

Feb. 2, 1932.

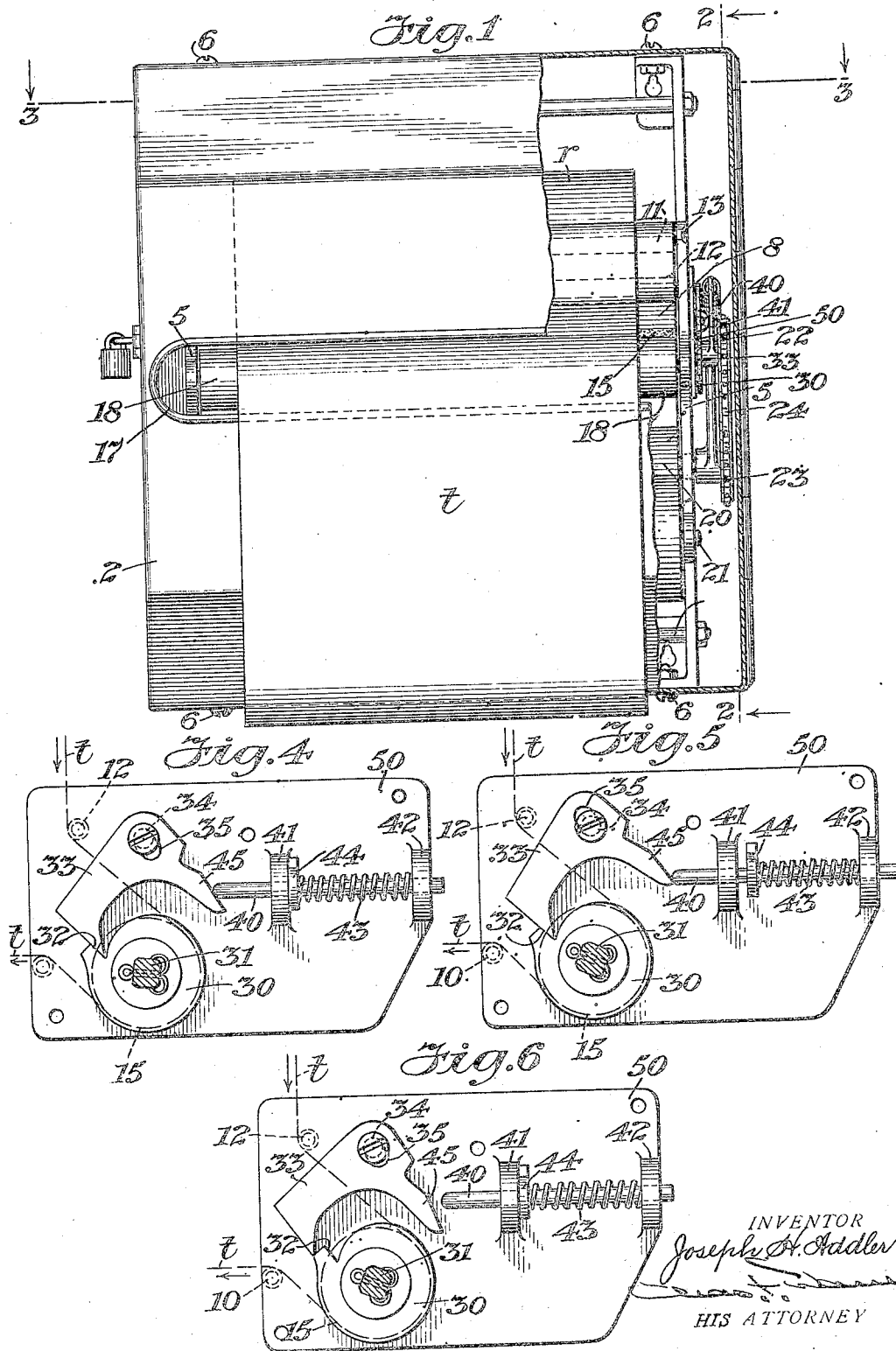
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1,843,658

