Nov. 29, 1949 L. R. HARP 2,489,774

CABINET AND TOWEL RACK

Filed June 5, 1946

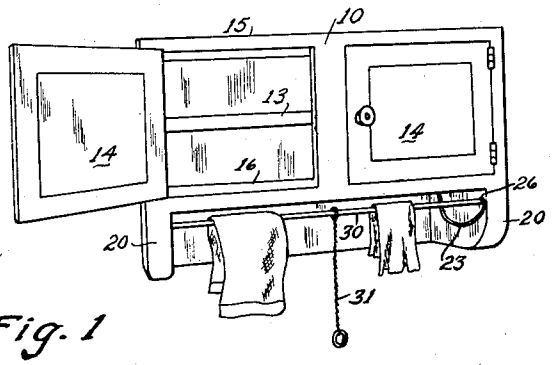


Fig. 1

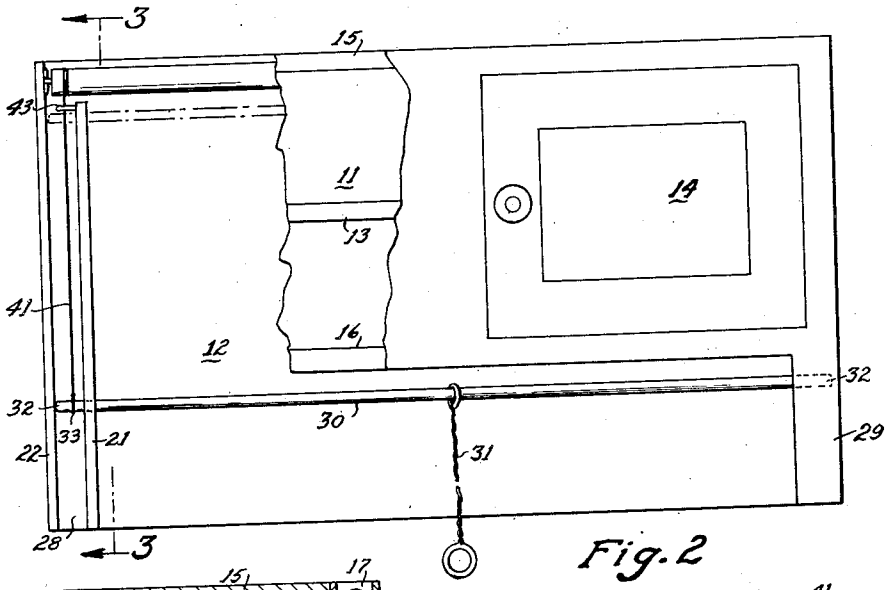


Fig. 2

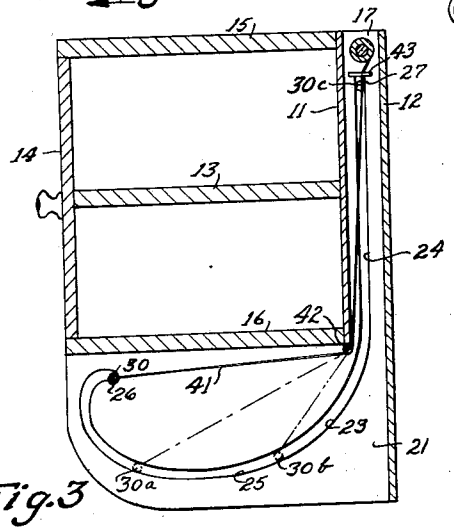


Fig. 3

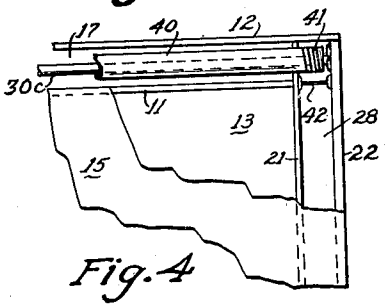


Fig. 4

INVENTOR.

Lee Roy Harp

BY

Morton & Brockman

ATT.

Patented Nov. 29, 1949 2,489,774

UNITED STATES PATENT OFFICE

2,489,774

CABINET AND TOWEL RACK

Lee Roy Harp, Piqua, Ohio

Application June 5, 1946, Serial No. 674,490

3 Claims. (Cl. 312—176)

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This invention relates to kitchen cabinets and particularly to a kitchen cabinet having a concealed towel drying compartment.

