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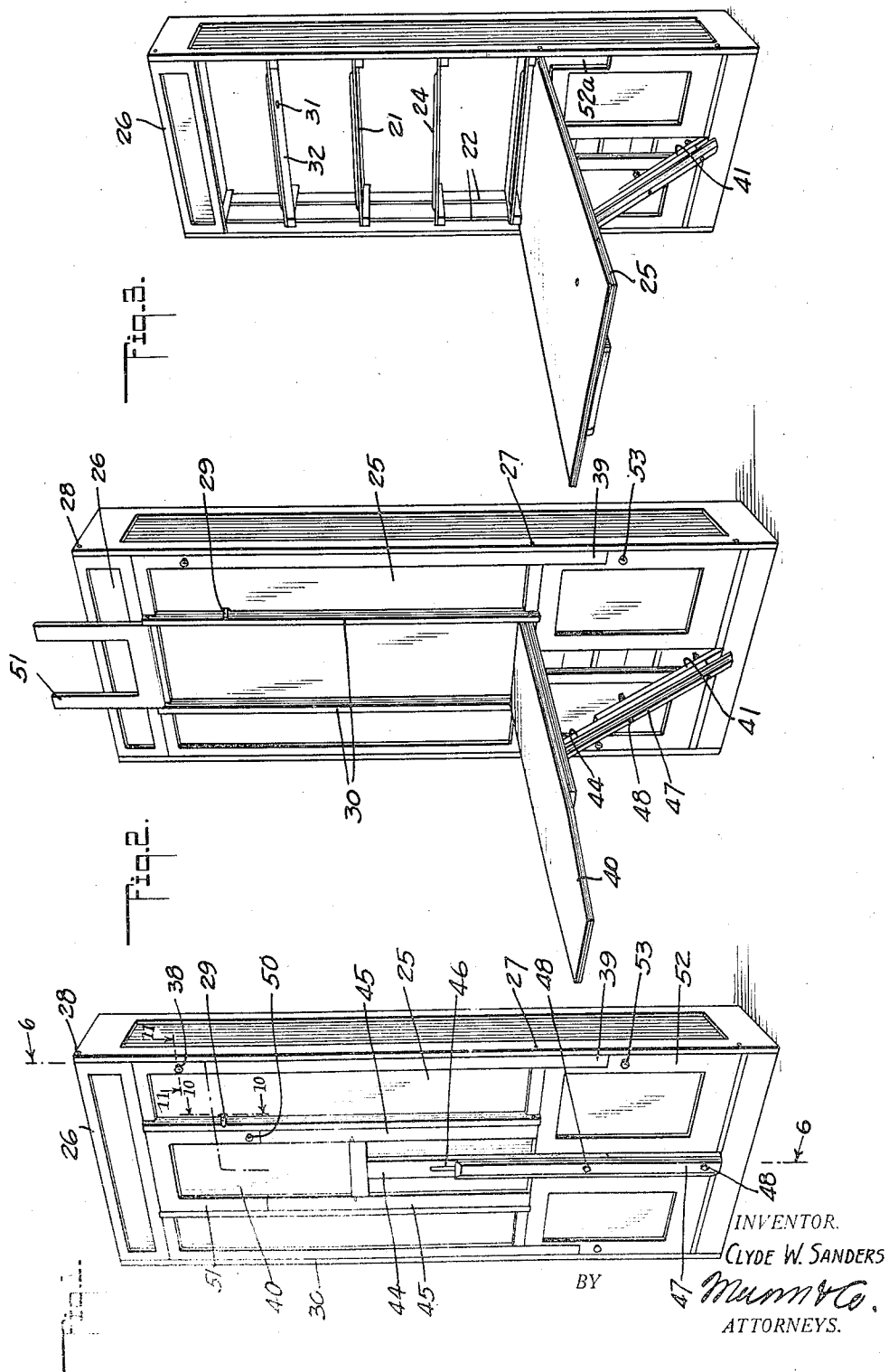
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C. W. SANDERS

