

No. 830,187.

PATENTED SEPT. 4, 1906.

R. L. SPENCER.
FOLDING TABLE FOR RAILWAY CARS.

APPLICATION FILED DEC. 29, 1905.

5 SHEETS—SHEET 1.

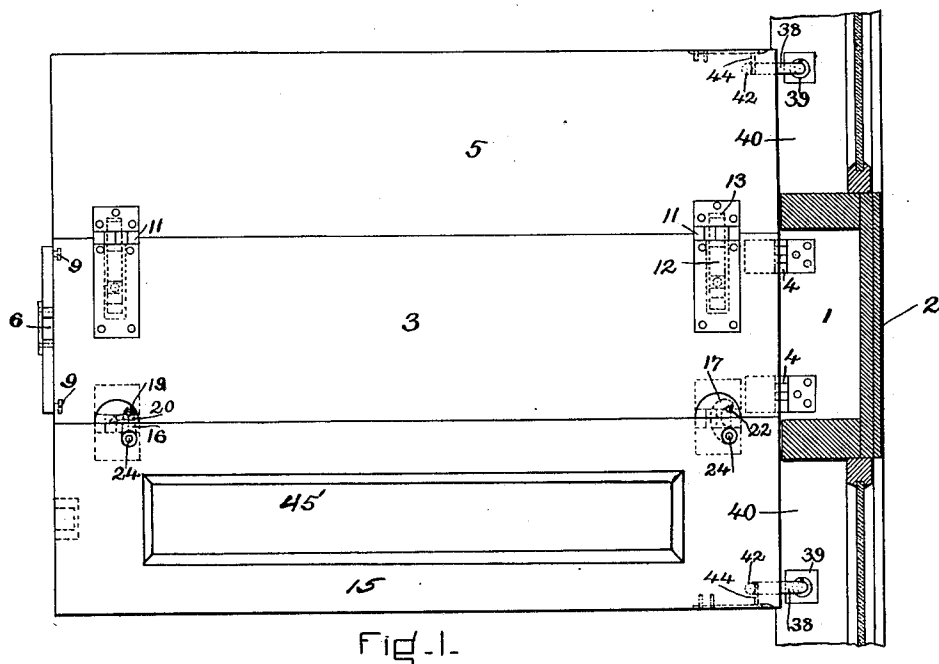


Fig. 1.

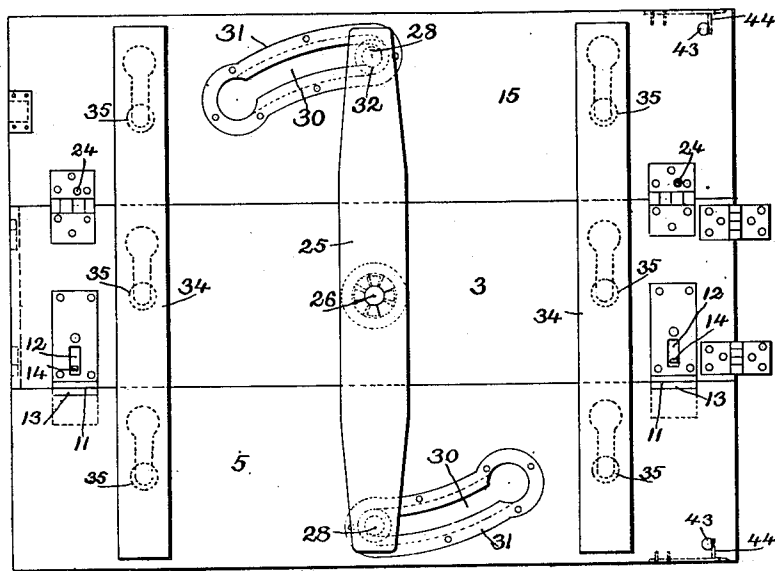


Fig. 2.