TOWEL CABINET

Filed May 14, 1929

2 Sheets-Sheet 1



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Fig. 2

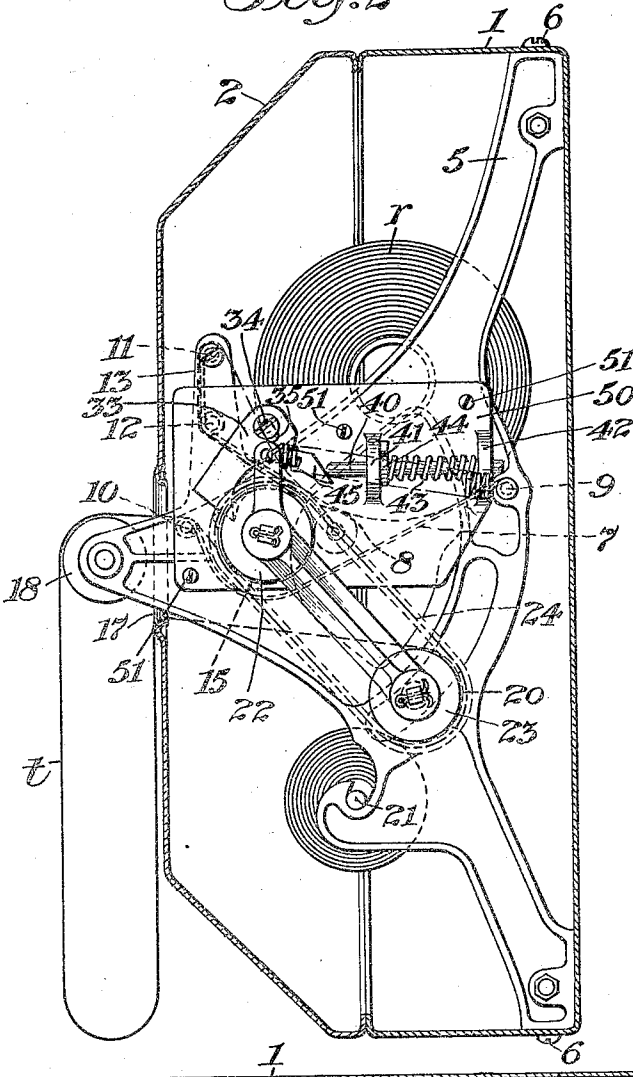
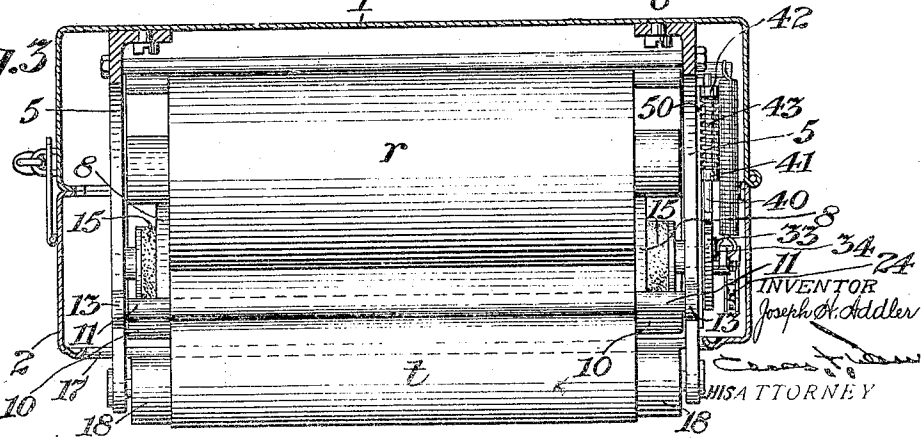


Fig. 3



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TOWEL CABINET

Application filed May 14, 1929. Serial No. 362,911.

This invention relates to towel cabinets of the type in which a considerable length of towelling, usually in the form of a roll, is supported within the cabinet and adapted to be drawn therefrom in relatively short lengths as required for individual use. In the use of these cabinets, however, there is a tendency on the part of the users to draw off more towelling for each individual use than is really required and in this way add unnecessarily to the expense of maintaining the cabinet. With this in mind, it has been the main object of my present invention to provide these cabinets with a simple and efficient means for so controlling the delivery of the towelling, that it will be drawn or measured off only in lengths of predetermined size which, for hand or face drying purposes, will be relatively short. This object I attain by the novel construction and arrangement of parts hereinafter described and as illustrated in the accompanying drawings.

Other objects and advantages of the invention will appear and be referred to in the detailed description of the invention which follows.

Referring now to the accompanying drawings—

Fig. 1 is a front elevation of a cabinet equipped with my invention, with part of the cabinet proper or casing broken away for the better illustration of the contained towel controlling mechanism.

Fig. 2 is an enlarged vertical section on the line 2—2 of Fig. 1.

Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

Figs. 4, 5 and 6 are details showing the means for controlling the delivery of the towel in predetermined lengths, at different times in the operation of the same.

