

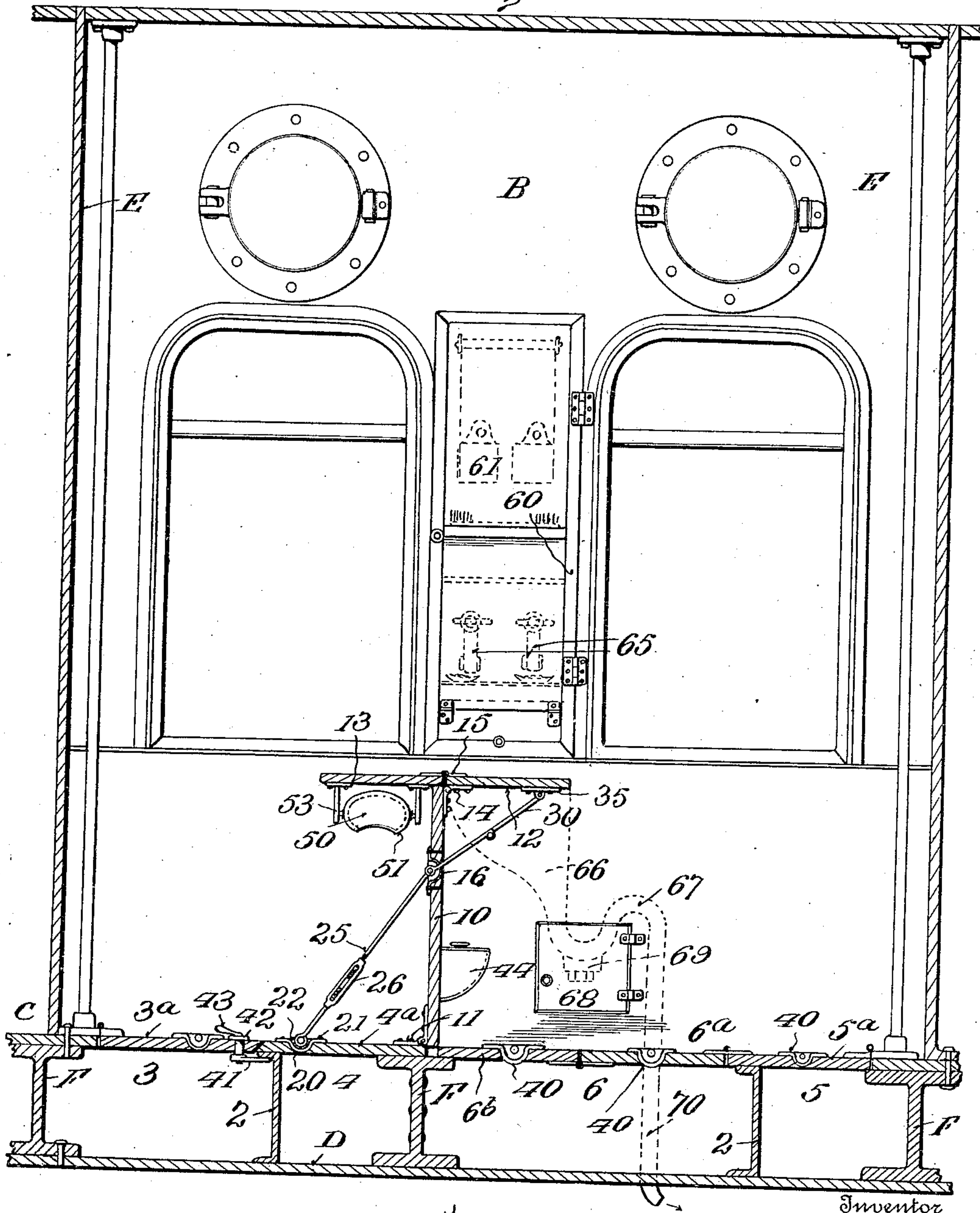
F. J. LEIGH.
RAILWAY CAR COMPARTMENT AND FOLDING TABLE THEREFOR.
APPLICATION FILED NOV. 15, 1909.

966,028.

Patented Aug. 2, 1910.

3 SHEETS—SHEET 1.

Fig. 1.



