

May 13, 1947.

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2,420,508

CABINET HAVING INTERCONNECTED CLOSURE AND SUPPORT FOR AN IRONER

Filed Oct. 11, 1944

4 Sheets-Sheet 1

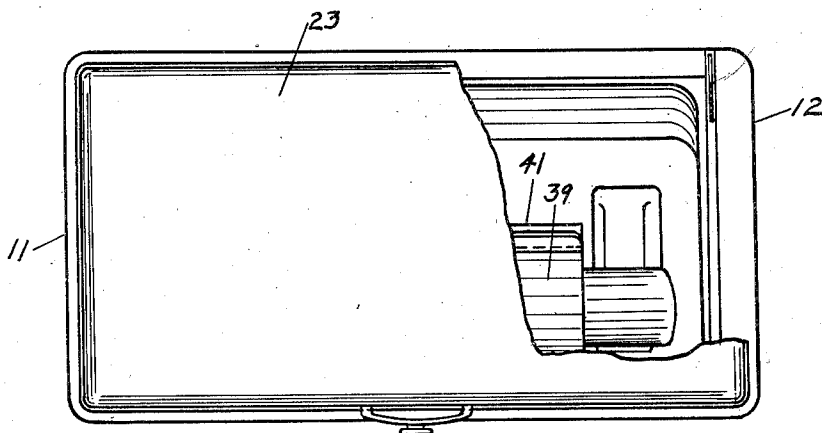
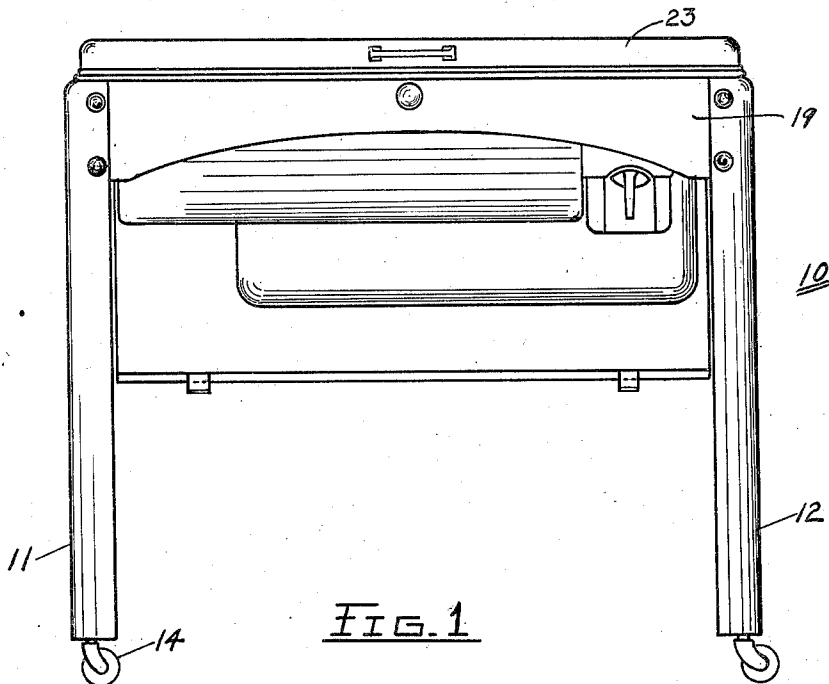


FIG. 2.

