April 23, 1940.

J. C. PERRIN

2,198,176

TOWEL DISPENSER

Filed March 3, 1937

FIG. 1.

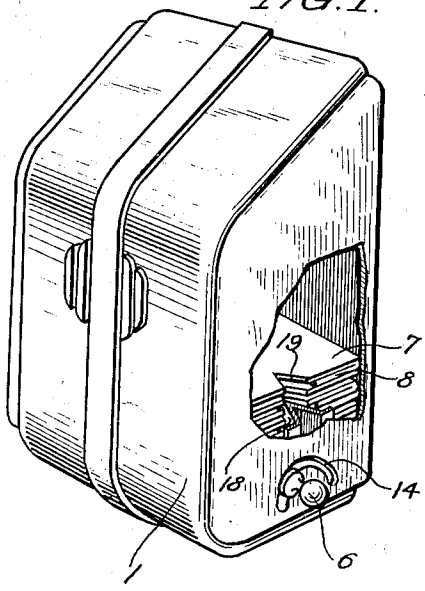


FIG. 2.

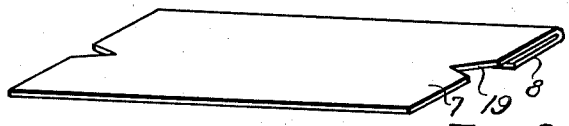


FIG. 3.

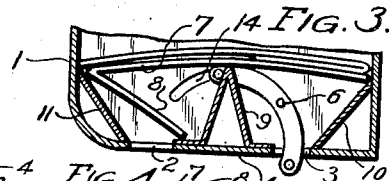


FIG. 5.

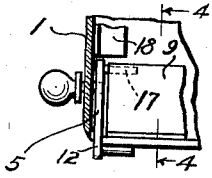


FIG. 4.

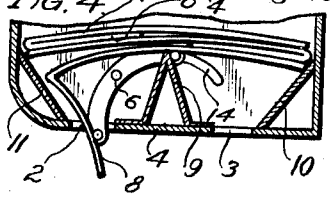


FIG. 7.

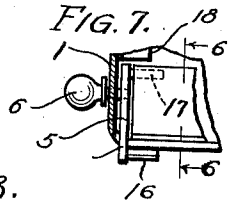


FIG. 6.

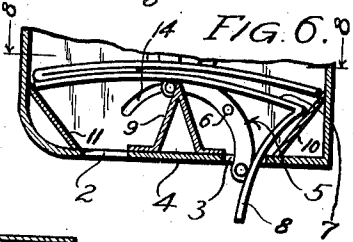


FIG. 8.

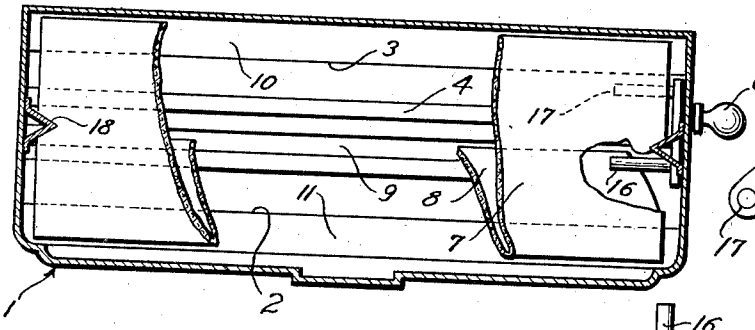


FIG. 10.

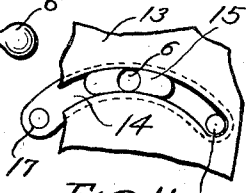


FIG. 11.

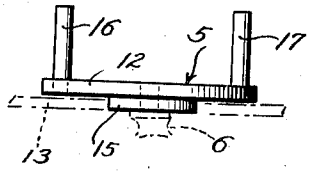
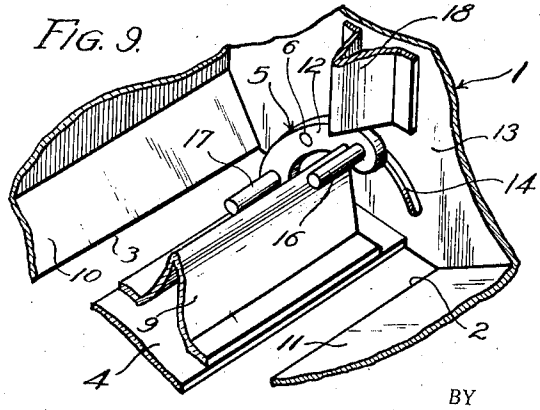


FIG. 9.



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UNITED STATES PATENT OFFICE

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TOWEL DISPENSER

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Application March 3, 1937, Serial No. 128,801

6 Claims. (Cl. 312—51)

This invention relates to and has for an object the provision of a simple and inexpensive towel dispenser which will issue separate towels therefrom with each single movement of a dispensing member which constitutes the only moving part of the dispenser.

An important object of this invention is to provide a dispenser of the character described for issuing folded towels, the fold of which makes possible a simple form of cabinet and dispensing means.

