

June 10, 1941.

J. M. FORMAN

2,244,833

TOWEL CABINET

Filed Feb. 18, 1939

2 Sheets-Sheet 1

Fig. 1.

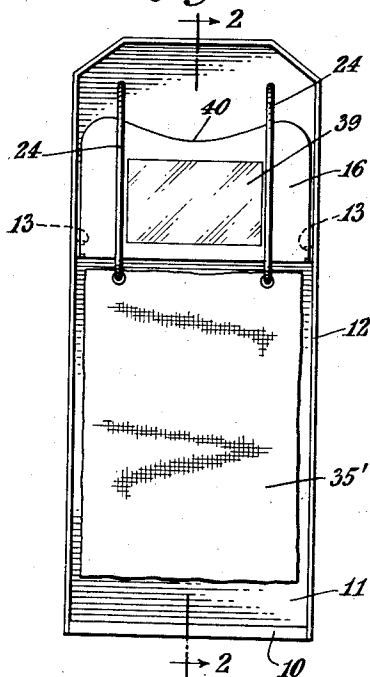


Fig. 2.

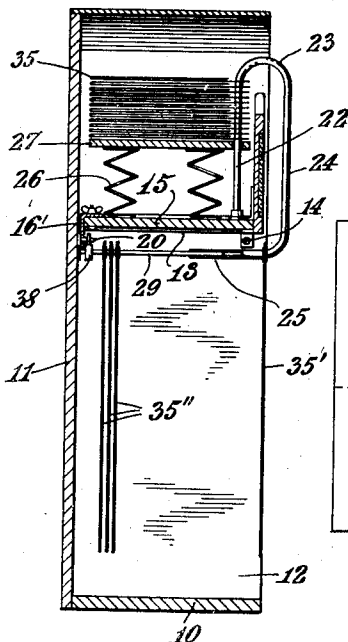


Fig. 3.

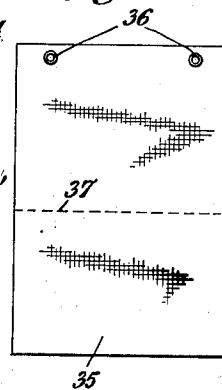


Fig. 4.

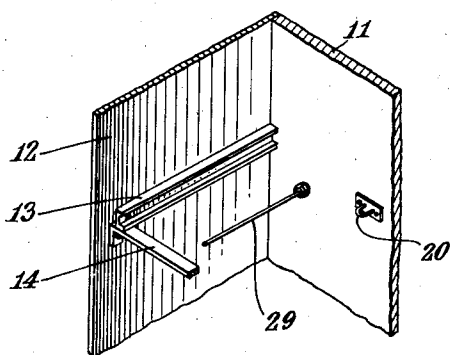


Fig. 5.

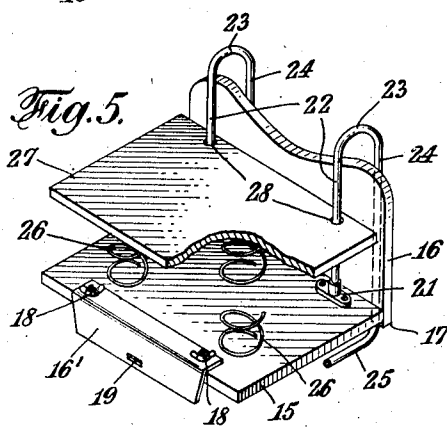


Fig. 6.

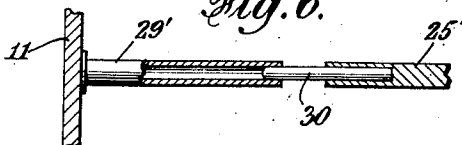
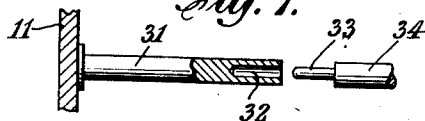


Fig. 7.



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2 Sheets-Sheet 2

Fig. 8.

