June 14, 1927. 1,632,268

C. F. BERRY

COMBINED DOOR AND TABLE

Filed April 3, 1926 2 Sheets-Sheet 1

Fig. 1.

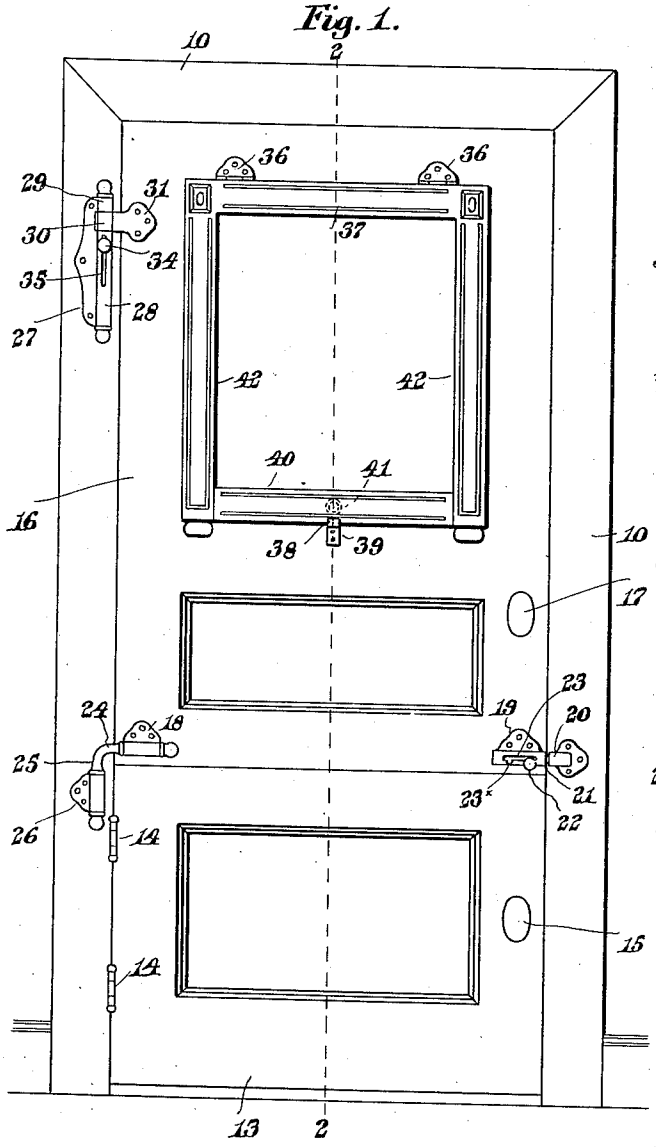
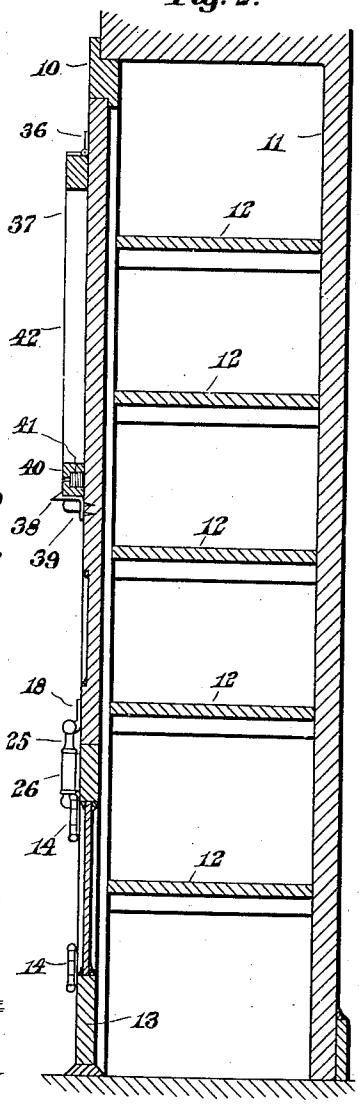


Fig. 2.



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Fig. 4.

