April 29, 1930. F. G. STEINER 1,756,840

TOWEL CABINET

Original Filed March 15, 1926 2 Sheets-Sheet 1

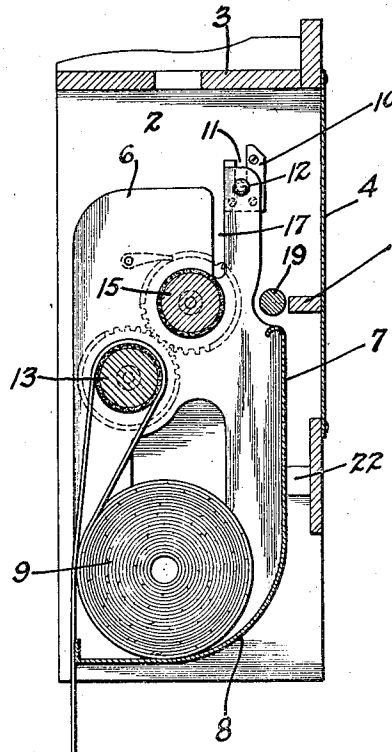


FIG. 1

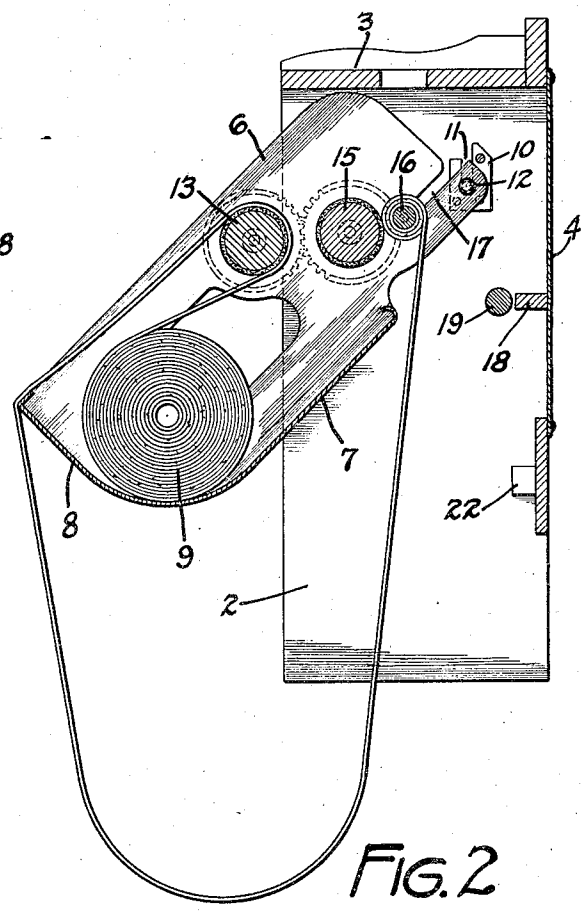


FIG. 2

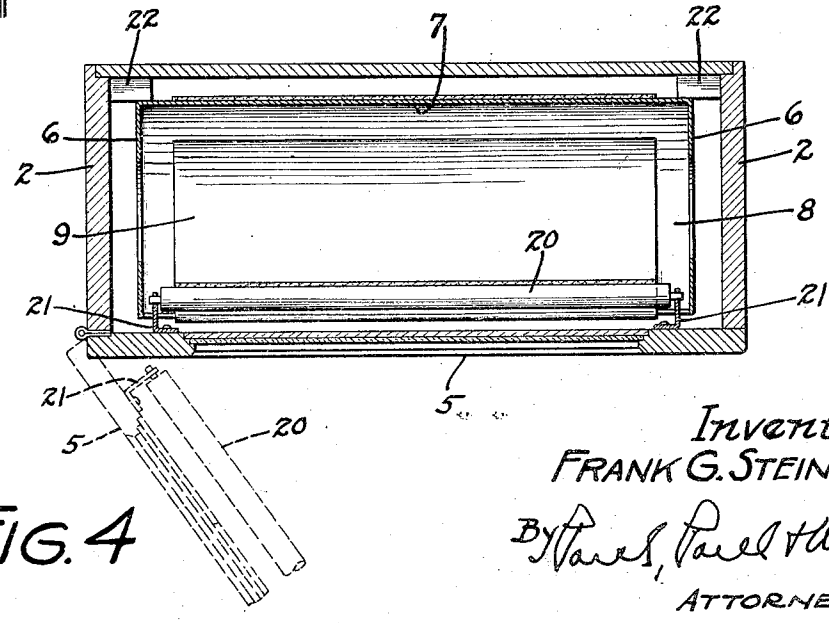


FIG. 4

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April 29, 1930. F. G. STEINER 1,756,840