Another object of this invention is to provide a towel dispenser of the character described wherein the separate towels are engaged by the dispensing means at corner portions thereof only and are protruded from the cabinet whereby the towels may be manually withdrawn, this arrangement simplifying the construction and operation of the dispensing means and cabinet.

Another object of this invention is to provide a towel dispenser of the character described having a plurality of independent dispensing slots and a dispensing means arranged so that upon successive single movements of said means the towels will be alternately protruded through said slots, the said means being inoperative after one towel has been protruded through a slot, to protrude another towel, until the first one is withdrawn from the cabinet.

I have shown a preferred form of device in the accompanying drawing, subject to modification, within the scope of the appended claims, without departing from the spirit of my invention.

In the drawing:

Fig. 1 is a perspective view of a towel dispenser constructed in accordance with this invention,

Fig. 2 is a perspective view of one of the folded towels,

Fig. 3 is a fragmentary sectional view showing the dispenser as when ready for dispensing operation,

Fig. 4 is a similar fragmentary sectional view showing the dispenser as when operated to project a portion of a towel from the cabinet, taken on line 4—4 of Fig. 5,

Fig. 5 is a fragmentary sectional view taken at right angles to Fig. 4 and showing the dispensing means as when in the position shown in Fig. 4 with the towels omitted,

Fig. 6 is a fragmentary sectional view of the dispensing means as when moved to the opposite position shown in Fig. 4 for dispensing another towel, and taken on line 6—6 of Fig. 7.

Fig. 7 is a fragmentary section of the structure shown in Fig. 6 taken at right angles thereto and with the towels removed,

Fig. 8 is a horizontal sectional view of the dispenser with the towels broken away, taken on line 8—8 of Fig. 6,

Fig. 9 is a fragmentary perspective view showing the construction of the cabinet and the relation of the dispensing member thereto,

Fig. 10 is a fragmentary end elevation showing the manner of mounting the dispensing member, and

Fig. 11 is a top plan view of the dispensing member.

The towel dispenser of this invention comprises a cabinet 1 adapted to contain a stack of towels which are arranged to be dispensed through spaced parallel slots 2 and 3 formed in the bottom wall 4 of said cabinet.

In accordance with this invention a single movable dispensing member 5 is operable by means of a handle 6 exposed exteriorly of the cabinet, for engaging and projecting outwardly through one of the dispensing openings upon each movement thereof, a portion of a towel whereby the latter may be withdrawn from the cabinet. The construction and arrangement of the operating member 5, the cabinet and the towels are such that when an edge of a towel is projected through one of the dispensing slots the dispensing means is then inoperative to project another towel portion and becomes operative for this purpose only upon removal of the towel first projected. This will prevent wasteful operations of the dispenser. Furthermore the arrangement is such that with one movement of the operating member a towel will be dispensed through one of the dispensing slots and opposite movement of said member will extend another towel through the other slot, only however, after the first towel has been withdrawn through the first-named slot.

It has been found advantageous to project the corner only of the towels into position to be grasped and withdrawn through the dispensing slots. Consequently the dispensing means here provided is adapted to engage corner portions only of the towels and project such portions through said slots while the remainder of the towel remains within the cabinet and must be manually withdrawn therefrom.

As here shown the dispenser is adapted to dispense paper towels each of which is folded to define a larger upper fold 7 and a smaller lower fold 8 approximately half the width of the upper fold. Towels thus folded are stacked so that alternate ones are on the same side of the

cabinet. Therefore the lower folds of every other one of the towels in the stack are disposed to be protruded through one of the dispensing slots whereas the corresponding folds of the other towels of the stack are disposed to be protruded through the other dispensing slot.

The stack of toweling is supported approximately centrally by an inverted V-shaped supporting member 9 secured upon the bottom wall 4 of said casing, whereas on opposite sides of this member 9 are inclined supporting walls 10 and 11 which also support the stack. The members 9, 10 and 11 are so arranged with respect to the dispensing slots 2 and 3 that the lowermost towel of the stack will have its lower fold depended therefrom and lying over one of said slots, while the remainder of the towel is supported by said members. When the lowermost towel as shown in Fig. 3 has been withdrawn through the opening 2 the next towel in the stack drops on to the supporting members 9, 10 and 11 and the shorter lower fold thereof will gravitate between the members 9 and 10 so as to lie over the opening 3 and when this towel has been withdrawn the next one will drop into position so that its lower fold will gravitate into position lying over the opening 2.

The dispensing member 5 comprises an arcuate bar 12 arranged to move in an arcuate path upon the innner side of the side wall 13 of the cabinet, and is held thereon by the handle 6 which operates in an arcuate slot 14. An arcuate guide member 15 is fixed to said bar and engages in the slot 14 to prevent rotative movement of the bar about the axis of the handle. Projecting horizontally from the ends of the bar 5 are dispensing pins 16 and 17 which are respectively movable with said ends out through the slots 2 and 3 as shown in Figs. 3 and 4. These pins are adapted to engage the corner portions of the towels or in other words, the lower folds of the towels adjacent the ends of said folds whereby to force said corners out through the dispensing slots.

