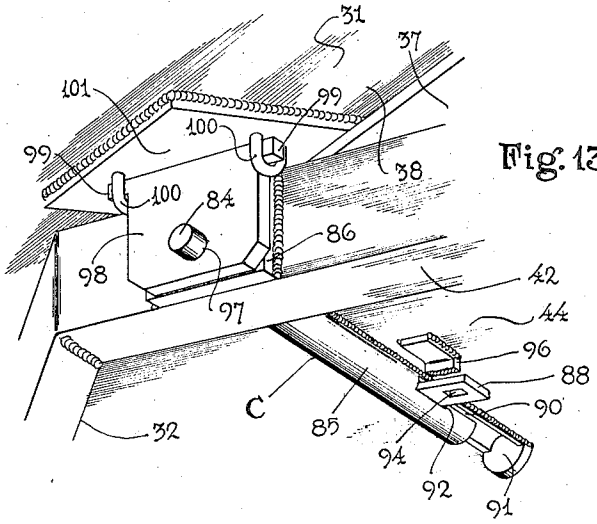


Fig. 13

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Patented Dec. 8, 1936 2,063,434

UNITED STATES PATENT OFFICE

2,063,434

CONVERTIBLE RAILWAY FREIGHT CAR

Arthur J. Hersey and Charles L. Madden, Minneapolis, Minn.

Application February 20, 1936, Serial No. 64,922

22 Claims. (Cl. 105—376)

Our invention relates to improvements in convertible railway freight cars and particularly to box cars having side doors.

The present improvement contemplates a convertible freight car construction in which standard practices in general construction and use prevail and in which a movable partition is employed to divide the car into compartments for the use of individual shippers of less than carload lots.

Somewhat similar structures are disclosed in Patent No. 2,009,894 of July 30, 1935 to Charles L. Madden, one of the present applicants, and Patent No. 2,009,895 of July 30, 1935 to Charles L. Madden and Arthur J. Hersey, the two present applicants. In each of said patented structures, a partition is movable into and out of operative position substantially in a vertical plane passing through the meeting lines of the opposed double doors. Patent No. 2,009,894 discloses doorways at the sides of the car located directly opposite each other, the partition being pivotally hung from overhead to swing into a horizontal position of disuse along the roof, said partition having wings, one at each side thereof, adapted to swing into and out of their respective doorways when the partition is disposed for use in a vertical position. Patent No. 2,009,895 discloses a car having staggered doorways and a sliding partition which is guided into position of use so that the marginal portions at the sides thereof enter the doorways and traverse the car from door to door, said partition being guided out of its position of use so that said marginal portions thereof are brought within the inner confines of the car proper.

The present invention involves car construction having side doorways and a partition pivotally hung from overhead, diagonally of the car, and adapted to swing down into position of use, it being an object of our invention to provide a simple, durable and practical construction of such kind in which the partition is formed with a diagonally hinged corner section, whereby said partition may be readily folded and swung upwardly into position of disuse in the upper portion of the car and readily lowered and unfolded to divide the car into individually accessible compartments.

An object of the invention is to provide a partition and operating means therefor, as above, whereby the folding and unfolding of the hinged corner section automatically attends the raising and lowering of the partition body.