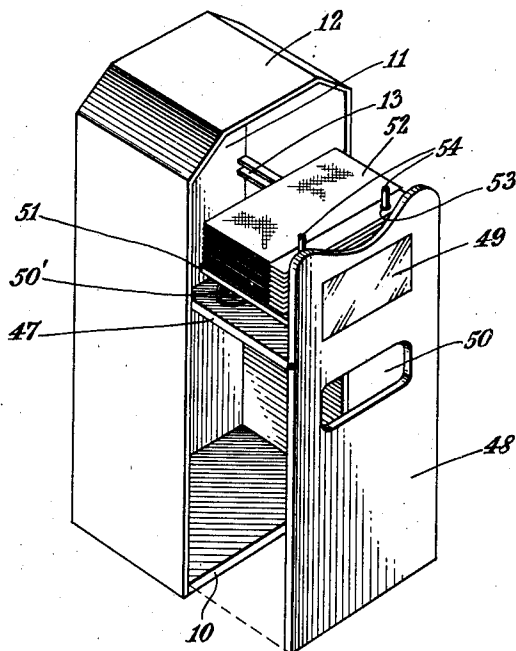


Fig. 9.

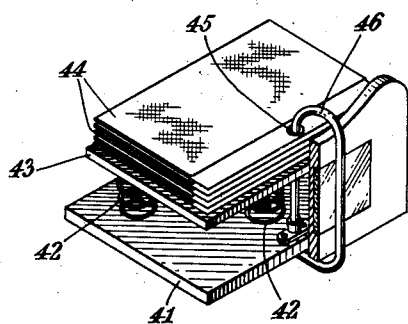
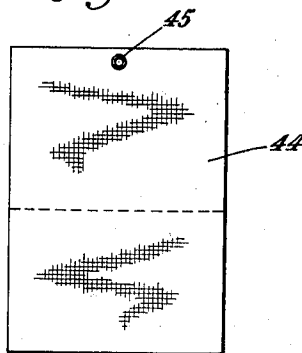


Fig. 10.



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UNITED STATES PATENT OFFICE

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TOWEL CABINET

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11 Claims. (Cl. 312—37)

This invention relates to towel cabinets of the kind wherein individual towels may be supplied to successive users.

One of the objects of this invention is to provide a relatively inexpensive, compact device of this kind which is simple in its construction, positive in its operation, and sanitary in its use, and will occupy a minimum of space.

Another object of this invention is to provide suitable means for storing or packing a number of fresh towels in such a way that always the top towel may be readily reached and used, without touching any towels beneath it, and wherein the used towel is automatically placed in a suspended and out-of-the way position.

Another object of this invention is to provide a sanitary towel cabinet wherein clean towels are compactly stacked in a horizontal plane, by folding each towel upon itself, and wherein the stacked towels are automatically moved in vertical direction upwards to a reachable position, as they are being removed for use.

Another object of this invention is to provide in a towel cabinet a compact towel manipulating unit which can be easily handled, and which unit consists of a towel support or towel carrier, for both clean and used towels, and which unit is slidably mounted within the upper portion of the cabinet, so that it may be readily moved outwards, for the removal of soiled towels and for the placement thereof of fresh towels, whereupon the unit is slid back into place and locked in position, whereby all towels are simultaneously held against removal.

Another object of this invention is to provide within a towel cabinet a towel carrier or support, equipped with a spring-mounted, vertically removable towel supporting platform, and wherein both the platform and the towels thereupon are guided in upward direction, and wherein the guides are so shaped and arranged as to form guides, supports, and locking means for the towels in the cabinet.

The foregoing and still further objects will become more fully apparent from the ensuing description, in conjunction with the accompanying drawings, and wherein

Fig. 1 is a front elevation of a cabinet in its presently preferred form;

Fig. 2 is a cross section therethrough, taken on lines 2—2 of Fig. 1;

Fig. 3 illustrates a towel used in my cabinet;

Fig. 4 is a partial perspective view of an interior portion of my cabinet;

Fig. 5 is a perspective view of a slidably mounted, removable unit, containing the towel support or towel carrier employed in my cabinet;

Figs. 6 and 7 illustrate different forms of co-operating, registering and locking means of the lower ends of my combined towel guides and

suspensions, disposed below the platform of the towel handling unit employed in my device;

Fig. 8 is a perspective view of a modified form of a towel cabinet, from which the towels are bodily removable;

Fig. 9 illustrates a perspective view of a modified, slidable towel supporting unit; and

Fig. 10 is a plan view of a towel, used with the unit shown in Fig. 9.