COMBINED IRONING BOARD, CONVERTIBLE TABLE, AND CABINET

Filed July 11, 1925

3 Sheets-Sheet 1



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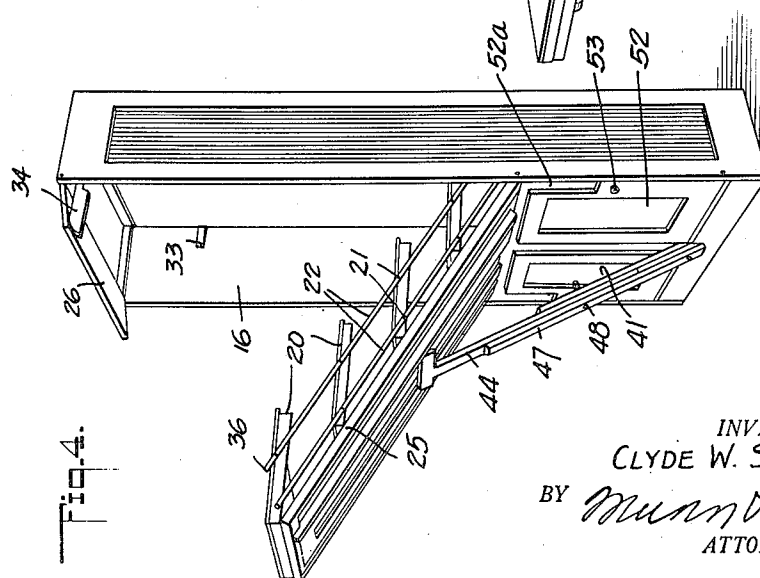
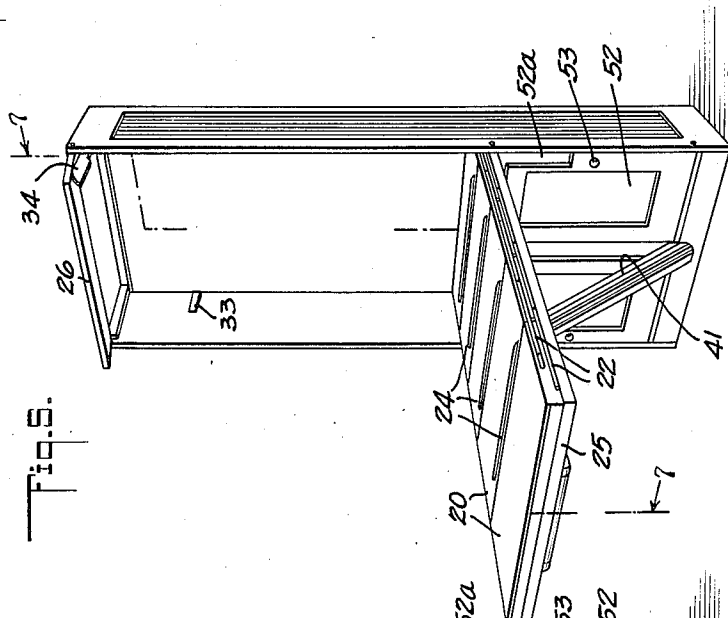
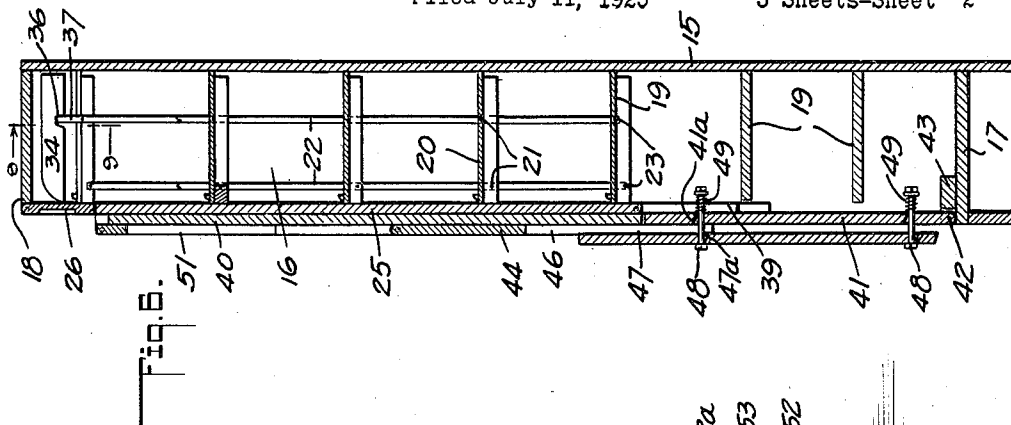
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COMBINED IRONING BOARD, CONVERTIBLE TABLE, AND CABINET