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O. A. Godwin

INVENTOR:
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By Chas. J. Howe
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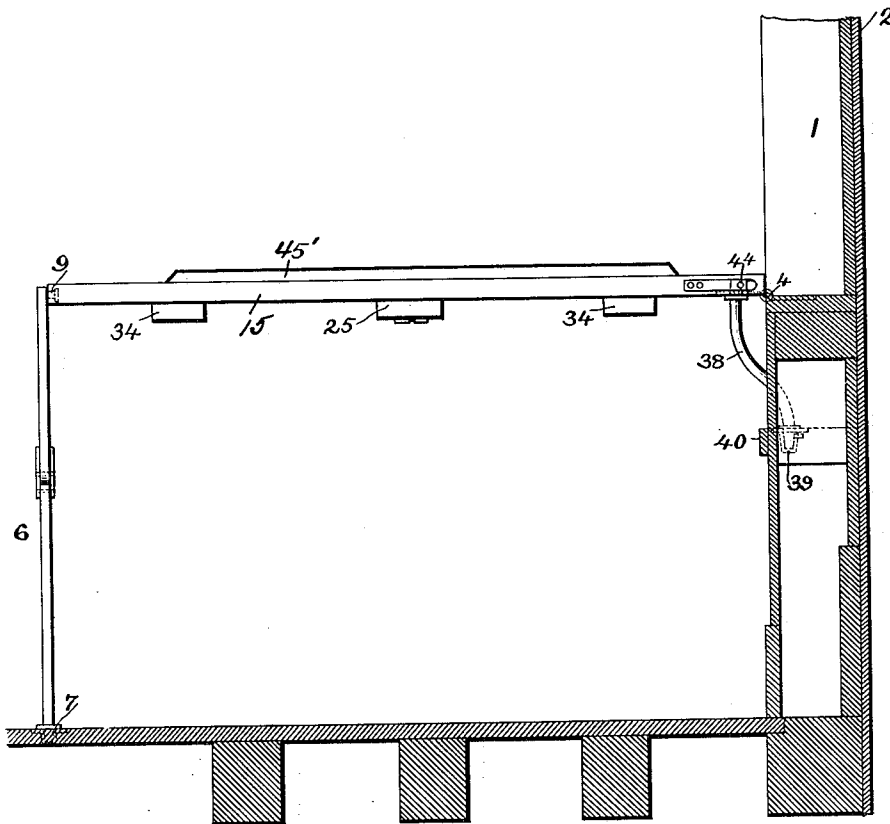


Fig. 3.

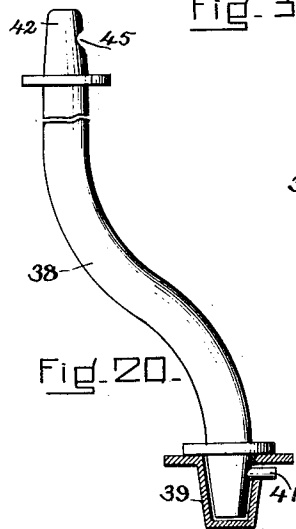


Fig. 20.

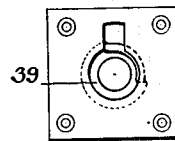


Fig. 21.



Fig. 22.

