March 30, 1948. O. M. WAARA 2,438,772

CABINET WITH DOOR ACTUATED SHELF

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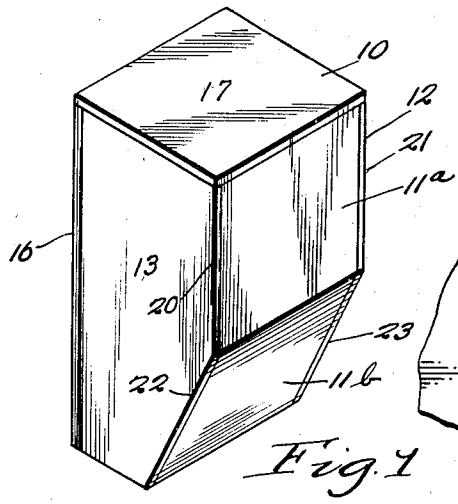


Fig. 1

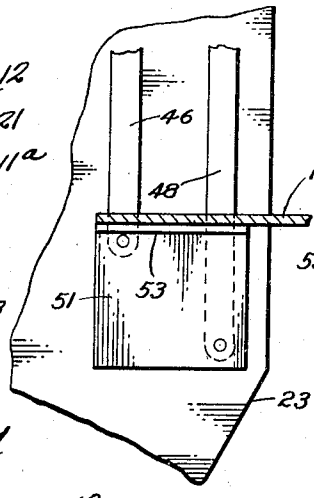


Fig. 9

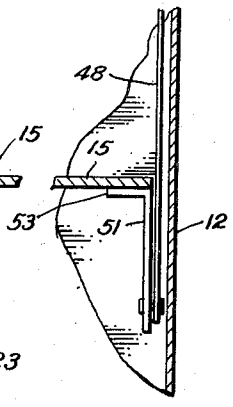


Fig. 2

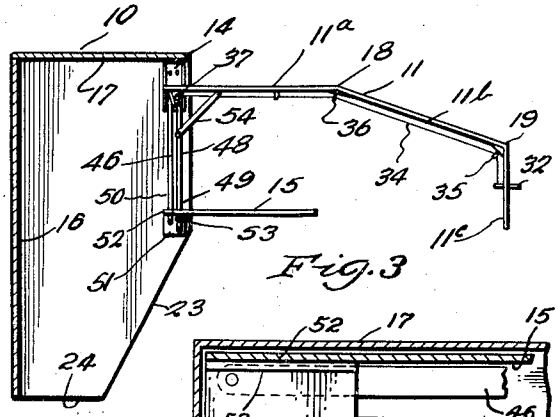


Fig. 3

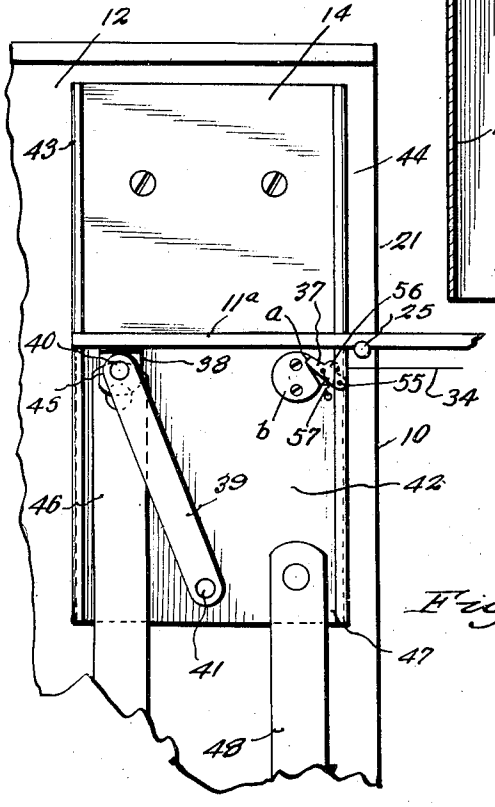


Fig. 4

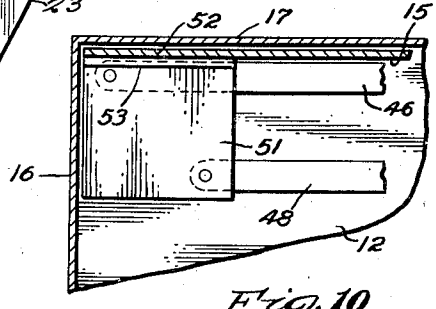


Fig. 10

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CABINET WITH DOOR ACTUATED SHELF

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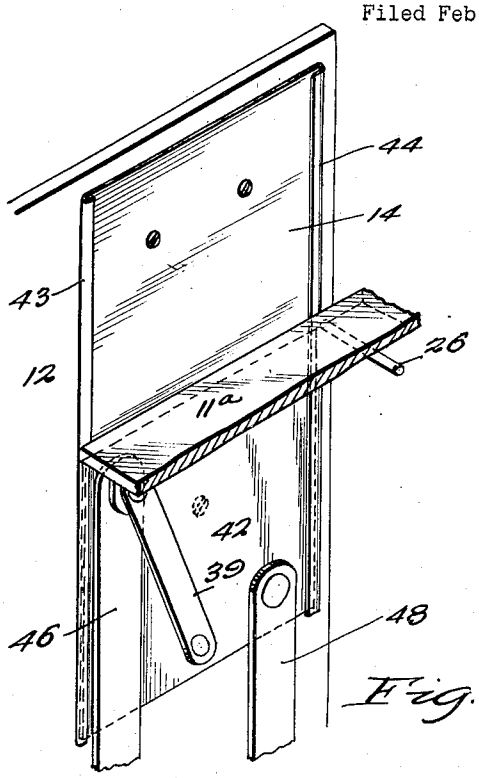


Fig. 5.

