A. F. LESLER.

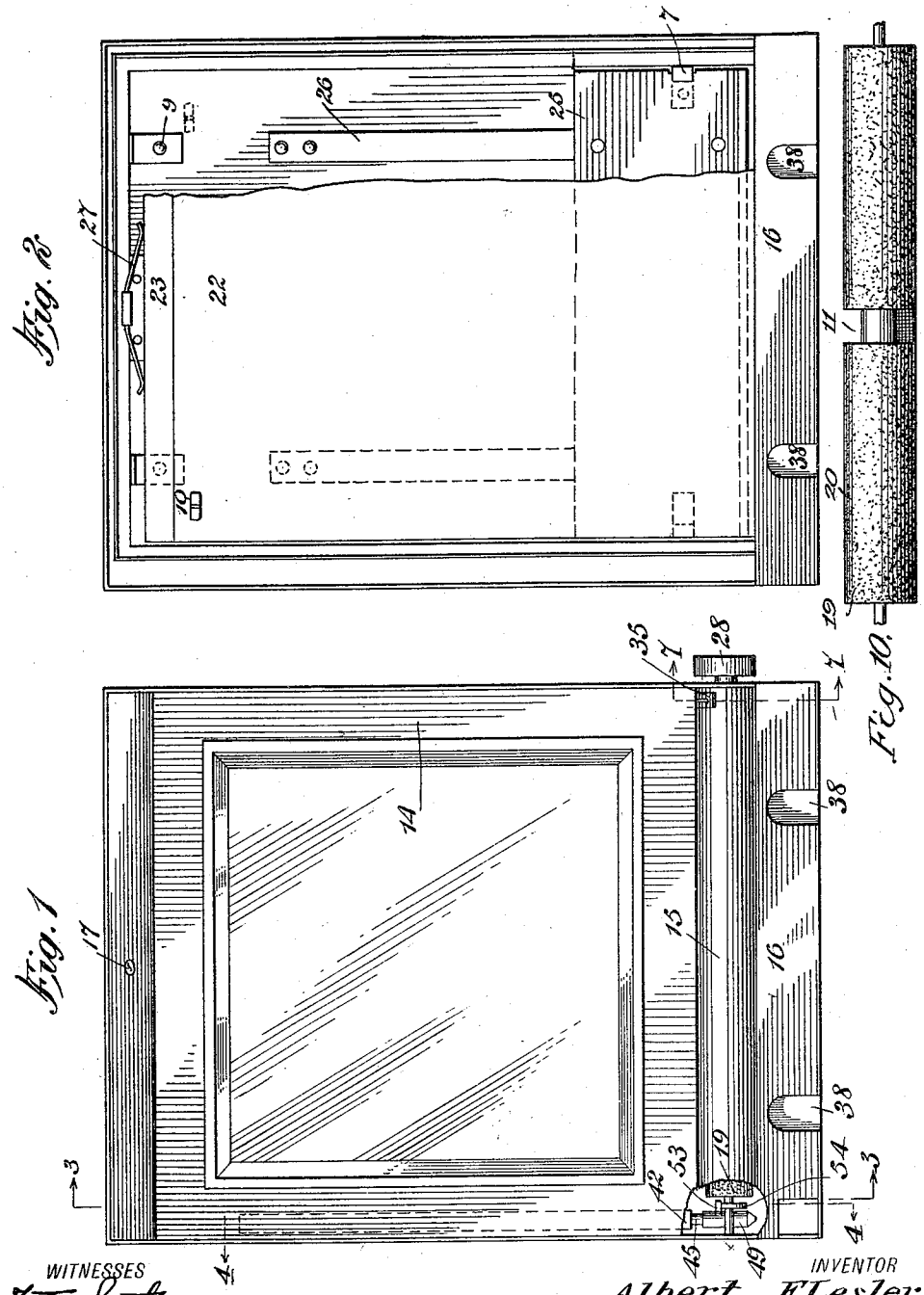
TOILET DISPENSING CABINET.

APPLICATION FILED APR. 17, 1914.

1,134,879.

Patented Apr. 6, 1915.

2 SHEETS—SHEET 1.



THE NORRIS PETERS CO. PHOTO LITHO. WASHINGTON, D. C.