For the purpose of centering the towels and guiding them, V-shaped members 18 are secured on opposite side walls of the cabinet and extend into similar notches 19 formed in the ends of the towels.

In the operation of the dispenser of this invention, when a stack of towels is placed in the cabinet, the lower fold of the lowermost towel gavitates into position shown in Fig. 3 over the dispensing slot 2 and upon now grasping the handle 6 and moving the dispensing member 5 forwardly the pin 16 describes an arc and engages and forces out through said slot the corner of the lower fold engaged thereby. The operator may now grasp this protruding corner and thereby withdraw the lowermost towel from the cabinet, said towel sliding over the inverted V-shaped member 9 and passing freely out through the said slot. If the towel is allowed to remain in the cabinet after the corner thereof has been projected the dispensing means is rendered inoperative to dispense another towel. This is due to the fact that the removal of the first towel allows the lower fold of the next one to gravitate into position lying over the dispensing slot 3. On the rearward movement of the handle 6 the pin 17 is moved so as to engage the lower fold of the next towel and force a corner thereof out through the slot 3.

It is now apparent that the dispenser of this invention will cause a towel to be dispensed with each movement of the single dispensing member following withdrawal of the towel after the preceding dispensing operation. Thus although two dispensing openings are provided and the towels will be successively projected through said two openings upon successive movements of the operating member, removal of each towel is required in order that the next towel may be dispensed.

I claim:

1. A towel dispenser comprising a cabinet having a dispensing slot at its lower end, means for supporting in said cabinet a stack of towels wherein each, when it is next opposed to said slot, has a corner portion which will gravitate to a position inclined adjacent to said slot, and a dispensing member supported by and operable within the cabinet and extensible through said slot for engaging said corner portion and protruding the same through said slot, and means operable exteriorly of said cabinet for moving said dispensing member as aforesaid, said dispensing member comprising an arcuate bar and pins projecting from the ends of said bar and for engaging the corner portions of the towels.

2. A towel dispenser comprising a cabinet having a dispensing slot at its lower end, means for supporting in said cabinet a stack of towels wherein each, when it is next opposed to said slot, has a corner portion which will gravitate to a position inclined adjacent to said slot, and a dispensing member slidably supported by the cabinet and extensible through said slot for engaging said corner portion and protruding the same through said slot, and means operable exteriorly of said cabinet for moving said dispensing member as aforesaid, said dispensing member comprising an arcuate bar, pins projecting from the ends of said bar and for engaging the corner portions of the towels, said cabinet having an arcuate slot therein, said exteriorly located operating means being extended through said slot and being fixed to said bar.

3. A towel dispenser comprising a cabinet having a plurality of dispensing slots, means for supporting in said cabinet a stack of towels wherein alternate towels have portions disposed to gravitate to position lying adjacent different slots, and a dispensing member movable back and forth and operable to engage said portions of the towels and to force them through said slots with each movement thereof, and cooperating means exteriorly of said cabinet for moving said dispensing member, said dispensing member comprising an arcuate bar, pins on the ends of said bar, said cabinet having an arcuate slot, said operating means being slidable in said arcuate slot and fixed to and supporting said bar.

4. A towel dispenser comprising a cabinet having a plurality of dispensing slots in the bottom wall thereof, said cabinet being adapted to support a stack of folded paper towels arranged in said cabinet so that folds of alternate towels will gravitate to position over one slot and corresponding folds of the other towels will gravitate adjacent to the other slot, a dispensing member movable back and forth on a wall of said cabinet to engage and move the folds of said towels through said slots, means operable exteriorly of the cabinet for moving said member back and forth and a fixed towel support extending upwardly from the bottom of the cabinet between said slots.

5. A towel dispenser comprising a cabinet having dispensing slots in its bottom wall, means for

supporting in said cabinet a stack of towels wherein alternate towels have fold portions which will gravitate to a position adjacent said slots, said towels of said stack each having an end notch and the notches being alined, an upright guide member carried by one of the walls of the cabinet and adapted to engage in said notches, a dispensing member slidably supported upon one of the walls of the cabinet and having extensions for engaging the fold portion of the lowermost towel and moving the same thru the adjacent slot and means operable exteriorly of the cabinet for sliding said dispensing member to move said extensions into engagement with said fold portion and project the same thru said slot as aforesaid.

6. A towel dispenser comprising a cabinet open for discharge of towels at its lower end, means for supporting in said cabinet a stack of towels wherein each, when it is next opposed to the opening in the lower end, has a fold portion which will gravitate to an inclined position adjacent said lower end of said cabinet, a dispensing member slidably supported upon and within the cabinet and being arranged to extend under the lower end of the stack of towels and movable for engaging the fold portion of the lowermost towel and protruding the same thru the lower end of the cabinet, the towels of said stack having alined notches therein at one end of the stack, an upright guide member carried by the cabinet and adapted to extend into said notches, said cabinet having a slot, a projection carried by said dispensing member and being slidable in said slot, and an operating handle fixed to said projection for moving said dispensing member to protrude the fold portion of a towel as aforesaid.

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