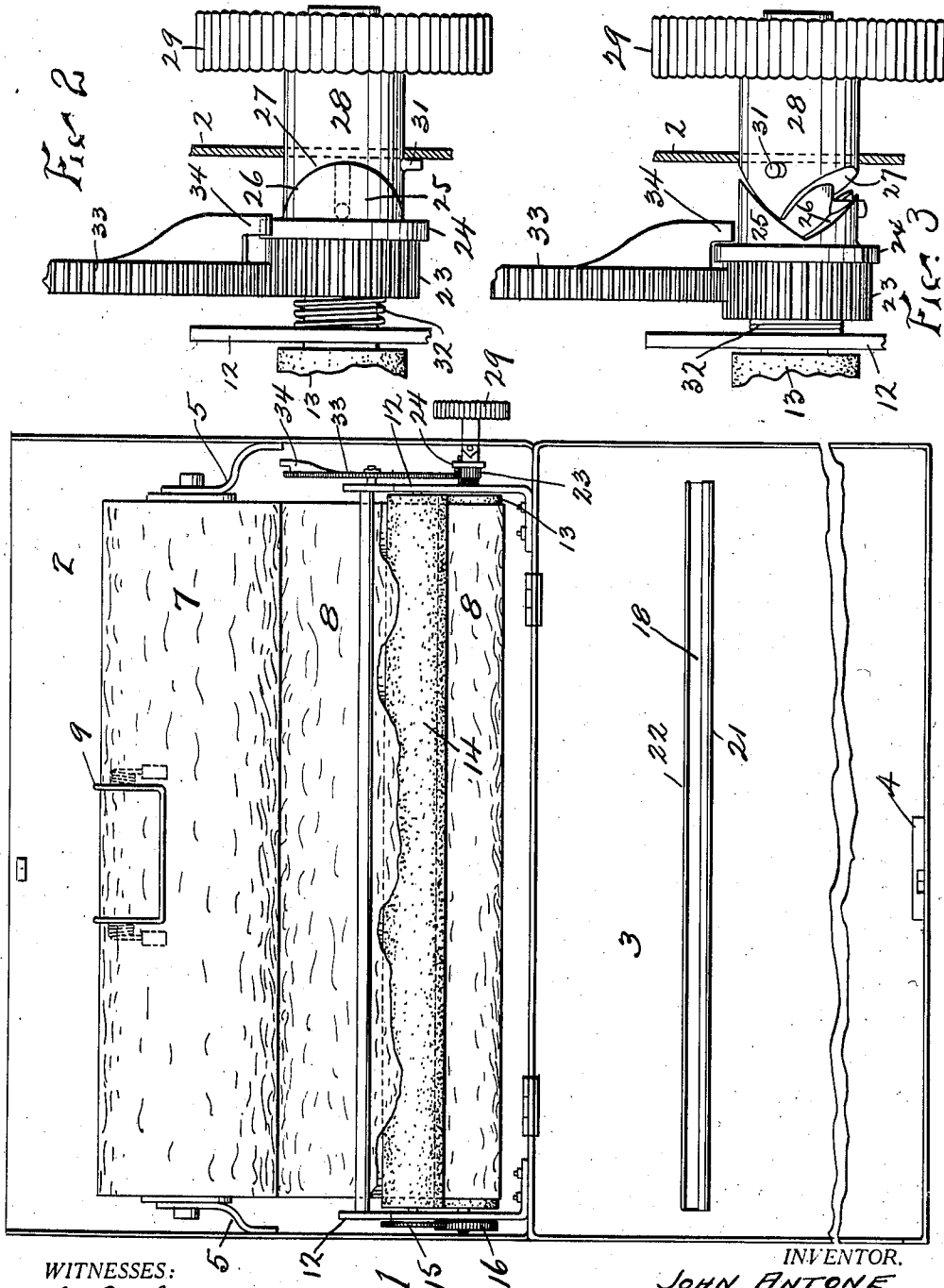


J. ANTONE.
PAPER TOWEL CABINET.
APPLICATION FILED MAR. 10, 1913.

1,084,598.

Patented Jan. 20, 1914.

2 SHEETS—SHEET 1.



WITNESSES:
J. B. Gardner
H. G. Post.

