April 29, 1930. F. G. STEINER 1,756,765

TOWEL CABINET

Filed March 12, 1926 3 Sheets-Sheet 1

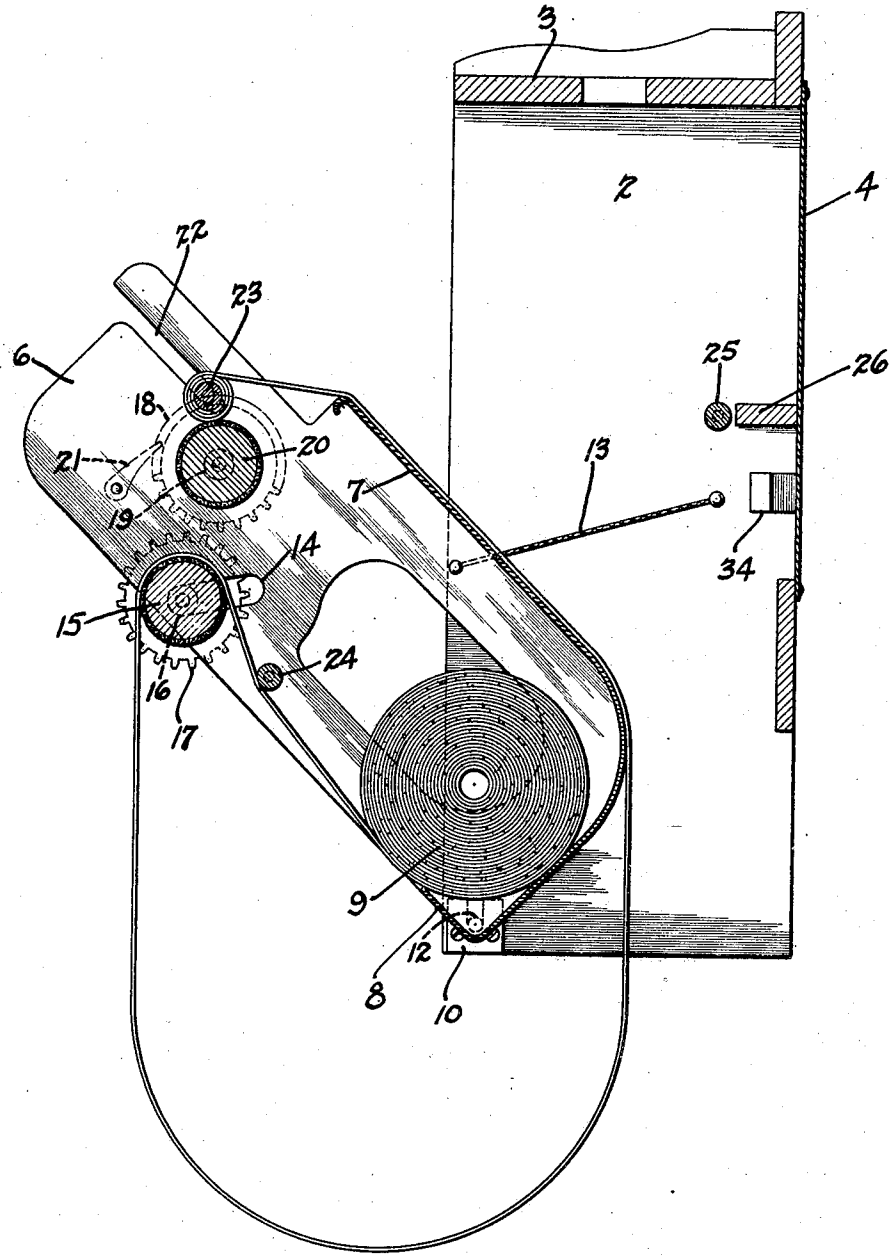


FIG. 1