Filed July 11, 1925

3 Sheets-Sheet 2



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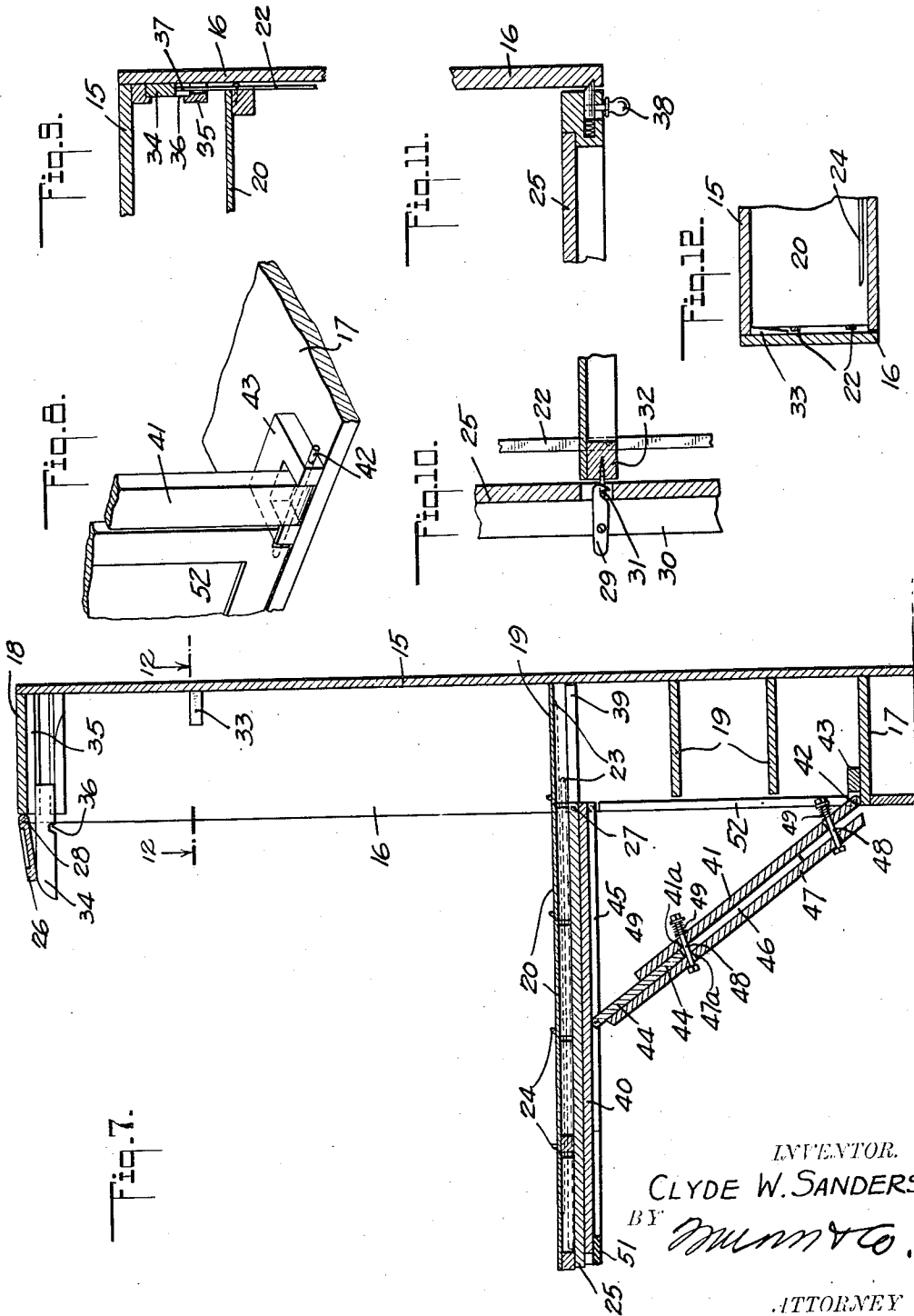
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COMBINED IRONING BOARD, CONVERTIBLE TABLE, AND CABINET