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4 Sheets-Sheet 2

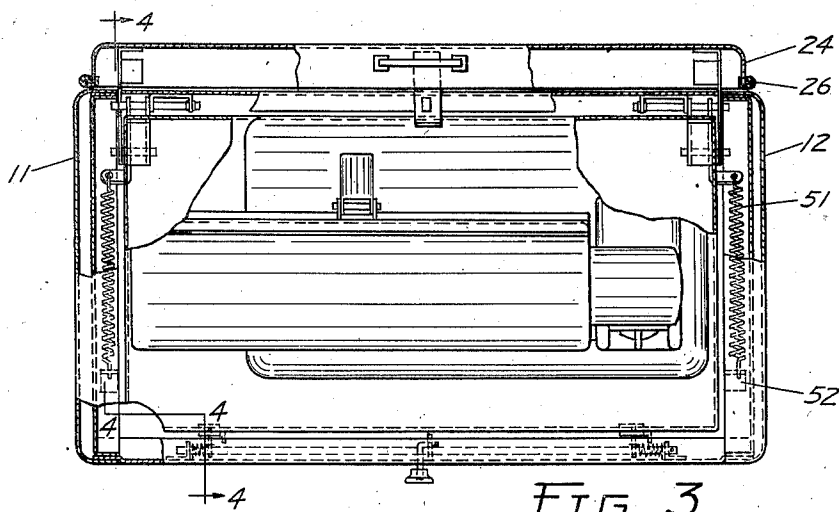


FIG. 3

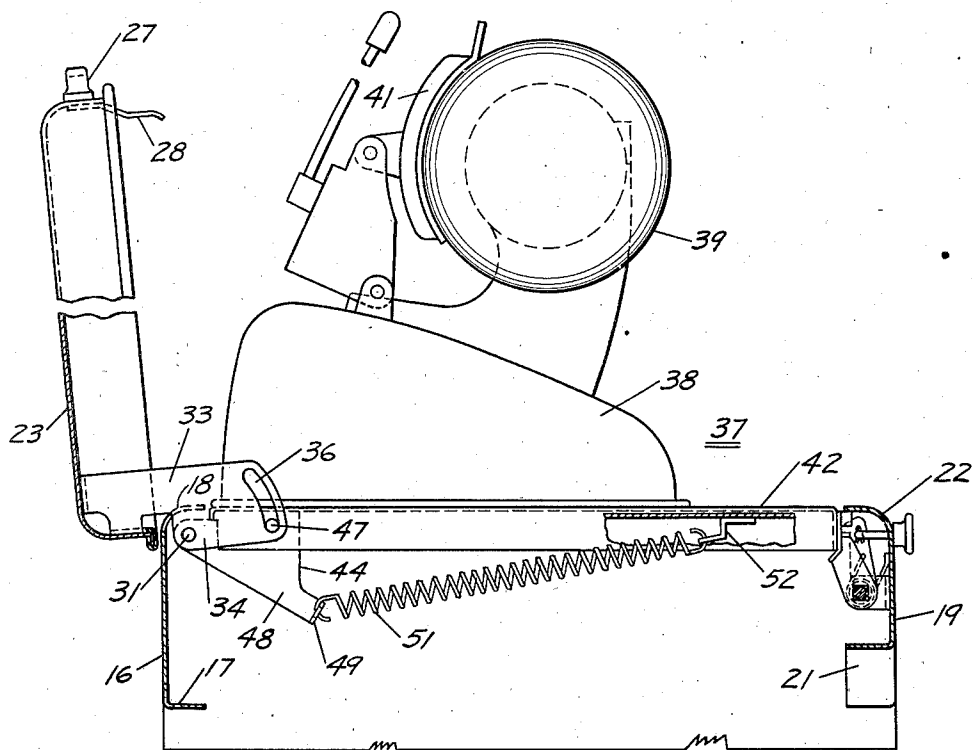


FIG. 4

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4 Sheets-Sheet 3

