May 8, 1951 P. L. DU BOFF 2,552,158

COLLAPSIBLE CABINET

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Fig. 1.

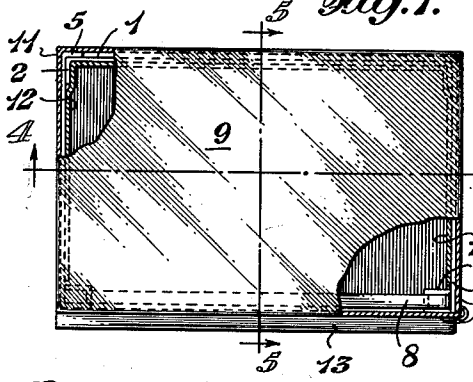


Fig. 3.

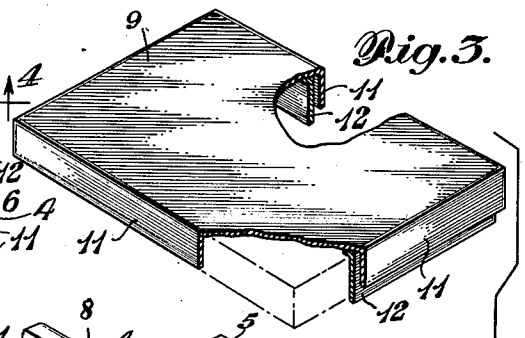
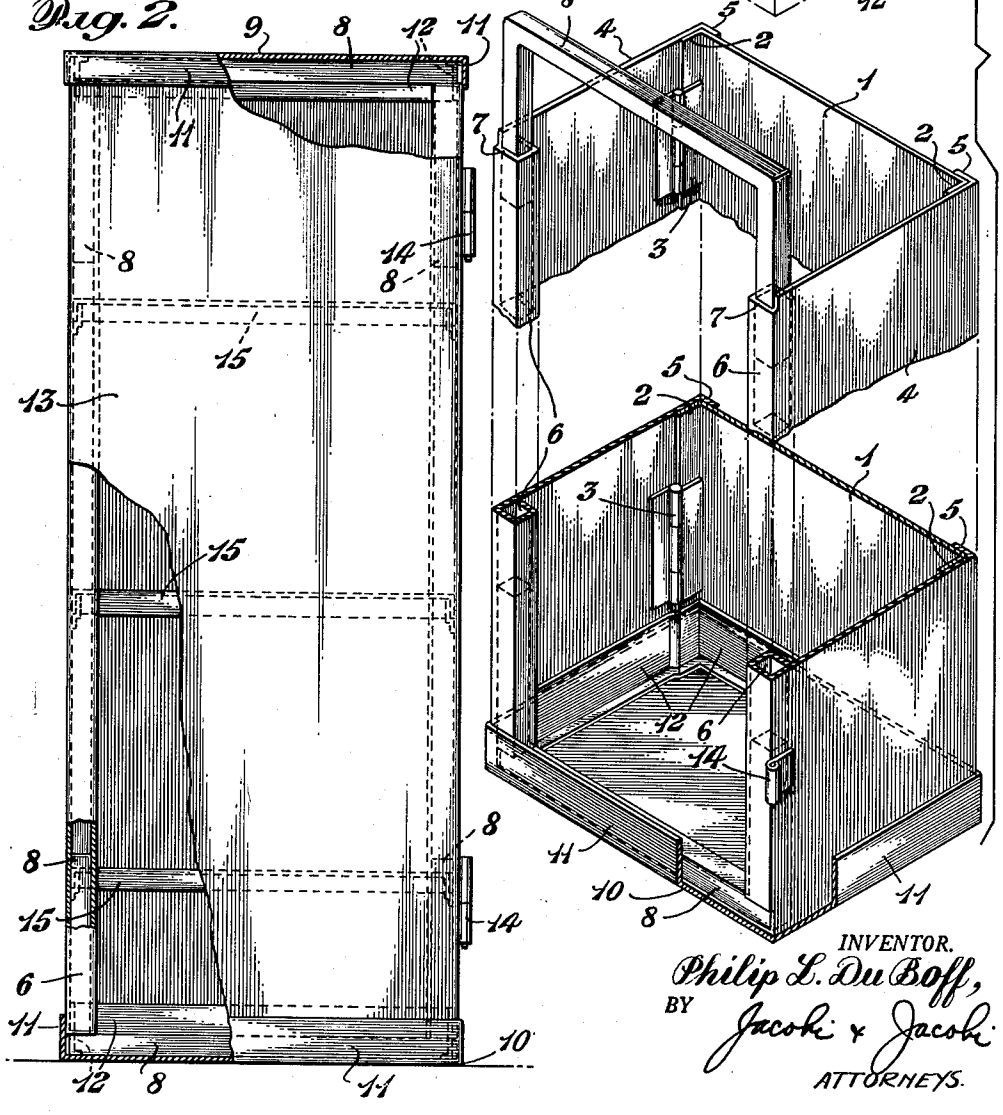