The present invention further involves the common type of car construction, known as the "automobile" car, having staggered doorways fitted with outside double doors meeting midway of the door openings, it being our further object to provide partitioning means as above, in which the unfolded partition, in position of use, extends into the doorways and in which the folded partition clears the doorways and is accommodated between the inner walls of the car proper. The "automobile" car, advantageously lends itself to our present improved construction, due to the diagonal disposition of the partition axis which corresponds with the plane of the meeting lines of the double doors.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawings, Fig. 1 is a fragmentary elevational view of a convertible car construction embodying our invention, the structure of the car proper being partly broken away to reveal the partition and the operating means therefor; Fig. 2 is a vertical sectional view taken as on the line 2—2 of Fig. 3; Fig. 3 is a horizontal sectional view taken through structure of the car proper, as on the line 3—3 of Fig. 1, the partition supporting beams and the partition itself being shown in plan; Fig. 4 is an elevational perspective view taken from the side of structure opposite to that shown in Fig. 1, the partition being shown in the position assumed thereby, just after the raising thereof is begun or just before the lowering thereof into position of use is completed; Fig. 5 is a view similar to Fig. 4, the partition in this case being shown as swung up into the upper portion of the car into its overhead position of disuse; Fig. 6 is a sectional view taken as on the line 6—6 of Fig. 5; Fig. 7 is a fragmentary elevational view of the partition showing in detail the hinged connection between the body of the partition and the folding corner section thereof; Fig. 8 is a detail sectional view taken as on the line 8—8 of Fig. 2; Fig. 9 is a detail sectional view taken as on the line 9—9 of Fig. 2, said view illustrating the partition construction and the manner in which the partition is hingedly hung from within the roof of the car structure; Fig. 10 is a detail sectional view taken as on the line 10—10 of Fig. 9; Fig. 11 is a fragmentary elevational view in detail of the partition locking bolt at the lower left hand corner of the partition as seen in Fig. 2, said view including a sectional illustration of a portion of the car floor with which said bolt cooperates; Fig. 12 is a sectional view taken as on the line 12—12 of Fig. 11; Fig. 13 is a perspective view in detail showing the free corner of the hinged partition section and the locking bolt thereon securing said section folded against the partition body, as seen in Fig. 5; Fig. 14 is an elevational view, partly broken away, illustrating the swiveling sheave over which the partition operating cable travels; Fig. 15 is a detail sectional view taken as on the line 15—15 of Fig. 14; Fig. 16 is a sectional view taken as on the line 16—16 of Fig. 6, said view showing in ele-

vation one of the latching devices employed for releasably holding the partition in its overhead position of disuse, and Fig. 17 is another elevational view of said latching device, the same being taken at right angles to the view shown in Fig. 16.

Referring to the drawings, it will be seen that the car structure proper consists of an ordinary form of box car construction having a floor 20, side walls 21, and a roof 22 supported by carlines 23. Doorways 24 at the sides of the car are relatively staggered and equally offset from the middle of the car longitudinally thereof, said doorways being provided with double doors 25, 26 slidable along the outside of the car and which, when closed, meet midwidth of their respective doorways. The frames for the doorways 24 include side posts 27 to which the inner lining 28 and outer sheathing 29 of the walls 21 are secured. The door 25 of each pair of doors opens in the direction of the near end of the car and carries a reinforcing post 30, which, in the closed position of said door, is releasably anchored to the doorway frame in any suitable manner. The invention contemplates releasably securing the two doors of each pair individually in closed position and this may be accomplished in any suitable manner such, for example, as disclosed in said Patent No. 2,009,895.