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TOWEL CABINET

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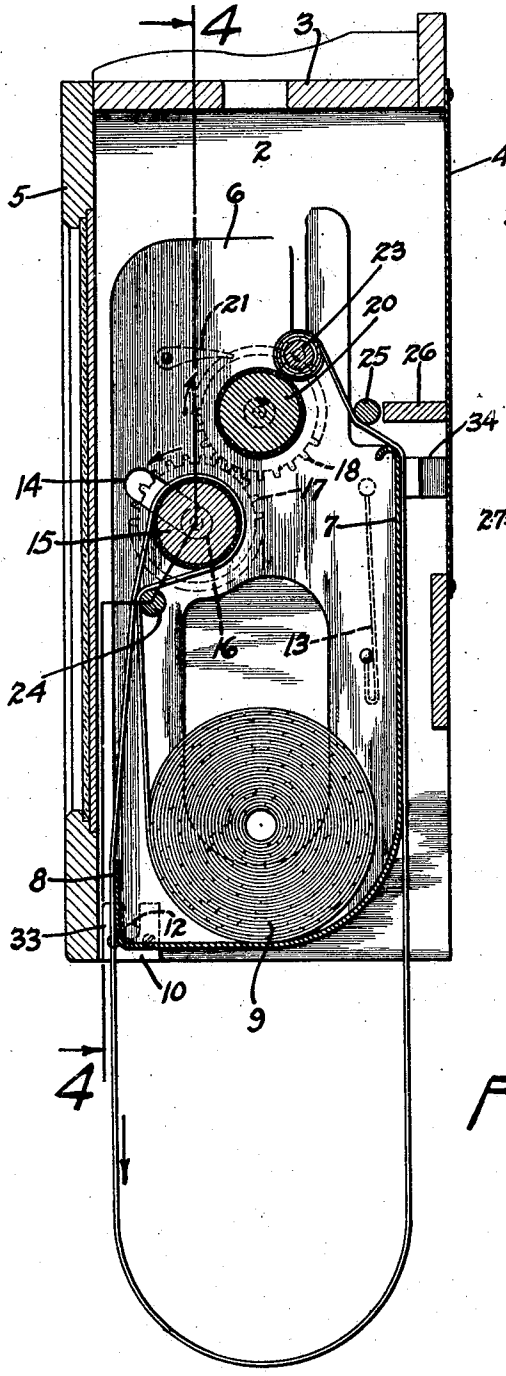