Fig. 2.



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Fig. 4.

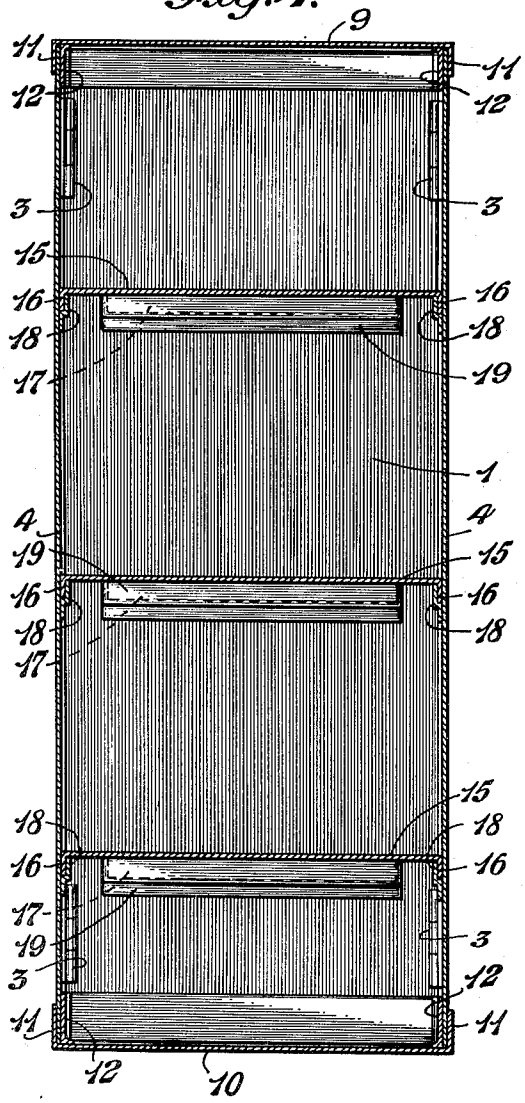
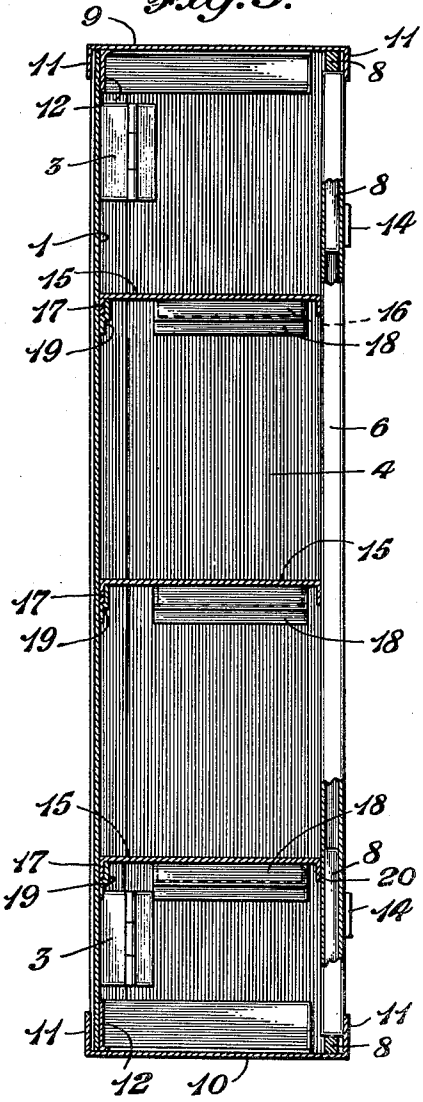


Fig. 5.