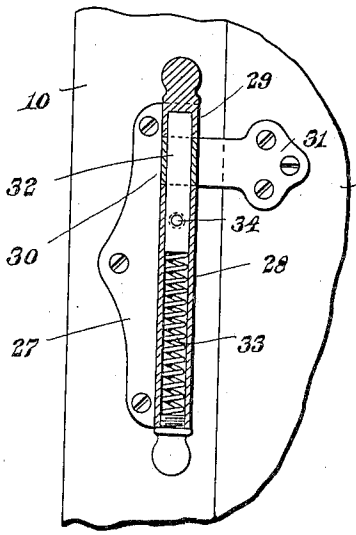


Fig. 3.

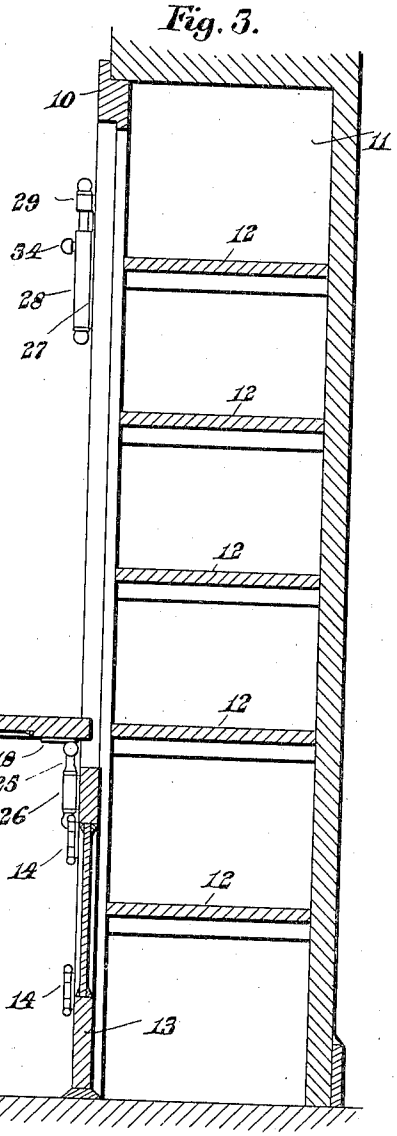
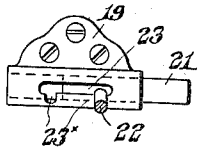


Fig. 7.



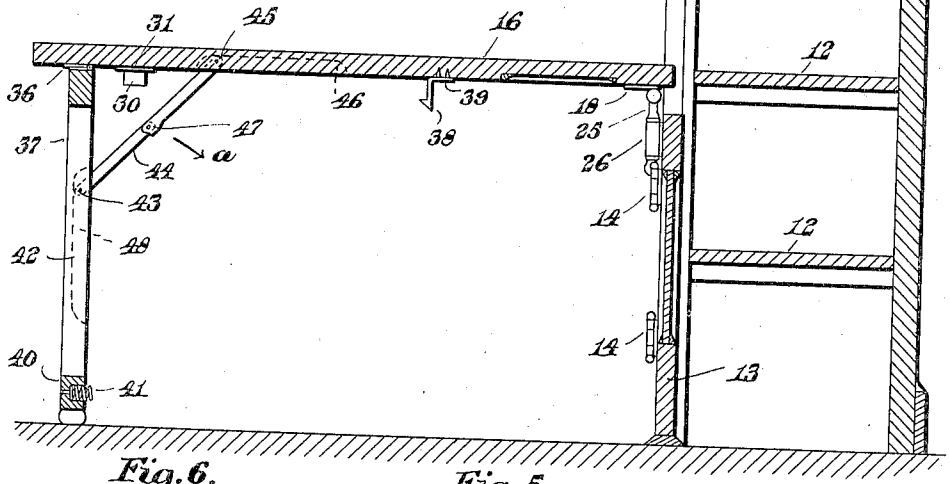


Fig. 6.

