Jan. 13, 1931. F. M. STEINER 1,788,962

TOWEL CABINET

Filed Jan. 3. 1928

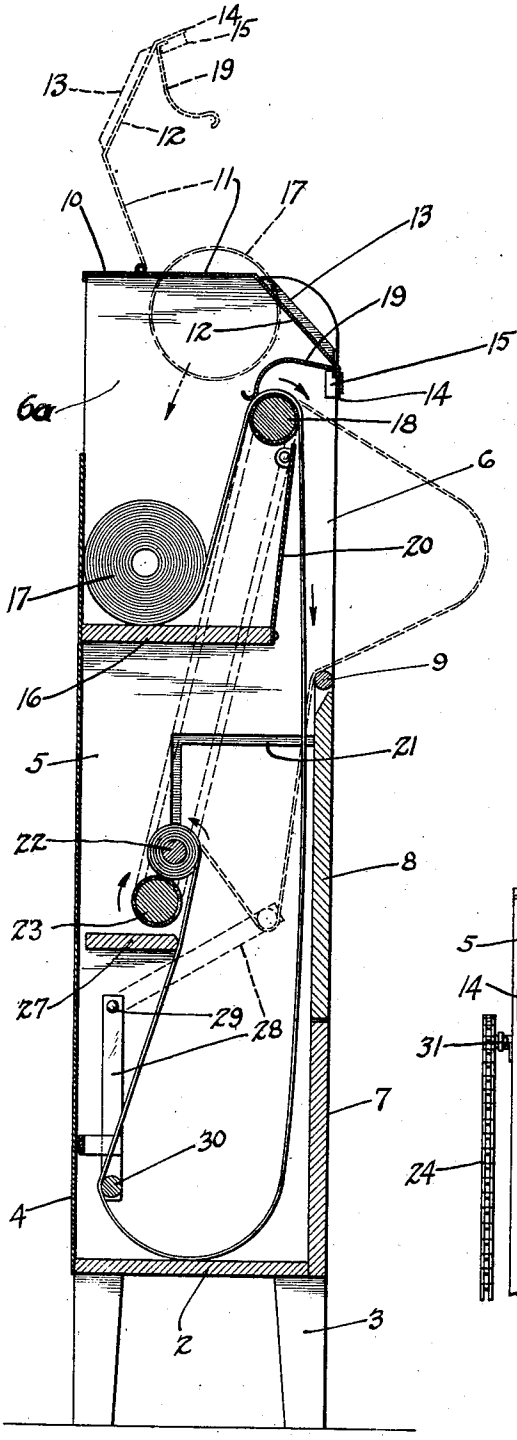


FIG. 1

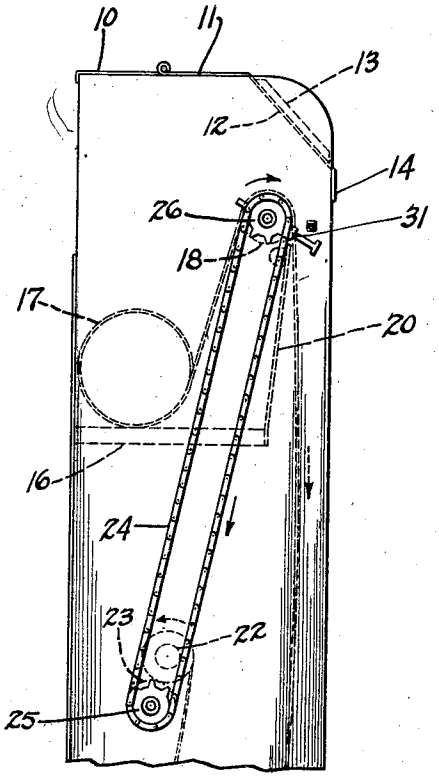


FIG. 2

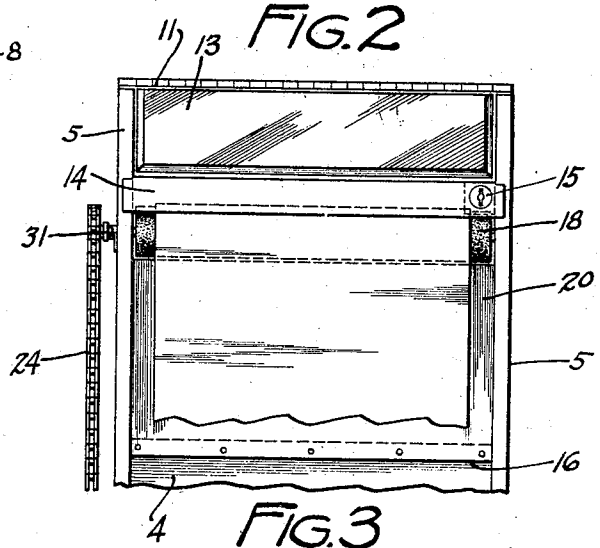


FIG. 3

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UNITED STATES PATENT OFFICE

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TOWEL CABINET

Application filed January 3, 1928. Serial No. 244,222.