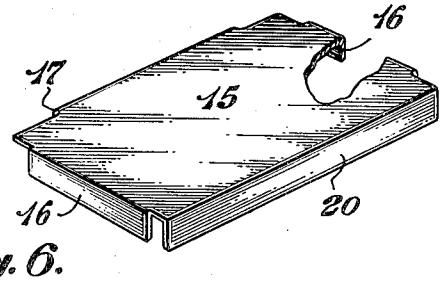


Fig. 6.

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COLLAPSIBLE CABINET

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Application July 12, 1949, Serial No. 104,186

2 Claims. (Cl. 312—262)

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My invention relates to new and useful improvements in cabinets and more particularly to collapsible cabinets of the floor type, the primary object being to provide a collapsible cabinet of the type shown in my co-pending joint application filed March 31, 1949, Serial No. 84,656, with certain specific improvements thereon to enhance the rigidity thereof and enable the cabinet to be more quickly and readily set up or knocked down, as desired.

A further object of the invention resides in providing a set of channels on the side walls with removable telescopic bracing frames therefor to produce a most rigid structure when the walls are set up for use.

Still another object of the invention resides in providing tubular channels at the front edges of the side walls of a collapsible cabinet with a pair of U-shaped bracing frames adapted to telescopically fit therein to produce rigidity and enable the cabinet to be set up and knocked down quite readily.

A still further object resides in providing base and top members for the cabinet which are constructed for ready application to the walls of the cabinet and removal therefrom and which will also aid in the rigidity of the device when set up.

Other objects, as set forth in the aforesaid co-pending application, including the dust-proof hinged wall features, are present herein.

With these and numerous other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings, forming a part of this application:

Figure 1 is a top plane view, with parts broken away and parts in section, of a collapsible cabinet constructed in accordance with my invention;

Figure 2 is a front elevation thereof, with parts broken away and parts in section;

Figure 3 is a perspective view of the cabinet, with the front door removed, parts broken away, parts in section and the top removed with parts thereof broken away and parts in section, showing particularly how the bracing frame is applied or removed;

Figure 4 is a vertical section through the cabinet, as seen on the line 4—4 of Figure 1;

Figure 5 is a similar view, as seen on the line 5—5 of Figure 1; and

Figure 6 is a perspective view of one of the shelves removed, with parts broken away and parts in section.

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As aforesaid, this application involves improvements on the co-opending application Serial No. 84,656, filed March 31, 1949, and in describing the invention, I shall refer to the drawings herein in which similar reference characters designate corresponding parts throughout the several views. This collapsible cabinet comprises a rear wall of any desired size, made preferably of metal, although it may be made of any desired material, said wall being identified by the numeral 1, and the side edges of said wall are bent forwardly to form flanges 2 to which are secured on the inner faces thereof portions of hinges 3. Side walls 4 are provided, the rear edges of which are bent angularly, as shown at 5, to form overlapping flanges on the rear face of the rear wall 1, as best illustrated in Figure 3 of the drawings. These side walls 4 carry the other sections of the hinges 3 so that the walls 4 may be collapsed inwardly against the rear wall 1 when desired but when set up in upright and effective position, as shown in Figure 3, a tight and dust-proof structure is provided at the corners, just as has been fully set forth in my co-pending joint application heretofore referred to.

The front edges of the side walls 4 are bent first inwardly, thence rearwardly and finally outwardly to abut the inner faces of said side walls and form the rectangular tubular channels 6 and said channels extend substantially the full height of the side walls, with the exception that same are short of the upper and lower edges of said side walls to form substantially shoulders or the like 7 at the upper and lower edges of said walls, this being clearly illustrated in Figure 3 of the drawings and for a purpose to be hereinafter and more particularly set forth.