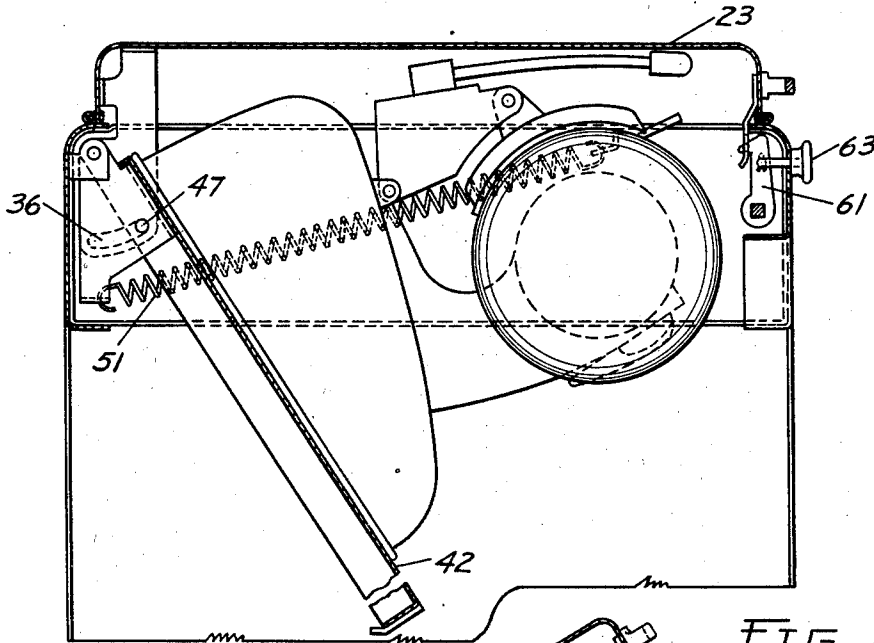


FIG. 6

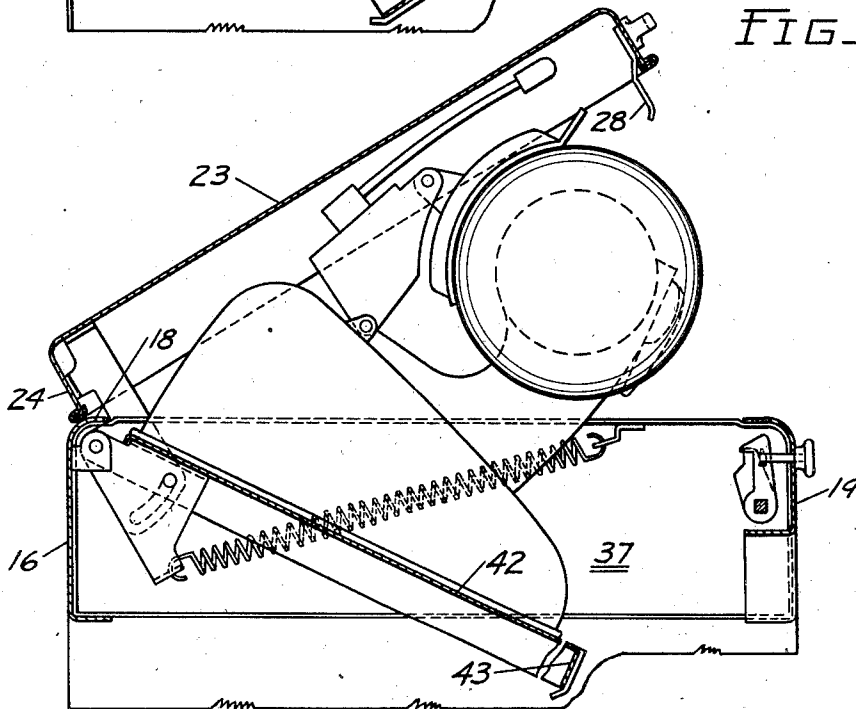


FIG. 5

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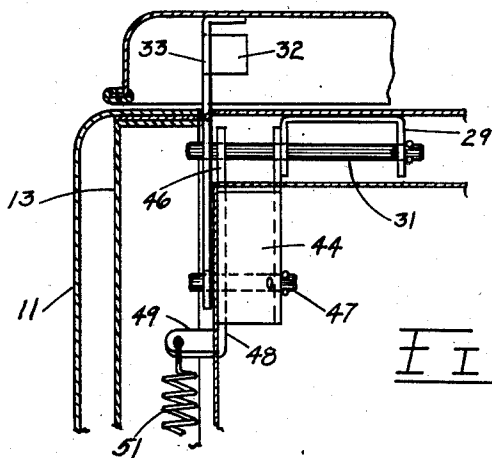


FIG. 7.