FIG. 2

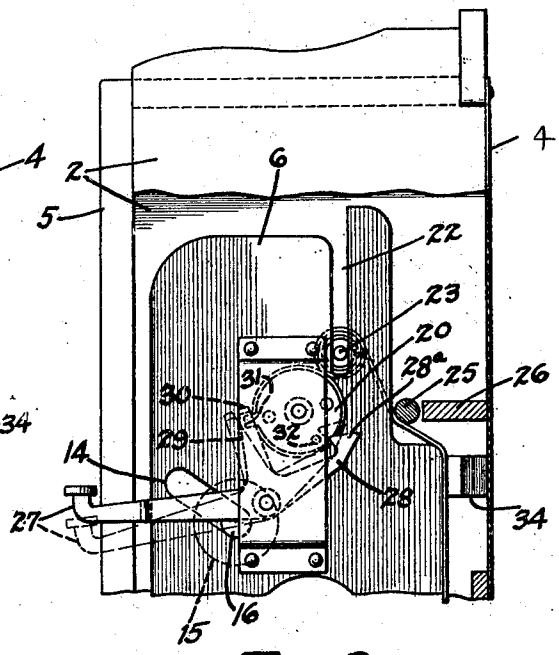


FIG. 3

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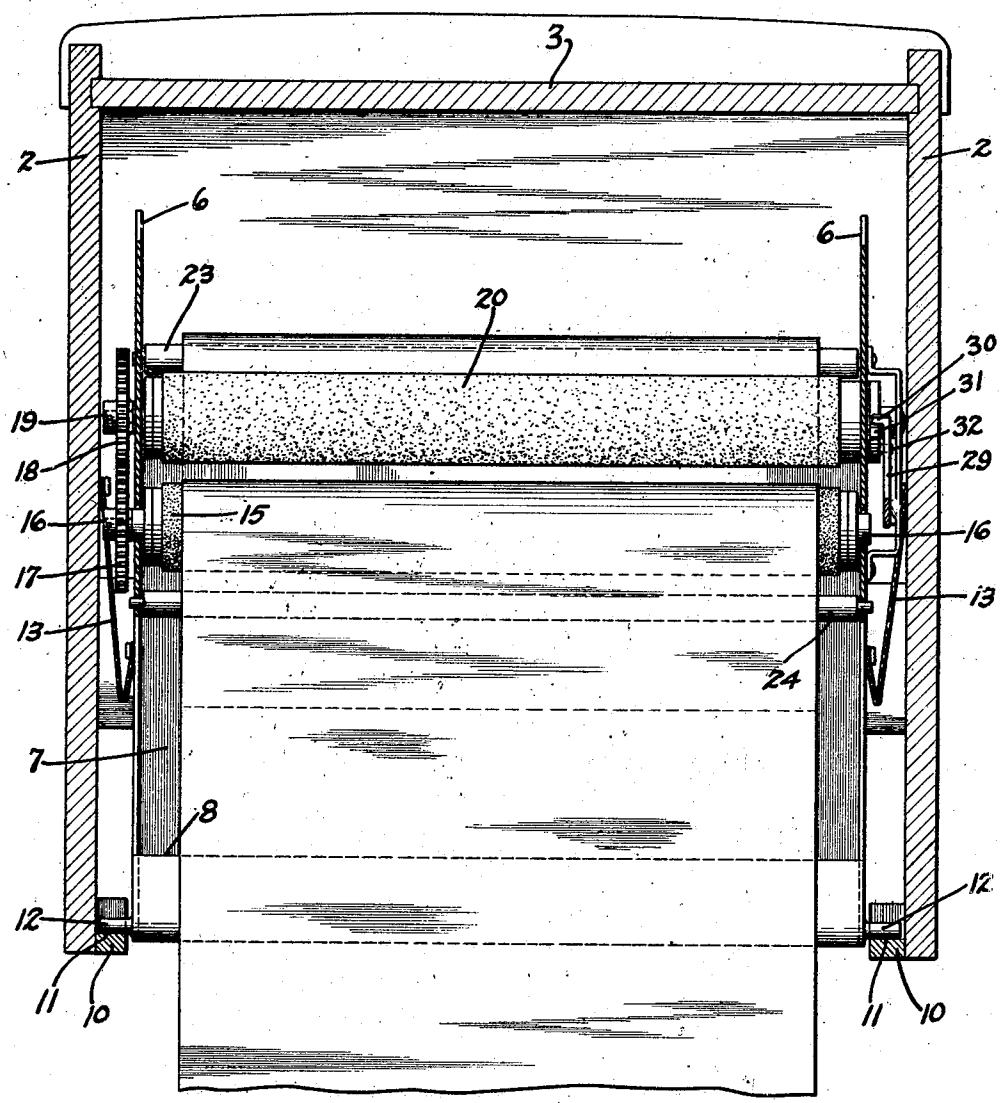


FIG. 4

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UNITED STATES PATENT OFFICE

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TOWEL CABINET

Application filed March 12, 1926. Serial No. 94,184.