Inventor

Frederick Joseph Leigh

Witnesses

W. M. Woodson,

Juana M. Fallin,

By

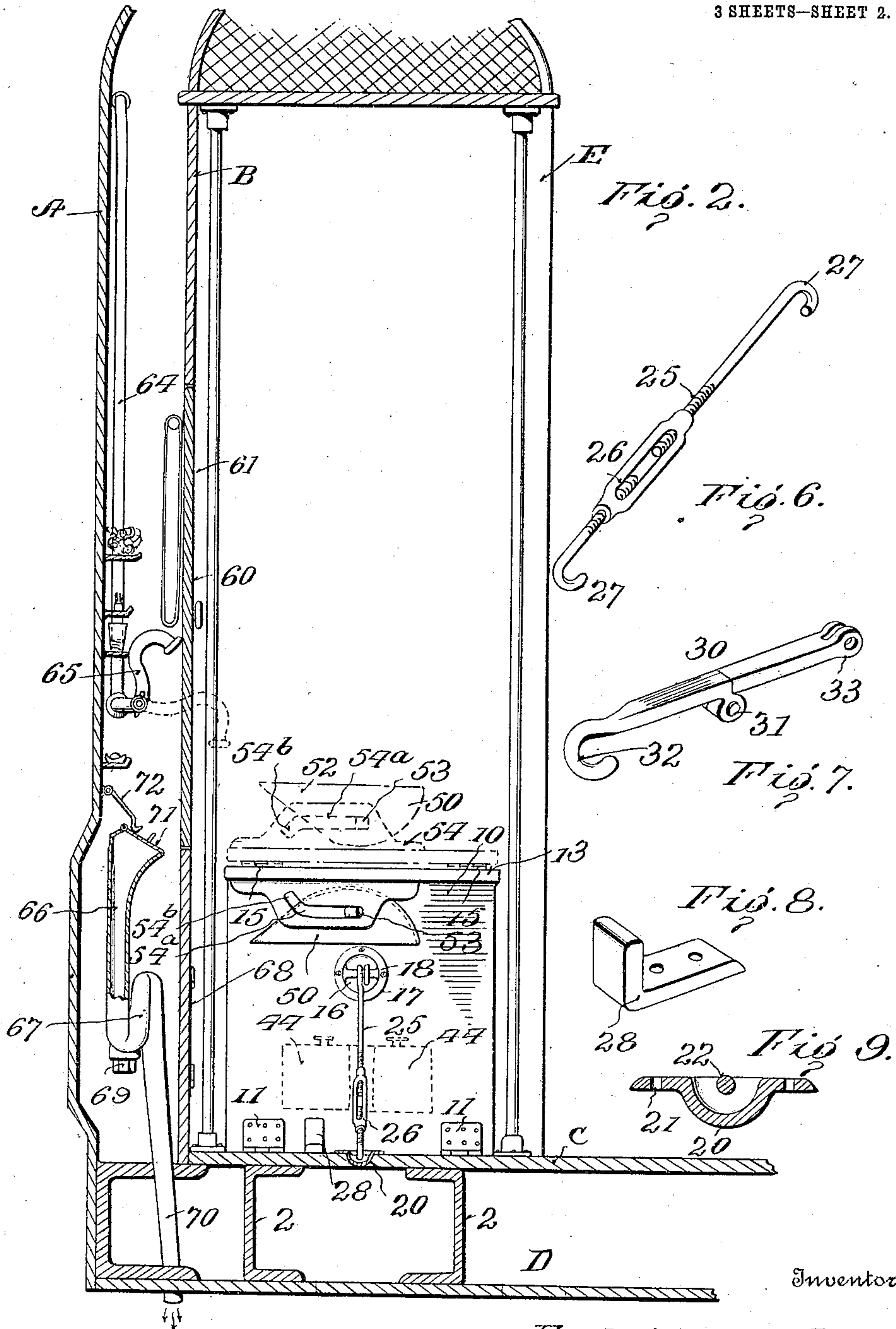
John H. Macy, Attorneys

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Inventor
Frederick Joseph Leigh

