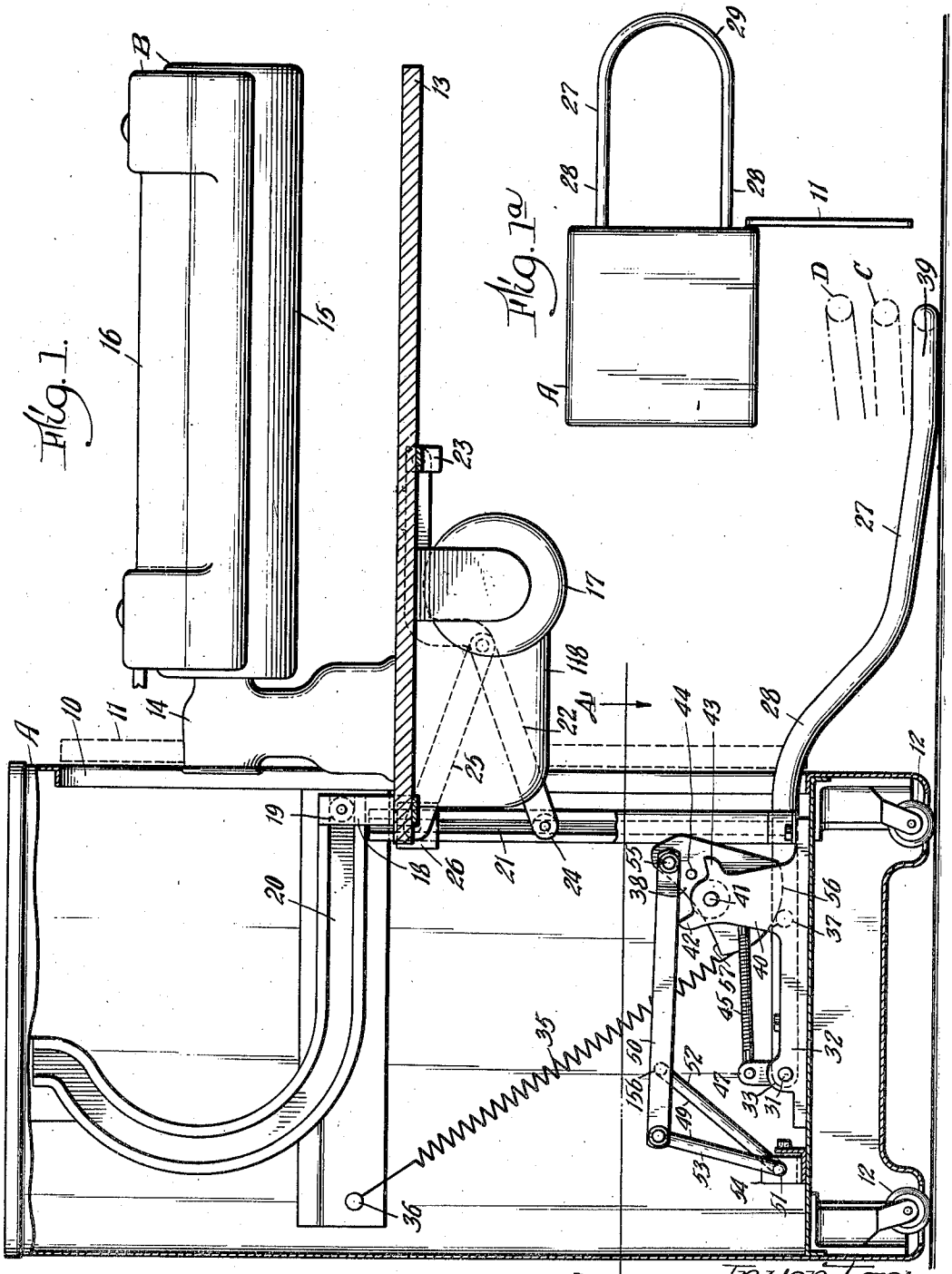
July 26, 1938. A. J. SHUTE 2,124,988

CABINET IRONING MACHINE

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CABINET IRONING MACHINE