Filed July 11, 1925

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE.

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COMBINED IRONING BOARD, CONVERTIBLE TABLE, AND CABINET.

Application filed July 11, 1925. Serial No. 43,033.

My invention relates to combined cabinets and tables of the character embodied in my application filed February 4, 1925, Serial No. 6,825.

It is a purpose of my present invention to provide a combined cabinet, sectional table and ironing board, all embodied in an extremely simple, inexpensive and compact structure in a manner to permit the separate use of each, and wherein the table is convertible to function as the shelves for the cabinet.

It is also a purpose of my invention to provide an apparatus of the character described above in which the door, table and ironing board are supported in such manner that they are free to be swung outwardly from the cabinet to working positions, but releasably retained in any position of adjustment to prevent falling thereof and attendant injury to themselves, as well as the articles supported thereon, but yet freely movable upwardly to normal position within or against the cabinet.

I will describe only one form of combined ironing board, convertible table and cabinet embodying my invention, and will then point out the novel features thereof in claims.

In the accompanying drawings,

Figure 1 is a view showing in perspective one form of combined ironing board, convertible table and cabinet embodying my invention with all the elements thereof in closed or inactive position;

Figure 2 is a view similar to Figure 1 showing the ironing board in active position;

Figure 3 is a view similar to Figure 1, showing the door in open position;

Figure 4 is a view similar to Figure 1, showing the convertible table in partly open position;

Figure 5 is a view showing the table in completely open position;

Figure 6 is a vertical sectional view taken on the line 6—6 of Figure 1;

Figure 7 is a vertical sectional view taken on the line 7—7 of Figure 5;

Figure 8 is an enlarged fragmentary perspective view showing the pivotal mounting of the lower doors and supporting leg shown in the preceding view;

Figure 9 is a vertical sectional view taken on the line 9—9 of Figure 6;

Figures 10 and 11 are sectional views taken on the lines 10—10 and 11—11, respectively, of Figure 1;

Figure 12 is a horizontal sectional view taken on the line 12—12 of Figure 7.

Similar reference characters refer to similar parts throughout the several views.

Referring specifically to the drawings, and particularly to Figures 6 and 7, my invention, in its present embodiment, comprises a cabinet including a back 15, sides 16, bottom 17, and top 18. Within the cabinet are a plurality of stationary shelves 19, while above and normally disposed within the cabinet are movable shelves 20 arranged one above the other and pivoted at the points indicated at 21 on a frame comprising bars 22 arranged in pairs at opposite ends of the shelves and supporting the latter in such manner as to provide a convertible table, and completely withdrawn from the cabinet as illustrated in Figure 5. This convertible table is capable of occupying the upright position shown in Figure 6 or a horizontal position, as shown in Figure 5, and in the movement of the table from the upright to the horizontal position it swings about the pivot points 23 as a center, such points being the lower ends of the bars 22 where they are pivotally connected to the uppermost stationary shelf 19. During the movement of the table from the upright to the horizontal position, or vice versa, they at all times assume horizontal positions so that any articles placed thereon will be supported against accidental displacement, as will be understood. In the upright position of the table, its sections 20 function as shelves for the cabinet, while in the horizontal position the several shelves co-operate to form an uninterrupted table top, as illustrated in Figure 6. To prevent the placing of articles in spanning relation to the joints between the shelves or sections of the table top, as when in the position shown in Figure 5, each section is provided with a rib 24 adjacent one longitudinal edge thereof.