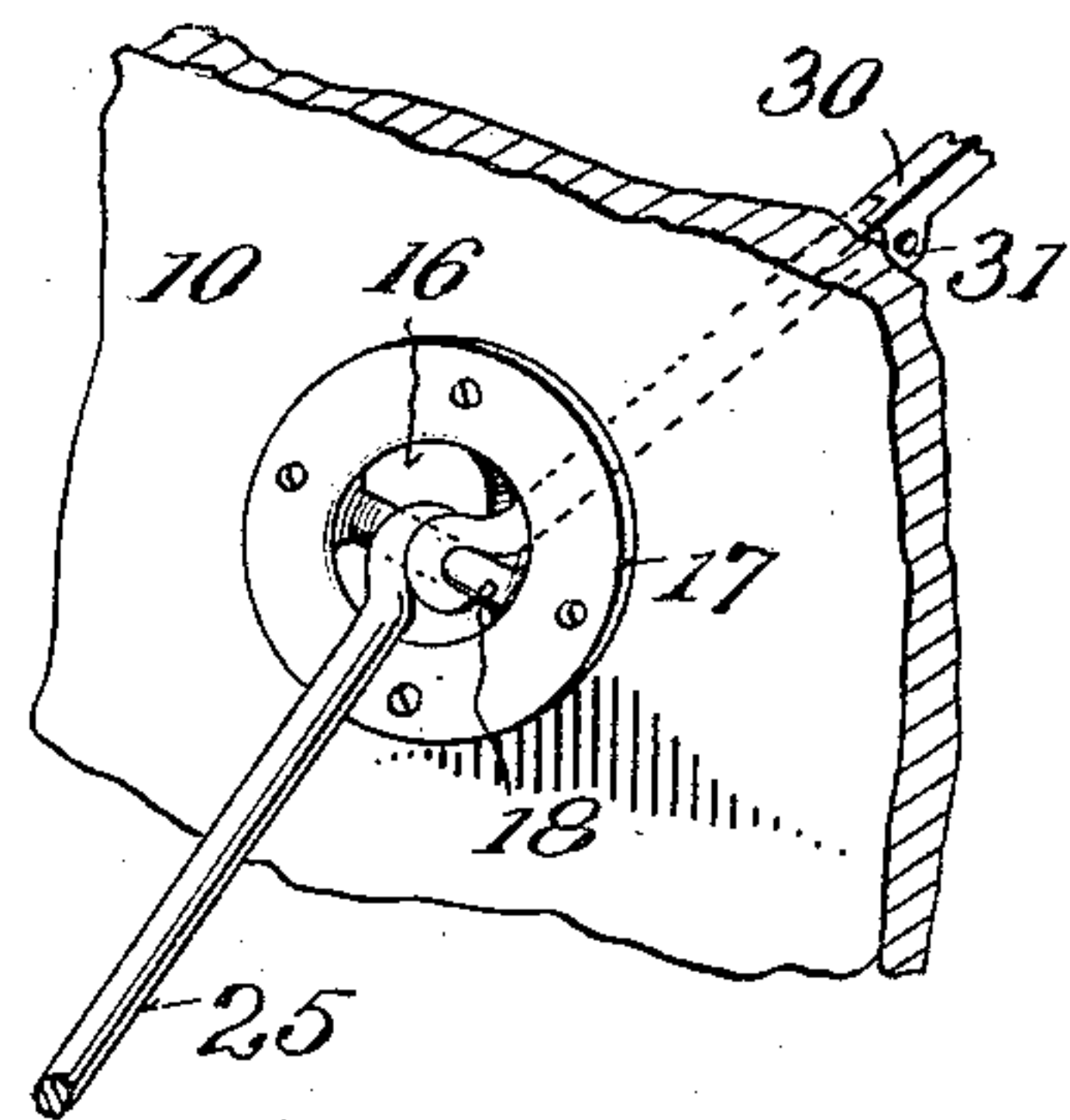
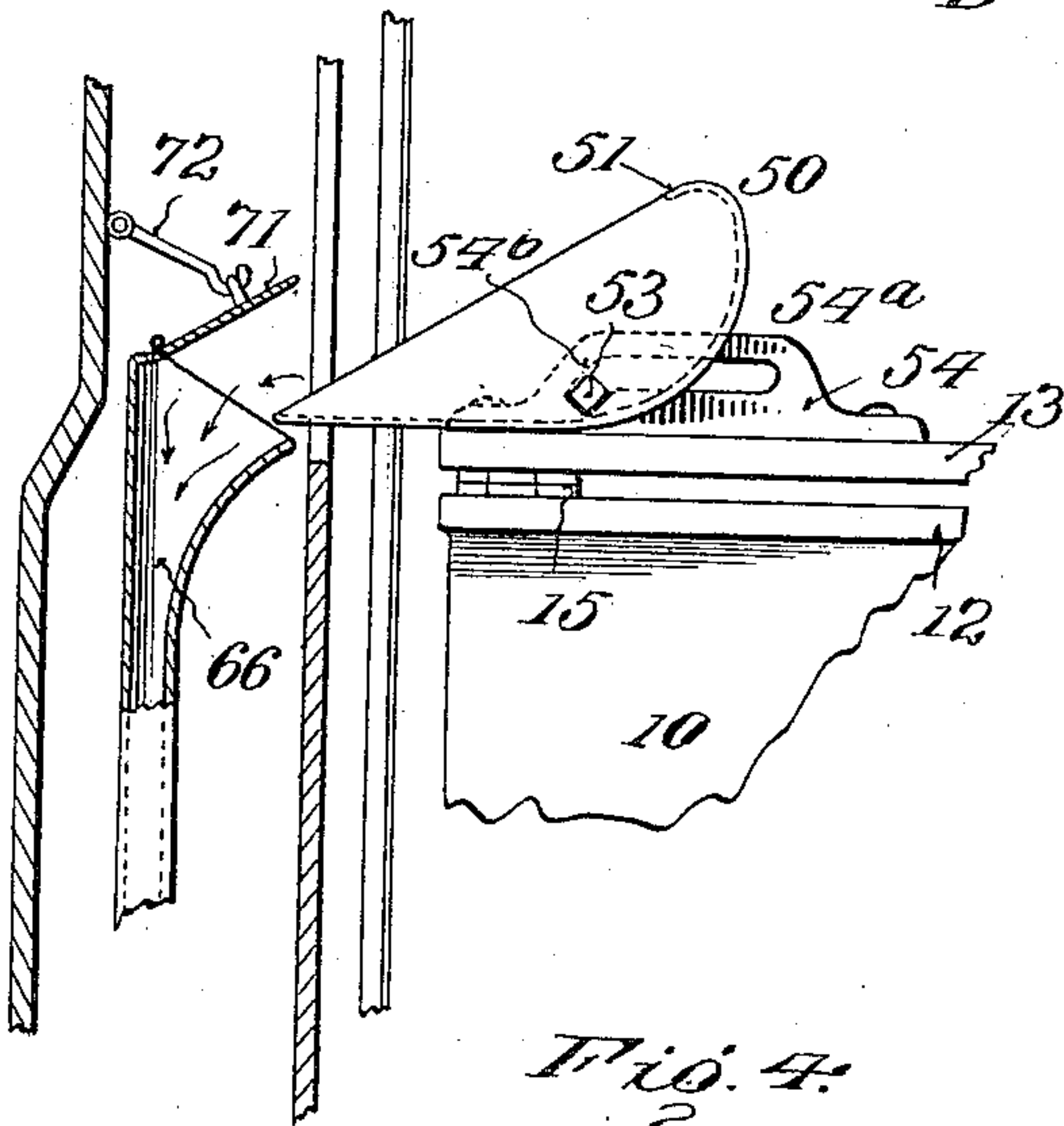