A partition A is employed to divide the car into two compartments, each of which is accessible through the doorway at either side of the car. This partition in its entirety is generally rectangular in shape, the corners thereof being beveled. Said partition is hingedly supported at the top thereof and is swingable to occupy an overhead position of disuse horizontally in the upper portion of the car and to occupy a vertical position of use substantially in the plane of the meeting lines of the double doors at the sides of the car. Included in the partition A are a body 31 and a diagonally hinged corner section 32, the body 31 being in the form of a right trapezoid with the longer of the parallel sides at the top of the partition, the corner section 32 being in the form of a right triangle with the base at the bottom of said partition. In the construction of the partition body 31, a head rail 33 is employed, the same being I-shaped in cross section. A right angle stile 34, diagonal stile 35 and lower rail 36, constituting frame members of the partition body 31, are all constructed from a piece of channel iron bent, as shown, with the legs of the channel iron extending inwardly, said stiles 34, 35 being secured to the head rail 33, one channel of said rail, like the channels of said stiles being faced inwardly. Reinforcing ribs 37, I-shaped in cross section, extending longitudinally of the partition body 31 are received at their upper ends in the lower channel of the head rail 33 and at their lower ends in one or the other of the frame stiles 34, 35. Spanning the spaces between the ribs 37 are sheet metal panel strips 38 of heavy gauge, the edges of which are received in the channels of the ribs 37 and secured, as by welding, to the webs of said ribs. The upper edges of said panel strips 38 are received in the downwardly facing channel of the head rail 33 and welded to the web thereof, the lower edges of said strips being likewise received in the channel and welded to the web of one or the other of the frame stiles 34, 35. Spaced corrugations 39 formed transversely of the panels 38 reinforce them and by engagement with corresponding flanges of the ribs 37, at one face of the partition body 31, hold the panels proper against the rib flanges at the other face of said body. The construction of the corner section 32 of the partition A is similar to that of the body 31 thereof, said section having frame members including a diagonal stile 40, matching with the diagonal stile 35 of the partition body 31, a right angle stile 41 and a base rail 42, all of said members being formed from a length of channel iron, the flanges of which extend inwarlly of the frame. As in the partition body 31, the corner section 32 is provided with reinforcing ribs 43 and panels 44. A piano hinge construction by means of which the corner section 32 is hinged to the body 31 of the partition A permits said section to fold out of the plane of the partition body only in one direction. This hinge construction, best seen in Figs. 7 and 8, comprises a number of paired hinge members 45, 46, the member 45 of each pair being welded to the diagonal frame member 35 of the partition body 31 and the member 46 being welded to the diagonal frame member 40 of the corner section 32. The hinge members 46 on the corner section 32 bear upon the hinge members 45 on the partition body 31 and all of said members 45, 46 swing on a hinge rod 47, the axis of which lies in the plane of one face of the partition body 31. A batten strip 48 is employed to cover the space occupied by the members 45, 46 between the stile 35 of the partition body 31 and the stile 40 of the corner section 32, said batten strip 48 being secured along one margin to said stile 40 of said corner section 32 at the face thereof opposite the hinge rod 47.

The construction by means of which the partition is hingedly hung from the top thereof consists of a pair of trunnions 49 issuing from the ends of the head rail 33 axially thereof, said trunnions being journalled in angle bearing plates 50 secured to angle beams 51 fastened to and extending along wall plates 52 at the upper portion of the car.

The partition A is swung upwardly from its position of use to its overhead position of disuse and again lowered to said first position by means of hoisting tackle now to be described, said tackle additionally serving automatically to fold the corner section 32 of the partition upon the body 31 thereof, as the partition is raised, and also serving to free said section to permit it to swing by gravity into the plane of the partition body 31 in the lowering of the partition. Said hoisting tackle includes a cable 53, one end of which is passed through a grommet 54 in the partition body 31 and fastened by means of an attaching clip 55 to the partition section 32 near its free corner. This cable 53 runs over sheaves 56, 57 and 58 in the roof of the car and is attached to a winding drum or windlass 59 mounted on one side of the car. Said drum or windlass 59 is turned by worm gearing 59a which is driven by a chain wheel 59b fitted with an endless chain 59c for operating the same. Attention is called to the relative locations of the sheave 56, grommet 54, and cable attaching clip 55 by reason of which said elements come into line in superimposed relationship when the section 32 is folded upon the body 31 of the partition A and said partition swung up into its position of disuse (Fig. 6). With the partition in position of use (Fig. 2), the grommet 54 occupies a position, laterally of the car, to the right as compared with the position of said grommet in the elevated position of the partition. Accord-

ingly, the sheave 56 is swiveled to conform with the changing angular relation of the cable 53 between said sheave 56 and the grommet 54 as the partition is raised and lowered. Details of this swiveling sheave 56 appear in Figs. 14 and 15, where it is seen that said sheave includes a tubular body 60 having spaced flanges 61 depending therefrom and between which a grooved wheel 62 is disposed, said wheel being journaled on a pin 63 supported at its ends by said flanges. Said tubular body 60 has reduced ends 64 which turn in bearings in the webs of U-shaped brackets 65, 66, the legs of which are bolted to the facing sides of adjacent carlines 23. The cable 53 running over the grooved wheel 62, extends into and through the bore 67 of the body 60.