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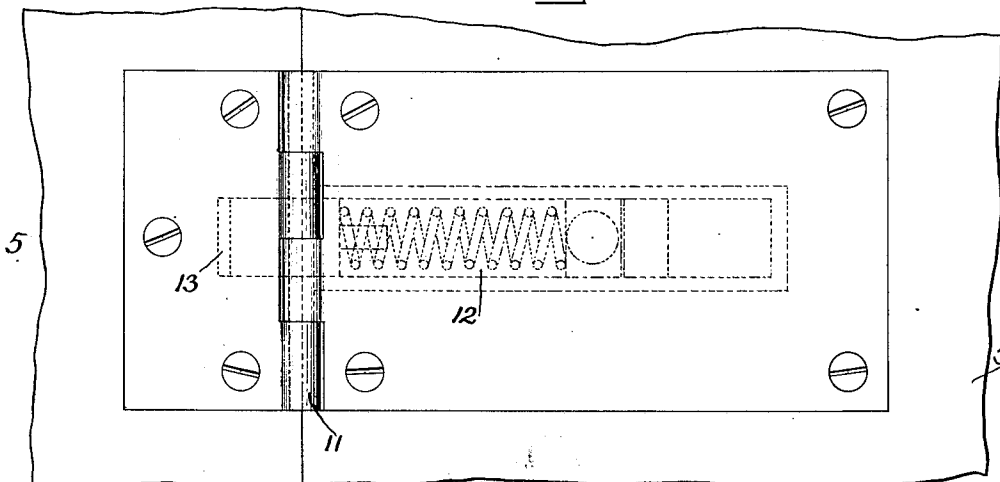
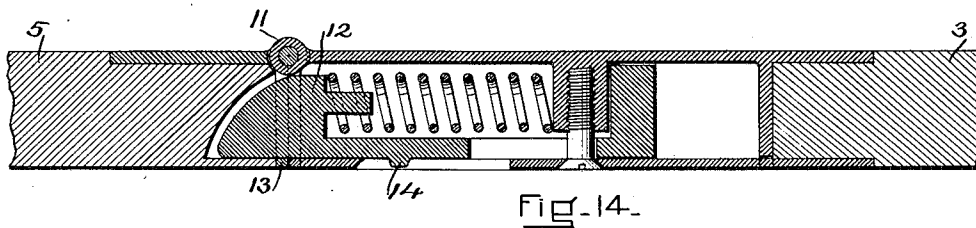
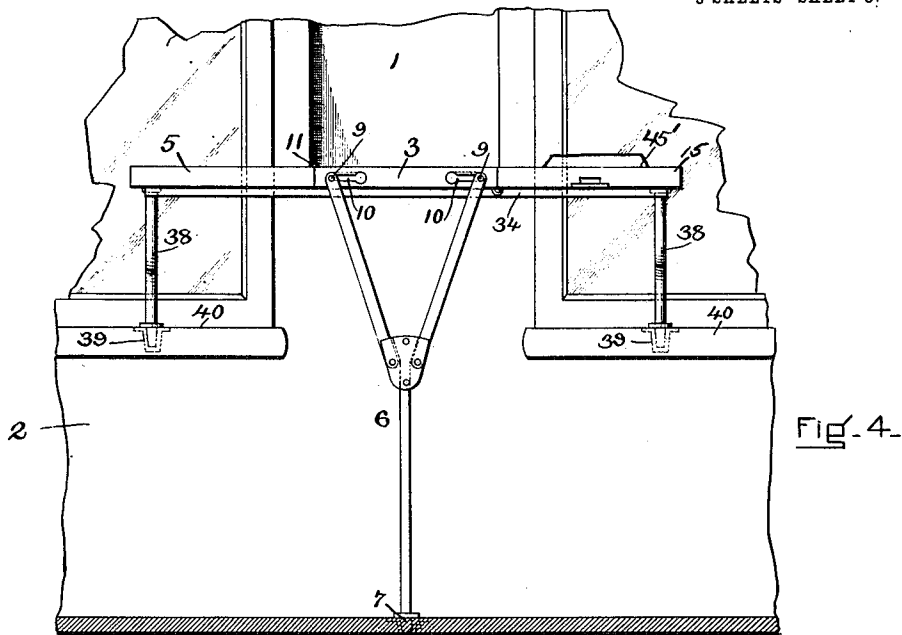
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5 SHEETS—SHEET 3.



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Fig. 15.

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5 SHEETS—SHEET 4.

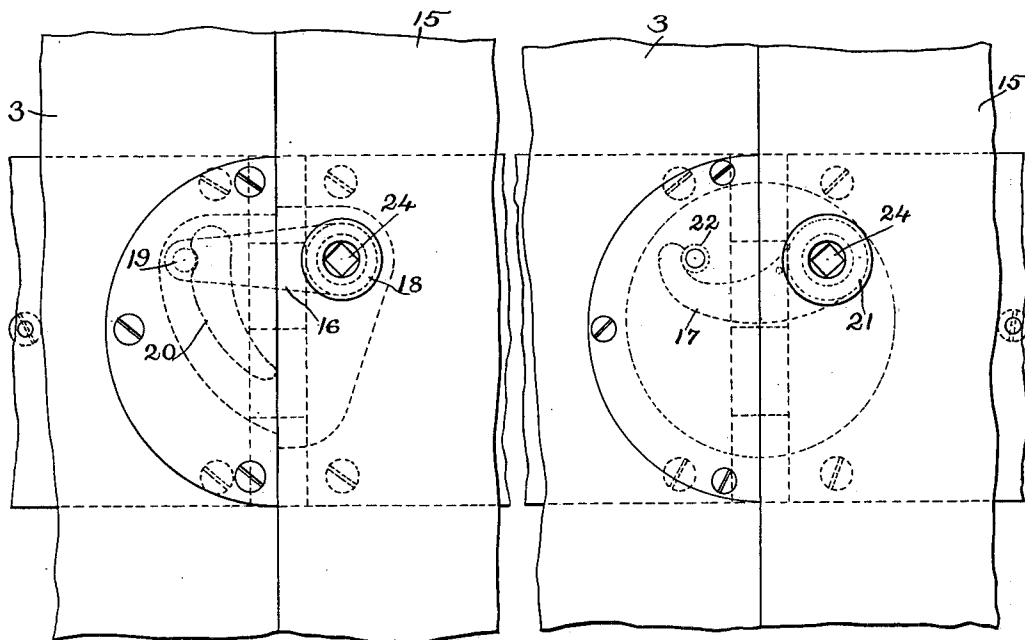


Fig. 16.