To close the open side of the cabinet when the convertible table is in the upright position shown in Figure 6, a main door 25 and a subsidiary door 26 are provided with the main door pivoted at the point indicated at 27 for vertical swinging movement and the subsidiary door 26 pivoted at the point indicated at 28 for a similar movement and to co-operate with the main door to completely conceal the table within the cabinet. The main door 25 is associated with the convert-

ible table to permit movement thereof to open position independently of the table or to move the table to open position simultaneously with its movement to open position. In the latter instance, a latch 29 (Figure 10) is provided on one of a pair of parallel spaced bars 30 secured to the outer side of the door 25 such latch having a hooked end normally engaging in the eye of a screw 31 secured within a bar 32 fixed to the under side of one of the movable shelves 20. By this arrangement, it will be seen that the latch when in engagement with the screw functions to provide an operative connection between the door and the convertible table so that when the door is swung outwardly to open position the convertible table will be moved to a corresponding position with the shelves maintaining horizontal positions and gradually moving into one and the same plane when the door reaches the horizontal position shown in Figure 5, whereby an uninterrupted table top is provided and in superimposed relation with respect to the door. It will be understood that when the latch 29 is released with respect to the screw 31, the door 25 can be swung to horizontal position without moving the convertible table, the table being releasably secured within the cabinet through the medium of wedge blocks 33 secured to the confronting faces of the sides 16 of the cabinet, as clearly illustrated in Figures 7 and 12. It will be understood that these two wedge blocks engage the opposite ends of one of the movable shelves to set up a binding action to frictionally retain the entire table in upright position within the cabinet.

When moving the table to horizontal position, it is necessary that the subsidiary door 26 be also moved to open position to provide the necessary clearance for the uppermost movable shelf 20. To eliminate the manual opening of the door, I have provided means for automatically opening the door upon movement of the table outwardly of the cabinet. This means in the present instance comprises the member 34 (Figure 7) mounted for horizontal sliding movement through a tongue-and-groove connection with a bar 35 secured within the cabinet adjacent the top 18. Along its lower edge, the member 34 is provided with a recess or notch 36 in which an extension 37 formed on the upper end of one of the bars 22 is adapted to seat, so that when the table is moved outwardly of the cabinet a corresponding movement will be imparted to the bar 35 so that its forward end, which is rounded as shown, will engage and swing the door 26 upwardly to the open position shown in Figure 7. A comparison of Figures 6 and 7 clearly illustrates the operation of the mechanism just described, and in which it will be noted that the extension 37 disengages the bar 35 to permit the unrestricted movement of the inner table down-

wardly to horizontal position. When returning the table to upright position, the extension 37 again engages within the notch 36 to return the bar 35 to normal position, whereby the door 26 is free to gravitate to closed position. The main door 25 in its closed position is latched against accidental opening by a conventional form of latch 38 (Figure 11), which is arranged to engage one side 16 of the cabinet as shown. In the horizontal position of the door, it is supported in part by extensions 39 projecting from the lower end of the door and engaging the under side of the uppermost stationary shelf 19, as clearly illustrated in Figure 7.

In connection with the cabinet and table, I have provided an ironing board 40 pivoted at one end on the bars 30 for vertical swinging movement to occupy the upright position shown in Figure 1 and the horizontal position shown in Figure 2. In this latter position, the board is rigidly supported by means of an extensible leg comprising a section 41 pivoted at its lower end on a pin 42 mounted in a U-shaped block 43 secured to the bottom 17 of the cabinet, all as clearly shown in Figure 8. The extensible leg also includes the section 44 having a T-head pivoted between the two spaced runners 45 secured to the under or outer side of the ironing board and pivotally connected to the bars 30 in preference to pivotally connecting the ironing board thereto. This section 44 is bifurcated for a major portion of its length to provide a longitudinally extending slot 46, and such section is slidable between the section 41 and the third section 47 mounted on the section 41 by means of bolts 48 extending through openings 41^a and 47^a of the sections 41 and 47, respectively. These bolts carry springs 49 which normally tend to move the bolts in such direction as to urge the section 47 in the direction of the section 41, whereby a clamping action is exerted upon the section 44. It is to be noted that the openings 41^a and 47^a have one of their walls beveled, with the walls of the openings 41^a oppositely beveled with respect to the beveled walls of the openings 47^a. The beveled walls are provided for the purpose of permitting the bolts 48 to move from the right angular position shown in Figure 6 to the inclined position shown in Figure 7, whereby the distance between the section 41 and the nut end of the bolt is shortened to increase the tension of the springs 49, thus exerting a greater pull on the section 47 to set up a greater clamping action on the section 44.