While the drum 59 is worm driven, we prefer to secure the partition A in its elevated position independently of the cable 53 and thus relieve it of the load while the partition is not in use. Accordingly, we provide a pair of latching devices *b* in the roof of the car which catch a corner of the partition body 31 in the elevated position of the partition and alone hold the partition elevated. These latching devices are identical, one thereof being illustrated in detail in Figs. 16 and 17. The device shown includes a mounting bracket 68 depending from a carline 23. This bracket has a vertically disposed reach 69 which serves to brace the partition against lateral movement in one direction. At the lower end of the reach 69 is an outwardly inclined cam portion 70 adapted to engage and guide the partition body 31 into line with the inner face of the reach 69. Pivoted on a pin 71 carried by the bracket 68 is a depending dog 72 for catching and holding the upwardly swung partition. A spring 73, coiled about a hub portion 74 on said dog and reacting against the bracket 68 and a lever 75 extending upwardly from said hub, yieldingly holds the dog 72 in partition-holding position, a limit stop 76 on said dog abutting the cam portion 70 of the bracket 68 in such position of said dog. The two latching devices *b*, are oppositely diagonally related with respect to the car, one being disposed to catch the lower rail 36 of the partition body 31 and the other the stile 34 of said body (Fig. 6). The reaches 69 of the brackets 68 together stay the elevated partition against lateral movement in both directions, thereby relieving the structure from strains which otherwise would arise from such movement of the partition. The self-latching dogs 72 are unlatched manually by means of latch cord branches 77, 78 running over guide pulleys 79, 80 and connecting at 81 with a main drop cord 82, in turn, running over a guide pulley 83 and hanging at the side of the car within reach of the windlass 59.

In the operative position of the partition A, the body 31 thereof is releasably locked to the floor 20 of the car to secure the partition from swinging on the supporting trunnions 49 and the corner section 32 is likewise locked to the car floor to contribute to this anti-swinging movement of the partition and to secure said partition section 32 against swinging on the partition body 31 out of the plane thereof. To this end, the body 31 of the partition and the section 32 are supplied with floor locks *c*, the former having one at each of its lower corners and the hinged section 32 having one at its free corner. The construction of one of these locks, all being identical, is illustrated in detail in Figs. 11 and 12. This lock includes a bolt 84, round in cross section, slidably and rockably mounted in a tubular guide 85, set into a slot in a partition panel 38 and welded to the panel. The lower portion of the bolt 84 is received in an opening formed in the web of the bottom rail 36 and in an opening in a boss 86 welded to the lower face of said web, the lower extremity of said bolt being adapted to enter a socket plate 87 recessed in the car floor 20. Issuing from the upper portion of the bolt 84 is a latch lever 88 which is free to swing through 180° with the turning of the bolt 84, the upper portion of the tubular guide 85 at one side of the plane of the panel 38 being cut away to accommodate such movement of said lever 88. Upwardly opening keeper slots 89, 90 in opposite sides of the tubular guide 85 receive the lever 88 edgewise in the corresponding angular relations of the bolt 84, the slot 89 being relatively shallow to retain the bolt 84 elevated sufficiently to clear the car floor 20 when the partition A is lowered into position of use. Slot 90 is deeper than slot 89 to allow the bolt 84 to be thrust down far enough to project the lower extremity of the bolt into the bolt receiving socket of the socket plate 87. At the top of the guide 85 is an upper limit stop 91 for precluding the endwise removal of the bolt 89 from said guide. Means are provided to prevent the bolt 84 from becoming unlatched from the floor plate 87 as by working itself upwardly or as by being lifted by unauthorized persons. The slot 90 is enlarged at its lower end to form a shoulder 92 beneath which the latch lever 88 may be engaged upon the swinging of said lever out of the plane of the slot proper. With said lever 88 caught under said shoulder 92, the bolt 84 is effectively held against upward movement in the guide 85. Officially, to keep the lever 88 beneath said shoulder 92, a car seal of usual construction is used, the wire or ribbon 93 of the seal being looped through an opening 94 in said lever 88 and through an opening 95 in a bracket 96 welded to the panel 38, the bracket opening 95 being so disposed that the seal wire 93 holds the latch lever 88 beneath the retaining shoulder 92 of the guide 85.