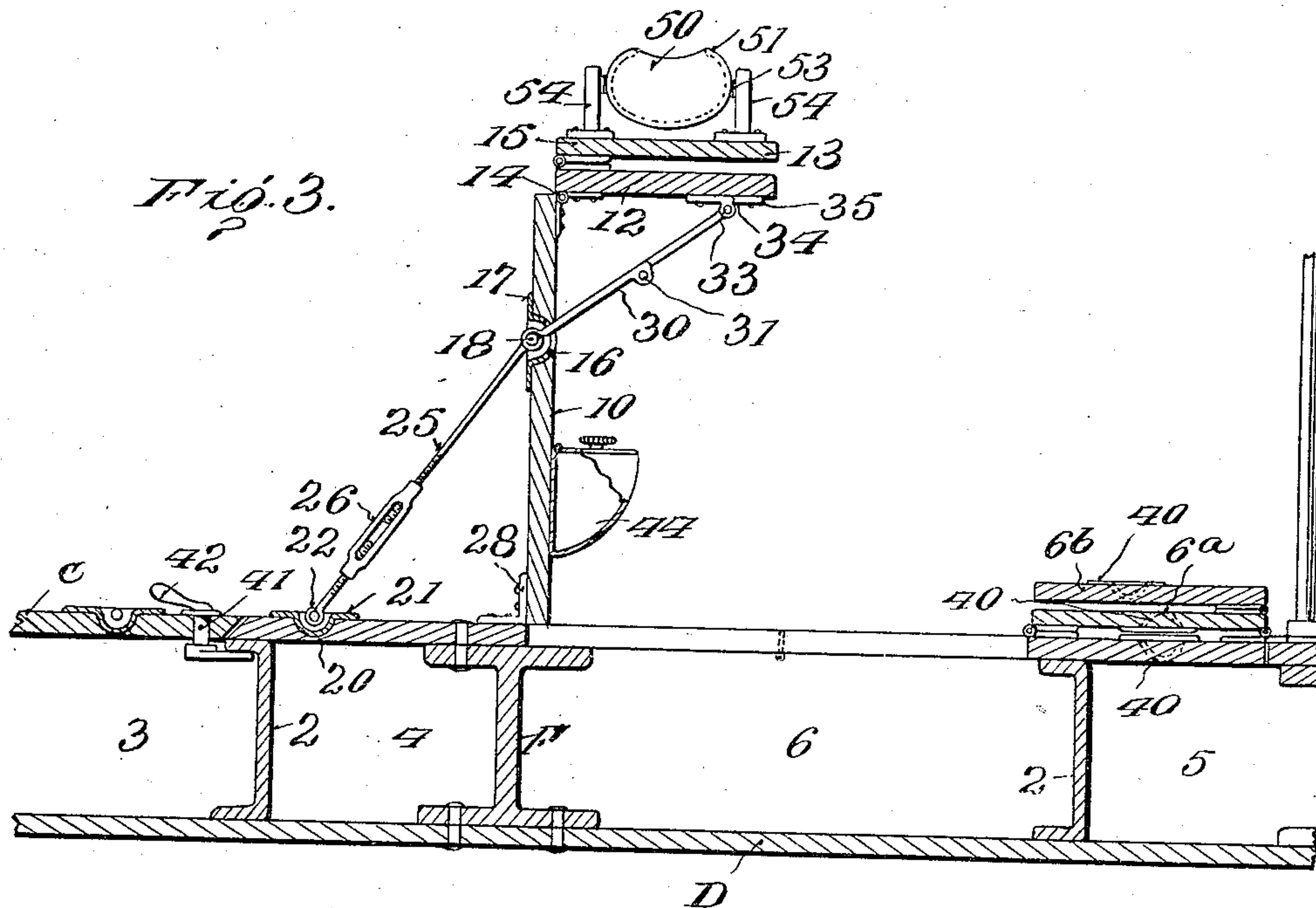
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3 SHEETS—SHEET 3.