Fig. 18.

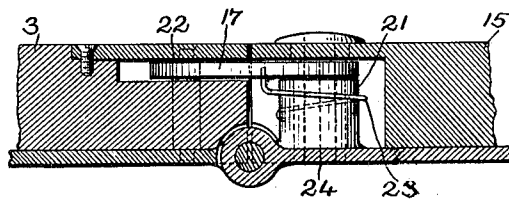
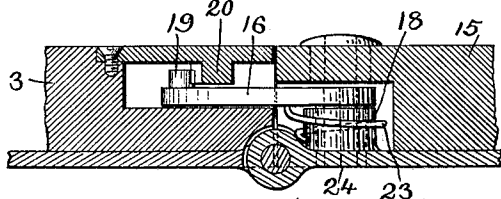


Fig. 17.

Fig. 19.

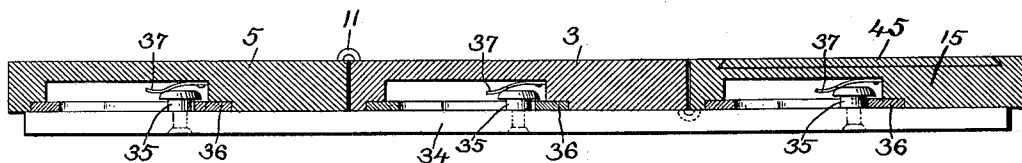


Fig. 5.

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5 SHEETS—SHEET 5.

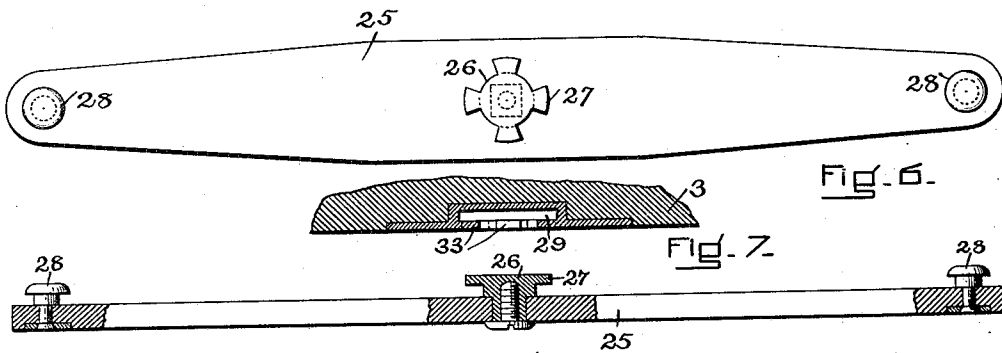


Fig. 6.

Fig. 7.

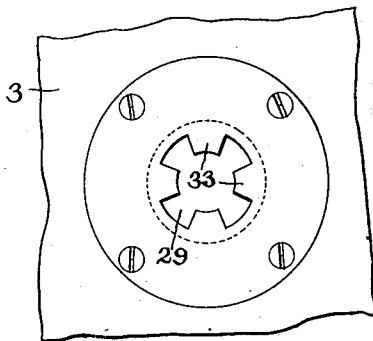


Fig. 9.

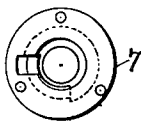


Fig. 13.

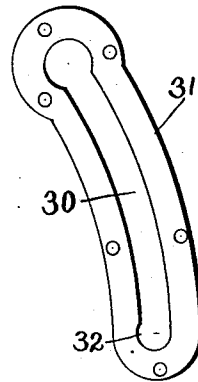


Fig. 11.

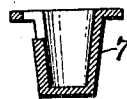


Fig. 12.

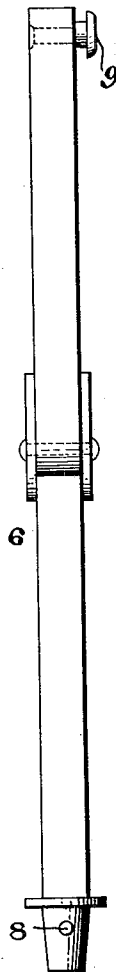


Fig. 10.