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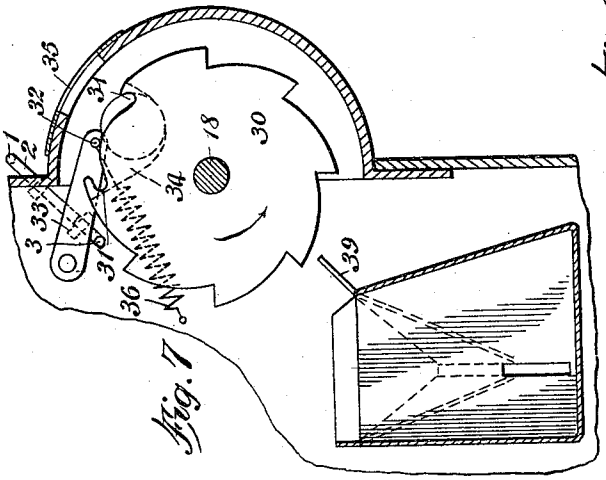


Fig. 7

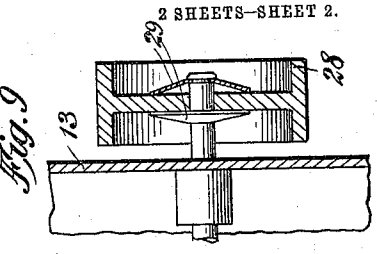


Fig. 9

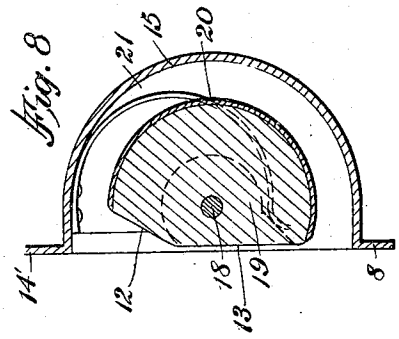


Fig. 8

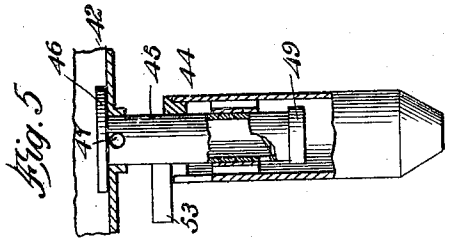


Fig. 5

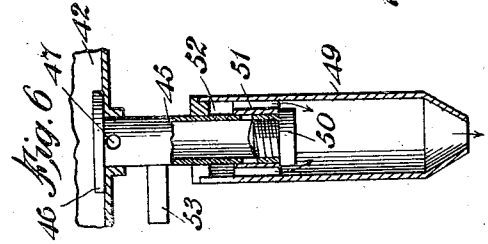


Fig. 6

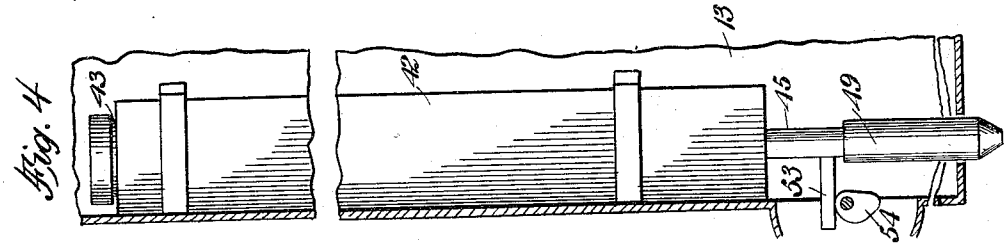


Fig. 4

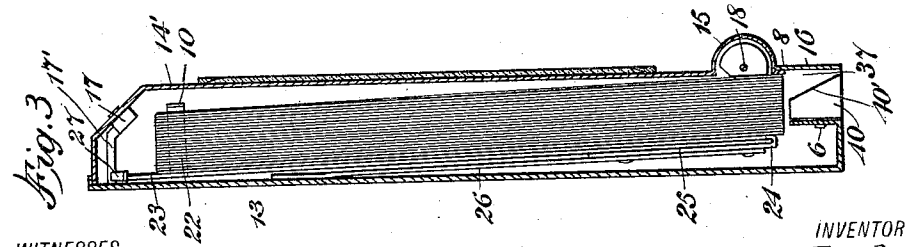


Fig. 3

WITNESSES

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UNITED STATES PATENT OFFICE.

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TOILET DISPENSING-CABINET.

1,134,879. Specification of Letters Patent. Patented Apr. 6, 1915.