My invention relates to cabinets for delivering or dispensing a supply of clean towel to users, and the object of the invention is to provide a simple convenient means for placing the supply of clean towel in the cabinet without the necessity of using an opening at the back of the cabinet or moving the cabinet away from the wall to provide access to such an opening.

A further object is to provide a cabinet so constructed that a loop of clean towel ready to use can be conveniently formed in loading the cabinet without the necessity of dragging the towel web over the sanded delivery roll.

A further object is to provide a towel cabinet that is adapted for the insertion of the clean supply of towel into the cabinet, and the removal of the soiled portion thereof by an attendant standing in one position in front of the cabinet.

A further object is to provide a simple form of cabinet which will be economical to build and of such construction that it will be impossible for a user or a malicious or mischievous person to raise the web out of contact with the delivery roll and pull a long strip of towel out of the cabinet.

Other objects of the invention will appear from the following detailed description in the accompanying drawings:

Figure 1 is a vertical sectional view through the towel cabinet embodying my invention;

Figure 2 is a side view of the upper portion of the cabinet showing the driving connection between the delivery and takeup feed rolls;

Figure 3 is a partial front elevation showing the exposed portion of the web accessible to the user of the towel.

In the drawing, 2 represents the bottom of the cabinet having suitable supporting legs 3; 4 the rear wall thereof; 5 the side walls and 6 an opening at the front of the cabinet near the top through which access may be had to the clean web of towel. 7 represents a front panel at the base of the cabinet; 8 a suitable door through which access may be had to the base, and near this door at the top I prefer to provide an antifriction roll 9 for contact with the towel web to aid in directing it from the using position into the lower portion of the cabinet.

At the top of the cabinet at the rear is a plate 10 extending transversely between the side walls and closing the upper rear portion of the cabinet. To this plate a door 11 is connected, preferably by suitable hinges. This door extends forwardly from the plate substantially in the plane thereof and has a downwardly turned panel portion 12 that is inclined with respect to the front wall of the cabinet and is adapted to support a suitable mirror 13 in position where it may be easily viewed by the person standing in front of the cabinet. A flange 14 preferably forms a downward continuation of the panel 12 and is equipped with a suitable lock device 15 by means of which the door may be secured and access to the cabinet through the top thereof prevented. A suitable shelf 16 is preferably provided within the cabinet to support a supply of clean towel 17, and a delivery feed roll 18 is mounted in the side walls of the cabinet above the shelf 16 and over this feed roll the web of clean towel is stretched, the roll being located preferably near the opening 6, with sufficient space between the roll and the plate 10 to allow the convenient insertion of the towel supply within the cabinet when the door 11 is raised to the dotted line position shown in Figure 1. At that time a considerable portion of the upper portion of the cabinet will be exposed and the supply of towel can be easily and quickly inserted and dropped upon the shelf 16 from whence the clean web may be stretched over the delivery roll 18.

As shown in Figure 1, I may provide an opening 6a in the upper rear portion of the cabinet through which access may be had to the clean towel compartment if desired. This opening normally will be concealed when the cabinet stands against the wall but is accessible when the cabinet is drawn out. Generally, however, I prefer to use the door opening in the top of the cabinet for access

to the clean towel compartment as the use of this door will make it unnecessary to move the cabinet preliminary to the loading operation.

A guard plate 19 is preferably mounted on the lower portion of the panel 12 to close the gap between the panel and the delivery roll and bear upon the web of towel with sufficient pressure to provide the desired resistance to the pull on the web and also to straighten out the wrinkles or folds that may be formed in the web so that when the web is delivered from the roll 18, it will be smooth and even and can be easily drawn out through the opening to a using position by a person standing in front of the cabinet.