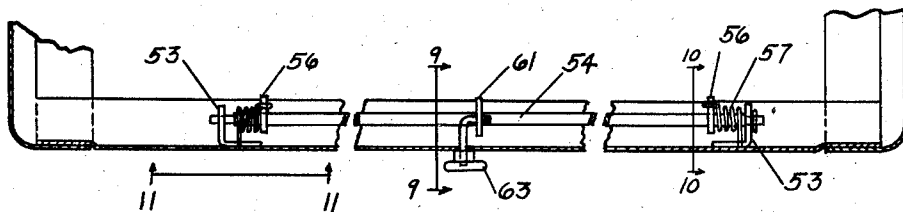


FIG. 8.

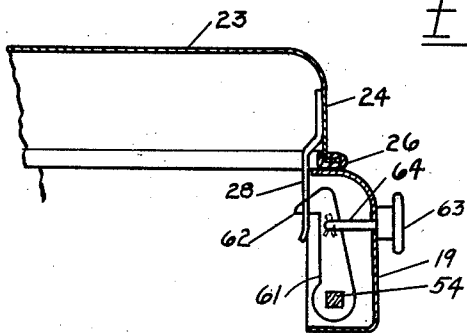


FIG. 9.

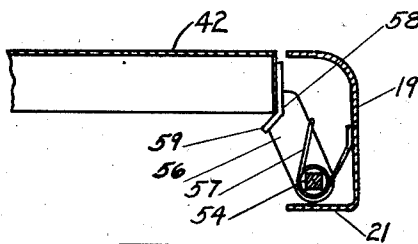


FIG. 10.

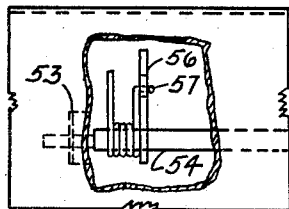


FIG. 11.

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2,420,508

CABINET HAVING INTERCONNECTED CLOSURE AND SUPPORT FOR AN IRONER

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Application October 11, 1944, Serial No. 558,202

7 Claims. (Cl. 312—23)

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This invention relates to domestic laundry devices such as cabinet type ironers, and more specifically is directed to a cabinet designed to permanently mount an ironer in such a manner that the ironer may be manually moved into a convenient exposed position for use, or into a concealed position within the cabinet for storage.

From a practical standpoint, the most desirable cabinet ironer is believed to be one that facilitates use of the enclosure or cabinet as a utility shelf or table when the ironer is not in use, and yet in no way interferes with the convenient use of the ironer for its intended purpose.

To this end the present invention has been developed and it is a purpose and object thereof to provide a cabinet having supporting structure for an ironer that enables an operator to quickly and easily move an ironer into position for use or storage.

It is also an object of the invention to provide a cabinet in which an ironer supporting structure functions to move the ironer into such a position within the cabinet that the cabinet top or cover may serve as a table or shelf.

A further object of the invention lies in the provision of an ironer cabinet, the top or cover of which is of conventional table height, together with a supporting mechanism for an ironer by which it may be withdrawn from the cabinet into a convenient position for use and providing, by its withdrawal from the cabinet, adequate leg space for an operator.

It is a further object of the invention to provide a counterbalance support for the ironer and so connect this support with a top or cover of the cabinet that by movement of the cover into opened or closed position, the ironer may be brought into position of use or storage.