In permitting the latch dogs 72 in the roof of the car to support the free end of the partition body 31, the hoisting cable 53 is slackened after the engagement of said dogs with said body. This, without provision to the contrary, would allow the folded corner section 32 of the partition A to unfold, by gravity, relative to the partition body 31. To secure said corner section 32 folded against the body 31, we employ the floor lock *c* of the corner section 32 (Fig. 13), the bolt 84 in such case being projected into a bolt receiving opening 97 in a latching flap 98 pivotally mounted on the partition body 31. This latching flap 98 consists of a plate having trunnions 99 journaled in eyes 100 issuing from an anchoring plate 101 welded to a panel 38 of the partition body 31. In thus using this floor lock *c* to retain the corner section 32 folded against the partition body, the retaining shoulder 92, overreaching the latch lever 88, keeps the bolt 84 from creeping out of latching relationship, gravity, in this case, holding the lever 88 against swinging to clear said shoulder 92. The pivoting of the latching flap 98 permits it to hang in an unobstructing position flush against the face of the partition body 31 (Fig. 4) in the upright position of the partition.

The partition A is safely supported and braced in an overhead position when not in use, the en-

tire interior of the car being available for all usual purposes. In position of use, the partition divides the car in the plane of the meeting lines of double doors 25, 26 at the opposite sides of the car, each compartment being individually accessible from the doorway at either side of the car, the compartment through which the cable 53 extends being unobstructed by said cable simply by hooking the slackened cable over the hook 102 (Fig. 1) at the top of the partition body 31, said body having folding steps 103 thereon for the convenience of the user in reaching said hook.

In bringing the partition A from its position of disuse to position of use, the drum 59 is first turned to tighten the cable and lift the free end of the partition body 31 from the latch dogs 72. These dogs 72 are then temporarily retracted by pulling on the drop cord 82 and the drum 59 is then turned to pay out the cable 53 and permit the end of the partition body 31 to swing down beneath the level of said dogs 72, whereupon the drop-cord 82 may be released. As the paying out of the cable 53 continues, the floor bolt 84 on the hinged partition section 32 is released from the latching flap 98 on the partition body 31 so that said section 32 will be free to unfold by gravity from the partition body when the partition arrives at the final stage of its lowering movement. In this stage, the corner section 31 begins to turn on its diagonal hinge rod 47 and continuing to turn arrives in the plane of the partition body 31 as it proceeds to swing into vertical position.

While the side marginal portion of the partition section 32 enters its respective doorway, the opposite margin of the partition body 31 enters its respective doorway, thus partitioning the car beyond the inner confines of the car lining 28 and from door to door through the doorway recesses. This effectually isolates the two compartments from each other. In this connection, it is to be noted that the marginal portions of the partition, which enter the doorways 24, are foreshortened at the top by the bevelling of the upper corners of the partition, such construction allowing clearance for the partition, where it is reduced in width in order to be accommodated between the inner walls of the car. In the depending position of the partition A, the bolts 84 of the floor locks *c* are lowered into their socket plates 87 in the car floor 20 and, if desired, sealed in such partition-locking positions, as by the seals 93.

To return the partition A into position of disuse, the floor bolts 84 are withdrawn from the floor sockets 87 and latched in retracted position. The cable 53, released from the hook 102, is then wound in on the windlass 59. At the start and due to the right angle bend of the cable 53 at the grommet 54, the whole partition is swung slightly out of the vertical (Fig. 4). This occurring, the corner section 32 of the partition, by gravity, begins to fold on the diagonal hinge rod 47 toward the partition body 31. Concurrently with this folding movement of the corner section 32 and with the diminishing friction between the cable 53 and grommet 54, the bend in the cable decreasing, the partition body 31 settles back toward its initial vertical position, where it is met by the folding corner section 32 coming against it. Thereupon, the two parts of the partition are elevated together, the bolt 84 of the floor lock *c* on the corner section 32 being caught in the latching flap 98 on the partition body 31 as the partition continues to be swung upwardly. Reaching the latching devices *b* at the roof of the car, the partition body 31, if out of its proper lateral relationship, engages the cam portion 70 of one or the other of said devices and is thereby appropriately shifted to take position between the stay reaches 69 of the ceiling brackets 68. While the partition body 31 is within the range of the cams 70 of the brackets 68, cam edges 104 of the latch dogs 72 (Fig. 16) are engaged by said body 31 and the dogs 72 are thereby sprung back until the body 31 passes shoulders 105 on said dogs, whereupon the dogs snap into holding positions with said shoulders 105 beneath the rail 36 and stile 34 of said body 31. The cable 53 is then slackened, permitting the partition A to settle onto the latch dogs 72.