My invention relates to that class of towel cabinets adapted for dispensing a comparatively long web of toweling, the clean web being delivered from a roll or fold of the towel placed in one part of the cabinet while the soiled portion of the towel is delivered to a takeup or winding roll in another part of the cabinet. Feed rolls are provided to engage the clean towel web and the soiled portion of the towel operated by the pull of the user on the clean portion of the web, provision being made for corresponding movement of the feed rolls to wind up a length of web corresponding to the clean portion delivered. The clean towel is put in the cabinet and the web stretched to the feed rolls by the laundry delivery man, or by the janitor or attendant of the building where the cabinet may be located, and the object of my present invention is to provide a cabinet of such construction that the person putting the clean towel therein can easily and quickly stretch the web of clean towel to its feed roll and then with equal facility can carry this loose end up through the back of the cabinet to the takeup roll, so that the operation of removing the soiled towel and loading or filling a cabinet with a clean towel can be expeditiously performed.

A further object is to provide a cabinet of simple inexpensive construction and one which will permit the convenient conversion of a cabinet of earlier design to one embodying the features of this improvement.

Other objects of the invention will appear from the following detailed description.

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 inner section tilted outwardly for convenience in loading the cabinet;

Figure 2 is a similar view showing the cabinet closed with the towel in position therein ready for use;

Figure 3 is a detail sectional view showing the preferred form of feed roll locking device;

Figure 4 is a vertical sectional view on the line 4—4 of Figure 2.

In the drawing, 2 represents the side walls, 3 the top, 4 the rear wall, and 5 the door of a towel cabinet of suitable proportions adapted to be supported vertically on the wall or by other means so that the web of clean towel will depend below the cabinet within convenient reach of the user. 6 represents the side walls of an inner section of the cabinet having preferably a rear wall 7 which extends downwardly and across the lower ends of the side walls to form the bottom of the inner section and I may provide an upwardly turned part 8 for this section 7 forming with the bottom and side walls a suitable recess or container for the clean towel roll 9 that is adapted to be inserted between the side walls 6 and rests loosely upon the horizontal continuation or the rear wall 7. The side walls 2 of the cabinet are preferably provided at their lower forward portions with blocks 10 having seats 11 therein adapted to receive trunnions 12 mounted in the lower forward portions of the wall 6 of the inner section, these trunnions forming pivots on which the inner section may swing freely to allow the section to be tilted outwardly to the position shown in Figure 1 on return to its normal upright position as illustrated in Figure 2. The seats 11 are preferably formed by providing slots in the blocks 10 open at the top so that the trunnions can be easily inserted into the slots and as readily removed therefrom, thereby allowing whenever desired the complete separation of the inner section from the outer one. Suitable flexible means 13 connect the inner section with the side walls 2 of the cabinet to limit the outward tilting movement of the inner section.

The side walls 6, of the inner section may be provided with diagonally arranged slots 14 and a feed roll 15 has its axis or spindle 16 journaled in these slots to slide backwardly and forwardly therein. The spindle 16 is extended on one end beyond the wall of the inner section and carries a gear 17 which meshes with a similar gear 18 mounted on the spin-

dle 19 of a second feed roll 20 that is journaled in the side walls of the section 6 above and near the feed roll 15. These rolls have sanded or roughened surfaces and are of substantially the same diameter and operate at the some peripheral or surface speed in opposite directions resulting from their intergeared relation, a dog 21 being provided to engage the teeth of the gear 19 and prevent backward movement of these rolls. When the roll 15 is at the inner end of the slots 14 its gear will mesh with the gear of the other feed roll and the surfaces of the rolls will be rather too close together to allow the convenient passing of the clean web of towel over the roll 15. When, however, the roll 15 is moved to the forward ends of the slot 14 the gears will be disengaged and a considerable space will be provided between the rolls so that the operator can very conveniently pass the clean web of towel over the roll 15.