Referring now specifically to the figures, numeral 10 denotes the bottom of my cabinet, from which extends upwardly and rearwardly back 11. Over the back and attached to bottom 10 is an enclosure 12, made preferably of sheet metal. In this manner a box-like structure is provided which has a closed back and an open front.

Secured to the interior faces at the upper portion of the casing, and opposite one another, are channel guides 13, clearly seen in Fig. 4. At the open front and somewhat below guides 13, is a brace 14, which holds the side walls of the cabinet together, and serves as inward and outward stop for a towel support or carrier unit, illustrated in Fig. 5. This towel support consists of a base 15, and a front panel 16, which extends at 17 somewhat below base 15, and co-operates with brace 14. To the rear of the base there is secured an angular member 16', which constitutes one part of the locking means provided for the towel support. Member 16' is preferably removably secured, by suitable instrumentalities, such as indicated at 18, to base 15 and is provided with an aperture 19 for the reception of an eye or hook 20, shown clearly in Fig. 4. The lower portion of member 16' is adapted to cooperate with brace 14, for limiting the outward movement of the towel support.

Extending from base 15 upwards and fixedly secured thereto at 21, is a pair of guide means, each having an interior upward portion 22, a bent-over top portion 23, and a downwardly directed exterior portion 24, which is bent below base 15 and terminates in end portion 25. The latter projects into the cabinet.

Carried or supported by a plurality of coil springs 26, extending from base 15, there will be seen towel supporting platform 27, which is adapted to be movable in vertical directions relative to base 15, and which is guided at 23 by the inner upward legs 22 of the two guide means extending from the base.

Below the base and attached to and extending from the back 11 of the cabinet, are two parallel bars 29, as clearly seen in Fig. 4. These bars are spaced at the distance corresponding to the spacing of the two guide members, and are adapted to engage, interlock with, and to form continuations of guide member ends 25, when the towel support unit is within the cabinet, in the manner shown in Fig. 2. The construction of bars

29 and of ends 25 of the guides may be designed in various forms. One of such constructions is illustrated in Fig. 6, where bar 29' is in the form of a tube, whereas guide end 25' is made of a solid rod from which extends a reduced rod or pin 30. The latter is adapted to slide into member 29'. Obviously, guide 25' may be made of tubing, as shown in Fig. 2. In Fig. 7 a similar construction is illustrated, wherein bar 31 is made of solid stock and is provided with a bore 32 for the reception of pin 33, extending from solid end 34 of the guide bar. The guide members shown in Figs. 2 and 5 are preferably made of tubing, but it is obvious that they may be constructed from solid rods, as shown in Figs. 6 and 7.

Referring to Fig. 3, there is illustrated a towel 35, provided with a pair of eyelets 36, which are spaced at the same distance as are the guide members. Towel 35, when placed upon platform 27, is intended to be folded upon itself along broken line 37.

In Fig. 2 there is illustrated the manner in which clean folded towels 35 are stocked up, one on top the other, and placed upon and supported by platform 27. It will be also observed that the interior guide portion 22 passes through the towel ends, which are provided with eyelet 36, as explained in connection with Fig. 3. The guides not only serve as guide means for platform 27, but are also employed for orderly arranging the towels and guiding them before and during use, and serving for their suspension after use. This is clearly illustrated in Fig. 2, where a used towel is indicated at 35', hanging in the front of the cabinet, whereas other used towels 35'' are shown moved towards the back and into the cabinet.

From Fig. 2 it will be also observed that locking eyelet 28, having passed through aperture 19 of the downward extension of member 16, is engaged by a lock 33, which prevents the outward movement of the towel support. In this locked position of the unit, it is also impossible to remove any of the towels from the guides.

Filling operation

When the cabinet is to be newly supplied with clean towels, lock 33 is opened and removed, and the towel support or carrier unit is slid out to its extreme outward position until member 16 almost comes in contact with stop brace 14. At this position of the unit, bars 29 disengage lower ends 25 of the guides. The latter are now free to receive clean towels, which are moved upwards and backwards onto platform 27. When they reach the platform they are folded up in the manner illustrated in Fig. 2.