TOWEL CABINET

Original Filed March 15, 1926 2 Sheets-Sheet 2

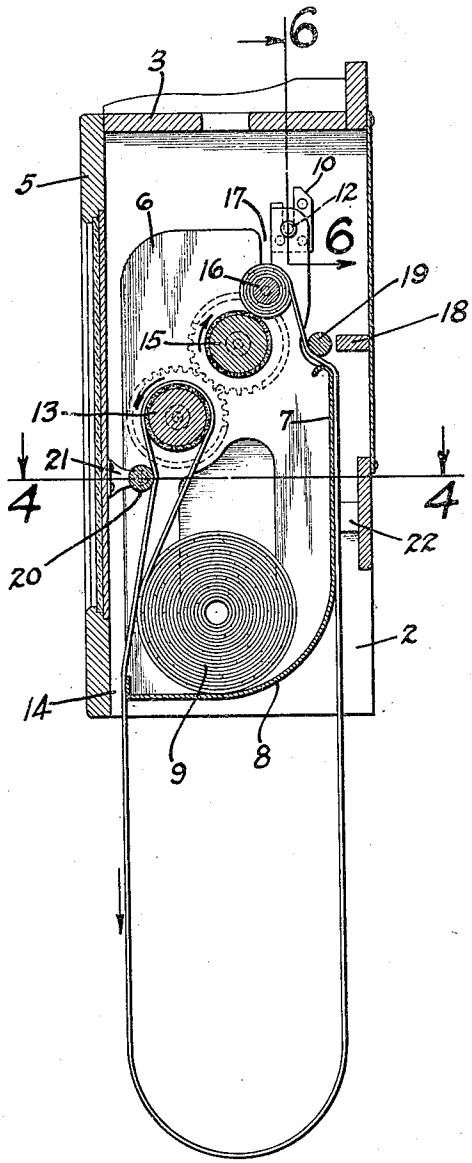


FIG. 3

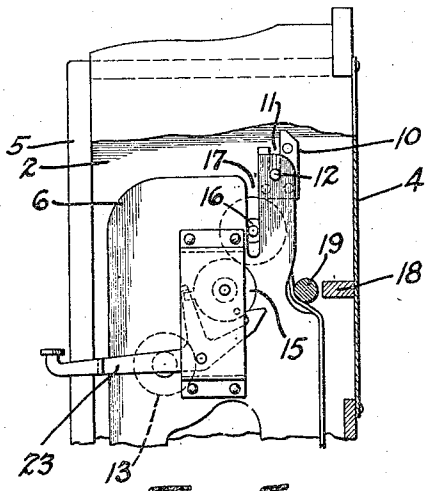


FIG. 5

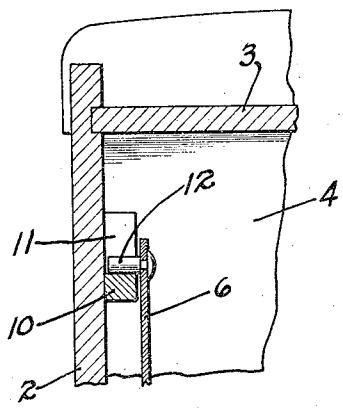


FIG. 6

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UNITED STATES PATENT OFFICE

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TOWEL CABINET

Application filed March 15, 1926, Serial No. 94,807. Renewed June 7, 1929.

My invention relates to a class of towel cabinets comprising an outer normally stationary section and an inner movable section which in this particular application is hinged or pivotally supported at the top so that it is adapted to swing outwardly through the open front of the cabinet and allow the convenient stretching of the clean towel web over the delivery feed roll and the convenient passing of this web upwardly through the rear portion of the stationary section of the cabinet between the swinging section and the rear wall of the stationary section, provision being made for supporting the takeup roll near the top of the swinging section to which the loose web may be easily carried and wound thereon for contact with the takeup feed roll. The general structure and arrangement of the stationary and swinging sections corresponds to the cabinet shown and described in a companion application, Case A, filed by me on the 12th day of March, 1926, Serial Number 94,184, with this distinction, however, that instead of pivoting the inner section at the lower forward portion thereof, to swing outwardly from the top I reverse the arrangement, pivoting the inner section at the upper rear portion so that the lower part will swing outwardly through the open front of the cabinet and provide ample room in the rear thereof for the stretching of the web of towel to the takeup roll. An inspection of the drawings will indicate the inconvenience, if not the practical impossibility, of carrying this web up between the walls of the sections or in the rear of the inner section unless provision be made for temporarily making the space or opening larger so that the operator can conveniently use his hands in stretching the web of towel to the takeup roll.

