

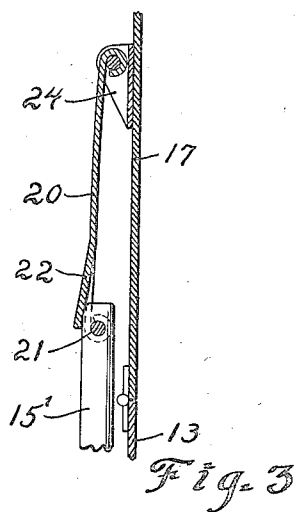
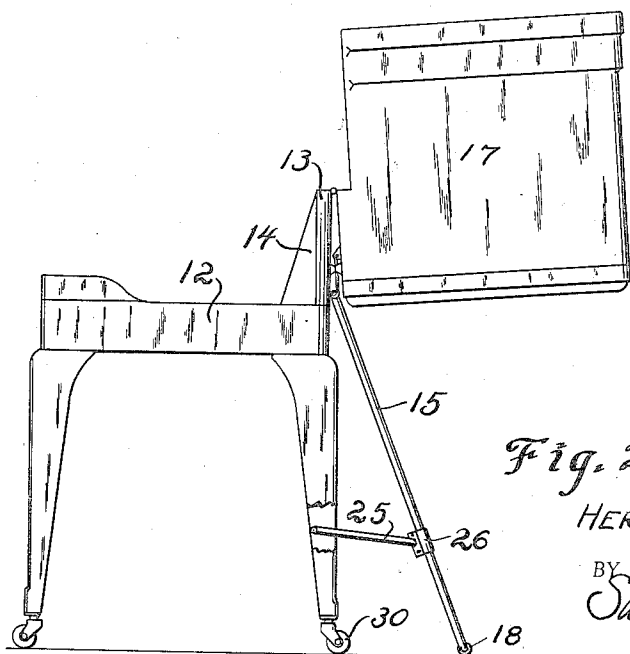
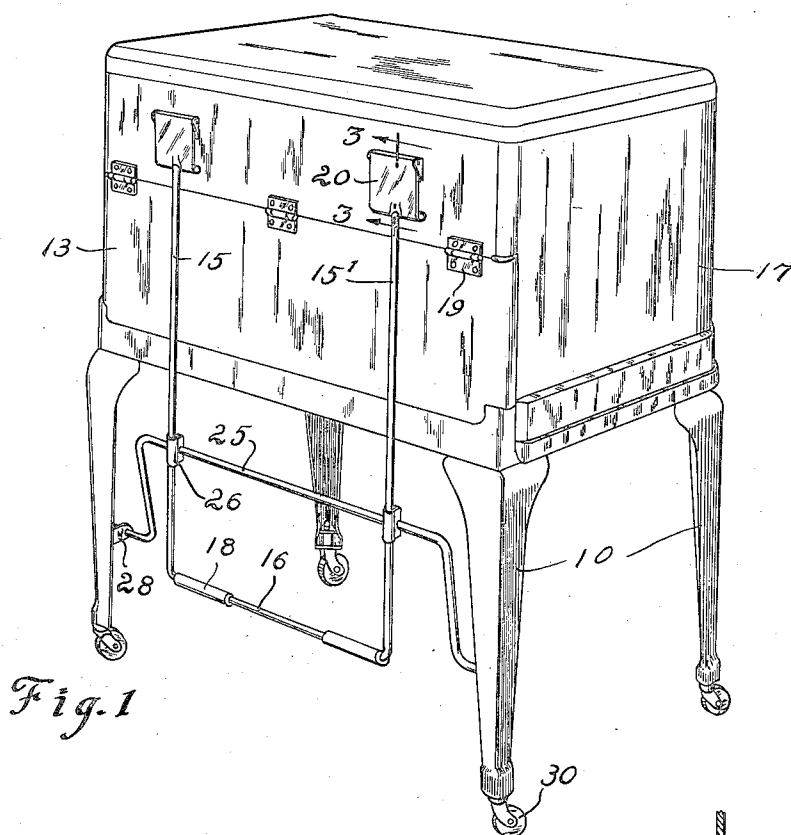
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H. A. SPERLICH

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CABINET

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INVENTOR.
HERMAN A. SPERLICH

BY
Swan, Tye & Henderty
ATTORNEYS.

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CABINET

Herman A. Sperlich, Detroit, Mich.