Springs 26 are so designed that when a certain number of towels is placed upon platform 27, the weight of the towels will compress the springs sufficiently to accommodate the full stock or one "fill" of towels, but always leaving the uppermost towel in readiness and in a convenient position to be drawn out from the cabinet for use. When the platform is completely stocked with folded-up towels, the filled unit is moved inwards until loop 26 again passes through aperture 19 of member 16', whereupon lock 33 is applied. At this position of the unit, extensions 29 interlock with ends 25 of the guides and form continuations of the latter. When all towels have been used, the device is again opened, the used towels are removed from bars 29, and fresh towels are placed upon platform 27 in the manner previously described.

Advantages

From the foregoing description it will be clearly evident that my device is of a very simple construction, and consequently is inexpensive in its fabrication. It is also positive in its function and sanitary in its use, since only the top towel may be withdrawn, without touching the towel immediately beneath it. As soon as a towel is released after use, it moves by its own weight onto ends 25 of the guides and is in an out-of-the-way position for the next towel user. As the used towels accumulate, they automatically move inwards.

In order to facilitate a more positive inward movement of used towels, it is quite obvious that bars 29, as well as ends 25, may be somewhat inclined to provide a sloping suspension. Since such a construction is so obvious, it has not been illustrated.

For the purpose of enhancing the appearance of my cabinet, and for rendering it even more useful, I provide at the front of panel 16 a mirror 39, or other practical devices, of which the mirror is a symbolic representation. It will be also observed from Figs. 1 and 5 that the top edge of front panel 16 is somewhat depressed at 40, to provide sufficient space for the hand reaching for a fresh towel.

In the foregoing description I have defined the preferred form of my device. A modified construction of a lockable towel supporting unit is illustrated in Fig. 9, provided with a base 41, upon which are mounted springs 42. These springs hold in suspension towel supporting platform 43 upon which are placed folded towels 44, shown open in Fig. 10. These towels are similar to towels 35 of Figs. 2 and 3, with the exception that they only have one guide eyelet 45, since this modified towel supporting unit is constructed with but a single platform and towel guide 46.

This guide is constructed in the identical fashion as are the two towel guides described in connection with Figures 1, 2 and 5, and operates on the same principle. Except for the single guide member 46, the towel handling unit illustrated in Fig. 9 is not different from the unit seen in Fig. 5, and serves the same purpose.

A somewhat simpler and different arrangement is represented by the embodiment of my invention shown in Fig. 8. This form of my towel cabinet is intended for use in places where it is desired to remove the towels bodily from the cabinet, to use them, and to return the soiled towels into the lower cabinet compartment. Obviously, such type of towel cabinet requires no locking arrangements as safety means against loss or the removal of towels, for which reason locking means are not provided.

At the interior of the cabinet there will be seen the previously mentioned supporting channels 13 for the base 47 of the towel unit, to which base is now secured a long front panel 48, adapted to cover the major portion of the open front of the cabinet. Below mirror 49 I preferably provide an opening 50, for facilitating the insertion of soiled towels into the lower cabinet compartment.

Base 47 carries, by means of springs 50', a towel supporting platform 51, upon which are stacked folded towels 52, similar to towels 35 of Fig. 3. These towels are shown provided with a pair of eyelets 53, although single eyelet towels may be used as well. A departure from the pre-

viously described embodiments is presented in connection with the platform and towel guides 54, which extend in the usual way from base 47, but terminate at about the height of the upper edge of front panel 48, so as to facilitate the bodily removal of the towels for use remote from the cabinet.

Also in this construction, as well as in the modification shown in Fig. 9, it is my intention to provide movement limiting means for the towel carriers, similar to those described in connection with the device shown in Figs. 2, 4, and 5, which means are omitted in the modifications for the sake of simplicity.

While I have illustrated and described a few specific constructions of my device, it is quite obvious that changes and improvements may be incorporated therein without departing from the broad scope of my invention, as expressed in the annexed claims.