Inventor

Frederick Joseph Leigh

By

W. H. Macy, Attorneys.

Witnesses
W. H. Macy
Juana M. Fallin,

UNITED STATES PATENT OFFICE.

FREDERICK J. LEIGH, OF SEATTLE, WASHINGTON, ASSIGNOR TO IMPERIAL CAR SHIP-BUILDING AND DRY DOCK CORPORATION, OF SEATTLE, WASHINGTON.

RAILWAY-CAR COMPARTMENT AND FOLDING TABLE THEREFOR.

966,028.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed November 15, 1909. Serial No. 528,198.

To all whom it may concern:

Be it known that I, FREDERICK J. LEIGH, citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Railway-Car Compartments and Folding Tables Therefor, of which the following is a specification.

My invention relates to certain improvements in compartment cars particularly designed in relation to a car of peculiar construction described and claimed in my pending application, Serial No. 530,551, filed on the 30th day of November, 1909.

The object of my invention is to provide in a car having double walls and floors and divided into compartments, a folding table, a wash basin connected to the table, a strong box also connected to the table, hot and cold water faucets located between the outer and inner walls of the car, and a waste hopper also located therein, into which the wash basin is adapted to empty. To this end, I have provided an all-steel folding table which, when not in use, as at night, is moved down to form the floor of the car, the leaves and braces of the table being carried in the space between the floor and the bottom of the car. Attached to the table is a wash basin peculiarly designed to prevent splashing, this wash basin being carried on trunnions and slidably arranged so that after using it, a passenger may slide said basin so that its end will project into the space between the walls of the car and over the waste hopper, the basin then being turned to discharge its contents, the basin, under ordinary circumstances, being carried upon the under side of the table so as to leave the top of the table unhampered. The hot and cold water faucets are contained within a toilet cabinet having shelves for drinking cups, hair brushes, towels, etc. I also provide with each table, chilled steel boxes having combination locks so located on the table as to be in convenient position during the day and stowed away beneath the steel floor of the car at night when the table is folded up, thus affording security in case the train is held up by robbers. In addition to the functions above named, the double bottom of my improved car provides spaces to be used as refrigerator and cold storage spaces accessible at all times either for the stow-

age of ice or removal of the contents of the storage space. The double bottom also provides a space with water and dust tight cover for the stowage of bedding during the day.

The several constructions are shown in the accompanying drawings, wherein;

Figure 1 is a side elevation of a car compartment, the bottom of the car being in section, the view being taken looking from the aisle and showing my improved folding table also in section; Fig. 2 is a transverse section of a portion of a car, the double bottom and side walls of the car being shown in section, the folding table being shown in front elevation; Fig. 3 is a longitudinal section through the car bottom and through the table, the table being shown in partly folded condition to support the wash basin thereon; Fig. 4 is a fragmentary sectional detail showing the waste hopper, a portion of the table, and the wash basin tipped to empty into the waste hopper; Fig. 5 is a detail perspective view of a portion of the supporting plate for the table; Fig. 6 is a perspective detail of one of the table braces; Fig. 7 is a perspective detail of the leaf brace; Fig. 8 is a perspective view of the stop for the table support; and, Fig. 9 is a transverse section of one of the flush handle plates.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to these figures, it will be seen that my car is formed with double walls A and B, a floor C, a car bottom D, and dividing partition plates E which divide the car up into a series of compartments. Inasmuch as all the compartments are alike, I have shown in the drawings only one of the compartments. The floor is supported on the I beams F. Preferably, there is an I beam F approximately under each partition plate and one crossing the middle of the compartment. This divides the space beneath each compartment into two general divisions, and these in turn are each divided by partition plates 2 having angular flanges at their margins, whereby the partition plates may be attached to the floor and to the car bottom. The space beneath each compartment is therefore divided into four chambers or compartments, namely: a re-

frigerator space 3; a cold storage space 4; a bedding space 5, and a table stowage space 6.

The floor of the compartment is composed of a plurality of hinged sections adapted to be raised in order to permit access to the space beneath the floor. The section 3^a covers the refrigerator space 3 and rests on its free edge upon the upper flange of the partition plate 2. The cold storage space 4 is covered by the section 4^a. The edge of the section 3^a is undercut so as to fit over the section 4^a so that when the section 3^a is closed, the section 4^a will be held in place. The bedding space 5 is closed by the section 5^a, while the space 6 is closed either by a number of auxiliary covering sections 6^a and 6^b, or by the table-supporting plate 10 now to be described.

The table consists of a supporting plate 10 which is of a length approximately equal to the depth of the section or compartment, this plate being of metal of the same thickness as the covering sections of the floor and hinged to the covering section 4^a by the hinges 11 so that it may be raised into a vertical position or lowered into a horizontal position to fit over the space 6. The top of the table consists of two leaves 12 and 13.

The leaf 12 is hinged to the supporting plate by the hinges 14, while the leaf 13 is hinged to the plate 12 by opposed hinges 15 located on top of the table and permitting the leaf 13 to be turned over upon the leaf 12. After the leaf 13 is turned over upon the leaf 12, both leaves may be folded down parallel to the supporting plate 10, and in this position the table may be lowered to close the space 6.

In order to hold the supporting plate 10 in upright position, I form the plate 10 with an opening in which is set the bowl-shaped plate 16 having marginal attaching flanges 17. The bowl-shaped portion of the plate is crossed by a handle bar 18. A like bowl-shaped plate 20 with attaching flanges 21 and transverse bar 22 is set into the floor section 4^a. It will be seen that these plates form handles whereby the plate 10 and plate 4^a may be raised and lowered, and that these handles are practically flush with the floor so as not to form any obstruction. A brace 25 formed in two parts which are joined by a turn buckle 26 is formed at its ends with the hooks 27 which are adapted to engage around the transverse bars 18 and 22 of the plates 16 and 20. The supporting plate 10, at its lower edge, is provided with a small angle iron 28 which forms a stop when the supporting plate is turned to its vertical position, and prevents the supporting plate from being turned beyond its vertical position. Hence, it will be seen that after the supporting plate is turned upward, and the brace 25 connected thereto, the turn buckle may be rotated to draw the sections of the

brace together and thus hold the supporting plate in a true vertical position, and that until the brace is released, the supporting plate cannot turn downward.