The invention consists generally in various constructions and combinations all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a vertical sectional view through a towel cabinet embodying my invention showing the normal position of the sections with the loop of clean towel passed over the delivery feed roll;

Figure 2 is a similar view showing the loop of towel carried up in the rear of the inner section when moved outwardly;

Figure 3 is a vertical sectional view illustrating the cabinet ready for use;

Figure 4 is a sectional view on the line 4—4 of Figure 3;

Figure 5 is a detail sectional view showing the device for controlling the feed; and

Figure 6 is a sectional view on the line 6—6 of Figure 3.

In the drawing, the outer or normally stationary section of the cabinet is shown consisting of side walls 2, a top 3, and a rear wall 4. The front of this cabinet is open and is normally closed by a door 5. This section of the cabinet is mounted on the wall or other suitable support a sufficient distance from the floor so that the loop of towel depending below the cabinet can be easily reached and used, the inner movable section of the cabinet comprising side walls 6 and a rear wall 7, the lower portion of which is preferably curved forwardly to form a floor 8 adapted to receive and support a roll or fold of clean towel 9 that is inserted into the inner section when the door 5 is opened.

The outer section has its side walls provided with blocks 10 having slots 11 therein adapted to receive trunnions 12 mounted in the side wall 6, these trunnions being preferably in the upper rear portion of the side wall 6 in the rear of the axes of the feed rolls and also in the rear of the normal position of the clean towel roll in the bottom of the inner section so that normally the weight of the feed rolls and the clean towel will tend to hold the pivoted inner section in its proper position in the cabinet in contact with the stops in the rear portion thereof. A delivery feed roll 13 is mounted in the upper forward portion of the inner section and has a sanded or roughened surface over which the loose web of clean towel is carried from the clean roll and from thence downwardly through a gap or passage 14 provided between the bottom of the inner section and the lower portion of the cabinet door. Through this gap or

opening, the web of clean towel depends below the cabinet and is pulled by the user. A second roll which I prefer to designate as the takeup roll 15 is mounted in the upper portion of the inner section of the cabinet and is intergeared with the roll 13 as indicated, so that when the roll 13 is revolved a corresponding movement in the opposite direction will be imparted to the roll 15 and the rolls being of substantially the same diameter they will have the same peripheral speed and as the user of the towel pulls down on the clean web and revolves the delivery feed roll, a corresponding movement will be imparted to the takeup feed roll. A takeup roll 16 is mounted in guides 17 in the upper portion of the inner section and when the end of the loose web is wound on the takeup roll 16 and it is in its normal position in the guides, the web will contact by gravity with the takeup feed roll 15 and the takeup roll will be revolved by frictional contact with the surface of the feed roll so that as the user of the towel withdraws a section of clean web from the cabinet, a corresponding section will be wound on the takeup roll.

A shelf 18 is mounted on the rear wall 4 of the stationary section of the cabinet and adjacent this shelf I prefer to provide a tension roll or guide 19 in position to receive the web of towel at a point near the upper end of the wall 7 of the inner section, the tension roll operating to put a slight tension on the web and smooth out any wrinkles or folds therein so that the web will be delivered in flattened form to the takeup roll. I also prefer to mount a tension roll 20 in brackets 21 secured to the door 5, the roll 20 bearing on the web of towel and tending to draw the web snugly against the surface of the delivery roll and insuring a sufficient frictional contact to drive the feed roll when a pull is exerted on the web of towel. Suitable stops 22 are provided in the rear of the stationary section to limit the backward swinging movement of the inner section and provide a space of sufficient width between the walls of the sections to allow the convenient movement of the web of towel therein to the takeup roll.

I prefer to provide a manually operated locking device 23 in connection with the delivery feed roll 13 and adapted to be tripped by the user to allow one complete revolution of the feed roll, provision being made for automatically locking the feed roll at the end of each revolution. This locking device is shown and described in detail in the application of Gottfrid Olson, #76,528, filed December 19, 1925, and I make no claim to the same herein.

An examination of Figure 3 shows the cabinet ready for use, the loop of towel depending through the lower forward portion of the cabinet, the clean portion being carried upwardly at the rear of the cabinet at such a distance from the forward portion that there is no opportunity for the web of clean towel coming in contact and being infected or contaminated by the soiled portion of the web. The user standing in front of the cabinet and operating the locking lever can easily grasp the web of towel and pull down thereon to deliver a clean section and simultaneously the movement of the delivery roll will impart a corresponding movement to the takeup feed roll to wind up a correspounding length of web on the takeup roll. The forward tilting of the section only allows convenient stretching of the towel web over the delivery feed roll, but the person loading the cabinet can very easily, when the inner section is swung forward, pass the loose end of the web up in the rear of the forwardly tilted section and wind the end of this loose web on the takeup roll preparatory to placing it in its guides in contact with the takeup feed roll. Whenever desired, the inner section may be lifted entirely clear of and removed from the outer section by raising the inner section and lifting the trunnions clear of their bearings in the supporting blocks 10.