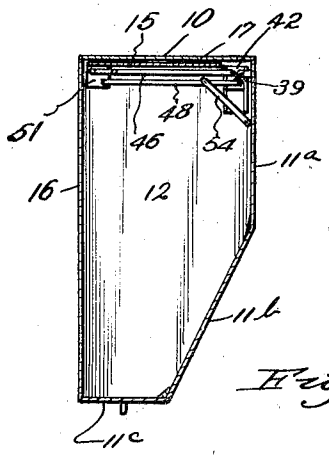


Fig. 6.

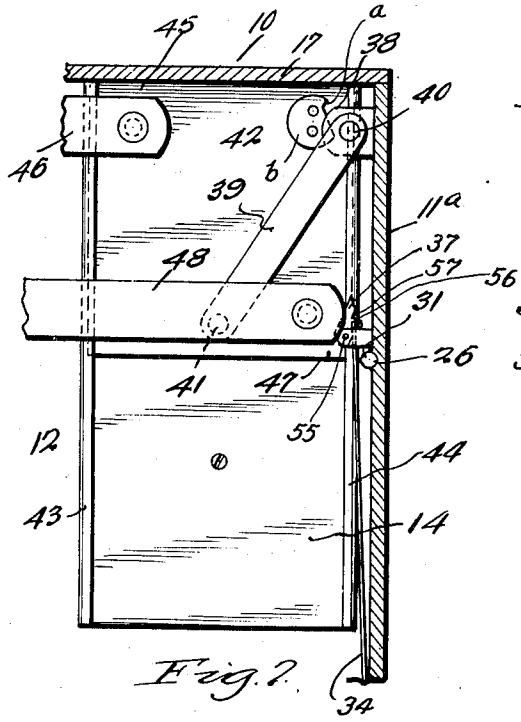


Fig. 7.

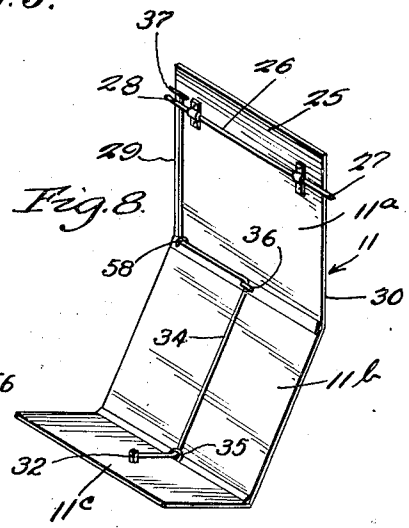


Fig. 8.

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CABINET WITH DOOR ACTUATED SHELF

Otto M. Waara, Detroit, Mich.

Application February 10, 1945, Serial No. 577,280

5 Claims. (Cl. 312—186)

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This invention relates to cabinets and has for its object to provide a cabinet which may be attached to a wall near the ceiling and having means whereby the contents may be lowered to within easy reach of a user.

Another object of the invention is to provide a wall cabinet so arranged that upon opening the door thereof the contents will be lowered and brought forward and outside of the cabinet.

Another object of the invention is to provide a cabinet having a disappearing shelf from which clothes hangers, or a series of shelves (not shown), may be suspended.

A further object of the invention is to provide a wall cabinet having an inclining lower portion, permitting it to be hung over radiators, beds, tables or other articles of furniture without interference therewith and for providing more head room in close quarters.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is a perspective view of my wall cabinet,

Figure 2 is an enlarged detail sectional view of a shelf support,

Figure 3 is a vertical sectional view of the cabinet, with its door open,

Figure 4 is an enlarged detail elevational view of a hanger showing the door open,

Figure 5 is a perspective view of the same,

Figure 6 is a view similar to Figure 3, the cabinet being closed,

Figure 7 is a view similar to Figure 4, the door being in closed position,

Figure 8 is a detail perspective view of a door shown from its inner side, the bracket bearings used in the suspension of the door being deleted from this figure.

Figure 9 is an enlarged detail view of a hanger member, and

Figure 10 is a similar view, the parts being shown in changed position.

In the accompanying drawings as above enumerated and in the following specification, like characters of reference indicate like parts throughout and 10 therein represents my cabinet, 11 its door, 12 one of its side walls and 13 the opposite side wall.

On both side walls 12 and 13, are attached hanger plates 14, and as these plates and also the door hanger elements, as well as the supporting and operating elements of a disappearing shelf 15, are identical in construction and operation, it will

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be necessary to described in detail only one assembly of the same.