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5 Claims. (Cl. 68—9)

This invention relates to containers, cabinets and the like, and particularly concerns containers equipped with lids hinged thereto in such fashion, as is frequently the case, that when the lid is open it projects laterally from the top of the body in a manner which reduces or upsets the inherent stability of the assembly.

An object of the invention is to provide simple means, automatically operable upon opening the lid, which so supports the assembly comprising container and lid when the latter is open as to greatly increase the stability of the assembly and reduce or eliminate the danger of upsetting the cabinet when the lid is open.

It has become common in recent years to enclose various household devices and machines in cabinets, both for protection and to enhance their appearance. Where such cabinets are provided with hinged lids which when open project horizontally, and the construction is of such size or nature that upsetting the cabinet is dangerous or undesirable, difficulty has been encountered because of the tendency of users to employ such extended lids as shelves, and pile thereupon sufficient material to overbalance the cabinet, as well as because children or thoughtless persons are apt to lean or hang upon the lid and so upset the cabinet.

The present invention aims to overcome these difficulties without destroying the sightliness of the cabinet, in a manner providing sufficient auxiliary support for the hinged lid to enable safe use thereof as a shelf, as well as preventing accidental tipping.

Another object is to provide such an automatically operable anti-tipping brace and auxiliary leg construction which when installed upon a cabinet or the like provided with wheels, casters or other means facilitating its movement along the floor, automatically renders such wheels or casters ineffective when the lid is opened, and at such time holds the assembly against rolling or sliding movement.

Still another object is the provision in such a construction of improved hinged attaching means for the bracing leg, connected to and operable by movement of the lid, yet which does not interfere with movement of the lid or by reacting against it tend to move the same in the performance of its bracing function, and in which the arrangement is such that the bracing thrust is actually taken, at least partly, directly by the cabinet, despite the fact that there is no direct connection of the bracing means to the container.

A further object is the arrangement of automatically operable bracing means for a cabinet having a hinged lid in such manner that the hinging and thrust-taking portions occupy when

performing their bracing functions a position between the lid and a portion of the cabinet.

A still further object is to provide bracing means of the character indicated which is so constructed as to also provide great bracing resistance to movement of the cabinet in a lateral direction, transverse to that in which the lid projects when open, and the parts and construction of which, further, are of extremely simple and inexpensive nature.

Other objects and advantages will be apparent from the following description wherein reference is made to the accompanying drawing illustrating the preferred embodiments of my invention and wherein similar reference numerals designate similar parts throughout the several views.

In the drawing:

Figure 1 is a perspective view of a cabinet incorporating the principles of the present invention, viewed from the rear.

Figure 2 is an end view of the same with the lid open.

Figure 3 is a detailed section taken substantially on the line 3—3 of Figure 1 and looking in the direction of the arrows.

Referring now to the drawing, the particular cabinet construction shown, while not at all a vital element of the invention, illustrates a typical application thereof. The cabinet, generally designated 11, is one especially constructed for the support of a household ironing machine, and is formed of sheet metal, having a base portion 12 upon which the machine or other contained object (unshown) may rest, supported upon legs as 10 and carrying an upstanding back wall as 13, braced if desired by gussets as 14 and hingedly supporting along its top edge a lid as 17. While the particular cabinet or container construction might of course be varied widely without departure from the spirit of the invention, this variety of cabinet has been chosen for illustrative purposes because, since they must ordinarily be elevated above the floor, and the machine carried thereby may be of considerable weight and incorporate elements which become heated, accidental tipping, as in event a child or thoughtless person should lean or hang upon the open lid or against the frame, might entail serious consequences. The upper or cover portion 17 of the particular cabinet illustrated serves not only as a hinged lid, but also carries the sidewalls, so that when in the inverted position it occupies when open, it provides a receptacle for completed work or other desired objects, as will be apparent from Figure 2. Such use and loading of the cover of course reduces the stability of the cabinet and forms an additional reason why some such bracing means as that herein disclosed is of advantage.

The lid may be fastened to the back wall of

the body by means of ordinary butt hinges as 19, and the bracing means is preferably hingedly attached to the lid portion, and comprises a pair of auxiliary leg portions 15-15' of rod or heavy wire looped to U form, the bottoms of the leg portion being joined by the integral cross bar portion 16 which carries feet 18 comprising in this instance lengths of rubber tubing or the like slipped over the bight portion 16.

