Nov. 4, 1924. 1,514,402

G. A. STEINER

ADJUSTABLE MEASURING DEVICE FOR TOWEL CABINETS

Filed Feb. 20, 1922

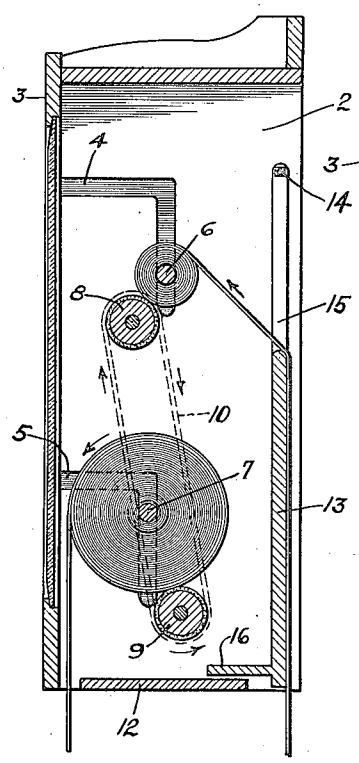


FIG. 1

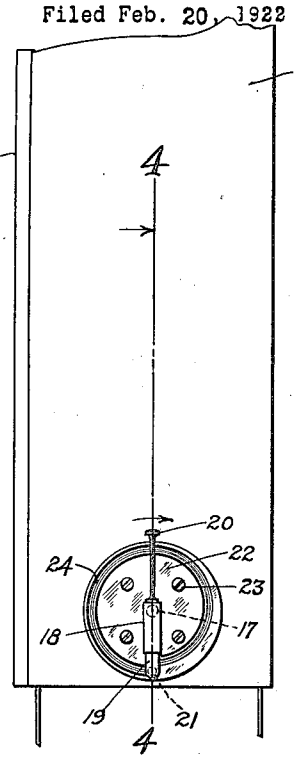


FIG. 2

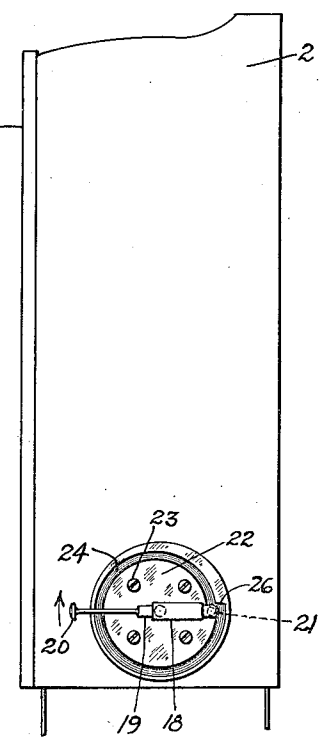


FIG. 3

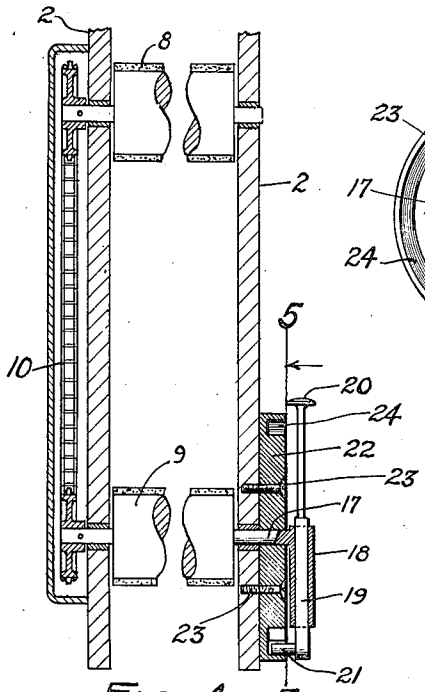


FIG. 4 5

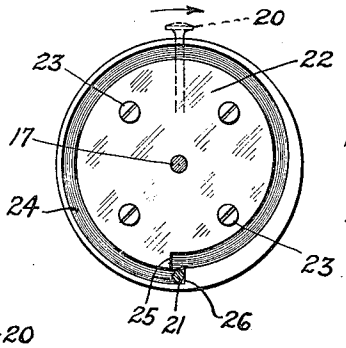


FIG. 5

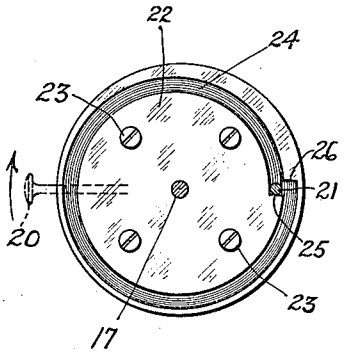


FIG. 6

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UNITED STATES PATENT OFFICE.

GEORGE A. STEINER, OF SALT LAKE CITY, UTAH, ASSIGNOR TO STEINER SALES COMPANY, OF SALT LAKE CITY, UTAH, A CORPORATION OF UTAH.

ADJUSTABLE MEASURING DEVICE FOR TOWEL CABINETS.

Application filed February 20, 1922. Serial No. 538,103.

To all whom it may concern:

Be it known that I, GEORGE A. STEINER, a citizen of the United States, resident of Salt Lake City, county of Salt Lake, State of Utah, have invented certain new and useful Improvements in Adjustable Measuring Devices for Towel Cabinets, of which the following is a specification.