The cabinet proper or casing, which may be of any suitable or desired design, is here shown as comprising a body portion 1, having a hinged door 2 at the front side thereof, through which access may be conveniently had to the interior of the casing for the purpose of placing clean towelling therein, removing soiled towelling therefrom, or for any other desired purpose.

Located within the casing adjacent opposite ends thereof are a pair of frame brackets 5, 5, which are secured in position by fastening bolts 6. These brackets provide supports for a plurality of parts to be presently described which function to control the delivery of the clean towelling from the cabinet and the return of the soiled towelling therein.

Within the upper part of the casing is a suitable towel support, here shown as comprising two plates 7 and 8, the plate 7 being connected at its opposite ends with cross-rods 9 and 10 mounted in the end frame brackets, and the plate 8 being connected at one end with a cross-rod 11, from which it extends downwardly in front of a second cross-rod 12 and from thence rearwardly to a point adjacent the plate 7, as best shown in Fig. 2, the adjacent portions of the plates 7 and 8 forming a trough-like structure in which the roll *r* of clean towelling is loosely supported. The cross-rods 11 and 12 about which the plate 8 is passed at its front end are mounted at their opposite ends in a pair of arms or extensions 13, 13 of the frame brackets 5. The particular construction and arrangement of these parts constituting the support for the roll of towelling, however, forms no part of the present invention and therefore will not be further described in detail herein.

When a roll of towelling is placed in its support, the leading end of the towelling *t* is led from the roll forwardly and upwardly over the rod 11, thence downwardly in front of the rod 12, thence backwardly and around a roller 15, and from this forwardly again over the guide rod 10 and out through an opening 17 in the front wall of the casing to and over a guide roller 18, which latter is journaled in extensions of the frame brackets which project through the opening 17 in the casing to support the roller 18 at the front side thereof. From this guide roller 18, the towel depends in loop form, as shown in Fig. 2, in convenient position for use, the towel at the rear side of the loop passing backwardly through the opening to a take-up or re-winding device of usual construction, comprising

a pair of rollers 20 and 21 between which the towel is passed and about one of which the towel is re-wound; this take-up device being operated from the roller 15 through the medium of a pair of sprocket wheels 22 and 23 attached to the rollers 15 and 20 respectively, and engaged by a connecting sprocket chain 24.

As hereinbefore referred to, it is the object of the present invention to provide a simple and effective means for controlling the feed or delivery of the clean towelling whereby its withdrawal from the cabinet will be in predetermined lengths. This I accomplish by the provision of means for automatically stopping the roller 15 once upon each rotation thereof and thereby stopping the outward feeding or withdrawal of the towel; it being understood that the friction between the towel and the roller is such as to prevent movement of the towel independently of the roller under ordinary pulling strains such as exerted in the normal use of the cabinet. In the present case such friction is increased by sanding the towel engaging surface of the roller 15.

The means for stopping rotation of the roller 15 as referred to comprises a disk 30 mounted on the shaft 31 of said roller for rotation therewith, said disk as here shown being positioned on said shaft at a point between the outer wall of the adjacent frame bracket 5 and the sprocket wheel 22 on the outer end of the shaft. This disk is provided with a peripheral stop shoulder 32 which, at each rotation of the roller, is engaged by a stop pawl 33 which is mounted on a stationary pivot 34 with its free end riding loosely on the periphery of said disk. Thus, when the towelling is drawn from the cabinet, thereby causing rotation of the engaged roller 15, the engagement of the stop shoulder 32 on the roller disk with the pawl 33 will stop rotation of the roller and thereby stop or limit the further withdrawal of the towelling, the length of towelling thus withdrawn being controlled by the size or diameter of the roller. Subsequently, to obtain another length of towelling, the pawl 33 is released from the shoulder 32 to permit another rotation of the roller 15. Such release, in accordance with my invention, is effected automatically in the following way: The pawl 33 is provided with a vertically ranging elongated slot 35 at its point of connection with the pivot 34 whereby the pawl, when engaged by the stop shoulder 32 under the pulling action of the towelling on the roller 15, will be caused to move upwardly relatively to its pivot, from the position shown in Fig. 4 to that shown in Fig. 5, in which latter position the lower end wall of the slot comes into contact with the pivot and stops further movement of the pawl and, consequently, further rotation of the disk 30 and connected