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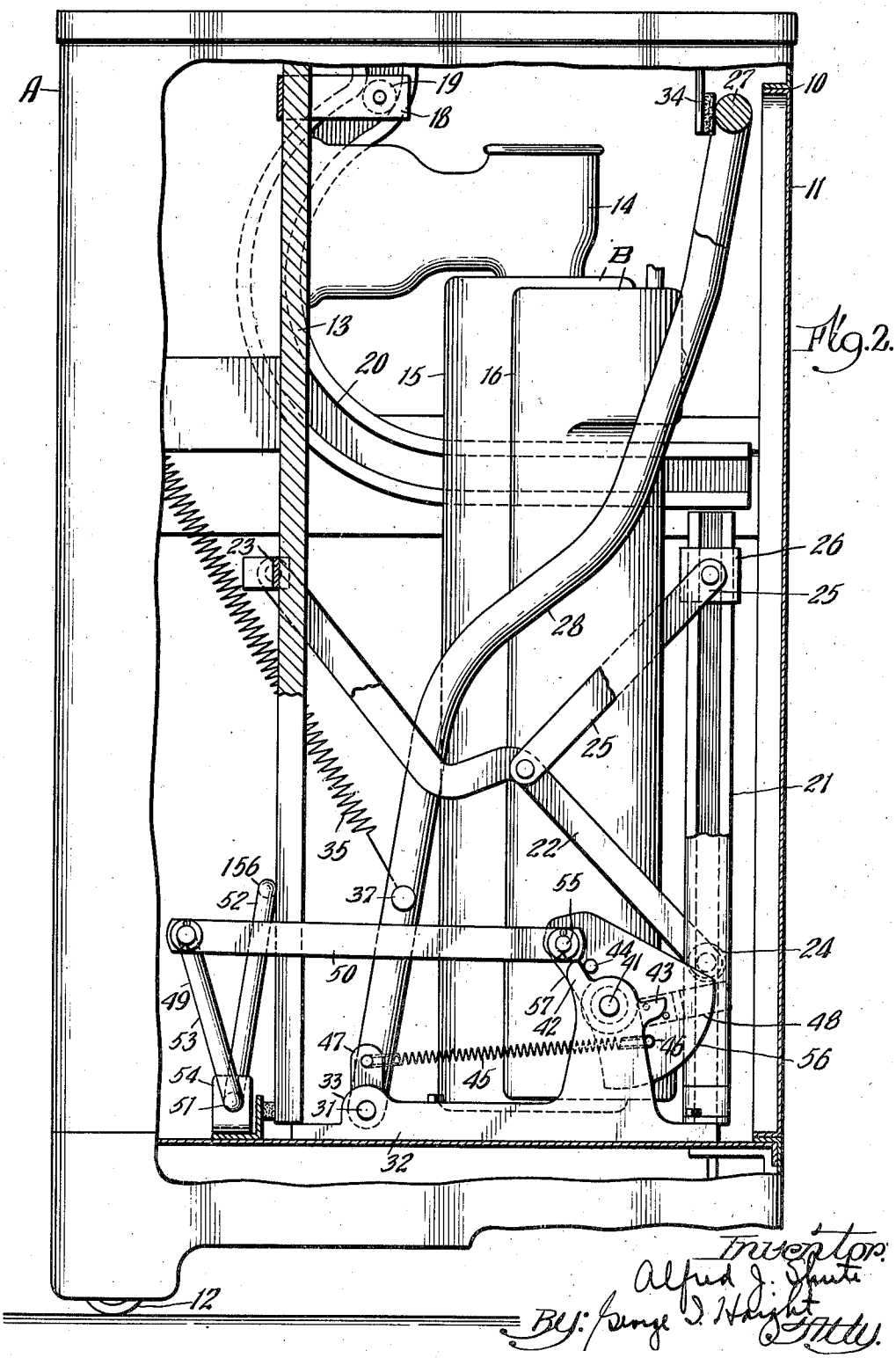


Fig. 2.

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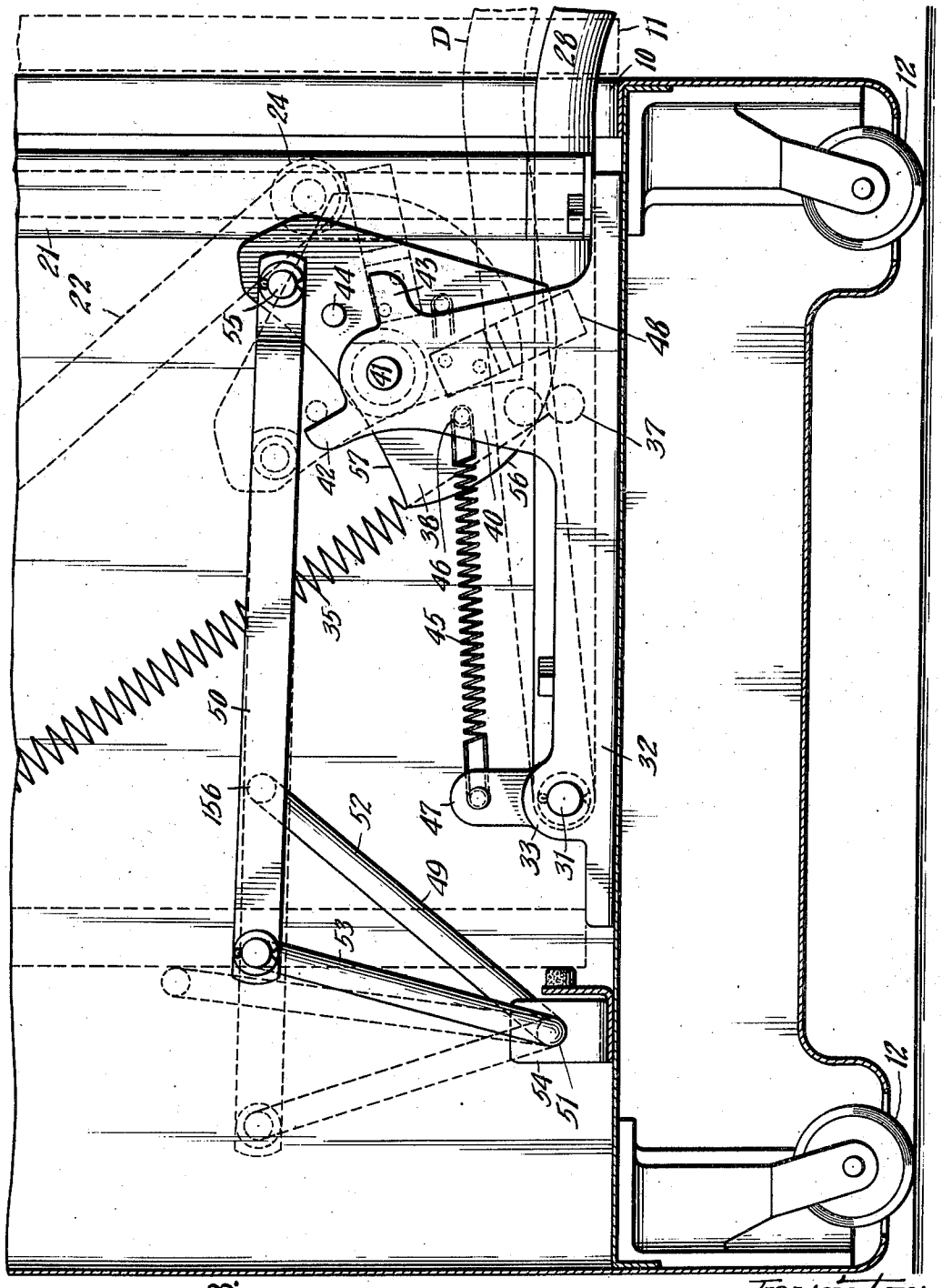


Fig. 3.