Other objects and advantages will be more fully understood and appreciated from a consideration of the following specification, taken in conjunction with the accompanying drawings; and in which

Fig. 1 is a front elevational view of a cabinet type ironer embodying one form of the invention;

Fig. 2 is a plan view partly broken away to show the roll and shoe position within the cabinet;

Fig. 3 is a plan view of the cabinet with the cover in fully opened position, certain parts being broken away to disclose additional structural details;

Fig. 4 is an enlarged transverse vertical sec-

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tional view taken substantially on the line 4—4 of Fig. 3 and shows the ironer in position for use;

Fig. 5 is a view similar to Fig. 4, showing the ironer during movement into storage position;

Fig. 6 is a view similar to Fig. 4, showing the ironer in storage position;

Fig. 7 is a fragmentary enlarged sectional view of part of the pivot and counterbalance structure shown in Fig. 3;

Fig. 8 is a fragmentary view, partly in section, showing the cabinet cover latch and shelf support;

Fig. 9 is an enlarged fragmentary vertical sectional view taken substantially on the line 9—9 of Fig. 8;

Fig. 10 is an enlarged fragmentary vertical sectional view of one of the shelf supports, being taken substantially as indicated by the line 10—10 of Fig. 8; and

Fig. 11 is a fragmentary view with a part of the enclosure broken away and is taken substantially as indicated at 11—11 of Fig. 8.

Referring more particularly to the drawing, the reference numeral 10 is employed to generally designate a cabinet type ironer embodying one form of the invention. The cabinet includes end panels 11 and 12, suitably reinforced, as with plates 13, to provide leg-like supports. Provision is made at the lower ends of the panels to mount rollers or casters 14. These panels are connected by a rear panel 16, having an intumed base flange 17 and an inwardly rolled upper flange 18. A front panel 19 also connects the end panels 11 and 12 and may be arched substantially as shown in Fig. 1, the arched portion being reinforced by an intumed flange 21. The upper edge of this panel has a rolled flange 22 corresponding to flange 18 and blends with the rolled upper edges of end panels 11 and 12. A cover 23 is adapted to close the top of the cabinet and includes a depending marginal flange 24, the edge of which is fitted with a bumper strip 26. This strip acts as a seal when the cover is in closed position to prevent foreign matter from entering the cabinet. Centrally of the front flange 24 of the cover is a handle 27. On the interior of this flange is located a latch plate 28.

Secured to the rear panel 16, adjacent its ends, are brackets 29 that mount pivot pins 31. These pins project somewhat beyond their respective brackets and constitute the pivotal support for the cover 23. Permanently attached to the rear wall of the cover, along one or more flanges

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32, are arms 33. These arms, as may be seen in the drawing (Figs. 4 and 7), extend substantially at right angles to the plane of the cover and include offset portions 34, through which pins 31 project. Beyond this pivotal connection, each of the arms includes an arcuate slot 36, the purpose of which will hereinafter be set out.

An ironer 37, including conventional base 38, roll 39 and shoe 41, is permanently attached to a shelf 42. This shelf is made sufficiently rigid to support the ironer by marginal flanges 43 and is of a size to fit within the rectangular opening formed by the end panels 11 and 12, and rear and front panels 16 and 19. Permanently secured to the rear corners of the shelf 42 are channel brackets 44. These brackets each include a pair of arms 46 extending beyond the rear edge of the shelf 42, which are apertured to receive pins 31 therethrough. Adjacent their forward ends, these brackets are fitted with pins 47 that extend through the side flanges 43 of the shelf into slots 36 of arms 33. One side wall of each bracket has an extension 48, terminating in an offset flange 49, to which one end of an expansion spring 51 is secured. The other ends of these springs are secured to brackets 52, carried by the end panels 11 and 12. It will be noted that although the arms 46 of brackets 44 project rearwardly of the shelf 42, these arms, together with the brackets 29, are concealed by the inwardly rolled flange 18 of the rear panel 16. It is also evident from examination of Figs. 2 and 3, that the inwardly rolled upper edges of the end panels 11 serve to conceal and enclose springs 51.