The side walls of the section 6 are preferably provided with vertical slots 22 adapted to receive the ends of a takeup roll 23 that is positioned above and in the rear of the axis of the roll 20 so that when the loose web of towel is wound on this takeup roll or spindle it will rest by gravity in contact with the roll 20 and be revolved by such contact when the roll 20 is operated through the revolution of the roll 15. These rolls operating synchronously, it will be evident that as the user withdraws a strip of clean towel from the feed roll 15 a corresponding length of towel will be wound on the take-up roll, and with the tilting section in the position illustrated in Figure 1, it will be evident that the operator can easily and quickly pass or thread the loose end of the towel up in the rear of the tilting section between it and the back of the cabinet and deliver the end of this loose web to the takeup roll. A tension roll 24 is preferably provided below the roll 15 and between the side walls 6 of the inner section and a similar roll 25 is provided between the walls 2 of the cabinet preferably in advance of a shelf 26, the web of towel contacting with the roll 25 and being smoothed and guided thereby in its passage to the takeup roll.

A device for controlling the feed of the clean towel is provided, as shown in Figure 3, corresponding to the one shown and described in the pending application of Gottfrid Olson, filed Dec. 19, 1925, Serial #76,528. This device comprises a lever 27 having arms 28 and 29 thereon, the arm 29 having an end portion 30 projecting into the path of a lug 31 on the adjacent end of the feed roll and the arm 28 having a hook portion 28^a to engage a pin 32 also on said roll. When the user depresses the lever 27 to the dotted line position shown in Figure 3, he disengages the arm 29 from the lug 31 and when the pin 32 in the revolution of the roll engages the beveled edge of the hook portion 28^a the lever 27 is positively returned to its raised position with the end 30 in the path of the lug 31 to positively arrest further movement of the roll, and thereby permitting only one complete revolution of the roll with each depression of the lever.

By making this inner section removable from the cabinet or adapted to tilt forwardly with respect thereto, I am not only able to save time and labor in the operation of filling or loading a cabinet but I provide a construction to which towel cabinets having their feed rolls mounted in fixed bearings or supports can be converted at a comparatively small expense. It is only necessary to remove the feed rolls from the cabinet in which they are supported, mount them in a tilting carrier support and then place this carrier or support between the walls of the old cabinet and thereby the old main portion is utilized while its interior construction is converted or adapted to an arrangement or manner of mounting the feed rolls which will greatly facilitate the filling or loading of the cabinet.

When the door of the cabinet is closed, a space or gap 33 is provided between the lower portion thereof and the wall 8 through which the clean web of the towel depends below the cabinet and from thence is carried upwardly along the rear wall 7 to the takeup roll and preferably the rear wall 7 merges into the lower portion thereof on a curved line so that there will be no obstruction to the free upward movement of the soiled towel web when the cabinet is in use. Stops 34 are preferably provided for limiting the inward movement of the inner section.

To load the cabinet, the operator will open the door, remove the soiled towel; place the clean web of towel in the bottom of the inner section and carry the loose end of this web up over the clean roll 15, leaving a loop of sufficient length depending below the cabinet and extending the loose end upwardly to the takeup roll 23. The frictional contact of this web with the feed roll 20 will, when the rolls are operated, revolve the takeup roll and wind thereon a length of towel corresponding substantially to the length delivered by the roll 15. Whenever desired, the inner section may be entirely removed from the cabinet without disturbing the mounting of the feed rolls in the inner section.

I claim as my invention:

1. A towel cabinet comprising relatively movable outer and inner sections having substantially open fronts said inner section having inclined guide slots in said sides, a closure member for the rear of the inner section, said inner section being adapted to receive a supply of clean towel in its lower portion, a feed roll mounted in said inclined slots in the inner section, a take up roll mounted adjacent to and normally in gear with the feed roll, the relative movement of said inner and outer

sections changing said inclined slot to a practically horizontal position adapting said feed roll to be conveniently ungeared from said take up roll and separated therefrom to allow the stretching of a clean web thereover and when the inner section is moved outwardly the loose end of the web may be conveniently carried up between the inner section and the rear wall of the outer section to said take up roll.

2. 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 adjacent the feed roll, driving means between said rolls, a slot in said inner section inclined to a line joining the axis of said rolls, said feed roll having a trunnion operable in said slot whereby the movement of the trunnion in the slot will break said connection between the rolls and 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.

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

FRANK G. STEINER.