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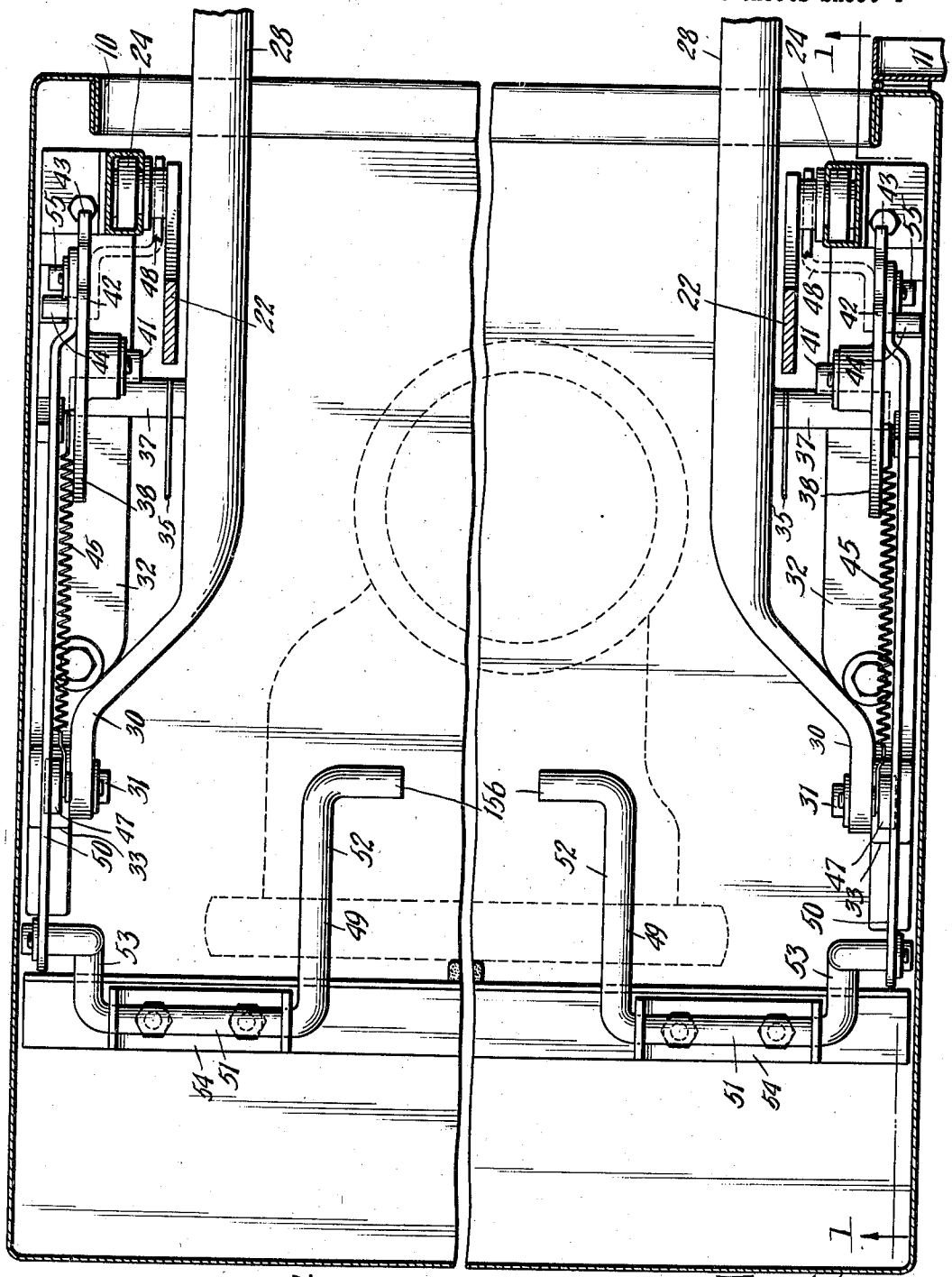


Fig. 4.

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UNITED STATES PATENT OFFICE

2,124,988

CABINET IRONING MACHINE

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Application September 10, 1936, Serial No. 100,174

22 Claims. (Cl. 312—28)

This invention relates to improvements in extension supports for cabinets for ironing machines of the domestic type, and more particularly to an outboard support which may be folded out of the way into the cabinet when the ironing machine is not in use.

One object of the invention is to provide in combination with a cabinet and an ironing machine of the domestic type adapted to be stored within said cabinet and arranged so as to be withdrawn from the cabinet for use and supported by the latter in horizontally extended operating position outside of the cabinet, means which may be extended from the cabinet to support the same in upright position against the overbalancing action of the projected ironer machine, thereby dispensing with the usual outboard leg on the ironer machine proper employed for supporting and bracing the structure against tilting.

Another object of the invention is to provide in a cabinet ironer comprising a cabinet and an ironer mechanism adapted to be folded into the cabinet when not in use and to be moved out of the cabinet to extended horizontal operating position and supported from the cabinet, auxiliary supporting and bracing means for said cabinet to prevent tilting of the same due to overbalancing tendency of the extended ironer, wherein said auxiliary supporting means is arranged to be folded into the cabinet when not in use and to be swung outwardly to operative supporting position to brace the cabinet while the ironer is in operating position.