I claim as my invention:

1. A towel cabinet comprising relatively movable outer and inner sections having substantially open fronts, a closure member for the rear of the inner section, said inner section being adapted to receive a supply of clean towel, a feed roll mounted in said inner section, a take up roll mounted in said inner section adjacent the feed roll, driving means between said rolls, the relative movement of said inner and outer sections adapting said first named feed roll for convenient stretching of the clean web thereover, and the convenient carrying of the loose end of the web up between the inner section and the rear wall of the outer section to said take up roll.

2. A towel cabinet comprising an outer normally stationary section having an opening in its bottom, an open front and a door therefor and an inner section pivotally supported at its upper end and adapted to swing outwardly through the open front of said stationary section to provide an unobstructed space between the corresponding rear portions of said sections, the lower portion of said inner section being adapted to receive a supply of clean towels, a delivery feed roll mounted in said inner section above the supply of clean towel, a take up feed roll having a driving connection with said delivery feed roll for simultaneous movement, a take up roll for the soiled towel mounted in the upper rear portion of said inner section the construction being such that a web of towel may be passed from said towel supply over said delivery feed roll then below the pivoted section and up through the space between the sections when the pivoted section is swung outwardly to said take up roll.

3. A towel cabinet comprising an outer normally stationary section with an opening in its bottom and an inner movable section open at its front and closed at its back, delivery and take up feed rolls mounted in said inner section and intergeared for simultaneous movement, said inner section being adapted to receive a supply of clean towel, a take up roll mounted in said inner section and said inner section being pivotally supported above said take up roll, the construction being such that a web of towel may be passed from said towel supply over said delivery feed roll then below the pivoted section and up through the space between the sections when the pivoted section is swung outwardly to said take up roll.

4. A towel cabinet comprising an outer normally stationary section having a rear wall and open bottom and an open front and door therefor having a friction roll on its inner side, an inner section having a bottom and rear wall and a pivotal support in the upper rear portion of said outer section and adapted to swing forwardly to provide an unobstructed space between the rear walls of said sections, said inner section adapted to receive a supply of clean towel, delivery and take up feed rolls having a driving connection between them mounted in the upper portion of said inner section, a take up roll adjacent said take up feed roll, the construction being such that a web of towel may be passed from said towel supply over said delivery feed roll then below the pivoted section and up through the space between the sections when the pivoted section is swung outwardly to said take up roll.

5. A towel cabinet comprising an outer stationary section having an opening in its bottom, an open front and door therefor, an inner section having guide slots therein and trunnions on the upper rear portions thereof, the side walls of said outer section having seats thereon for said trunnions to adapt said inner section for swinging outwardly through the front of the cabinet when the door is opened, said inner section being adapted to receive a supply of clean towel, a delivery feed roll over which a web of clean towel may be carried, a take up feed roll intergeared with said delivery feed roll for corresponding peripheral speed, and a take up roll mounted in said guide slots in said inner section and around which a web of towel may be wound for contact with said take up feed roll, the construction being such that a loop of clean towel may depend from said delivery feed roll below said cabinet and the forward tilting of said inner section may allow convenient passing of a web of towel up through the opening in the bottom of the outer section and between the rear walls of said outer and inner sections to said take up roll.

6. A towel cabinet having mechanism for feeding clean toweling into position of use and thereafter drawing the used portion of said toweling into the cabinet, a frame in which said mechanism is mounted, means associated with the cabinet for permitting said frame to be shifted to form a space between the said mechanism and a wall of said cabinet to facilitate threading a portion of said toweling over parts of said mechanism, a shield separating the soiled and clean portions of said toweling, and means for moving said shield when said frame is shifted.

7. A towel cabinet comprising a casing having a partially open rear and pivoted at the top to allow it to swing outwardly to a position inclined to the vertical, delivery and takeup feed rolls mounted in said casing and having a driving connection between them and provided with peripheral surfaces adapted to cling to a towel web, the outward tilting of said casing exposing the partially open rear thereof for the convenient passing upwardly of a web of towel, and a takeup roll whereon the web of towel is wound for driving contact with the surface of said takeup feed roll.

In witness whereof, I have hereunto set my hand this tenth day of March, 1926.

FRANK G. STEINER.