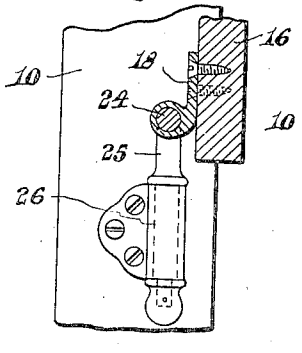
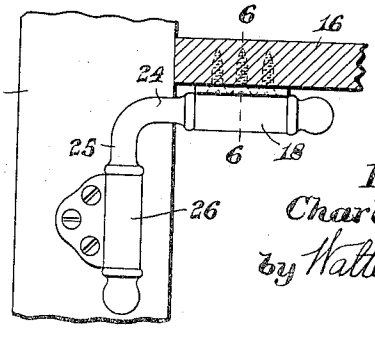


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES F. BERRY, OF BOSTON, MASSACHUSETTS.

COMBINED DOOR AND TABLE.

Application filed April 3, 1926. Serial No. 99,466.

This invention relates to a combined closet door and table and has for its object the production of a door which may be moved about either a vertical axis when used as a door or be moved about a horizontal axis to make it available as a table.

This object is attained by the mechanism illustrated in the accompanying drawings.

For the purpose of illustrating the invention, one preferred form thereof is illustrated in the drawings, this form having been found to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized, and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described except as required by the scope of the appended claims.

Of the drawings:

Figure 1 represents a front elevation of a combined door and table embodying the principles of the present invention.

Figure 2 represents a section of same on line 2, 2 on Fig. 1.

Figure 3 represents a similar section showing the table in position to be used.

Figure 4 represents a section of the combined lock and hinge at upper end of door.

Figure 5 represents an elevation of the combined vertical and horizontal hinge, the door being shown in section in its horizontal position and serving as a table.

Figure 6 represents a section of same on line 6, 6 on Fig. 5, the table being shown in section in its vertical position and serving as a door, and

Figure 7 represents a detail, partially in section, of the lower locking bolt.

Similar characters indicate like parts throughout the several figures of the drawings.

In the drawings, 10 is a door casing in the front of a closet 11 provided with a plurality of shelves 12.

At the lower end of the door casing 10 is a door 13, one vertical edge of which is hinged to said casing at 14, 14, while the other end of said door is provided with a handle or knob 15.

Above this door 13 is another door 16 having a handle 17 at one side thereof.

The lower end of this door on its front face has bearings 18 and 19, the axes of which are in alinement.

Opposite the bearing 19 is a socket 20 secured to the door casing and adapted to receive a bolt 21 movable endwise in the bearing 19 by means of the knob 22, the shank of which extends through a slot 23.

The bolt 21 is adapted to be locked at the extreme of its movement in either direction by the shank of the knob 22 being moved into a notch 23×.

In the bearing 18 is a hinge pin 24 which is formed integral with a hinge pin 25 at right angles thereto, the pin 25 being adapted to oscillate in the bearing 26 secured to the door casing 10.

Near the upper end of the casing 10 and in alinement with the hinge pin 25, is a housing 27 having bearings 28, 29 formed thereon and spaced apart.

In the space between the bearings 28, 29 is normally disposed an eye 30 secured at 31 to the outer face of the door 16 near its upper end.

In the bearings 28, 29 is a bolt 32 pressed upwardly by means of a spring 33 and having a knob 34 which extends through a slot 35 in the bearing 28.

When this bolt 32 is moved downwardly by means of the knob 34 so that the entire bolt is within the bearing 28, it will be withdrawn from the eye 30 so that the door may be moved downwardly into the position indicated in Fig. 3, about the axes of the hinge connections 21 and 24.

As soon as the door 16 is returned to its normal vertical position, the bolt 32 will again be forced through the eye 30 into the bearing 29 and the door will be locked in this position.

By seizing the knob 22 of the bolt 21 and moving it endwise in the slot 23 until the bolt is released from the socket 20, the door may then be moved about the axes of its vertical hinge connections 25, 32.

The upper end of the door 16 has secured to its upper outer face hinged connections 36 to which is secured a rectangular frame 37 forming leg supports for the outer end of the table when it is lowered into the position indicated in Fig. 3.