In order to support the leaf 12, I provide the diagonal brace 30 which is also formed in two sections hinged to each other as at 31 so that the sections of the brace may be folded upon each other. One extremity of the brace 30 is formed with a hook 32, while the other extremity is formed with lugs 33 which engage with an ear 34 formed on a plate 35 attached to the under side of the leaf 12. The two sections of the brace 30 are connected to each other by a rule hinge so that when they are turned into alignment with each other, the hinge will not open and the two sections will be practically rigid, as far as supporting the leaf 12 is concerned. The hooked end of the brace passes through a slot in the bowl-shaped member 16 and is adapted to engage with the transverse bar 18.

In order to fold down the leaf 12, it is only necessary to unhook the brace 30 from its connection with the bar 18, and then fold the brace and at the same time turn the leaf 12 downward. It will be seen that as the section 13 is folded over upon the section 12, the entire table top may be folded over upon the side of the supporting plate 10, and in this position the supporting plate may be turned down and the table sections, the braces, etc., be stowed within the space 6, while the plate 10 forms the flooring over this space.

In order to cover the space 6 when the table is in its raised position, the position which it ordinarily occupies during the day, I have provided the auxiliary sections 6^a and 6^b previously referred to. The section 6^a is hinged at one edge to the section 5^a, and the section 6^b is hinged to the section 6^a. Thus, these sections may be folded over upon each other, as shown in the drawing, and beneath the seat of the car (not shown), or may be folded over so as to form a flooring covering the opening above the space 6. Each of these sections is provided with the bowl-shaped plates 40 having the transverse handle bars which are constructed in precisely the same manner as the plate 20 previously described and form flush handles whereby the sections may be operated.

In order to hold the section 3^a closed so as to make a close fitting joint with the section 4^a, I provide the snib 41 attached to a shank 42 which projects up through the section 3^a and is there provided with a handle 43, whereby the snib may be turned. When turned in one position, it will be seen, this will draw the section 3^a into tight engagement with the section 4^a, and in the other position, it will permit either one of these sections to be raised.

Attached to the plate 10 are the two safety

deposit boxes 44. These boxes are each of chilled steel, are segmental in shape, and provided with covers 45. The boxes are preferably formed with combination locks whereby the covers may be locked into engagement with the body of the boxes. There may be as many of these boxes attached to the table as there are passengers for the compartment. I have shown two of these boxes. It will be seen that during the day these boxes are in a convenient position for the reception of valuables, and that at night the boxes are supported beneath the steel floor of the car in a peculiarly safe position and one rendered more safe by the fact that the lower berth (not shown) is then lowered and prevents the raising of the table.

One of the ends gained by my invention is the provision in each compartment of a toilet cabinet, hot and cold water faucets located in the cabinet, and a waste water hopper which shall be out of the way and concealed under all circumstances, and further to provide in connection with this a water basin mounted upon the folding table in such a position as not to prevent the ordinary use of the table, this wash bowl being arranged so that when it is turned into proper position, it may be emptied into the waste hopper.

The wash basin designated 50 is approximately ovoid in shape and has on three sides the inwardly projecting margin 51. The remaining side of the basin which is toward the wall of the car is extended outward to form a pouring lip 52. Each basin has projecting from it the opposed trunnions 53, these trunnions being located at the middle of the basin and set a little forward of the deepest portion thereof. The trunnions are square in section and slide in horizontal slots 54^a formed in opposed pedestals 54 riveted to the under side of the leaf 13. Each pedestal extends transversely to the car, and the extremity of each slot is angled, as at 54^b. It will be seen that the trunnions being square, prevent any tilting of the basin until the basin is moved to a position where said trunnions reach the angular ends of the slots. A set screw 55 is used to hold the trunnion and the basin in any adjusted position. After using, the passenger has simply to turn the set screw to release the trunnion, and push the basin a few inches to the angular end of the slot, whereupon said basin will discharge its contents into the waste hopper. It will be seen that the basin, under ordinary circumstances, is carried inverted beneath the leaf 13, but is at all times easily accessible for immediate use. It will also be seen that the basin is adapted to be moved to a position wherein its projecting lip extends into a toilet cabinet which is formed in the space between the outer and inner walls of the car and which is closed

by a hinged door 60 having thereon a mirror 61.

Located within the cabinet are shelves for the reception of towels, soap, tooth brushes, etc., together with holders for sponges and drinking cups, soap dishes, etc. Extending into the toilet cabinet, and projecting out beneath the shelves thereof, but above the position which the basin will take when moved into the toilet cabinet, are the hot and cold water supply pipes 64 connected to folding faucets 65. These faucets, when folded inward, shut off the supply of water and permit the cabinet door to be closed. When folded outward, the faucets project over the basin. Thus the water can not be left running when the door is closed. Immediately beneath the faucets is located a waste hopper 66 which is entirely inclosed between the outer and inner walls of the car and extends downward to a trap 67 which is connected to the waste pipe 70 extending down through the floor of the car. A shutter 68 in the inner wall of the car is arranged opposite to a trap cap 69, whereby the trap may be easily cleaned when necessary. The upper end of the waste hopper is provided with a cover 71 and a hook 72. This cover is normally closed upon the hopper, thus preventing dust or cinders or foul odors from rising from the waste hopper and passing into the car. The cover is gasketed so as to have a tight fit upon the upper end of the hopper.