roller 15. This movement of the pawl 33 as provided for by the elongated slot 35 is utilized to render effective a device for automatically releasing the pawl from its stopping engagement with the shoulder 32 of the disk upon release of the towel by the user. This releasing device comprises a pin or plunger 40 slidably mounted for longitudinal movement in a pair of stationary lugs 41, 42 and having mounted thereon a coiled spring 43 expanding between the rear lug 42 and a collar 44 fixed on the plunger, this spring serving to yieldingly hold the plunger in the position shown in Fig. 4 with the collar 44 in contact with the front lug 41 and the front end of the plunger adjacent a rearwardly extending arm or extension 45 of the pawl. With this construction and arrangement of parts, when the end of the pawl is engaged by the shoulder 32 of the disk 30, as shown in Fig. 4, the plunger 40 is then in its normal position as shown. Thereafter, under the continued and final pull of the towel, the rear end of the pawl is raised from the position shown in Fig. 4 to that shown in Fig. 5, which movement of the pawl causes its rear extension to engage with the front end of the plunger 40 and force the same backward against the compression of the spring 43 as shown. Thereafter, upon the release of the towel by the user and the consequent release of pulling action on the roller 15, the spring 43 acts to automatically swing the pawl on its pivot in a direction to release the same from stopping engagement with the stop shoulder on the roller disk 30, following which the pawl, because of its vertically elongated slot 35, will drop downwardly to a position with its front end below the shoulder 32, as shown in Fig. 6, whereby the roller 15 is free to make another rotation in the feeding or drawing out of another length of towelling.

The pawl 33 and the spring-pressed plunger 40 may be mounted directly on one of the end frame brackets 5 if so desired, but as here shown, they are mounted on a separate plate 50 which is rigidly attached to one of said frame brackets by suitable fastening means, such as the screws or bolts 51.

What I claim is:

1. In a towel cabinet, the combination with a towel feed controlling roller having a connected stop member for rotation therewith, of a pawl pivotally supported in normal position for stopping engagement with said member, and means rendered operative by the engagement therewith of the pawl under the pulling action of the towel on the roller to automatically disengage said pawl from the stop member upon the release of the towel.

2. In a towel cabinet, the combination with a towel feed controlling roller having a connected stop member for rotation therewith, 130

of a pawl pivotally supported in normal position for stopping engagement with said member, and a spring-pressed member rendered operative by the engagement therewith of the pawl under the pulling action of the towel on the roller to automatically disengage said pawl from the stop member upon the release of the towel.

3. In a towel cabinet, the combination with a towel feed controlling roller, of a disk connected with said roller for rotation therewith and provided with a peripheral stop shoulder, a pawl pivotally supported with its end riding on said disk for stopping engagement with the disk shoulder, and means rendered operative by the engagement therewith of the pawl under the pulling action of the towel on the roller to automatically disengage said pawl from the stop shoulder upon the release of the towel.

4. In a towel cabinet, the combination with a towel feed controlling roller, of a disk connected with said roller for rotation therewith and provided with a peripheral stop shoulder, a pawl pivotally supported with its end riding on said disk for stopping engagement with the disk shoulder, and a spring-pressed member rendered operative by the engagement therewith of the pawl under the pulling action of the towel on the roller to automatically disengage said pawl from the stop shoulder upon the release of the towel.

5. In a towel cabinet, the combination with a towel feed controlling roller having a connected stop member for rotation therewith, of a pawl pivotally supported in normal position for stopping engagement with said stop member and having a loose connection with its support for permitting of a limited bodily movement of the same relative thereto upon engagement of the pawl by the stop member under the pulling action of the towel, and means rendered operative by the engagement therewith of the pawl under the pulling action of the towel on the roller to automatically disengage said pawl from the stop member upon release of the towel, following which the pawl, by reason of its loose connection with its support, automatically moves to an inoperative position with its end rearwardly of the stop member.

6. In a towel cabinet, the combination of a towel feed controlling roller having a connected disk provided with a peripheral stop shoulder, a stationary pivot located above the disk, a pawl mounted on said pivot with its front end resting on the periphery of the disk for stopping engagement with the shoulder thereon and having a vertically ranging elongated slot at its point of connection with the pivot for permitting of a limited bodily movement of the same relative to the pivot upon engagement of the pawl by the disk shoulder under the pulling action of the towel, and a spring-pressed plunger engaged

by the pawl during its bodily movement relatively to the pivot to place its spring under compression, said plunger operating upon release of the towel to automatically disengage the pawl from the disk shoulder, following which the pawl gravitates to an inoperative position with its front end rearwardly of the disk shoulder.

In testimony whereof I affix my signature.
JOSEPH H. ADDLER.

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