In practice, the ironing board is held in upright position against the outer side of the main door 25 by means of a latch 50 carried by a U-shaped frame 51 pivoted on the upper ends of the bars 30 to occupy the two positions shown in Figures 1 and 2. The latch 50 is adapted to engage one of the bars 30 and to

thus secure the frame in overlying relation to the upper end of the ironing board when the latter is in upright position, thereby preventing downward swinging of the board, as will be understood. This frame 51 also serves as a finishing frame to carry out the general lines of the runners 45 and to thus present a symmetrical and neat appearance when the ironing board is not in use. Upon releasing the latch 50 and swinging the frame 51 to the upper position shown in Figure 2, the ironing board can now be swung downwardly to the horizontal position shown, but to move the board to this position it is necessary to exert a certain amount of downward pull in order to overcome the action of the extensible leg in maintaining the board against movement. As the board is swung downwardly, the intermediate leg section 44 moves outwardly and downwardly between the sections 41 and 47, and as the sections 41 and 47 are held in clamping engagement with respect to the section 44 by means of the springs 49, it will be clear that the downward movement of the section 44 tends to move the section 47 downwardly and in so doing swings the bolts to the inclined position shown in Figure 7, thus increasing the tension of the springs 49 and thereby exerting an increased clamping action, so that when the board reaches its horizontal position the sections of the leg will be substantially locked against further downward movement. It will be appreciated that through the friction set up between the several sections of the extensible leg, the leg will operate to releasably secure the board in any position between the upright position and the horizontal position, so that the possibility of the board falling, should it be accidentally released, is positively prevented.

As the extensible leg primarily serves to support the ironing board, and as the ironing board is disposed beneath the main door and convertible table, it will be manifest that the extensible leg will also function to releasably secure both the door and the table at any point in the downward movement of either and in the same manner as described in connection with the ironing board.

When elevating the ironing board, door or table from horizontal to vertical position, the upward movement of the section 44 operates reversely to swing the bolts 48 to the normal right angular position, thereby lessening the tension of the springs so that it may be said that the extensible leg in no way restricts the elevation of the board, door or table to upright position.

Beneath the main door 25 and in closing relation with respect to the stationary shelves 19 are a pair of doors 52 pivoted at their lower ends to swing downwardly. These doors are arranged at opposite sides of the extensible leg so that they can employ the pin 42 as one of their pivots, as clearly illustrated

in Figure 8. These doors 52 are provided with cut-away portions 52^a for the purpose of accommodating the extensions 39 when the main door is in upright position. The doors 52 are provided with latches 53 for securing the same in upright position, as will be understood.

Although I have herein shown and described only one form of combined ironing board, convertible table and cabinet embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim as my invention:

1. In combination, a cabinet, a table having a frame pivoted in the cabinet to normally occupy an upright position in the cabinet but movable downwardly and outwardly from the cabinet to a horizontal position, means provided on the frame to occupy horizontal positions in one and the same plane when the frame is in horizontal position and movable to horizontal positions one above the other during and subsequent to movement of the frame to the upright position so as to form shelves in the cabinet, and releasable means for supporting and securing the table in horizontal position and in any position between horizontal and upright positions.

2. The combination embodied in claim 1 wherein said second means is operable to allow unrestricted movement of the table upwardly.