A further object of the invention is to provide in a structure of the character described in the preceding paragraph a safety device in the form of latch means for locking the ironer unit against withdrawal from the cabinet in the event that the extension support is not in proper position to brace and support said cabinet against tilting.

Other objects of the invention will more clearly appear from the description and claims hereinafter following.

In the drawings, forming a part of this specification, Fig. 1 is a vertical, sectional view through a cabinet and associated ironer mechanism, corresponding substantially to the line 1—1 of Fig. 4, illustrating my improvements in connection therewith, said view showing the extensible supporting means in operative position and the ironer unit in extended horizontal operating position.

Fig. 1—*a* is a top plan view, on a reduced scale, of the cabinet ironer shown in Fig. 1 with the extensible support in operative position, the ironer mechanism being omitted in said view.

Fig. 2 is a view similar to Fig. 1 but illustrating the parts in different positions, the ironer mechanism and extensible support being shown as folded within the cabinet.

Fig. 3 is a view on an enlarged scale, similar to Fig. 1, showing only the mechanism at the bottom portion of Fig. 1 and showing in addition, in dotted lines, the relative positions of certain parts of the structure when the ironer mechanism is latched against removal due to the extensible support not being positioned properly to brace and support the cabinet.

And Fig. 4 is a horizontal, sectional view, on an enlarged scale and partly broken away, corresponding substantially to the line 4—4 of Fig. 1.

In said drawings, A indicates a cabinet designed to house and support an ironer mechanism, and the same may be of any suitable type for the purpose. The cabinet is preferably made of sheet metal in the shape of a rectangular, boxlike structure and sufficiently high to enclose therein the ironer mechanism in an upright or vertical position. The cabinet A has a door opening 10 closed by a single door 11 hinged at one edge and adapted to swing outwardly. The cabinet is preferably provided with casters 12—12 so that it may be moved about as desired.

The ironer mechanism, which is indicated by B, is of the domestic type and is a unit by itself in the sense that its parts are all related in such a manner that it can be bodily swung out from the cabinet into operating position or swung back into the cabinet to enclosed position when not in use.

The unit employed in the construction shown consists of an elongated baseboard 13, which is flat and of substantially rectangular outline and provided with the usual hinged extension leaf, not shown. Adjacent to one end, this baseboard supports a head or standard 14, on which an ironer roll 15 and its cooperating shoe 16 are mounted. The roll and shoe extend parallel to the baseboard 13 and are actuated through suitable, well known, drive mechanism contained within the standard 14. Suspended from beneath the baseboard 13 at the end thereof adjacent to the standard 14 and fixed to said board is a suitable driving motor 17 and a housing 118, which contains the driving connections between the motor and the standard 14.

The cabinet A carries supporting means, on which the ironer unit is mounted and by which it

is supported and guided in its movements into and out of the cabinet and supported outside of the cabinet in operating position. At its extreme inner end, the baseboard 13 of the ironer unit B has upstanding arms or hangers 18—18, one on each side of the board, which carry flanged rollers 19—19 arranged to ride in guide channels or rails 20—20. One of these guide rails is mounted on each side wall of the cabinet A, being secured thereto in any suitable manner. As clearly shown in Figs. 1 and 2, the lower forward end portions of these guide channels are horizontal and the rearward portions thereof extend in a curve rearwardly and upwardly so that the ironer unit will be bodily rotated into vertical position when moved into the cabinet and into a horizontal position when withdrawn from the cabinet. At the front of the cabinet A adjacent to the forward ends of the guide rails 20—20 are two vertical guide channels or rails 21—21, one on each side of the cabinet. Links 22—22 at opposite sides of the ironer unit B have their outer ends pivotally connected to depending bearing brackets 23—23 on the baseboard 13 of said unit and have their inner ends provided with rollers 24—24 guided by the rails 20—20. The links 22—22 are further connected to the cabinet A by a pair of links 25—25. Each link 25 is pivotally connected at one end to the link 22 at the corresponding side of the ironer unit B. The other end of this link is pivoted to a fixed supporting member 26 on the rail 21 at the corresponding side of the cabinet.

The mechanism thus far described is well known and is related to the present invention only in so far as it cooperates with the parts of the same, and therefore needs no further detailed description.

In withdrawing the ironer unit B from the cabinet A and placing the same in horizontal operating position, the attendant grasps the lower end portion of said unit and pulls the same outwardly. During outward movement of the unit, the same is swung from the position shown in Fig. 2 to that shown in Fig. 1 through the action of the links 22 and 25 and the cooperating guide means on the ironer unit B and the cabinet A, comprising the rails 20 and 21, the roll 19 on the ironer unit, and the roll 24 on the link 22. To return the ironer unit to enclosed position within the cabinet, inward and downward pressure is applied to the outer end of the unit, thereby moving the same from the position shown in Fig. 1 to that shown in Fig. 2. As will be evident upon reference to Fig. 2, as the withdrawing movement of the ironer unit is started the outward swinging movement of said unit about its upper end will cause the pivotal connection between the links 22 and 25 to travel toward and approach the vertical guide rail 21. The lower end of the link 22, that is, the end carrying the roller 24, as seen in Fig. 2, will thus be forced to move downwardly along the rail 21 until the pivot between said links passes beyond said rail, whereupon the roller end of the link 22 will move in an upward direction along said rail 21. Said upward movement of the end of the link 22 continues during the further outward movement of the ironer unit B until the link reaches the position shown in Fig. 1.