At their upper ends the leg portions 15-15' may be pivotally attached to sheet metal strap hinge elements 20, as by means of cross pins as 21 retained by the lower ends of the hinge elements, which are wrapped thereabout. The portion of each hinge element into which the end of the rod projects is relieved as at 22, and at their upper ends the hinge elements are pivoted in brackets 24 secured to the back of the lid 12, which portion of the lid is coplanar with the back wall 13 of the cabinet body 11 when the lid is closed. The lower end of the swingable auxiliary or bracing leg assembly may be guided by a transverse check bar 25 provided with a central offset crank portion pivotally connected to each leg portion 15-15', as by means of sheet metal brackets 26 perforated for passage of the check rod therethrough and each folded about one of the leg rods. At its ends the check rod may be pivoted in brackets, as 28, carried by the rearmost legs 10 of the cabinet.

It will be seen that by virtue of this construction,—the check element being so proportioned that when the lid 12 is closed said element is somewhat inclined to the rear,—that is, its central throw portion lies farther back than its supporting pivots, when the lid is thrown open and the bracing leg assembly moves downwardly, the check element induces rearward and outward movement of the lower end thereof to such extent that the bracing legs assume the position shown in Figure 2 when the lid is completely opened, the length of said assembly being such that the feet 18 are urged into firm engagement with the floor or other supporting surface by the downward thrust imposed by the lid when in such position. If the feet 18 be formed of rubber or other material adapted to grip the floor surface, the auxiliary leg when in this operative position also strongly resists movement of the cabinet upon any casters or other rollable or slidable supporting means with which the cabinet may be equipped, typified in the drawing by the casters 30. The cabinet and supported machine or other load is thereby automatically locked against movement when the lid is open and the contents in use.

It will be seen that by reason of the hinging of the auxiliary leg assembly to a portion of the lid spaced from its pivotal support, in the manner disclosed, the entire bracing assembly may not only be raised clear of the floor, but swings in to a position virtually flush with or partly within the extended plane of the rear of the cabinet when the lid is closed, thereby reducing to a minimum the space occupied by the closed cabinet and releasing the anti-rolling means provided by the auxiliary legs.

While it will be apparent that the illustrated embodiment of my invention herein disclosed is well calculated to adequately fulfill the objects and advantages stated, it is to be understood that the invention is susceptible to variation,

modification and change within the spirit and scope of the subjoined claims.

What I claim is:

1. In combination with a container having an upstanding wall, hinging means supported by and spaced above the bottom of said wall, a lid carried by the hinging means, said lid having a hinged wall forming when the lid is closed a substantial continuation of said upstanding wall and being folded to a position beside said upstanding wall when the lid is open, at which time the lid as a whole projects laterally from the container, the lid also having a top wall at an angle to the hinged wall and spaced from the hinging means, means for bracing the container against tipping when the lid is open, comprising a bracing means swingably connected to the hinged wall of the lid between the hinging means and top wall lid and movable downward by opening movement of the lid to a position in which the upper end of said bracing means extends between the hinged wall and upstanding wall and lies against the latter, and check means articulating a lower portion of the bracing means to the container to move said means outward at the lower end thereof, said means being of sufficient length to reach the supporting surface and directly brace the container against tipping.

2. Apparatus as set forth in claim 1 characterized by articulating means incorporated in the bracing means at a point which lies beside the upstanding wall when the lid is open, at which articulating means the bracing means breaks when in operative position to allow transmission of the bracing thrust from the upstanding wall to the bracing means.

3. In combination with a container having an upstanding wall, hinging means supported by and spaced above the bottom of said wall, and a lid carried by the hinging means comprising a top wall, and a hinged wall extending upward from the hinging means when the lid is closed to form a substantially aligned continuation of said upstanding wall of the container, said hinged wall of the lid being swingable to a position beside the upstanding wall and extending downward from the hinging means when the lid is opened to a position in which it projects laterally from the container, means for bracing the container against tipping, comprising a bracing element connected to the hinged wall of the lid above the hinging means and below the top wall, whereby it may be moved downward by opening movement of the lid to a position in which the upper end of the bracing means lies between said walls, check means for moving outward the lower end of the bracing means when said bracing means moves downward, and pivot means dividing the bracing means into hinged sections and spaced from the point of connection of the bracing means and hinged wall a distance not materially less than that between such point and the top wall.

4. Apparatus as set forth in claim 3 in which the upstanding wall of the cabinet is of greater height than the hinged wall of the lid.

5. Apparatus as set forth in claim 3 in which the upstanding wall of the cabinet is of greater height than the hinged wall of the lid, and in which the bracing means bears against said upstanding wall when the lid is open.

HERMAN A. SPERLICH.