3. In combination, a cabinet, a table having a frame pivoted in the cabinet to normally occupy an upright position in the cabinet but movable downwardly and outwardly from the cabinet to a horizontal position, means provided on the frame to occupy horizontal positions in one and the same plane when the frame is in horizontal position and movable to horizontal positions one above the other during and subsequent to movement of the frame to the upright position so as to form shelves in the cabinet, and frictional means for supporting and securing the table in horizontal position and in any position between horizontal and upright positions.

4. In combination, a cabinet, a table having a frame pivoted in the cabinet to normally occupy an upright position in the cabinet but movable downwardly and outwardly from the cabinet to a horizontal position, means provided on the frame to occupy horizontal positions in one and the same plane when the frame is in horizontal position and movable to horizontal position one above the other during and subsequent to movement of the frame to the upright position so as to form shelves in the cabinet, releasable means for supporting and securing the table in horizontal position and in any position between horizontal and upright positions, and a main

door for closing the cabinet interposed between the table and the releasable means and adapted to be supported by said means and releasably secured in horizontal position and in any position between the horizontal and upright positions.

5. A combination as embodied in claim 4, wherein said second means is operable to allow unrestricted movement of the table and door.

6. In combination, a member adapted to constitute a table and having a frame means for pivotally mounting the member for movement from an upright position to a horizontal position, means provided on the frame to occupy horizontal positions in one and the same plane when the frame is in horizontal position and movable to horizontal positions one above the other during and subsequent to movement of the frame to the upright position to form shelves, and releasable means for supporting the member against downward movement in horizontal position and in any position between horizontal and upright positions to which it is manually moved, yet allowing free and unrestricted upward movement of the member manually.

7. In combination, a cabinet, a table having a frame pivoted in the cabinet to normally occupy an upright position in the cabinet but movable downwardly and outwardly from the cabinet to a horizontal position, means provided on the frame to occupy horizontal positions in one and the same plane when the frame is in horizontal position and movable to horizontal positions one above the other during and subsequent to movement of the frame to the upright position so as to form shelves in the cabinet, and an extensible supporting leg associated with and free to support the table in horizontal position and in any position between horizontal and upright positions and in a manner to permit unrestricted upward movement of the table.

8. In combination, a cabinet having a main door and a subsidiary door, a convertible table mounted in the cabinet for outward swinging movement with the main door, and means actuated by the table for swinging the subsidiary door to and holding same in open position.

9. The combination embodied in claim 8 wherein said means comprises a member movable in the cabinet to engage and move the

subsidiary door to open position, and an extension on the table engageable with said member for actuating the latter as the table is swung outwardly of the cabinet.

10. The combination embodied in claim 8 wherein said means comprises a member movable in the cabinet to engage and move the subsidiary door to open position, an extension on the table engageable with said member for actuating the latter as the table is swung outwardly of the cabinet, and said member occupying a position for holding the door in open position so as to be engaged by the extension as the table is swung inwardly of the cabinet to return the member to normal position and thereby permit closing of the door.

11. In combination, a cabinet, a convertible table pivotally mounted in the cabinet to swing outwardly therefrom, a door pivoted on the cabinet to form a support for the table when the latter is removed from the cabinet, and an extensible leg for supporting the door and table in horizontal position.

12. The combination embodied in claim 11 wherein said extensible leg is operable to set up sufficient resistance to the gravitating action of the table and door to prevent falling of the same downwardly to horizontal position but to permit the unrestricted elevation thereof to upright position.

13. A combination as embodied in claim 7, wherein the extensible leg comprises a pair of pivoted sections and a movable section associated with one of the pivoted sections to receive the other pivoted section between the two in a manner to clampingly engage the last section so as to releasably secure the section against movement in one direction.

14. A combination as embodied in claim 7 wherein the extensible leg comprises a pair of pivoted sections and a third section associated with one of the pivoted sections to receive the other pivoted section between the two, and spring pressed elements mounted in one of the pivoted sections and the movable section to urge the latter section into clamping engagement with respect to the other pivoted section and in such manner as to releasably secure the last pivoted section against movement in one direction between the other two sections.

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