The primary object of this invention is to provide a kitchen cabinet having a compartment in which a dish towel or other small cloth object may be held and concealed from view, while being dried, without interfering with the normal use of the cabinet.

Another object is to provide a device of the type stated that may be economically manufactured and easily installed in a kitchen without requiring any special skill or knowledge on the part of the workman.

Still another object is to provide a towel drier that may be manufactured in the form of an accessory unit that may be combined with and attached to a conventional kitchen cabinet.

These and other objects of the invention will become apparent from a reading of the following specification and claims, together with the accompanying drawing, in which like parts are referred to and indicated by like reference characters and wherein:

Figure 1 is a perspective view of the device constituting this invention showing the towel bar in its exposed condition with dish towels retained thereon;

Figure 2 is a front elevation of the device with a portion broken away to show construction;

Figure 3 is a cross-sectional view taken along the line and in the direction of the arrows 3—3 of the Figure 2; and

Figure 4 is a top view of a portion of the device with a corner broken away to show construction.

Conducive to a better understanding of the instant invention it may be well to point out that the conventional preparation and serving of food results in the necessity of washing and drying the equipment used.

Wet dish rags and dish towels accumulated at the end of the cleaning operation present a problem in drying, since they must be spread out free of contact with each other if they are to dry quickly and without mildew. The usual practice has been to spread them on chair backs or racks which is unsightly and occupies space in the working area of the kitchen.

My invention resolves this problem by providing a device that occupies the unused wall space

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above the working area, and not only serves a useful purpose in providing a drying compartment wherein wet articles can be held and concealed from view while they are drying, but also provides a storage compartment wherein dishes and non-perishable foods may be kept.

The device as illustrated in Figure 1 may be made from any suitable sheet material, but in its preferred form is made of plywood sections joined together in accordance with standard cabinet making practice to form an inner chamber or compartment 10 having a bottom 16, a top 15, a back panel or intermediate wall 11, end panels 21, a shelf 13 and doors 14.

The support members 20 are formed of the spaced panels 21 and 22 which extend below the bottom 16 of the chamber and beyond the back panel 11 as shown in Figures 1, 2, 3 and 4. The panels 21 and 22 are connected by the laterally extending walls 29 along their front and bottom edges, and by the top 15 along their top edges. The two support members are connected across the back by the back panel or rear wall 12 as shown in Figures 1, 2, 3 and 4. This construction results in the formation of the enclosed cavity 28 between the panels 21 and 22, and the shaft-like enclosure 17, open at its top and bottom, between the two spaced back panels 11 and 12 as illustrated in Figures 2, 3 and 4.

The panels 21 have similar slots or tracks 23 cut through them, each track having a straight section 24 and a curved section 25. The tracks are so placed that they will line up with each other, with their straight sections centered in the shaft 17, and their curved sections brought to the front and then curved toward the rear as shown in Figures 1 and 3.

A rack or bar 30 of non-rusting material and of a diameter slightly smaller than the width of the track is slideably engaged with and freely movable longitudinally of the two tracks. The rack being long enough to have its ends 32 extend beyond the panels 21 into the cavities 28, as shown in Figures 1, 2, 3 and 4.

An automatic spring wound reel 40 is mounted on the two support panels 22 above the upper termini of the straight sections 24 of the tracks 23 as shown in Figures 2, 3 and 4.

The reel 40 has a flexible link 41 which may be a cord or a length of piano-wire, attached

near each end as shown in Figures 2 and 4. The link passes through the eyelet 43, which is aligned with and above the track terminus 27, and is then attached at a point 33 near the end 32 of the bar 30 as shown in Figure 2. The links are long enough to permit the bar to travel from the upper terminus 27 to the lower terminus 26 of the track 23 and still leave a few turns of the link around the reel.

A freely rotatable guide roller 42 is mounted between the panels 21 and 22 at a point adjacent to and in front of the point of intersection of the curved and straight sections of the track as shown in Figures 3 and 4.