I claim:

1. In a towel cabinet, a box-like casing, open at one end, a slidably mounted towel carrier within the casing, means provided with said casing for locking the carrier against removal from the casing, an upwardly movable towel supporting platform associated with said carrier, a pair of guide members for the platform directed from the carrier upwards, then downwards, without the carrier, and finally inwards, beneath the carrier, said guide members serving also as guide means for, and adapted to prevent the removal of towels placed upon said platform.

2. In a towel cabinet, a box-like casing open at the front and closed at the back, a carrier for a plurality of folded, superimposed towels removably mounted at the upper cabinet portion, carrier supports provided at the interior of the casing for facilitating the sliding of the carrier into or out of the cabinet, stop means for limiting the outward movement of the carrier, said carrier comprising a base having locking means for preventing its removal from the casing, a spring-supported, vertically movable towel supporting platform mounted upon the base, a pair of guide members for the platform extending upwardly from the base and passing through the platform, each of said guide members comprising a continuous structure having upwardly and downwardly directed portions, and an extension directed into the casing, below the towel carrier base, a pair of continuation members extending from the back of the casing and adapted to engage and register with the extensions of said guide members, said guide members serving as guides for, and to prevent the removal of the towels placed upon said platform.

3. In a towel cabinet, a casing open at the front, a towel support slidably mounted in the upper portion of the casing and provided with locking means for preventing its removal, means for limiting the outward movement of the support, the latter comprising a base, a vertically movable towel supporting platform, a plurality of guide means for the platform, said guide means serving also as guides and suspensions for towels, and adapted to prevent their removal, and a pair of extensions mounted at the back of the casing and registering with said guide means so as to form their continuations.

4. In a towel cabinet, a casing closed at its back and open at its front, a slidably mounted towel support in the upper end of the casing, means for limiting the outward sliding move-

ment of the support, said support comprising a base and a front panel, a spring-mounted towel platform vertically movable in respect to the base, a pair of platform guides secured at one end to the base and passing through the platform, said guides comprising interior upwardly and exterior downwardly directed portions, the latter portions having ends directed into the casing below the base, a pair of bars secured to and extending from the back of the casing and engaging and forming continuations of the ends of the guides below the base, when the towel support is within the casing, said platform guides and said bars serving as guide means, suspensions and locking means for towels placed in the cabinet, and means for locking the towel support in place within the cabinet.

5. In a towel cabinet, as set forth in claim 4, and a towel having a pair of eyelets secured by the latter to said platform guides and placed folded upon said platform.

6. In a towel cabinet, a casing, closed at its back and open at its front, a towel carrier slidably associated with the upper casing portion, a vertically movable, spring-mounted towel supporting platform extending from the carrier, a towel, folded upon itself, placed upon the platform, and guide means passing through the platform and said towel and extending outwards and downwards and below the carrier.

7. In a towel cabinet, a casing having a closed back and an open front, a towel carrier, a pair of guides in said casing for slidably supporting the carrier within the casing, said carrier comprising a base, a spring mounted towel supporting platform, adapted to move in vertical direction relative to the base, guide means for the towel platform and towels reposing thereupon, extending from the base, and a front panel secured to the front edge of the base, said guide means passing exteriorly to said panel downwards and beneath said base.

8. In a towel cabinet, as set forth in claim 7, said guide means comprising an instrumentality extending upwards from the base and through said platform and through towels placed upon the latter.

9. In a towel cabinet, as set forth in claim 7, said guide means constituting a single continuous member extending vertically from the center of the base through the platform, said member being bent upon itself and directed downwardly and beneath the base.

10. In a towel cabinet, a casing having a closed back and an open front, a towel carrier, a pair of substantially horizontal guides in said casing for slidably supporting the carrier, the latter comprising a substantially horizontally disposed base and a substantially horizontally disposed spring-mounted towel supporting platform, movable vertically relative to the base, guide means for the towel platform and towels reposing thereupon, said guide means extending vertically from the base and through the platform and the towels thereon, and a front panel secured to the front edge of the base and extending vertically, the upper end of the front panel being distanced from the top of the casing to provide access to the towels.

11. In a towel cabinet as set forth in claim 10, and wherein said front panel is adapted to close the open front of the casing and an aperture provided in the panel and below the base.

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