Application filed April 17, 1914. Serial No. 832,481.

To all whom it may concern:

Be it known that I, ALBERT F. LESLER, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county of the Bronx and State of New York, have invented a new and Improved Toilet Dispensing-Cabinet, of which the following is a full, clear, and exact description.

This invention relates to improvements in dispensing cabinets, and particularly to toilet dispensing cabinets, and has for an object to provide an improved structure which may be used in a number of ways, and also used to dispense a number of different articles so that the device may be utilized in toilet rooms, lavatories and other places where toilet paper is desired, or where towels are desired.

Another object of the invention is to provide a dispensing cabinet which when operated will loosen an article and start the same out of the cabinet, after which the article is freed from engagement with any operating parts of the cabinet so that the same may drop out of the cabinet or may be pulled out easily.

A further object of the invention is to provide a dispensing or vending cabinet formed with a roller cut away on one side so as to only engage the article dispensed during a part of the rotation of the roller, whereby the article when loosened is free to move out of the cabinet, and only a sufficient friction is brought to bear upon the top sheet for removing the same so that the other sheets will not be torn or loosened at the time that the top sheet is pulled off.

A still further object of the invention is to provide a roller and associated mechanism for dispensing articles from the cabinet in connection with a coin control mechanism which permits the operation of the roller once for each coin.

In the accompanying drawings—Figure 1 is a front view of a cabinet embodying the invention, certain parts being broken away for better disclosing the structure; Fig. 2 is a view similar to Fig. 1 except that the front plate is removed and certain parts broken away for better disclosing the construction; Fig. 3 is a section through Fig. 1 approximately on line 3—3; Fig. 4 is a section through Fig. 1 on line 4—4; Fig. 5 is an enlarged detailed fragmentary sectional view through a liquid soap dispensing valve embodying certain features of the invention; Fig. 6 is a view similar to Fig. 5, but showing the valve in a different position; Fig. 7 is an enlarged detailed fragmentary view, partly in section, of a coin control mechanism; Fig. 8 is an enlarged fragmentary sectional view through the roller and associated parts embodying certain features of the invention; Fig. 9 is a detailed fragmentary sectional view showing the hand operated wheel connected with the rollers shown in Fig. 8; Fig. 10 is a front view of the article advancing or feeding roller shown in section in Fig. 8.

Referring to the accompanying drawings by numeral, 14 indicates a case or cabinet formed of any desired material, and provided with a removable front part 14′. The front 14′ is preferably provided with a mirror, and is also formed with a parti-cylindrical projection 15 in which is arranged the article advancing or feeding roller 19. The lower end of the front 14′ overlaps a lower plate 16, as shown in Fig. 3, while the upper part of the front 14′ is provided with a lock 17 of any desired kind which co-acts with the projection 17′ for holding the top part of the front in position. The lower plate 16 is provided with thumb notches or openings 38 for allowing the thumbs to engage an article as will be hereinafter described for pulling the same from the cabinet in case the article does not move out of the cabinet of its own weight.

In connection with the cylindrical projection 15, it is to be observed that the same is provided with closed ends in which the shaft 18 of roller 19 is journaled. Shaft 18 extends beyond the side wall 13 of front 14′, as shown in Fig. 9, and has rigidly secured thereto by suitable clamping means 29 the hand operated wheel 28. The shaft 18 is connected in any desired manner to roller 19 so that whenever shaft 18 is operated the roller 19 will also be operated. The roller 19 is provided with an abrasive surface 20 which may be of any desired kind, and may be formed directly on the roller, or may be secured thereto by any desired means. For instance, a convenient way to provide an abrasive surface is to secure a strip of emery cloth or sand paper directly to the roller, or to place an adhesive on the roller and then sprinkle emery, sand or other suitable material on the adhesive while moist. Roller 18 is cut away at 12 and 13 so as to be

out of contact with the articles comprising the pad 22 when the roller is not in operation. From Fig. 10 it will be observed that roller 19 is cut away at 11 for accommodating spring 21, which spring tends to hold the roller in the position shown in Fig. 8, and to return the spring thereto when moved almost to said position.