Briefly, the cabinet consists of said side walls 12 and 13, a back wall 16, a top wall 17, and the door 11. This door is formed in three different planes 11*a*, 11*b* and 11*c*, which are integrally connected and reinforced at their departures 18 and 19, from a common plane. The front and bottom of the cabinet are normally open in three planes but are closable by the door. The upper edges 20 and 21 of the side walls are vertical and adapted to be closed by the portion 11*a* of the door; the lower edges 22 and 23 are beveled to incline inwardly and are adapted to be closed by the portion 11*b* of the door and the bottom 24 of the cabinet is adapted to be closed by the door portion 11*c*.

Adjacent to the uppermost edge 25, of the door portion 11*a*, is attached a transverse rod 26, the ends 27 and 28 of which project far enough beyond the edges 29 and 30 of the door to pivotally seat into bores 31 in the cabinet sides adjacent edges 20 and 21 thereof, whereby the door may be swung up to open the cabinet or down to close it. A pivoted handle 32 is mounted in the door section 11*c* on the inner part of which is attached a cord or cable 34 threaded through screw eyes 35, 58 and 36 and then attached to a spring actuated catch 37, the spring being indicated at 57, the pivot of the latch being indicated at 55 and the cable 34 being secured to the catch at 56, the catch being engageable with the cut in edge *a* of a disk *b* attached to the plate 14 to hold it in raised position. However, when it is desired to close the door, the handle 32 is raised, thus the cable 34 is drawn down, lifting the catch against its spring tension and releasing the door to permit closing thereof.

Attached to the inside of the edge 25 of door section 11*a*, is a bracket bearing 38 to which a link 39 is pivoted at 40 to said bearing; the lower end of which link is pivoted at 41 to a hanger plate 42 slidably seated in the grooves formed by the returned edges 43 and 44 of the plate 14. Pivoted to plate 42 at its upper inner corner 45 is a hanger bar 46 and pivoted to the lower outer corner 47 of plate 42 is another hanger bar 48. Upon closing the door 11, the link 39 will draw plate 42 (to which it is attached) up and with it the hanger bars 46 and 48. Attached pivotally to the lower ends 49 and 50 of the hangers 46 and 48 is a plate 51, and mounted on the flange 53 of this plate, is the inner end 52, of shelf 15, whereby it is maintained in horizontal position. Pivotally connected to the hanger bar 48 and

the door 11, is a link 54, which, when the door is closed down, swings the members 46, 48 and 15 to the horizontal position as illustrated in Figure 6 of the drawings, and the same closing action of the door draws the slide plate 42, up to the top of the cabinet. The in and up movement of the hanger bars will carry the shelf 15, in horizontal position, to the top of the cabinet and clothing or other material suspended from the bottom of said shelf 15 will be carried into the cabinet and enclosed therein when the door is closed down. Of course the opening of the door will reverse the above action, to bring the contents of the cabinet down and out.

This cabinet I believe will fill a long felt want for use in small and cramped quarters in which many persons must necessarily live. It should also be useful for stores where an inexpensive cabinet for keeping suits, dresses and other articles out of the dust but where access and display of the same may be quickly accomplished. Furthermore, if the door is made of glass the cabinet could be used for protecting from theft or breakage small valuable articles, while still displaying the same.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size and rearrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

The construction and use of my invention having now been explained, that which I claim as new and desire to protect by patent is:

1. The described device consisting of a cabinet having rear, side and top walls, a door formed in three planes for closing the front and bottom of the cabinet, a pivot rod spaced from the top wall of the cabinet and mounted in the side walls thereof and upon which the door is suspended, a swingable horizontal shelf connected with the cabinet by hanger bars, means whereby said bars are pivotally mounted at both ends thereof, said last means comprising slidable plates and swinging plates, and means connected to the door whereby said bars and plates are actuated to move the shelf by swinging movement of the door.

2. A cabinet having rear, side and top walls and a door constituting the front and bottom panels thereof and pivoted to said side walls adjacent the upper end of said door, a channel plate member secured to the inside upper portion of one of the said side walls, a hanger plate vertically slidably mounted in said channel plate member, said hanger plate having a link pivotally connected thereto and pivotally connected to the extreme upper end of said door, a pair of parallel hanger bars pivoted on said hanger plate and on a second plate, this second plate being thereby adapted to swing downwardly and forwardly when the door is opened, and a member horizontally disposed and carried by said second plate.

3. A cabinet according to claim 2 and in which said door has a front panel in two angularly disposed parts, the lower part being inclined from the vertical, the cabinet being reduced at the bottom, said channel plate, hanger plate, link and bars being provided in duplicate and positioned on each side of the cabinet, and said member extending between the duplicated second plates.

4. A cabinet according to claim 2 and in which said second plate has a horizontally disposed flange on the upper end thereof, and said member is supported on said flange.

5. A cabinet according to claim 2 and including latching means whereby the door may be latched in elevated open position and in closed position, the latching of the door in open position serving to lock said member in downward and forward position.

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