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INVENTOR:
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UNITED STATES PATENT OFFICE.

RALPH L. SPENCER, OF BROOKLYN, NEW YORK.

FOLDING TABLE FOR RAILWAY-CARS.

No. 830,187.

Specification of Letters Patent.

Patented Sept. 4, 1906.

Application filed December 29, 1905. Serial No. 293,831.

To all whom it may concern:

Be it known that I, RALPH L. SPENCER, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Folding Tables for Railway-Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to railway-cars provided with closets occupying spaces between the windows in the side walls of the car; and the improvements consist principally in providing folding doors for such closets and in affording means for utilizing such doors, or as the equivalent thereof the panels between the car-windows, as tables for dining or other purposes.

In carrying my invention into effect I have hinged the doors of these closets at the lower end to the side wall of the car, provided supports for the doors when in horizontal position, and added hinged leaves to each side of the door, which leaves are arranged to fold one upon each face of the door when closed against the side wall of the car or to extend in the plane of each of said doors to increase its width for a table when the doors are supported horizontally as such table; and the invention further consists in devices and the arrangement and combinations of parts, to be hereinafter more fully described.

The invention is herein described, and illustrated in the drawings as applied to a railway-car; but it is also useful in the state-rooms and cabins of steamships, naval vessels, yachts, and the like, where the necessarily-limited space makes such an arrangement particularly desirable.

Reference is made to the drawings accompanying this application, in which—

Figure 1 is a plan of my table attached to the side of a car and showing a portion of the car-wall in section. Fig. 2 is an inverted plan of the table. Fig. 3 is a side elevation of the table, supported by the floor and wall of the car; Fig. 4, an end elevation of the table viewed from the aisle of the car; Fig. 5, a cross-section of the table, showing an end brace in place; Fig. 6, a plan of the center brace; Fig. 7, a section of the socket in closet-door for center brace; Fig. 8, a sectional elevation of the center brace, showing devices for attaching the brace to the door of the closet and the side leaves; Fig. 9, a plan of the socket in closet-door for the center brace;

Fig. 10, a side elevation of the folding leg of the table; Fig. 11, a plan of plates in side leaves of table holding ends of center brace; Fig. 12, a cross-section of the step in car-floor for table-leg; Fig. 13, a plan of table-leg step; Fig. 14, a longitudinal section of the hinge and bolt for one side leaf of closet-door; Fig. 15, a plan of the parts of Fig. 14; Fig. 16, a plan of hinge and latch-holding leaf to closet-door horizontally; Fig. 17, a cross-section of the parts of Fig. 16; Fig. 18, a plan of hinge and hook holding leaf to closet-door horizontally; Fig. 19, a cross-section of the parts of Fig. 18; Fig. 20, a view of leaf-bracket and step therefor to be put in window-sill; Fig. 21, a plan of the bracket-step to be put in window-sill; Fig. 22, a vertical section of the step as in Fig. 21.

Between each pair of windows the closets are formed in the car-wall. These closets are in ordinary constructions vacant spaces closed by ornamental panels. Each closet is closed by a door, which heretofore has contained a pane of glass. I hinge the bottom of this closet-door at 4 to the car-wall so it may drop outward from the car-wall or close the closet. I hinge a leaf 5 at one side of the closet-door so it may fold to the inner face of the closet-door when covering the closet or extend in the plane of the closet-door when the door is horizontally supported by the folding leg 6. The lower portion of this leg is inserted in the step 7 in the car-floor, given a quarter-turn, so the pin may lock in the step formed in the car-floor. Then the pins in the upper pivoted portions of the leg are sprung into the slots in the top end of the closet-door 3, thereby supporting and preventing motion of the said door. To temporarily hold the leaf 5 in horizontal position, the hinges 11 uniting the leaf 5 to the closet-door 3 are formed to include the sliding spring-actuated bolt 12 in one member and the socket 13 for the bolt in the other member of the hinge. In opening out the leaf 5 will press the spring-bolt into the member of the hinge attached to the closet-door until the leaf and door are in the same plane, when the bolt snaps into the socket 13, holding the leaf in place. To release the bolt, the catch 14 is pressed, thereby withdrawing the bolt from the socket 13, when the leaf 5 may be folded to the inside of the closet-door.