The means which have heretofore been described, as before remarked, are designed to be used with an improved car construction forming the subject of a separate application before referred to, and also with certain sleeping berth and seat arrangements also forming the subject of a separate application, Serial No. 528,497, filed on the 17th day of November 1909. The sleeping berth and seat construction provides seats which during the day are located on opposite sides of the compartment, as is usual in parlor cars, and at night are moved so as to provide berths extending across the compartment. It is of course necessary, under these circumstances, to provide a table which may be entirely folded away so as not to occupy any space which would be necessary for the use of the passengers.

It will be seen that by the construction heretofore described, I provide a table which may be folded away at any time when desired, or occupy a place between the two opposed seats of the compartment, and which with very little trouble, may be converted into a stand for a wash basin. It will also be seen in this connection that I have provided means in each compartment for supplying water and carrying off the waste water therefrom. The cabinet containing the faucets is conveniently arranged

to hold towels, soaps, sponges, etc., and is provided with a mirror in its face. It will also be seen that by the provision of spaces 3, 4, 5 and 6, I provide stowage compartments for ice, for the storage of food, and for the storage of bedding, all separated from each other by air-tight partitions.

Having thus described the invention what is claimed as new is:

10 1. The combination with a railway car having a double bottom, of a table hinged to the bottom of the car and adapted when turned down to form a section of the car floor, and auxiliary covering sections adapted to cover the space in the floor normally occupied by the table, when the table is turned up.

20 2. In a railway car having a double bottom, a floor section movable to a vertical position, and leaves pivoted to the free edge of said section and adapted to be turned into horizontal position to form a table top.

25 3. In a railway car having a double bottom, a floor section normally forming a part of the floor of the car hinged to said floor and movable to a vertical position to support a table, a leaf hinged to the said section for movement into a horizontal plane, and braces supporting the section and the leaf.

30 4. In a railway car having a double bottom, a floor section which in a horizontal position forms part of the floor of the car but which may be moved to a vertical position to form a table support, a leaf hinged to the under side of said floor section at its free edge, a brace for supporting said leaf, and a leaf hinged to the first named leaf at the butt end thereof and projecting oppositely thereto.

40 5. In a railway car having a double bottom, a floor section normally forming part of the floor of the car but movable into a vertical position to form a table support, a leaf hinged to the under face of the section at the free edge thereof, a folding brace detachably connected at one end to the section for supporting said leaf, and a leaf hinged to the first named leaf at the butt end thereof and adapted to fold over upon the top of said first named leaf.

55 6. In a railway car having a double bottom, a floor section normally forming part of the floor of the car but movable to a vertical position to form a support for a table top, a leaf hinged to the under side of the section at the free end thereof, a brace for supporting said leaf, and a brace detachably connected to the section and to the floor of the car for supporting the section in a vertical position.

60 7. In a railway car, a section normally forming part of the floor of the car but movable into a vertical position to form a table support, a table top hinged to the sup-

port, a stop on the hinged edge of the support for limiting its movement to a position at right angles to the floor of the car, and a detachable brace engageable with the section and with the floor of the car on the hinged side of the section, said brace being formed in two parts connected by a turn buckle.

70 8. In a railway car, a floor section hinged to said floor and forming part thereof when turned into a horizontal position, said section being adapted to be turned into a vertical position to form a support for a table, a stop for limiting the movement of the section to a position at right angles to the floor, a handle attached to said section, said handle being flush therewith, a handle attached to the floor and flush therewith, a supporting brace having hooks at both ends engageable with said handles in the section and floor, and a turn buckle connecting the two sections.

90 9. In a railway car having a double bottom, a floor section hinged at one edge to the floor of the car and forming part of said floor when in a horizontal position, a table top hinged to said section and adapted to fold beneath the under side thereof or to be turned into a horizontal position when the section is raised, a brace for supporting said table top in a horizontal position, a detachable brace adapted to be connected to the floor for supporting the sections in a vertical position, and auxiliary covering sections hinged to each other and adapted to cover the floor when the said floor section has been raised to form a table support.

100 10. In a railway car or like structure, a floor section normally forming part of the floor but movable into a vertical position to form a support for a table, said section being hinged at its lower end to the floor and there provided with a stop for preventing the section being raised beyond a position at right angles to the floor, a table top hinged to the free end of said section and adapted to be turned either into a horizontal position when the section is raised or to be folded beneath the under side of said section when it is lowered, a bowl-like plate carried upon said section and having a cross bar, a bowl-like plate inserted in the floor also having a cross bar, and a brace formed in two sections connected by a turn buckle, said brace having hooks at the ends adapted to engage said cross bars.

120 11. In a railway car, a floor section hinged at one edge to said car and adapted to be turned down into a horizontal position to form part of the floor of the car and into a vertical position to support a table top, and a safe deposit box carried upon the said section.