Associated with the roller 19 is pad 22 which may be any desired article to be vended, as for instance, a pad of towels, watercloset seat covers or other articles. When towels are to be vended small pieces of paper are secured thereto by any suitable adhesive, and these pieces of paper are passed over the remaining pins 9 and 10, whereby when the roller 20 is operated the top towel may be easily removed by tearing the paper attached thereto from the pins 9 and 10. When the cabinet is supplied with a pad containing sheets designed to be used as covers for watercloset seats the same may be directly secured to the pins 9 and 10 and torn therefrom, as such sheets are of toilet paper. In order that this tearing action may easily take place the pins or fasteners 9 and 10 are preferably flat strips of metal, as shown in Figs. 2 and 3, and are arranged edgewise to the movement of the sheets when being pulled. The edges of these pins are preferably sharpened in order to allow an easier tearing action. As shown in Fig. 3 the lower end of the pad is pressed against the extension 8 of front 14′ so that there is no pressure of the pad against the roller when in the position shown in Figs. 3 and 8. This pressure is not very great, but sufficient for holding the topmost sheet in correct position for engagement with the roughened surface 20 of roller 19 when roller 19 is operated.

The pressure on pad 22 is caused by plate 25 (Fig. 2) which is supported and given a tendency to move forward by springs 26 riveted or otherwise rigidly secured to the back of the cabinet. In order to limit the forward movement of plate 25 suitable stops 7 are provided, one on each side, as shown in Fig. 2.

In operation when it is desired to remove one of the sheets from pad 22 regardless of what such sheets are made of, the hand wheel 26 is rotated, which will cause a complete rotation of the roller 19. This will cause the roughened or abrading surface 20 of roller 19 to move over and press against the uppermost or top sheet of pad 22 and then pull said uppermost sheet until the same is torn from the supporting pins 9 and 10. As soon as this has been done the abrading surface 20 leaves the sheet and the roller again assumes the position shown in Fig. 8. This allows the sheet to freely drop from the cabinet or to be pulled therefrom in case it does not automatically drop out of the cabinet. As the flattened or cut-away portion of the roller does not engage the sheet the same is unimpeded in its delivery from the cabinet. Ordinarily, the sheet will drop out of its own accord, and may be caught by the operator, but if for any reason the sheet should be caught against the sides of the cabinet or otherwise, the thumbs of the operator may be caused to engage the sheet in notches 38, and the sheet easily pulled from the cabinet. It is to be noted that the coin receptacle 40 arranged below the pad 22 is provided with a beveled surface 40′ which assists in guiding the sheet to the discharge slot 37, which slot extends entirely across the bottom of the cabinet.

In connection with the coin tray 40 it will be observed that the same may be supported in place in any desired manner, as for instance by headed pins 6 arranged in suitable slots provided with an enlarged opening at the upper end for the admission of the heads. At one end of the coin tray 40 is arranged a partition 5 through which extends a coin guide 41, said coin guide 41 being provided with flaring sides 4 for receiving the coin from wheel 30 at the proper time, a guiding member 39 being provided on one edge of the coin tray 40 for guiding the coin from wheel 30 to the flaring sides 4, and from thence to the chute or guide 41. The bottom of the chute or guide 41 is preferably at an angle so as to insure the passage of the coins into the chamber 3.

Associated with the coin tray 40 is a coin control device shown more particularly in Fig. 7 which is provided with a wheel 30 rigidly secured to shaft 18. This wheel is provided with a socket 34 for receiving coin which coin is inserted through slot 35. Wheel 30 is a ratchet wheel, and is provided with sockets or hook portions 31 for receiving pin 32, which pin engages the socket portions 31 and prevents the rotation of the wheel 30 in either direction unless a coin has been inserted into socket 34, whereupon the coin will engage pin 32 and raise the same so as to escape the socket or hook portion 31. This will allow the wheel 30 to rotate one revolution and when socket 34 reaches a position opposite guide 39 the coin arranged in the socket falls by gravity into the coin tray. The pin 32 is carried by a pivotally mounted arm 33 which is urged toward the wheel 30 by the spring 36 so that the pin 32 continually presses against either the wheel 30 or the coin in socket 34. The provision of notches or a ratchet face for wheel 30 is to prevent a reverse rotation of the wheel 30 after the same has started this movement. When it is not desired to use a coin in wheel 30 for allowing the proper operation of the roller 19 a pin 32 is provided which operates in slot 2. Pin 32 is connected with an operating handle, and will, when pulled up-

wardly, raise lever 33 so that pin 32 will be out of contact with the roller and will permit a proper operation of the roller. This is desirable in private schools and various other places where the towels or toilet paper is to be dispensed free of cost. When a coin is to be used member 1 and pin 3 are eliminated and slot 2 is not provided, or if provided is filled with a filling block of some suitable kind.