In the use of a towel cabinet of the continuous type, it is desirable to provide some means for limiting the feed of the clean towel or the length of towel delivered when the user exerts a pull thereon. In some cases it is desirable to have the measuring device entirely automatic—that is, one that will positively stop the feed when a predetermined length of towel has been delivered and then automatically reset itself to permit further feed of the towel when the user ceases to pull thereon. In other cases it is desirable to provide a measuring device in which it is necessary for the user to release the stop device preliminary or as a condition precedent to obtaining a length of clean towel.

The object of my present invention is to provide a measuring device which, by a simple adjustment, can be adapted for either of these conditions, entirely automatic in one instance and requiring a release movement of the user in another.

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,

Figure 2 is a side view of the same, showing one form of the measuring device,

Figure 3 is a similar view, showing the measuring device adjusted to its other position,

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

Figure 5 is a detail view of the measuring device in Figure 2, separated from the cabinet,

Figure 6 is a similar view, showing the measuring device of Figure 3 separated from the cabinet.

In the drawing, 2 represents the side walls of the cabinet, 3 the front door through which access may be had to the towel, and 4 and 5 guideways in the side walls for the shafts 6 and 7 of the soiled and clean towel rolls. Feed rolls 8 and 9 contact respectively with these towel rolls and have a chain drive connection 10 between them for synchronous movement. A transverse brace 12 is provided at the bottom of the cabinet between which and the door a gap is formed to allow the clean towel to be fed downwardly. A guard 13 is pivoted at 14 in the rear of the towel rolls and has an opening 15 at the top through which the soiled towel passes to its roll, a space being provided between the guard 13 and the rear of the cabinet to allow the convenient upward feed of the soiled towel. A shelf 16 is formed on the lower end of the guard and preferably overhangs the brace 12 to prevent any one reaching up through the bottom of the cabinet to the clean towel or its feed roll. The shaft of the lower feed roll has an extension 17 thereon terminating in a crank 18 in which a bar 19 is longitudinally slidable, having a finger grip 20 at one end and a pin 21 at its opposite end projecting inwardly at right angles substantially to the bar. This bar and pin form in effect a locking dog that is free to slide in the crank and adjust the pin toward or from the axis of the crank. A disc 22 is secured to the wall of the cabinet by suitable means, such as screws 23, and this disc is provided with an annular groove 24 having a shoulder or stop 25 therein and a corresponding offset shoulder or stop 26 opposite the stop 25, a gap of sufficient width being provided between them to allow the free movement of the pin 21 therein. When the disc 22 is in the position on the wall of the cabinet shown in Figure 5, the pin will drop by gravity to a point opposite the stop 26 and when the user grasps the clean towel and exerts a pull thereon, the feed roll 9 will be revolved and with it the crank 18 and the pin 21 will slide in the groove 24 until it contacts with the shoulder 25. When this occurs, further feed of the towel will be positively prevented and then, if the user relaxes his pull on the towel, the pin 21 will drop by gravity through the gap between the stops 25 and 26 to the position shown in Figure 5 and the operation described may then be repeated.

The stopping of the feed and the resetting of the dog to permit further feed is thus automatic.

In some cases the person in charge of the cabinet or the owner of the building where it may be used may wish to have the measuring device only partially automatic, requiring the release or setting of the dog after the feed has been stopped before it can be resumed. With this end in view I provide for the rotary adjustment of the disc 22 by simply removing the screws, giving the disc a quarter turn and then securing it again in the same screw holes. This adjustment is indicated in Figure 6, where, as shown, the dog instead of being vertical, is horizontally arranged and upon completion of the feeding movement and the engagement of the dog with this stop, no further action of the dog will take place when the user releases the towel, but it will be necessary for the user to push the dog out of engagement with the stop 25 to allow the feeding operation to be repeated. Renters or users of the cabinet may prefer this arrangement of measuring device, as it prevents waste of clean toweling, requiring a little more exertion on the part of the user to push the button and pull the clean towel than to simply pull the clean towel after the automatic release.

I claim as my invention:

1. The combination, with a towel roll, of a feed roll in engagement with the towel thereon, a measuring device having a cam groove, a vertically arranged bar mounted to slide radially with respect to the axis of said feed roll and having a pin to travel in said groove, said groove having a stop to check movement of said pin and unwinding of the towel when a predetermined length has been delivered, said bar dropping by gravity to move said pin out of engagement with said stop and allowing further unwinding of the roll when pull upon the towel ceases, said measuring device being mounted for quarter rotation on the axis of said feed roll to adjust said bar to a horizontal position and require it to be pushed inwardly to disengage its pin from its stop preliminary to repeating the unwinding operation.

2. The combination, with a towel roll, of a feed roll, a hollow crank for said feed roll, a measuring device comprising a disc having a cam groove therein and a stop, a normally vertical bar mounted to slide radially of said disc in said hollow crank and having a pin to travel in said groove and engage said stop and check unwinding of said towel roll when a predetermined length has been delivered, said bar dropping by gravity and its pin becoming thereby released from said stop and permitting further unwinding of said towel roll when pull upon the towel ceases, said disc being mounted for rotary adjustment on the axis of its feed roll to move said bar to a horizontal position and require inward pressure thereon to disengage said pin from said stop before repeating the unwinding operation.

In witness whereof, I have hereunto set my hand this tenth day of February, 1922.

GEORGE A. STEINER.