As will be evident, outward movement of the ironer unit B will be positively prevented by holding the roller ends of the links 22—22 against said downward movement along the rails 21—21. In connection with my improved construction, I provide a locking means for this purpose, which precludes withdrawal of the ironer unit B in the event that the extensible support is not properly positioned to brace and support the cabinet with the ironer unit outside of the cabinet in horizontal operating position.

The extensible support is preferably in the form of a bail member 27 swingingly carried by the cabinet for movement into and out of the same and to extended substantially horizontal position. The bail member 27 is of generally U-shaped outline comprising a pair of spaced, parallel side arms 28—28 connected at their outer ends by a curved transverse section 29 and having their inner ends laterally outwardly offset, as indicated at 30—30. The bail member 27 is supported interiorly of the cabinet at the bottom thereof by pivot members 31—31 carried by supporting brackets 32—32 at opposite sides of the cabinet and fixed to the bottom wall thereof. The supporting brackets 32—32 are in the form of elongated members having upstanding ears 33—33 adjacent to the rear or inner ends in which the pivot members or pins 31—31 are fixed. The side arms 28—28 of the bail member 27 are spaced apart sufficiently to clear the ironer unit when the bail member is swung upwardly to the substantially vertical position shown in Fig. 2 and has its movement inwardly of the cabinet limited by a stop 34 at the top of the cabinet adjacent to the front thereof. Tension springs 35—35 are provided, which yieldingly oppose downward swinging movement of the bail member 27 and assist in raising the same to its enclosed position within the cabinet. One of such springs is preferably provided on each side of the cabinet. Each spring 35 has one end thereof secured to the corresponding side arm 28 of the bail member 27 forwardly of the pivot 31 and has the other end thereof fixedly anchored to the supporting bracket for the rail 20 at the corersponding side of the cabinet, as indicated at 36, said anchorage being adjacent to the back of the cabinet. The bail member 27 has fixed, laterally outwardly projecting stop pins 37—37 at opposite sides thereof, which also serve to connect the springs 35—35 to the bail member. The pin 37 on each side of the bail member 27 is rigid with and projects from the corresponding side arm 28 thereof and is spaced a short distance forwardly of the pivot of said arm and overhangs and cooperates with a swinging latch or locking plate 38 mounted on the corresponding bracket 32. As will be understood, two such latch plates are provided, one on each side of the cabinet, cooperating with the pins 37—37 of the arms 28—28 of the bail member 27. The outer or front end portion of the bail member 27 is offset with respect to the inner portion thereof, thereby disposing said front portion at a lower level than the inner portion when the bail member is swung to its horizontal position, as clearly shown in Fig. 1. The extreme outer end portion of said bail member 27 is disposed at an angle to the adjacent portion thereof to provide a foot 39 adapted to rest squarely on the floor on which the cabinet is supported.

At the forward end thereof, each bearing bracket 32 is provided with an upstanding post 40, by which the swinging locking plate 38 is supported, a pivot pin 41 extending through the top portion of said post and the plate 38 being provided for this purpose. The post 40 also has a pair of spaced stop fingers 42 and 43 thereon,

which cooperate with a laterally projecting stop pin 44 on the plate 38. A tension spring 45 secured to the lower portion of the plate 38, as indicated at 46, and to an upstanding lug 47 on the inner end portion of the bracket 32 exerts a yielding pull on said plate 38 to rock the same on its pivot in a clockwise direction, as viewed in Figs. 1, 2, and 3.

Each latch plate 38 is provided with an arm 48 on the inner side thereof, which has its outer extremity in the path of movement of the lower end of the link 22 at the corresponding side of the cabinet. As shown in Fig. 4, each arm 48 is in the form of a bent bar of substantially Z-shaped form having the inner end or foot portion thereof flatly engaging the corresponding side face of the plate 38 and secured thereto, and having the outer end portion thereof offset laterally from the latch plate, disposed parallel to said plate, and extending in an opposite direction to the inner end or foot portion of said bar and disposed in a plane between the corresponding link 22 and its roller 24 so as to be engaged by the bearing trunnion of said roller.

The arms 48—48 of the two latch plates 38—38 are in operative engagement with the lower ends of the links 22—22 when the ironer unit is folded within the cabinet A, as shown in Figs. 2 and 3, movement of the ironer unit into the cabinet being instrumental in swinging the latch plates 38—38 against the resistance of the springs 45—45 to so position the arms 48—48. To effect this swinging movement of the latch plates 38—38, actuating means, which is engaged by the outer end portion of the baseboard 13 of the ironer unit B on movement into the cabinet of the ironer unit, is provided. This mechanism comprises a pair of rockers 49—49 located at opposite sides of the cabinet and rods or links 50—50 operatively connecting the rockers to the latch plates 38—38. Each rocker 49 comprises a cylindrical shaftlike portion 51 having crank arms 52 and 53 at opposite ends thereof. The shaft portion 51 of each rocker is rotatably mounted in a suitable supporting bracket 54 fixed to and upstanding from the bottom of the cabinet A. The bearing bracket 54 is in the form of a flat bar secured to the bottom wall of the cabinet having upstanding end portions with bearing openings in which the shaft portion 51 is rotatable. The crank arm 53, which is at the outer end of the shaft portion 51, has its outer end bent at right angles to provide a laterally extending crank pin, which is rotatably connected to the rear end of the link or rod 50 at the corresponding side of the cabinet. The front end of the link 50 is pivoted or swiveled to the top portion of the corresponding latch plate 38 by a pin 55. The crank arm 52, which is at the inner end of the shaft 51 of the rocker 49, has the outer end thereof bent laterally inwardly, as indicated at 156. The arms 52—52 of the rockers 49—49 are longer than the arms 53—53 and are disposed in the path of swinging movement of the baseboard 13 of the ironer unit B. As shown most clearly in Figs. 1, 2, and 3, the crank arm 52 of each rocker is angularly offset forwardly of the arm 53 thereof.