130 12. In a railway car having a double bottom, a floor section hinged to the floor of the car and movable to a horizontal posi-

tion to form part of the floor thereof and to a vertical position to support a table top, a table top hinged to the free edge of said floor section and foldable into a horizontal position or into a position beneath the section, detachable braces for supporting said section in a vertical position, and a safe deposit box attached to the under side of said section.

13. In a railway car having double walls, a table support, a leaf hinged to one side of the table support, a leaf hinged to said first named leaf so as to be folded upon the top of said first named leaf, a wash basin carried upon the under side of said second named leaf, and a waste hopper supported between the double walls of the car into which said basin may be emptied.

14. In a railway car having double walls, a table support, a leaf hinged to said table support, a leaf hinged to said first named leaf and movable on to the top of said first named leaf, supports mounted on the under side of said second named leaf and extending transversely to the car, said supports being formed with slots, a wash basin having trunnions carried in said slots whereby the basin may be moved transversely to the car, and a waste hopper carried in the double walls of the car opposite to said wash basin when turned into its actuating position.

15. The combination with a railway car having double walls, of a table support, a leaf hinged to said table support for movement in a vertical plane, basin supports carried upon the under side of said leaf and extending transversely of the car, said supports having slots, a basin having opposed trunnions movable in said slots, a waste hopper carried between the walls of the car opposite to said basin when the leaf is turned into overturned position, and a door in the wall of the car opposite said table and opening to permit the basin to be moved into conjunction with the waste hopper.

16. In a railway car, a table support, a leaf hinged thereto, a door in the inside wall of the car opposite said leaf, a leaf hinged to the upper face of the first named leaf and extending out oppositely therefrom when in its normal position but horizontal thereto to turn on to the upper face of said first named leaf, opposed basin supports mounted upon the under side of the second named leaf and extending transversely of the car, said supports being formed with horizontally extending slots, the ends of the slots being downwardly turned, a basin having square trunnions, said trunnions carried in the slots, and a hopper mounted between the car walls opposite to said door into which the basin may be emptied when moved to its innermost position.

17. In a railway car having a double bottom and double walls, a floor section hinged

to the floor of the car and forming a part thereof when turned into a horizontal position, a leaf hinged to one side of the floor section at its free edge and foldable inward against the under side of the floor section, a leaf hinged to the first named leaf and extending transversely thereto but rotatable into a position on top of the first named leaf, a door in the inner wall of the car opposite to the said first named leaf, a waste hopper carried between the walls of the car opposite said door, opposed basin supports mounted on the under side of the second named leaf and extending transversely of the car and each having a longitudinally extending track, a basin having opposed square trunnions engaging with the track to prevent the basin from rotating, the inner end of said track being downwardly turned to tip the basin, supply pipes carried between the inner and outer walls of the car above the waste pipe, and hinged faucets connected thereto and rotatable into a position above said basin.

18. A railway car having double walls, a cabinet formed between said walls and having a door mounted in the inner wall, shelves in the cabinet for the support of toilet accessories, a waste hopper mounted between the double walls and having its upper end projecting into the lower end of the cabinet, supply pipes entering said cabinet above the hopper, and faucets mounted therein, said faucets having projecting members for controlling the passage of water through the faucets, the door when closed engaging with said projecting members to hold them in a closed position.

19. A railway car compartment having a double bottom, transverse partitions in the double bottom dividing the same into an ice-containing compartment, a cold storage compartment, a bedding compartment, and a table containing compartment, hinged floor sections for removably covering the ice, cold storage, and bedding compartments, a hinged section for covering the table compartment and forming part of the floor, said hinged section being movable into a vertical position to form a support for a table top, a removable brace for holding said section in a vertical position, hinged auxiliary floor sections adapted to cover the space left open by the raising of said floor section into a vertical position, a leaf hinged to the free edge of the floor section and adapted to be turned into a horizontal position or into a position against the under side of the floor section, a jointed brace for supporting the leaf, a leaf hinged to the upper face of the first named leaf at the butt end thereof and rotatable on to the top surface of said first named leaf, a basin support mounted on the under side of the second named leaf, a basin mounted thereon and having free lateral

movement, said basin being adapted to be
 turned in a vertical plane at the inner ex-
 tremity of its lateral movement, a waste
 hopper carried between the double walls of
 5 the car, a door in the inner wall located op-
 posite to said table and adapted to be opened
 to permit the basin to be tipped into said
 hopper, supply pipes carried between the
 double walls of the car, and faucets located
 10 above the waste hopper and adapted to be
 turned in a position to deliver water to said
 basin.

20. The combination with a railway car
 having a double bottom and a sectional floor,
 15 of a hinged floor section movable to a verti-
 cal position to form a table support, and a
 table top foldably mounted on the free end
 of the section.

21. The combination with a table having
 a vertical supporting member, a leaf hinged 20
 thereto and a second leaf hinged to the first
 named leaf at the butt thereof, of opposed
 basin supports mounted on the under side of
 the second named leaf and normally depend-
 ing, said supports each having a longitudi- 25
 nally extending slot, the ends of said slot ex-
 tending toward the table leaf, and a basin
 having square trunnions engaging with the
 said leaf.

In testimony whereof I affix my signature 30
 in presence of two witnesses.

FREDERICK J. LEIGH. [L. s.]

Witnesses:

JOHN J. LOUGHRAN,
 ROBERT A. ORGAN.