Mounted on brackets 53, secured to the inner face of the front panel 19, is a shaft 54. This shaft and its supporting brackets may be in the arrangement shown in Fig. 8 of the drawing. Secured to the shaft, adjacent each bracket, is a shelf supporting arm 56. One or more springs 57 encircle the shaft 54. One end of each spring contacts the inner face of panel 19, whereas the other end engages arm 56 and normally functions to rotate this arm and shaft 54 into the position shown in Fig. 10. Each arm 56 is formed with an angular seat 58, adapted to engage angle plates 59 secured to the front flange of the ironer shelf 42, and serve, when the shelf is in a raised position, to support the weight of the shelf and ironer. Intermediate the arms 56, a latch member 61 is provided, also being mounted on shaft 54. This member includes a catch 62 that is adapted to project into an opening in the latch plate 28 of the cover 23. Operation of the latch may be had by means of a knob 63, located exteriorly of the panel 19 and having a rod 64 pivotally joined to the member 61. It is evident that withdrawal of the knob 63 is against tension of springs 57 and that such action not only releases the cover 23 for movement into an opened position, but rotates arms 56 as well.

Attention is directed particularly to Figs. 6, 5, and 4 for a description of the operation of the structure. It will be noted from an examination of Fig. 6 that the normal tendency of expanded springs 51 is to swing the shelf 42 upwardly, but that such movement is impossible due to the fact the cover 23 is secured by latch member 61 in closed position. When the latch member is released from plate 61 by movement of knob 63, the cover 23 and shelf 42 move upwardly under the contracting force exerted by the springs 51. These springs may have only sufficient force to raise the shelf, ironer, and cover to a position

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substantially as shown in Fig. 5, thus requiring the operator to complete the opening operation by moving the cover 23 rearwardly into the upright position shown in Fig. 4. However, it is contemplated that the operative force of springs 51 may be altered to effect either greater or lesser movement of the shelf and ironer into exposed position. As final movement of the shelf and ironer into exposed position takes place, the plate 59 on the free edge of the shelf contacts and displaces the arms 56. These arms return to their original position when the shelf 42 moves into the same horizontal plane with the top edges of the cabinet panels. In this position, the arms serve as a support for the front edge of the shelf and cannot be displaced except by movement of the knob 63 which, as heretofore explained, is connected with the arms through member 61 and shaft 54. From the foregoing it is evident that, through the pin and slot connection 47 and 36, the cover 23 functions to control final movement of the shelf and ironer into exposed position. It will, of course, be understood that when the ironer has been elevated to the position shown and described, it is at a proper height for most efficient use, and upon comparing Figs. 4 and 6, it will be clear that by withdrawing the ironer from the cabinet, adequate leg space for an operator is provided beneath the panel 19.

When it is desired to again enclose the ironer within the cabinet, knob 63 is withdrawn to disengage arms 56 from shelf 42. The shelf and cover will immediately commence downward movement, which will continue until springs 51 are under sufficient tension to counterbalance the weight of these parts. The operator may now move the cover into closed position and, through the connection of pins 47 with the upper ends of slots 36, the shelf 42 is moved into the cabinet and springs 51 expanded. When the cover reaches fully closed position, latch member 61 automatically engages plate 28 to hold the parts against movement under the force of the expanded springs. Should the springs 51 be designed to exert an operative force sufficient to move the shelf and ironer into fully exposed position, then the cover 23 would function as an operative means to move the shelf and ironer into the cabinet during its entire closing operation, and it is pointed out that the leverages employed are such that an operator, regardless of the counterbalance force of the springs 51, may quickly and easily effect such closing operation.

It will be observed that the cover is of substantial depth, and thus, when in closed position, gives increased height to the cabinet to the point such as to render the top surface of the cover usable as a utility shelf or table, since it is of substantially the same height as conventional utility shelves or tables.