As will be evident, when the ironer unit B is swung into the cabinet A, the outer or lower end of the baseboard 13 will engage the arms 52—52 of the rockers 49—49 and swing said arms rearwardly, thereby rocking the arms 53—53 in the same direction and through the links 50—50 rock the latch plates 38—38 so as to swing the arms 48—48 thereon upwardly to the position shown in Figs. 2 and 3, said upward swinging movement being limited by the stop pins 44—44 of the latch plates 38—38 engaging the stop fingers 42—42 of the posts 40—40.

As will be seen upon reference to Figs. 1, 2, and 3, each latch plate 38 is provided with an outwardly curved lower edge portion 56 and an inwardly curved inner side edge portion 57. The curvature and location of the inwardly curved edge portion 57 of each plate 38 is such that clearance is provided for the pin 37 of the corresponding side arm 28 of the bail member 27 during swinging movement of the bail member downwardly toward and upwardly away from the bottom of the cabinet when the plate 38 is in the position shown in Fig. 2, that is, when the ironer unit is in its completely enclosed vertical position in the cabinet. The outwardly curved edge 56 of each plate 38 is of gradually decreasing radius from the outer to the inner end thereof and serves to hold the bail member 27 in lowered position when the plate 38 is swung into position to engage over the pin 37 of the bail member 27, as shown in Figs. 1 and 3 (said position being the full line position of the plate in Fig. 3).

When the bail member 27 is in its lowermost position, as shown in full lines in Figs. 1 and 3, the same is positively locked against upward swinging movement through the latch plates 38—38 by the outwardly curved lower edges 56—56 of said plates engaging over the pins 37—37 of the bail member 27. Compensation for slight irregularities or variations in the height of the floor on which the foot 39 of the bail member 27 rests is provided by permitting the bail member to be locked in various slightly raised positions above the full line position referred to. This is accomplished by means of the latch plates 38—38, which have the curved edge faces 56—56 thereof of decreasing radius from front to rear, thereby permitting the bail member 27 to be locked in any one of said slightly raised positions when engaged with a floor level which is slightly higher than that shown in Fig. 1, the latch plates 38—38 being stopped by engagement with the pins 37—37 in in a position in advance of that shown in Fig. 1. The limit of said slight upward displacement of the bail member 27 is indicated in Fig. 1 and corresponds with the dotted line position designated by C. This limit is reached when the extreme inner ends of the edge faces 56—56 of the latch plates 38—38 are engaged over the pins 37—37. When the bail member 27 assumes a position above the dotted line position C in Fig. 1, the pins 37—37 thereof are disposed in the path of swinging movement of the plates 38—38 and lock said plates against movement in a clockwise direction by engagement with the inwardly curved edge faces 57—57 thereof. This last named position of the bail member 27 corresponds to the dotted line position D shown in Figs. 1 and 3. The position of the latch plate 38, under these conditions, is shown in dotted lines in Fig. 3. When thus locked, the arms 48—48 of the latch plates 38—38 are disposed in the path of downward movement of the lower ends of the links 22—22 of the ironer unit supporting structure and prevent downward movement of said links, thus locking the ironer unit

in folded position within the cabinet. From the foregoing it will be evident that when the bail member 27 is in the dotted line position indicated by D the ironer unit B cannot be withdrawn from the cabinet.

Assuming that the ironer unit B and the bail member 27 are folded in enclosed position within the cabinet A, as shown in Fig. 2, the following procedure is followed in making the ironer unit ready for use: The attendant, after having opened the door of the cabinet, first swings the bail member 27 to its lowered position in engagement with the floor, thereby bringing the stop pins 37—37 of said bail member 27 in a position to clear the latch plates 38—38 below the same, thus freeing said plates to be swung in a clockwise direction. The ironer unit is then swung outwardly to the position shown in Fig. 1 by pulling outwardly on the lower end thereof. Under these conditions, the ironer unit is free to be withdrawn from the cabinet as the latch plates 38—38 do not obstruct the downward movement of the outer ends of the links 22—22, the latch plates being swung in a clockwise direction by the pressure of the links 22—22 on the arms 48—48 of said plates and the tension of the springs 45—45, the rockers 49—49 and the connecting links 50—50 being freed to swing outwardly as the baseboard 13 of the ironer unit B moves outwardly, thus permitting movement of the latch plates 38—38. The latch plates will thus be swung over the pins 37—37 and engage therewith to lock the bail member 27 in its lowered position, which lowered position may be the full line position shown in Figs. 1 and 3 or any other position between said full line position and the position indicated by C in Fig. 1.

In the event that the bail member 27 has not been swung downwardly to an extent to engage the floor and firmly brace and support the cabinet, but has been swung to a position short of that indicated by C, as for example the position indicated by D in Figs. 1 and 3, the ironer unit is locked effectively against withdrawal from the cabinet by the latch plates 38—38, the arms 48—48 of which cooperate with the lower ends of the links 22—22 of the ironer unit supporting structure.

As hereinbefore pointed out, when the bail member 27 occupies the position D or any position above the same, the pins 37—37 of the bail member 27 will be in the path of swinging movement of the latch plates 38—38 and lock the same against rotation in a clockwise direction, thereby locking the links 22—22 against downward movement. A safety device is thus provided to protect the attendant from possible injury by preventing withdrawal of the ironer unit from the cabinet when the cabinet is not properly braced against tilting by the extensible bail member 27.