Due to the initial folding of the corner section 32 against the partition body 31, said section is withdrawn from its respective doorway 24 into a position to clear the door frame and the corresponding wall lining 28 of the car. At the other side of the partition, the marginal portion of the partition body 31 swings out of its doorway 24 and clear of the door frame and corresponding wall lining 28, due to the biased manner in which the partition is hung. In this connection, attention is invited to Figs. 3 and 6, the former showing the partition in position of use with the opposite marginal portions thereof projecting beyond the planes of the wall linings of the car and into the doorways thereof, while Fig. 6 shows the partition swung into its overhead position of disuse with the folded corner section 32 and the partition body 31 accommodated between the wall linings 28.

Changes in the specific form of our invention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of our invention.

Having described our invention, what we claim as new and desire to protect by Letters Patent is:

1. A car having doorways in the opposite side walls thereof arranged in staggered relation, each doorway having double doors meeting between the sides thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area between the doors substantially in the plane of the meeting lines of said doors, whereby the compartments of the car at either side of said partition are individually accessible through the corresponding sides of the doorways at either side of the car, said partition comprising a body portion and a corner section diagonally hinged thereto, the diagonal hinging of the partition with respect to the car causing the marginal portion of the partition body opposite said corner section to clear its corresponding side wall and to pass into and out of the doorway therein when the partition is swung into and out of position of use, the free marginal portion of said corner section extending into its corresponding doorway in the position of use of said partition, the diagonal hinging of the corner section rendering said section swingable with respect to said partition body to withdraw said section from its respective doorway and to cause it to clear its respective side wall when said partition is swung into its said position of use, a hoisting cable attached to said corner section and slidably connected with said partition body, said cable operating to fold the corner section upon said body and to swing the

partition into position of disuse, and means for securing the partition in each of said positions thereof.

2. A car having doorways in the opposite side walls thereof arranged in staggered relation, each doorway having double doors meeting between the sides thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area between the doors substantially in the plane of the meeting lines of said doors, whereby the compartments of the car at either side of said partition are individually accessible through the corresponding sides of the doorways at either side of the car, said partition comprising a body portion and a corner section diagonally hinged thereto, the diagonal hinging of the partition with respect to the car causing the marginal portion of the partition body opposite said corner section to clear its corresponding side wall and to pass into and out of the doorway therein when the partition is swung into and out of position of use, the free marginal portion of said corner section extending into its corresponding doorway in the position of use of said partition, the diagonal hinging of the corner section rendering said section swingable with respect to said partition body to withdraw said section from its respective doorway and to cause it to clear its respective side wall when said partition is swung into its said position of disuse, operating means acting upon partition body and hinged section to swing the latter relative to the former and to swing both thereof together.

3. A car having doorways in the opposite side walls thereof arranged in staggered relation, each doorway having double doors meeting between the sides thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area between the doors substantially in the plane of the meeting lines of said doors, whereby the compartments at either side of said partition are made individually accessible through the corresponding sides of the doorways at either side of the car, said partition comprising a body portion and a corner section diagonally hinged thereto, the diagonal hinging of the partition with respect to the car causing the marginal portion of the partition body opposite said corner section to clear its corresponding side wall and to pass into and out of the doorway therein when the partition is swung into and out of position of use, the free marginal portion of said corner section extending into its corresponding doorway in the position of use of said partition, the diagonal hinging of the corner section rendering said section swingable with respect to said partition body to withdraw said section from its respective doorway and to cause it to clear its respective side wall when said partition is swung into its said position of disuse.