A length of cord or chain 31 is attached to the center of the bar, as shown in Figures 1 and 2, which serves as a handle. The length of the handle is such that it can be reached with the finger when the bar is at the top of the track in its concealed position.

The flexible link is wound around the reel and attached to the bar in such a way that the bar is held at the terminus 27 of the track, as indicated by position 30c in Figure 3. By pulling on the handle 31 the bar is moved along the track to take the successive position 30b, 30a and finally 30. As the link 41 passes the guide roller 42 it comes in contact with the roller and remains in sliding contact with the roller as long as the bar remains in the curved section 25 of the track. Furthermore, as the bar moves away from the track terminus 27 the tension on the link becomes greater as the spring in the reel is wound up by the revolving reel 40. Therefore, there is a continually increasing force exerted on the bar tending to return it to its first position at 30c. However, due to the combination of the peculiar curvature of the track and the fact that the link 41 travels directly from the guide roller 42 to the bar 30, instead of following the path of the track, when the bar reaches the terminus 26, a force is brought to bear upon the bar which tends to cause it to continue to move beyond the terminus 26, which in turn results in the bar being firmly held at the terminus 26 in the position designated as 30 as illustrated in Figure 3.

In using the device the dish towels or dish rags are placed upon the bar or rack 30, as shown in Figure 1. The handle is pulled directly away from the terminus 26 of the track and the bar is started along the curved section 25. As soon as the bar has moved into the downward sweep of the curve the tension on the link keeps it in motion, and the bar assumes the alternate positions 30a, 30b and finally 30c, carrying the towels with it into the concealed shaft 17, as the links 41 are wound up by the spring reel 40 as illustrated in Figures 2 and 3.

Since the shaft 17 is open to the atmosphere at the top and bottom, the natural circulation of the rising warm air in the kitchen causes warm air to rise in the shaft 17 which quickly dries the towels.

Since they are both out of sight and out of the way, the dry towels may be left in their concealed position until they are again needed when they may be quickly pulled down ready for instant use.

In an alternate form the support units 20 may be manufactured as separate matching units to be attached to the ends of a conventional kitchen cabinet which would then occupy the position of the chamber portion 10, as illustrated in the accompanying drawing.

It will now be clear that there is provided a device which accomplishes the objectives heretofore set forth. While the invention has been disclosed in its preferred form; it is to be understood that the specific embodiment thereof as described and illustrated herein is not to be considered in a limited sense as there may be other forms or modifications of the invention which should also be construed to come within the scope of the appended claims.

I claim:

1. A towel drying rack, comprising in combination, two spaced support members and including a rear wall and an intermediate wall extending laterally therebetween, the said support members having an aligned downwardly extending and outwardly curved slot in each of the opposed sides thereof, a roller mounted between the said members and walls proximate to the top thereof and adjacent to the said slots, a laterally extending bar having ends thereof slidable in the spaced slots and capable of retaining a towel thereon, and a cord member connected to the said bar and roller and windable on the latter.

2. A device of the type defined in claim 1 and further characterized by the said roller having a spring operating means thereon whereby the cord member may be automatically wound thereon and the bar raised thereby.

3. A towel drying rack, comprising in combination, two spaced and facing hollow support members and including a hollow wall extending laterally therebetween, the said hollow wall being open at the top and bottom, each of the said support members having aligned tracks in their facing surfaces, each of the said tracks having a substantially vertical section aligned with the said hollow wall and a substantially horizontal section extending forwardly therefrom, the said horizontal section being curved upon itself at its forward terminus; guide means mounted in the support members proximate the intersection of the vertical and horizontal track section; a spring tensioned roller mounted between the said support members in the hollow wall proximate to the top thereof and adjacent to the said tracks; a laterally extending bar having ends thereof slidable in the aligned tracks and capable of retaining a towel thereon; and a cord member connected to the said bar and spring tensioned roller and windable on the latter, the said cord member being engageable with the said guide means to hold the bar under tension and immovable when at the forward terminus of the track, the said cord member being automatically disengaged from the guide means when the bar is in the vertical section of the track to move the bar to the top of the track and hollow wall, in which position the retained towel is dried by the air currents rising through the open ends of the hollow wall.

LEE ROY HARP.

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The following references are of record in the file of this patent:

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