When the ironer unit is swung back into the cabinet to enclose the same therein, the baseboard 13 thereof engages the rockers 49—49, returning the same to the position shown in Fig. 2. This movement of the rockers 49—49 is communicated through the connecting links 50—50 to the latch plates 38—38 to restore the latter to the position shown in Fig. 2, swinging the same clear of the pins 37—37 of the bail member 27, thus unlocking the bail member. The bail member 27 may then be swung upward to the enclosed position within the cabinet shown in Fig. 2.

I have herein shown and described what I now consider the preferred manner of carrying out my invention, but the same is merely illustrative and I contemplate all changes and modifications that come within the scope of the claims appended hereto.

I claim:

1. In a structure of the class described, the combination with a cabinet and an instrument or like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; an extensible supporting member for supporting and bracing said cabinet when the unit is in horizontal position outside of the cabinet, said supporting member being connected to the cabinet independently of the unit for movement into and out of the cabinet; and means controlled by movement of said unit out of the cabinet for locking said supporting member in extended position.

2. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet independently of said unit, said supporting member being movable to extended position outside of the cabinet and engageable with the floor, on which said cabinet rests, at a distance from said cabinet; and means controlled by movement of said unit outwardly of the cabinet for locking said supporting member in extended supporting position.

3. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet, said supporting member being movable to extended position outside of the cabinet and engageable with the floor, on which said cabinet rests, at a distance from said cabinet; and locking means controlled by the position of said supporting member for preventing withdrawal of the unit from said cabinet.

4. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet, said supporting member being adapted to be housed within said cabinet and being movable out of the cabinet to laterally extended position engageable with the floor, on which said cabinet is supported, at a distance from said cabinet; and means for locking said unit against withdrawal, said last named means being held locked by said supporting member until the latter closely approaches its supporting position.

5. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet, said supporting

member being adapted to be housed within said cabinet and being movable to extended position outside of the cabinet to engage the floor, on which the cabinet is supported, at a distance from said cabinet; and means controlled by the movement of said unit outwardly of the cabinet for locking said supporting member in extended position in engagement with said floor, said last named means including mechanism compensating for slight irregularities in the level of the floor on which the cabinet is supported.

6. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet, said supporting member being adapted to be housed within said cabinet and being movable to extended position outside of the cabinet to engage the floor, on which the cabinet is supported, at a distance from said cabinet; and means for locking said unit against withdrawal from the cabinet, said means being rendered ineffective to lock said unit against removal when said supporting member is brought into contact with the floor on which said cabinet is supported.

7. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting mechanism for said unit connected with the cabinet and with the unit for carrying the latter into a vertical position within the cabinet or a horizontal position outside of the cabinet; a supporting member connected to said cabinet, adapted to be housed within said cabinet, and movable to extended position outside of the cabinet to engage the floor, on which the cabinet is supported, at a distance from said cabinet; and means for locking said unit against withdrawal from the cabinet, said last named means being held in locking position by said supporting member as the same approaches engagement with the floor on which the cabinet rests, said means being released from locking position by movement of said supporting member into contacting position with respect to the floor.

8. In a structure of the class described, the combination with a cabinet and an instrument or a like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; and means for locking said support in said extended floor-engaging position, operation of said locking means being controlled by the movement of said unit toward its horizontal operating position.

9. In a structure of the class described, the combination with a cabinet and an instrument or like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; and locking means operative in one position to lock said unit against withdrawal from the cabinet and operative in another position to lock said extensible support in floor-engaging position.

10. In a structure of the class described, the combination with a cabinet and an instrument or a like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; and locking means operative in one position to lock said extensible support in floor-engaging position, and operative in another position to lock the unit against withdrawal from the cabinet when said extensible support is moved to a position short of engagement with said floor.

11. In a structure of the class described, the combination with a cabinet and an instrument or like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; locking means operative in one position to lock said unit against withdrawal from the cabinet and operative in another position to lock said extensible support in floor-engaging position; and means controlled by movement of said unit out of the cabinet for moving said locking means to locking relation with respect to said extensible support.

12. In a structure of the class described, the combination with a cabinet and an instrument or a like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; and locking means operative in one position to lock said unit against withdrawal from the cabinet and operative in another position to lock said extensible support in floor-engaging position, said means including a movable locking element connected to the cabinet and stop means connected to said extensible support for holding said locking element in locking relation with respect to said unit when said extensible support is moved to a position short of engagement with said floor, said stop means being released from holding relation with respect to said locking element when said support is moved to a position to engage the floor, whereby said unit is freed for withdrawal from said cabinet.

13. In a structure of the class described, the combination with a cabinet and an instrument or a like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within the same when not in use and movable to extended position outside of the cabinet in engagement with the floor, on which said cabinet rests, at a distance from said cabinet; locking means operative in one position to lock

said unit against withdrawal from the cabinet and operative in another position to lock said extensible support in floor-engaging position, said means including a movable locking element connected to the cabinet and stop means connected to said extensible support for holding said locking element in locking relation to said unit when said extensible support is moved to a position short of engagement with said floor, said stop means being released from holding relation with respect to said locking element when said support is moved into engagement with the floor; and means responsive to movement of said unit out of the cabinet for moving said locking element into locking engagement with said stop means on the extensible support.

14. In a structure of the class described, the combination with a cabinet and an instrument or a like unit adapted to be enclosed within said cabinet and movable out of said cabinet to horizontal operating position; of an extensible support connected to said cabinet and adapted to be housed within said cabinet when not in use, said support being movable to extended position outside of the cabinet in engagement with the floor on which said cabinet is supported; and locking means for said unit and support adapted to lock said unit against withdrawal from the cabinet and lock said support in floor-engaging position, said locking means being rendered inoperative to lock said unit against removal when said extensible support is in floor-engaging position, thereby permitting withdrawal of said unit from the cabinet, and said locking means being rendered operative to lock said support in floor-engaging position upon withdrawal of said unit from the cabinet.

15. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting and guiding means connected to said unit and cabinet for supporting the unit in vertical enclosed position within the cabinet, and in horizontal operating position outside of the cabinet, and guiding said unit from one of said positions to the other; latch means engageable with an element of said supporting and guiding means for locking said supporting means against movement to retain said unit in said enclosed position; an extensible support connected to said cabinet for movement into and out of the same, said extensible support being movable to projected position with respect to said cabinet in engagement with the floor on which said cabinet rests; and shouldered means on said extensible support engageable by said latch means for holding the latter in locking engagement with said element, said shouldered means being released from holding relation with respect to said latch means when said extensible support is moved to floor-engaging position.

16. In a structure of the class described, the combination with a cabinet and an instrument or a like unit; of supporting and guiding means connected to said unit and cabinet for supporting the unit in vertical enclosed position within the cabinet, and in horizontal operating position outside of the cabinet, and guiding said unit from one of said positions to the other; latch means engageable with an element of said supporting and guiding means for locking said supporting means against movement to retain said unit in said enclosed position; an extensible support connected to said cabinet for movement into and out of the same, said extensible support being movable to projected position with respect to said cabinet in engagement with the floor on which said cabinet rests; shouldered means on said extensible support engageable by said latch means for holding the latter in locking engagement with said element, said shouldered means being released from holding relation with respect to said latch means when said extensible support is moved to floor-engaging position, said latch means being movable into locking engagement with said extensible support to hold the latter in floor-engaging position; actuating means for moving said latch means into locking engagement with said extensible support; and restraining means engaged by said unit when in vertical enclosed position within said cabinet for holding said latch means against movement by said actuating means.

17. In a structure of the class described, the combination with a cabinet and an instrument or a like unit movable into and out of the cabinet; of means for supporting and guiding said unit including a movable supporting link; a rocking latch member within the cabinet engageable in one position thereof with said link to lock the latter against movement and thereby hold said unit against withdrawal from the cabinet; an extensible supporting member swingingly connected to said cabinet, said supporting member being movable inwardly of the cabinet to upright enclosed position and outwardly of the cabinet to projected floor-engaging position; actuating means acting in one direction for moving said rocking latch member from said first named position to locking position with respect to said extensible supporting member to hold the latter in said floor-engaging position; and additional means for moving said latch means in a reverse direction to return the same to operative locking relation with respect to said link, said additional means being engaged and actuated by said unit in its movement into the cabinet to move said latch means in a reverse direction, and said additional means being freed for movement by displacement of said unit in a direction outwardly of the cabinet and thereby permitting movement of said latch means in said first named direction.

18. In a structure of the class described, the combination with a cabinet and an instrument or a like unit movable into and out of the cabinet; of means for supporting and guiding said unit including a movable supporting link; an extensible support hinged to said cabinet for swinging movement, said extensible support being swingable to upright position within the cabinet and to laterally extended floor-engaging position outside of the cabinet; a pivoted latch plate mounted in said cabinet, said latch plate having a locking face engageable with said link to hold said link against movement in one direction to prevent withdrawal of the unit from the cabinet, said latch plate having a second locking face engageable with the extensible support to hold the same in floor-engaging position, said plate also having a third locking face; spring means for moving said latch plate in one direction; rocker means actuated by movement of said unit into the cabinet for moving said latch plate in a reverse direction; and projecting means on said extensible support engageable with said last named face in one position of said extensible support to hold said latch plate against movement in said first named direction to

maintain the first named locking face in locking engagement with said link, said projecting means being disengaged from said third face when the extensible support is moved from said first named position to floor-engaging position, thereby freeing said latch plate for movement by said spring means in said first named direction to engage said second named face with the extensible support to lock the same in floor-engaging position.

19. In a structure of the class described, the combination with a cabinet and an instrument or a like unit movable into and out of the cabinet; of an elongated extensible support for said cabinet, said support being hinged to said cabinet for swinging movement to upright position within the cabinet when not in use and to horizontally extended position in engagement with the floor on which the cabinet rests; cam means engageable with said support for holding the same in said horizontal position; spring means for moving said cam means into engagement with said support; and means actuated by movement of said unit into the cabinet for actuating said cam means against the resistance of the spring means to disengage said cam means from said support.

20. In a structure of the class described, the combination with a cabinet; of an elongated extensible support for said cabinet hinged to the same for swinging movement inwardly and outwardly with reference to the cabinet, said support being movable outwardly of the cabinet to laterally extended position in operative engagement with the floor on which the cabinet rests; and means for locking said support in floor-engaging position including a rocking cam plate having a curved locking face of varying radius, different portions of which face are engageable with said support to hold the latter seated on the floor, said face of varying radius compensating for variations or irregularities in the floor level.

21. In a structure of the class described, the combination with a cabinet; of an elongated extensible support hinged to said cabinet for swinging movement into and out of the cabinet, said support being swingable to laterally extended position with respect to said cabinet in engagement with the floor on which said cabinet rests; a rocking locking plate supported within the cabinet, said locking plate having a curved locking edge of decreasing radius from the forward to the rear end of said edge, said edge being engageable with the support; and yielding means for swinging said plate to move the portion thereof having said curved edge inwardly, thereby yieldingly wedging said edge of the plate against said support to lock the same in various positions of adjustment to compensate for variations in floor levels.

22. In a structure of the class described, the combination with a cabinet; of an elongated extensible support hinged to said cabinet for swinging movement inwardly and outwardly of the cabinet, said support being movable to laterally extended position with respect to said cabinet in engagement with the floor on which said cabinet rests; and spring-actuated compensating means for yieldingly wedging said support in various floor-engaging positions.

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