4. A car having doorways in the opposite side walls thereof arranged in staggered relation, each doorway having double doors meeting between the sides thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area between the doors substantially in the plane of the meeting lines of said doors, whereby the compartments of the car at either side of said partition are made individually accessible through the corresponding sides of the doorways at either side of the car, said partition extending at its sides into said doorways in its position of use and being diagonally foldable upon itself to clear the side wall structure of the car, and means for folding the partition and also swinging it into its said position of disuse.

5. A car having doorways in the opposite side walls thereof, each doorway having double doors meeting between the sides thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis to occupy an overhead position of disuse and a depending position of use filling the area between the doors substantially in the plane of the meeting lines of said doors, whereby the compartments of the car at either side of said partition are made individually accessible through the corresponding sides of the doorways at either side of the car, said partition extending at its sides into said doorways in its position of use and being foldable upon itself to clear the side wall structure of the car, and means for folding the partition upon itself and also swinging it into its said position of disuse.

6. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, means for swinging the partition into its position of disuse, said means cooperating with the partition body and with said corner section thereof to fold the latter upon the former and to raise said body and folded section together, and latching devices carried by the partition and including a latching device on the corner section thereof, said devices cooperating with the car structure to secure the partition in position of use with the corner section thereof in the plane of the partition body.

7. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, hoisting means for swinging the partition into its position of disuse, stay devices cooperating with the free end of the partition body, in the position of disuse of said partition, to deprive the partition of lateral movement, and latching means cooperating with said partition body at said free end thereof to hold the par-

tition in said position of disuse independently of said hoisting means.

8. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, hoisting means for swinging the partition into its position of disuse, said means cooperating with the partition body and with said corner section thereof to fold the latter upon the former and to raise said body and folded section together, and latching mechanism for securing the corner section in its folded relationship independently of said hoisting means.

9. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, hoisting means for swinging the partition into its position of disuse, and latching means cooperating with the free end of the partition body to hold the partition in its position of disuse independently of said hoisting means.

10. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, means for swinging the partition into its position of disuse, said means cooperating with the partition body and with said corner section thereof to cause the latter to be folded relative to the former and to raise said body and folded section together.

11. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, means for swinging the partition into its position of disuse, latching devices carried by the partition and including a latching device on the corner section thereof, said devices cooperating with the car structure to secure the partition in position of use with the corner section thereof in the plane of the partition body, said latching device on the corner section cooperating with the partition body in the folded relation of the corner section to hold said section folded relative to said body.

12. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse, an operating cable fastened at one end to said corner section and slidably connected with said partition body, and means for winding in the cable, said cable being adapted to fold the corner section upon the partition body and raise the two together in folded relation into said overhead position of disuse.

13. A car having doorways in the opposite side walls thereof, a partition within the car hingedly hung from overhead and swingable on a substantially horizontal axis diagonally of the car to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, whereby the compartments of the car at either side of the partition are made individually accessible through one of the side doorways, said partition having a diagonally hinged corner section swingable with respect to the body thereof to clear the corresponding side wall of the car upon the swinging of said partition into its said position of disuse.

14. A car having a partition therein, a pivotal support hingedly carrying the partition from overhead, said partition being swingable on said support to occupy an overhead position of disuse and a depending position of use filling the area in a vertical plane from one side wall of the car to the other, the axis of said support being substantially horizontal and biased relative to the plan of the car, said support directing the partition in swinging into its position of disuse to cause said partition to recede at one side edge thereof from the corresponding side wall of the car, said partition having a diagonally hinged corner section at the opposite side thereof, said section being swingable with respect to the partition proper to clear its corresponding side wall of the car upon the swinging of said partition into its said position of disuse.

15. A car having a doorway in a side wall thereof and a door therefor, a partition within the car, an overhead pivotal support from which said partition is supported in a depending position of use filling the area in a vertical plane from said door across the car, the axis of said support being substantially horizontal, said partition including a body and a section hinged thereto and foldable

thereon, the partition section having a marginal portion adapted to extend into said doorway in the unfolded relation of said section, said body having a grommet therein, a hoisting cable for swinging the partition from its said position of use into an overhead position of disuse, said cable being slidably received by said grommet and attached at one end to said hinged section, the point of attachment between cable and section registering with said grommet in the folded relation of the hinged section, said cable operating to swing the hinged section out of the doorway and fold it upon the partition body, also, to swing partition body and section together into said overhead position of disuse.