Normally when the door is in its vertical position this frame 37 is locked by the catch 38 secured to the door 16 at 39 behind the bar 40. At the lower end of the rectangular leg support 37 is a spring 41 which forces the lower end of the leg support 37 outwardly a short distance.

As soon as the catch 38 has been moved downwardly out of the path of the bar 40, the operator may then seize the bar 40 and move the frame 37 about the hinge connection 36 into a position perpendicular to the combined table and door 16.

The vertical bars 42 have pivoted thereto at 43 braces 44, the opposite ends of which are pivotally connected at 45 in a slot 26 formed in the front face of the combined door and table 16.

This brace 44 is in two parts hinged together at 47 and the hinge connection may be moved in the direction of the arrow *a* on Fig. 3 when it is desired to move the table 16 upwardly about its horizontal hinge connections 21, 24.

When this is done the hinged braces 44 are positioned in the slot 46 in the door 16 and the slot 48 formed in the rear of the vertical bars 42 of the leg support 37.

It will be noted that the vertical hinge connection 25 has a lateral extension 24 which forms one of the horizontal hinge connections.

This member 24, 25 in its bearings 18 and 26 serving the dual purpose of providing either a vertical or horizontal hinge.

It will also be noted that the locking member 32 at the top of the door forms a vertical hinge connection, while the locking bolt 21 also forms a horizontal hinge connection.

The invention is particularly adapted for apartments where the space is limited.

The door when in its vertical position closes the closet 11, on the shelves 12 of which are disposed the necessary dishes for serving a meal.

When access to the closet is desired at any time the door 16 may be moved about its vertical hinges.

When it is desired to serve a meal or prepare the same, the door may be moved downwardly about the horizontal hinges as indicated in Fig. 3, giving access to the dishes and other utensils on the shelves 12 within the closet 11.

This makes a very convenient construction for saving space.

It is believed that the operation and many advantages of the invention will be understood without further description.

Having thus described my invention, I claim—

1. A single door element; a frame therefor; two vertically alined hinge connections between one side of said door element and said frame and about the axes of which said door is movable, one of said hinge connections serving both as a hinge for the door element and also a lock, said lock including a bolt which is movable into an unlocking position; and horizontally alined hinge connections between the bottom of said door element and said frame, the pin of one of said horizontal hinge connections being integral with the pin of the lower vertical hinge connection.

2. A door; a frame therefor; two vertically alined hinge connections between one side of said door and said frame one of which also serves as a lock, said lock including a bolt which is movable into an unlocking position; and horizontally alined hinge connections at the bottom of said door supported on said frame, one of the bottom hinge connections having its hinge pin formed integral with the pin of the lower side hinge connection.

3. A door; a frame therefor; two vertically alined hinge connections between one side of said door and said frame of which the upper one also serves as a lock, said lock including bolt which is movable endwise into unlocking position; and horizontally alined hinge connections at the bottom of said door supported on said frame; one of the side hinge connections having a horizontal hinge pin forming a part of one of the bottom hinge connections and the other bottom hinge connection serving also as a lock, the bolt of which is movable endwise into unlocking position.

4. A door; a frame therefore; a vertically disposed bolt on said frame at one side of the door and near the top thereof; a horizontally disposed socket on said frame near the bottom of the door and at the opposite side thereof; a bolt on said door coacting with said socket; a member secured to the upper end of the door provided with an eye to receive the vertically disposed bolt; a bearing on said frame near the bottom of the door and alined with the vertically disposed bolt; a bearing on the door alined with the horizontally disposed bolt; and a hinge pin in the frame bearing having a lateral extension in the door bearing.

5. A single door element; a frame therefor; two vertically alined hinge connections between one side of said door element and said frame and about the axes of which said door element is movable; and horizontally alined hinge connections at the bottom of said door, supported on said frame, and about the axes of which said door element is movable, one of said horizontal hinge connections having its hinge pin integral with the hinge pin of the lower vertical hinge connection, the upper of said side hinge connections and the bottom hinge connection furthest from the side hinge connections also serving as locks provided with bolts which are movable endwise into unlocking position.

Signed by me at 746 Old South Bldg., Boston, Mass., this 31st day of March, 1926.

CHARLES F. BERRY.