The leaf 15 is hinged at the side of the closet-door 3 so it may fold over the outer face thereof and constitute the exposed

surface of the door of the closet when attached to the car-wall or a part of the table when extended horizontally. The exposed face of the leaf 15 may be finished on the wood in panel style or may be fitted with a mirror 45', as convenience may indicate. This leaf 15 is temporarily held horizontally in place by the latch 16 and the hook 17, formed upon the hinges thereof. The latch 16 is pivoted in a boss 18, formed on the member of the hinge attached to the leaf 15 and acts to lock the leaf 15 in horizontal position by the contact of the pin 19 with the cam 20, which is fastened near the edge of the closet-door 3. The hook in similar manner is pivoted in the boss 21; which is formed on the member of the hinge attached to the leaf 15 and acts to lock the leaf 15 in horizontal position by contact of its extremity with the pin 22, which is fixed near the edge of the closet-door 3. Both the hook 17 and the latch 16 are retracted so as not to project beyond the edge of the leaf 15 by the light springs 23, coiled about the bosses 18 and 21. Both the hook and the latch are actuated by a key inserted in the squared sockets 24. The hook or latch may act to secure the door of the closet when upright to the car-wall, or a snap-catch on the car-wall may enter a socket in the end of the leaf 15 in the construction as described.

As considerable weight or downward pressure is frequently applied to the table, it is necessary to hold the leaves 5 and 15 very rigidly extended from the closet-door 3. This is best accomplished by stiff wooden braces removably attached below the parts of the table. The brace 25 is fitted with the center pin 26, having wings 27 radiating outward and with the two end pins 28, each having projecting heads. The center pin 26 enters a socket 29 of homologous construction, and the pins 28 enter the slots 30 in the plates 31, one of which is fastened to the leaf 5 and the other to the leaf 15, then the brace 25 is revolved until the pins 28 snap into the recesses 32, and the wings 27 of the center pin of the brace 25 having meanwhile interlocked with the wings 33 of the socket 29 in the closet-door the brace 25 becomes firmly attached to the closet-door 3 and to the leaves 5 and 15. The end braces 34 are each fitted with headed pins 35, and slotted pins 36 are secured to the leaves 5 and 15 and to the closet-door 3. The pins 35 are inserted in one end of the slots in the plates 36 and pushed along in the said slots until the pins 36 snap past the springs 37 in the three members of the table, when the end braces become firmly fastened to the parts of the table. The table is further supported by the brackets 38, which are inserted in the steps 39 in window-sills 40, then given a quarter-turn to lock the pins 41 to the steps 39. Then the leaves 5 and 15 are lifted slightly and the

ends 42 of the brackets are inserted in holes 43 in the corners of the leaves 5 and 15 and locked therein by the spring-latches 44, which are attached to the said leaves. The leaves are released from the brackets by pulling the latches 44 with the finger clear of the grooves 45 in the ends 42 of the brackets.

As before stated, my improvements apply equally well to the state-rooms and cabins of vessels, and I claim such use as within the scope of my invention.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a railway-car, the combination with a closet in the wall thereof, of a door, said door being composed of three leaves, one leaf being hinged at one end to the wall at the bottom of the closet, the other two leaves being hinged to the first-named leaf to fold one upon each face thereof or to extend outward in the plane thereof to serve as a table, means to support said leaves in closed or open position, two of said leaves being adapted to seat within the closet when the door is closed and the third leaf being adapted to protrude beyond the closet when the door is closed.

2. In a railway-car, a closet-door hinged to the wall of the car, leaves hinged to the closet-door to fold one upon each face thereof or to extend outward in the plane thereof to serve as a table, means to support and secure the table in horizontal position, appliances to temporarily maintain the leaves extended, and devices to hold and lock the leaves extended in the plane of the closet-door, substantially as described.

3. In a railway-car, a closet-door movably connected at its bottom with the car-wall, and leaves movably connected with the closet-door to fold one upon each face thereof or to extend outward therefrom in the same plane to serve as a table, combined with supports preventing motion of the table from horizontal position, brackets extending from the inner ends of the leaves to the car-wall and braces locking the leaves in the plane of the closet-door, substantially as described.

4. In a railway-car, a closet between the car-windows, a door for the closet hinged to the wall of the car, leaves hinged to each edge of said door, each leaf being of the same size as the door, means to support the said door in horizontal position to serve as a table, and a mirror attached to the face of that leaf which is exposed to view when the said door is fast to the car-wall covering the closet therein, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RALPH L. SPENCER.

Witnesses:

GEO. W. CORNISH,
CHARLES F. PLUMMER.