Whereas in my co-pending application aforesaid, I have shown somewhat similar tubular channels at the front edges of the side walls, same were provided there for purposes of rigidity and with notches for interlocking with portions of the shelves. One of the essential features of the present improvement, however, is the use of these channels for purposes of rigidity with another form of interlocking means. To this end, I provide a pair of U-shaped reinforcing frames 8 which are rectangular in cross section to fit snugly within the tubular channels 6, as best illustrated in Figure 3 of the drawings. These U-shaped frames may be solid or hollow, as desired, but are preferably hollow to afford lightness. Thus, when the walls 4 are spread to their upright positions, these U-shaped frames 8, one from the bottom and one from the top, are inserted in the ends of the tubular

channels 6, so that the walls 4 are retained in their outspread or upright positions and locked rigidly.

Top and base members 9 and 10, respectively, are provided, same being of light construction. Each is provided with side and end flanges 11 to overlap the outer faces of the walls of the cabinet when applied thereto and each has applied thereto adjacent the rear and side flanges the additional and spaced flanges 12. These flanges 12 are of greater depth than the flanges 11, as clearly shown in Figures 3, 4 and 5, so that the top and base sections 9and 10 may be readily guided into position whereby the side and rear walls of the cabinet may be fitted quickly and readily between the flanges 11 and 12 of said top and base sections. The spacing between the flanges 11 and 12 is just sufficient to enable the walls to fit snugly therebetween.

As aforesaid, shoulders 7 are formed at the front edges of the side walls 4 where the tubular channels 6 terminate and this off-set permits the reinforcing frames 8 to be fitted into position so that the outer faces thereof will be flush with the upper and lower edges of said side walls 4. Obviously, this will permit the top and base sections to be fitted snugly into position when applied to the walls of the cabinet.

A door 13 is provided as a closure for the cabinet the same being mounted on hinges 14 carried on one side wall 4. Any form of latch or locking means may be provided therefor (not shown).

This type of cabinet may be used with or without shelves. I have shown in the drawings a series of shelves, the shelves being designated by the numeral 15. These shelves are substantially rectangular in design and are provided at the side edges thereof with depending flanges 16 and at the rear edge with a depending flange 17. These flanges 16 and 17 extend for the greater portion of the depth and width, respectively, of the shelf but are short of the ends thereof. On the side walls of the cabinet, at predetermined points thereon, I provide the pockets or the like 18 for the reception therein of the depending side flanges 16 of the shelves, while the rear wall 1 of the cabinet is provided with a series of pockets 19 into which may be fitted depending flange 17 on each shelf. Thus, it will be seen that the shelves may be readily and quickly inserted into position and removed when desired. The front end of each shelf is also provided with a depending flange 20 but this does not perform any particular useful function and may be shaped otherwise if desired. While the shelves may aid in forming a rigid structure, the rigidity is primarily provided through the means heretofore described and, if desired, the shelves may be omitted entirely.

From the foregoing description of the construction of my improved collapsible cabinet, the method of assembling or collapsing the same will be readily understood and it will be seen that I have provided a comparatively simple, inexpensive and efficient means for carrying out the various objects of the invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is apparent that various changes in form, proportion and in the minor details or construction may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described my invention, what I claim is:

1. In a collapsible cabinet, a rear wall, side walls having rear edges hinged to opposite side edges of said rear wall, said side walls being formed along their front edges, substantially the full length thereof, with tubular reinforcing channels having upper and lower ends terminating short of the upper and lower edges of the side walls, and substantially U-shaped frame members corresponding in width to the rear wall and having straight arms of a thickness adapting them to fit snugly in said tubular channels through the upper and lower ends thereof to rigidly retain the side walls in forwardly projecting outspread position with respect to the rear wall, the U-shaped frame members having inner faces of their bridge portions bearing against ends of the tubular channels and outer faces of their bridge portions flush with upper and lower edges of said side walls when the said frame members are in effective position.

2. In a collapsible cabinet, a rear wall, side walls hinged thereto, means removably engaged with said side walls for retaining the side walls in rigid outspread position, a top section and a base section, said sections being each provided with flanges along marginal edges thereof to overlap outer faces of said walls, and additional flanges on said top and base sections spaced inwardly from the rear and side marginal flanges thereof and of greater depth than the said marginal flanges and extending beyond the marginal flanges and constituting guides which fit within the cabinet against inner faces of the rear and side walls and guide the said end wall and side walls into spaces between the companion flanges when said top and bottom sections are applied to the cabinet.

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