I prefer also to provide a guard plate 20 extending from the forward edge of the shelf 16 upwardly to a point near the delivery roll, this guard plate normally concealing the supply of clean towel and preventing direct access thereto by a person standing in front of the cabinet opening.

The side walls of the cabinet below the opening have guides 21 therein to receive the bearings of a takeup roll 22 that may be easily inserted into the guides or withdrawn therefrom, and a takeup feed roll 23 corresponding to the delivery roll 18 is mounted in bearings in the side walls of the cabinet and has a sprocket chain drive connection 24 between the sprocket wheels 25 and 26 mounted respectively on the shafts of the rolls 23 and 18. These delivery and takeup feed rolls will have suitable roughened surfaces for gripping the towel web and will revolve in the same direction as indicated by the arrows in Figure 1 and the web of towel on the roll 22 contacting with the roll 23 will be wound in the opposite direction to wind the web on the roll. A shelf 27 is preferably provided below and near the roll 23 to prevent the person stretching the towel web in the cabinet from passing this web up in the rear of the roll 23. As illustrated in Figure 1, this soiled web should be stretched to the takeup roll 22 in front of the roll 23, an operation which can be easily performed when the door 8 is open.

I prefer also to provide a pull-back device comprising arms 28 pivoted at 29 and having a roll 30 around which the web of towel is passed. When the user pulls on the clean web, this pull-back device will be raised to the position indicated by dotted lines in Figure 1 and then when the user releases the towel web, the weight of the pull-back device will draw the web within the cabinet to the position indicated by full lines in Figure 1, and with the revolution of the roll 23 a certain length of the soiled web will be wound up on the roll 22 with each operation of the cabinet.

As indicated in Figure 2, I provide a stop device 31 which has the function of limiting the movement of the roll 18 to one revolution, it being necessary for the user to release the stop device each time a length of towel is to be drawn out of the cabinet.

In using the device, a person standing in front of the cabinet will trip the lock device, then grasp the towel web and draw outwardly and downwardly thereon, a sufficient length of towel being delivered with one revolution of the roll 18 for wiping purposes. This revolution of the roll 18 will impart a corresponding movement to the roll 23 and wind up the loose web in the lower portion of the cabinet, raising the pull-back device to the position shown by dotted lines. Then when the web of towel is released by the user, the weight of the pull-back will draw the towel into the cabinet where it will be partially concealed and inconspicuous.

From the foregoing description and examination of the drawings it will be noted that in loading the cabinet with the clean towel the attendant can with this structure very conveniently form the desired loop of clean towel for the user at the front of the cabinet without the necessity of dragging the towel web over the rough surfaced delivery roll and therefore some little time may be saved in the operation of loading the cabinet and adjusting the clean web. Furthermore, when the clean towel is in place and the door closed at the top of the cabinet it will not be possible for a person standing in front of the cabinet to raise the clean web out of contact with the roll and drag any considerable portion out of the cabinet. The position of the door is such that the raising of the towel web out of contact with the roll will be practically impossible and the only way a person in front of the cabinet can obtain a length of clean towel will be by the revolution of the delivery feed roll and this revolution will of course be governed as usual in cabinets of this type by a suitable time mechanism. In various ways the details of construction herein disclosed and described may be modified and still be within the scope of my invention.

I claim as my invention:

1. A towel cabinet having an opening in the top thereof through which a supply of clean towel may be inserted into the cabinet, a door normally closing said opening, the front of the cabinet having an opening in its upper portion through which the clean towel may be drawn and a door for closing only the lower part of the opening, a feed roll in the cabinet in the rear of the upper portion of said opening, a shelf in the upper portion of the cabinet to receive a clean towel supply said shelf having at its outer end a guard extending upwardly from said shelf approximately to said feed roll to separate the clean portion of the towel from the soiled portion, and a take up roll below said opening ex-

posed for loading the cabinet when said door is opened, said take up roll being geared to said feed roll.

2. A towel cabinet comprising a shelf to support a supply of towel, a door above the shelf openable upwardly to expose the towel supply, a feed roll above the shelf, and a guard extending from the shelf practically to the feed roll, the cabinet having an opening in front of said shelf and guard, a take up roll below the shelf geared to said feed roll, a door in front of said take up roll, means behind the door and between the take up roll and feed roll to pull the towel in the cabinet and hold it stretched in front of said opening, and means extending from the first mentioned door and resting on said feed roll to smooth the towel web.

In witness whereof, I have hereunto set my hand this 28th day of December, 1927.

FRANK M. STEINER.