After constructing the various devices as described a complete cabinet is presented in which is arranged a pad of towels or a pad of paper or other suitable material in sheets. Upon a single rotation of the roller a single sheet in a flat condition is fed or dispensed from the cabinet without injury, and without tearing loose the remaining sheets. When the device is being used for dispensing toweling a soap dispensing device is also preferably associated therewith, for giving a measured quantity of soap with each towel. Where watercloset seat covers are being dispensed the soap attachment may be omitted, or may be left unfilled. If desired, a disinfecting liquid could be used instead of the soap, under circumstances of this kind, so that the same may be used in connection with the seat covers.

It is to be noted that an important feature of the invention is the feeding of sheets in a flat condition and the engagement of only one sheet at a time, without liability of tearing the remaining sheets. The particular construction of the roller 19 accomplishes this result as the roller is in contact with the uppermost sheet for only a partial revolution of the roller, and during the remaining time the sheet is free from the roller and may be moved by its own weight from the cabinet or may be drawn therefrom manually. The roller has been shown as cut away so that one part of the periphery will contact with the sheet when the roller is rotated, but it is evident that substantially any shape roller may be used provided only a comparatively small portion thereof engages the sheet so that the action of the roller will be almost entirely against the top or uppermost sheet for pulling the same loose from the fasteners 9 and 10. By thus vending sheets of various material in a flat condition the objection of cartons and wrapping material is obviated as no wrapping or no form of carton for each sheet is necessary in the present invention. This arrangement also saves the labor of folding the sheets for insertion in the cartons and of unfolding them before use.

What I claim is—

1. In a device of the character described, a casing provided with a substantially semi-cylindrical bulged portion near the lower end, a slot at the lower end and a pair of finger openings merging into said slot, means for supporting a pad of sheets in said casing, means for normally swinging said pad in a predetermined direction, a stop for limiting the swinging movement of said pad whereby the sheets thereof are held from said cylindrical portion of the casing, a rotatable feeding member arranged in said semi-cylindrical bulged portion, said feeding member having a flat face normally facing said pad but out of contact therewith with a flat portion extending at an angle to the first mentioned flat portion, and an arc-shaped roughened portion designed to be swung around into engagement with the top sheet of said pad, said second mentioned flat surface slightly compressing the sheets of said pad previous to the engagement of the top sheet by said roughened surface, said stops holding said pad at such a distance from said feeding member as to allow the roughened surface of the feeding member to only remove one sheet at a time, said feeding member projecting the lower end of the removed sheet through said slot in the casing.

2. In a device of the character described, a casing, means for supporting the pad of sheets in said casing, means for swinging said pad of sheets toward one side of the casing, a feeding member arranged on the side of the casing toward which the pad is swung, said feeding member being formed with a pair of flat faces, one of which is parallel with the sheets of said pad and out of engagement therewith when in an inoperative position, said feeding member being formed with an arc-shaped roughened surface adapted to engage the uppermost sheet of said pad and remove the same, the second mentioned flattened surface being adapted to slightly compress the sheets of the pad previous to the engagement of the uppermost sheet by said roughened surface, and manually operated means extending from the casing for actuating the feeding member.

3. In a device of the character described, a case, means for supporting a pad of sheets in said case, spring means acting on said pad of sheets for normally holding the same in a predetermined position, a stop acting on said pad for limiting the swinging movement given thereto by said spring means, a feeding member arranged adjacent said pad and normally out of contact therewith, said feeding member having a flat portion normally facing said pad but out of contact therewith, and a rounded abrading surface designed to be swung around into engagement with the top sheet of said pad, whereby said top sheet is pulled from said support, and means for automatically returning said feeding member to its original position after said abrading member has moved out of contact with said pad.

4. In a device of the character described, a case, means for supporting a pad of sheets in said case, a feeding member for feeding the sheets from said pad successively, said feeding member being normally out of contact with said pad, said feeding member being formed with a pair of flat faces both of which are normally out of contact with said pad, and with a rounded roughened face designed to be swung into contact with said pad, said feeding member being also formed with an annular notch having a cam member at one end, and a spring rigidly mounted at one end and loosely engaging said cam member for normally holding the feeding member in a predetermined idle position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT F. LESLER.

Witnesses:
A. L. KITCHIN,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."