16. A car having a doorway in a side wall thereof and a door therefor, a partition within the car, an overhead pivotal support from which said partition is supported in a depending position of use filling the area in a vertical plane from said door across the car, the axis of said support being substantially horizontal, said partition including a body and a section hinged thereto and foldable thereon, the partition section having a marginal portion adapted to extend into said doorway in the unfolded relation of said section, and a hoisting cable attached to said partition section and slidably connected with said partition body, said cable operating to swing the hinged partition section out of the doorway and fold it upon the partition body, also, to swing the partition body and section together into an overhead position of disuse.

17. A car having a hingedly hung partition therein swingable on a substantially horizontal axis to occupy a substantially horizontal position of disuse overhead and a depending position of use filling the area in a vertical plane from one side of the car to the other, thus dividing the interior of the car into compartments, said partition having a hinged section swingable with respect to the body thereof, and means for swinging the partition into its position of disuse, said means cooperating with the partition body and with said section thereof to cause the latter to be folded relative to the former and to raise said body and folded section together.

18. A car having doorways, one in each side wall thereof, an overhead pivotal support in the upper portion of the car, the axis of said support being substantially horizontal and biased relative to the plan of the car, a partition adapted to fill the area in a vertical plane from one side wall to the other and divide the car into two compartments, each accessible through one of said doorways, said partition including a member hung from said support and swingable from a substantially horizontal position of disuse in the upper portion of the car to position of use in said vertical plane with an edge of said member adjoining one side wall of the car, said support directing the swinging movements of said partition member to cause said edge thereof to recede from said side wall upon the swinging of said member toward its position of disuse and to re-adjoin said side wall upon the reverse swinging of said member toward its position of use.

19. A car having an overhead pivotal support in the upper portion thereof, the axis of said support being substantially horizontal and biased relative to the plan of the car, partitioning means hung from said support and including two partitioning elements cooperating in position of use to fill the area in a vertical plane from side to side of the car, one of the partitioning elements in position of use having a side edge thereof adjoining one side of the car, said elements being swingable on said support from position of use to position of disuse in the upper portion of the car, said support directing the one of said elements to cause said side edge thereof to recede from its adjoining side of the car upon the swinging of said member toward position of disuse, and cable hoisting means common to said partitioning elements for swinging the same into their elevated position of disuse.

20. A car having an overhead pivotal support in the upper portion thereof, the axis of said support being substantially horizontal and biased relative to the plan of the car, partitioning means hung from said support and including two partitioning elements cooperating in position of use to fill the area in a vertical plane from side to side of the car, one of the partitioning elements in position of use having a side edge thereof adjoining one side of the car, said elements being swingable on said support from position of use to position of disuse in the upper portion of the car, said support directing the one of said elements to cause said side edge thereof to recede from its adjoining side of the car upon the swinging of said member toward position of disuse.

21. A car having an overhead pivotal support in the upper portion thereof, the axis of said support being substantially horizontal and biased relative to the plan of the car, partitioning means in position of use filling the area in a vertical plane from side to side of the car, said means including a member hung from said support and, in said position of use, having a side edge thereof adjoining one side of the car, said member being swingable into position of disuse into the upper portion of the car, said support directing said member to cause said side edge thereof to recede from its adjoining side of the car upon the swinging of said member toward its position of disuse and to re-adjoin said side of the car upon the reverse swinging of said member toward its position of use.

22. A car having a doorway in a side wall thereof and door for said doorway, movable partitioning means within the car adapted, in position of use, to fill the area in a vertical plane from said door through said doorway to the opposite side of the car, said means including a partitioning member adjoining said doorway, an overhead pivotal support for said member, the axis thereof being substantially horizontal and diagonally of the plan of the car, said member hanging, in said position of use, with the marginal portion at one side thereof extending into said doorway, said partitioning member being swingable on said support from said position of use into and back from a position of disuse in the upper portion of the car, said support directing the swinging movement of said partitioning member to cause said marginal portion thereof to clear said wall and to leave and re-enter the doorway therein.

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