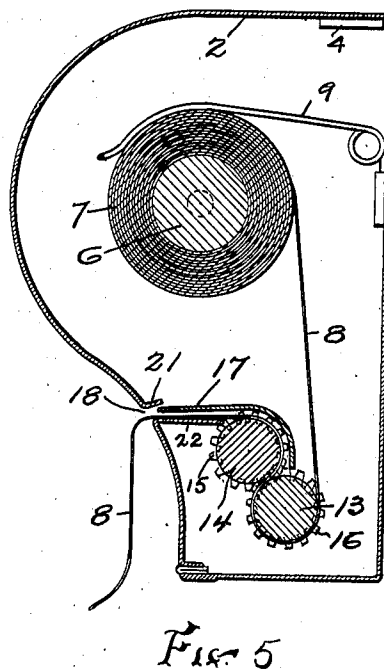
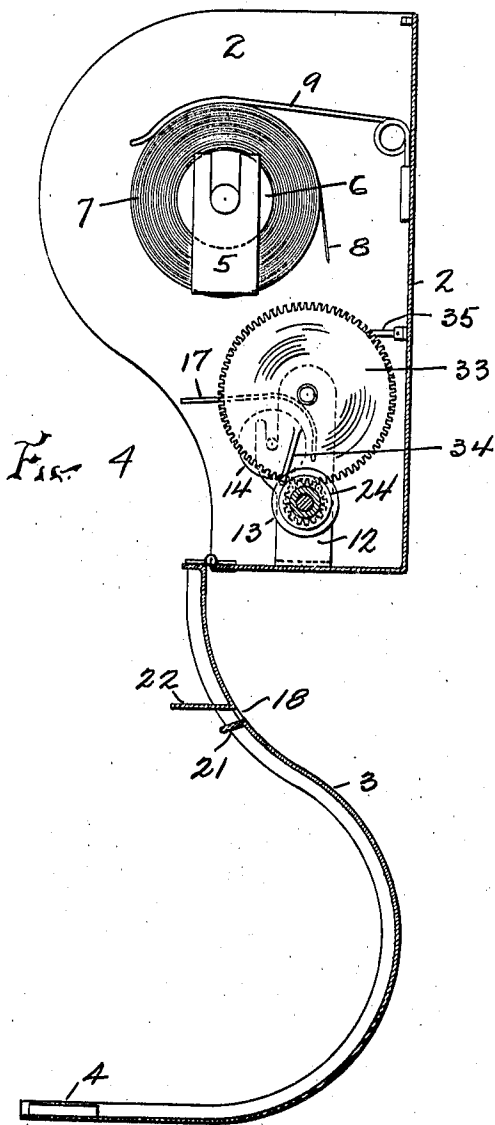
Fig. 1

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BY Miller & White
HIS ATTORNEYS.

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UNITED STATES PATENT OFFICE.

JOHN ANTONE, OF SAN FRANCISCO, CALIFORNIA.

PAPER-TOWEL CABINET.

1,084,598.

Specification of Letters Patent.

Patented Jan. 20, 1914.

Application filed March 10, 1913. Serial No. 758,196.

To all whom it may concern:

Be it known that I, JOHN ANTONE, a citizen of the United States, and a resident of the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Paper-Towel Cabinets, of which the following is a specification.

The invention relates to paper towel cabinets which are adapted to contain a roll of paper towels which is fed or discharged from the cabinet in certain predetermined lengths.

The object of the invention is to provide a cabinet for a roll of paper towels which permits a predetermined length of towel to be withdrawn at each operation.

Another object of the invention is to provide a cabinet for a roll of paper towels which operates to advance the towels a fixed distance regardless of the diameter of the roll.

Another object of the invention is to provide means for locking the towel against movement after it has advanced a given distance, and for releasing said locking means to allow another length of towel to be advanced.

The invention possesses other advantageous features, which, with the foregoing, will be set forth at length in the following description, where I shall outline in full that form of the invention which I have selected for illustration in the drawings accompanying and forming part of the present specification. The novelty of the invention will be included in the claims succeeding said description. From this it will be apparent that I do not limit myself to the showing made by said drawings and description as I may adopt many variations within the scope of my invention as expressed in said claims.

Referring to said drawings Figure 1 is a front elevation of the cabinet with the door or front wall thereof swung downward to disclose the interior construction. Fig. 2 is a detail showing the towel locking mechanism. Fig. 3 is a similar detail showing the locking mechanism released. Fig. 4 is a side view of the cabinet in the open position, the side wall thereof being removed. Fig. 5 is

a vertical section through the cabinet in the closed condition.

The device consists of a shell or casing 2, preferably formed of sheet metal, fashioned in any desired shape. The casing is provided with a front wall or door 3, hinged thereto at the bottom and provided with a lock 4, so that it may be locked in the closed position. Mounted within the casing, and preferably upon brackets 5, is a roller 6, carrying a roll 7 of paper towels 8. The roll 7 is preferably engaged by a spring 9 which imposes a slight frictional resistance to its rotation.

Mounted in the casing on brackets 12, preferably arranged below the roll 7, are a plurality of rough or friction surfaced rollers 13—14, around and between which the towels 8 pass as they are fed or withdrawn from the casing. The upper roller 14 is preferably supported in a slot in the bracket 12, so that it may be readily removed when it is desired to place a new roll 7 in the cabinet and place the leading end thereof in contact with the rollers 13—14. The roller 14 is preferably arranged so that it presses the towels between it and roller 13, thereby insuring a good frictional contact between the towel and the rollers. The rollers 13—14 are geared together at one end by the gears 15—16 mounted on the shafts or axles thereof.