Although applicant has shown and described only one form of cabinet in which to mount an ironer, and a specific ironer supporting structure by which to move it into position of use or concealment, it will be understood by those skilled in the art that modifications are contemplated in adapting the structure to different sized cabinets and ironers and that such modifications are within the spirit and scope of the invention insofar as they are defined in the annexed claims.

Having thus set forth my invention what I claim as new and for which I desire protection by Letters Patent is:

1. In an ironer cabinet, walls forming a rectangular enclosure having a top opening, a cover

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for said opening, means pivotally mounting an edge of said cover on one of said walls, an ironer-supporting shelf proportioned to fit within said opening, other means serving to pivotally mount an edge of said shelf for movement about an axis common to the axis of said cover, counterbalance means adapted to normally move said shelf into an exposed position, and means operable to secure said cover in closed position and said shelf within said cabinet against the operative force of said counterbalance means.

2. In an ironer cabinet, walls forming a rectangular enclosure having a top opening, a cover for said opening, means pivotally mounting an edge of said cover on one of said walls, an ironer-supporting shelf proportioned to fit within said opening, other means serving to pivotally mount the corresponding edge of said shelf for movement about an axis common to the cover axis, further means associating said shelf and cover in a manner to effect joint pivotal movement, said further means including means providing limited relative pivotal movement of said cover and shelf, counterbalance means operable to sustain the weight of said shelf at least during a part of the travel of said shelf into an exposed position, and latch means for securing said cover in a closed position.

3. In an ironer cabinet, walls forming a rectangular enclosure having a top opening, a cover for said opening, means pivotally joining an edge of said cover to one of said walls, an ironer-supporting shelf proportioned to fit within said opening, other means serving to pivotally mount the corresponding edge of said shelf for movement about an axis common to the axis of said cover, further means associating said shelf and cover in a manner to effect joint pivotal movement through a predetermined part of their respective pivotal movement, counterbalance means operable to sustain the weight of said shelf at least during a part of its movement into an exposed position, and means operable to secure said shelf in an exposed position.

4. In an ironer cabinet, walls forming a rectangular enclosure having a top opening, a cover for said opening, means pivotally joining an edge of said cover to one of said walls, an ironer-supporting shelf proportioned to fit within said opening, other means serving to pivotally mount the corresponding edge of said shelf for movement about an axis common to the axis of rotation of said cover, further means associating said shelf with said cover in a manner to effect joint pivotal movement, spring means associated with

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said shelf, said spring means being brought under tension during movement of said shelf to a position within said cabinet, latch means operable to secure said cover in closed position against the tension of said spring means, and further latch means operable to secure said shelf in an exposed position effected by said spring means upon release of said cover latch means.

5. An ironer cabinet having upright walls forming a rectangular enclosure with a top opening, a cover for the top opening of said enclosure pivotally joined to one of said walls, said cover, in closed position, providing a flat utility surface of an area substantially that of the top of said cabinet, said cover further being of a depth to locate said surface at the height of a conventional utility table, means mounting an edge of said shelf for pivotal movement about an axis common to the axis of rotation of said cover, and other means for effecting joint pivotal movement of said cover and shelf during only a part of their travel into open and closed positions.

6. In an ironer cabinet, walls forming an enclosure having a top opening, a cover for said opening, an ironer-supporting shelf in said opening, means mounting said cover and said shelf for pivotal movement about a common axis, other means providing limited relative pivotal movement of said cover and said shelf, spring means normally urging said cover and shelf toward one of the extreme positions allowed by said other means.

7. In an ironer cabinet, walls forming an enclosure having a top opening, a cover for said opening, an ironer-supporting shelf in said opening, means mounting said cover and said shelf for pivotal movement about a common axis, spring means operable to move said cover and shelf respectively into partially opened and exposed position, further means facilitating movement of said cover to effect movement of said shelf into fully exposed position, and latch means for securing said shelf in said fully exposed position.

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