Arranged in the casing and overlying the roller 14 is a guide plate 17 which preferably curves partly around the roller and extends outward adjacent the edge of the casing. The front wall 3 of the casing is provided with a transverse slot or aperture 18 through which the towels extend and are discharged from the casing. Arranged at the upper and lower edges of the aperture 18 are inwardly extending lips 21—22, which when the door is closed, lie on opposite sides of the guide plate 17. The lower lip 22 lies below the guide plate and extends inwardly to a position adjacent the roll 14, thereby forming a guiding slot for the towels, should the strip become torn or severed within the casing.

The strips of towels are generally perforated or partly severed at fixed intervals,

usually eighteen inches, and means are provided for allowing the strip to advance this distance only at each operation. The roll is usually placed in the cabinet, so that this weakened line of division occurs on the outside of the casing after the strip has been advanced the required distance, so that when the towel is separated from the strip along this line of weakening, a short length of the strip will extend from the aperture 18.

Arranged on the shaft or axle of roller 13, and keyed or pinned thereto so that it is revoluble with and slidable longitudinally thereon is a gear 23 provided on one side thereof with a flange or collar 24, and a sleeve 25 of lesser diameter than said collar. The sleeve 25 is formed on its outer face with a cam or inclined surface 26 which is engaged by a complementary inclined or cam shaped surface 27 on the end of the sleeve 28, which is secured to a thumb wheel 29 arranged on the exterior of the casing. The sleeve 28 is preferably not attached to the shaft of roller 13 and is prevented from moving longitudinally of the shaft by means of the pin 31 secured therein and contacting with the inner side of the casing 2. The gear 23 is normally pressed outward by means of the spring 32, thereby normally holding the two inclined surfaces 26 and 27 in contact over their inclined portions. Mounted on the bracket 12 above the gear 23 is an idler gear 33 meshing with gear 23. The gears 23 and 33 and the friction roll 13 are so proportioned that gear 33 makes one complete revolution when the towel strip is moved a certain predetermined distance.

Arranged on gear 33 is a projecting finger 34 which travels in the plane normally occupied by the collar 24. The circumferential path of the end of the finger intersects the collar 24 when it is in its normal position, so that as the gear 33 completes a revolution the finger 34 butts against the collar 24, thereby locking the gears and rollers 13—14 in position and preventing the towel strip from being further withdrawn. The various rollers and gears are operated by the pull exerted on the strip in withdrawing it from the casing.

In order to release the locking mechanism, the thumb wheel 29 is turned, causing the inclined surfaces 26—27 to move with respect to each other and separating the sleeves. Since the sleeve 28 cannot move longitudinally, the turning of said sleeve causes the sleeve 25 to move longitudinally, moving the collar 24 out of contact with the finger 34, thereby releasing the lock and allowing another length of towel to be withdrawn from the casing. Should the towel be torn off on the inside of the slot 18, it may be ad-

vanced by turning the thumb wheel. The inclined surfaces 26—27 are arranged so they cannot separate entirely and the motion of the thumb wheel is therefore transmitted through the sleeve 25 to the shaft of the roller 13. A spring dog 35 engaging the teeth on gear 33 is provided to prevent the thumb wheel from being turned in the wrong direction. It is seen that by this construction, the towel strip may be withdrawn a predetermined distance and then locked, and before it can be withdrawn farther, the locking device must be released.

It is evident that the device may be constructed in various sizes depending upon the width of the paper to be arranged therein. While I have herein referred to the device as a paper towel cabinet, it is evident that the device may be employed in connection with any paper or fabric which it is desirable to withdraw in certain predetermined lengths.

I claim:

1. A roll paper cabinet comprising a casing adapted to contain a roll of paper, a friction roller around which said paper is adapted to pass as it is withdrawn from the casing, a gear connected to said roller, a second gear in mesh therewith, and means operative by the revolution of said gears for locking them against movement.

2. In a roll paper cabinet, a friction surfaced roller adapted to be engaged and rotated by the paper as it is withdrawn from the cabinet, a gear on said roller, a collar connected to said gear, a second gear meshing with said first named gear, and a finger on said second gear adapted to contact with said collar and lock said roller.

3. In a roll paper cabinet, a friction surfaced roller adapted to be engaged and rotated by the paper as it is withdrawn from the cabinet, a shaft upon which said roller is fixed, a gear mounted on said shaft and capable of a limited longitudinal movement with respect thereto, a collar attached to said gear, a second gear meshing with said first gear, a finger on said second gear adapted to contact with said collar and lock the gears against movement, and means for moving said collar longitudinally out of contact with said finger.

4. In a roll paper cabinet, a friction surfaced roller adapted to be engaged and rotated by the paper as it is withdrawn from the cabinet, a shaft upon which said roller is fixed, brackets supporting said shaft, a gear on said shaft having a limited longitudinal movement with relation thereto, a spring interposed between said gear and said bracket, a collar on said gear, and a cam shaped sleeve attached to said gear, a second gear in mesh with said first gear,

a finger thereon adapted to engage said collar and lock said gears against movement, a second sleeve having a complementary cam shaped face contacting with said first sleeve, and a thumb wheel adapted to turn said second sleeve and press the collar out of the path of said finger.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this 28th day of February 1913.

JOHN ANTONE.

In presence of—
H. G. PROST,
M. LE CONTE.