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T. CAVOTO

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DISPENSING APPARATUS OF THE MAGAZINE TYPE

Filed May 29, 1940

Fig. 3.

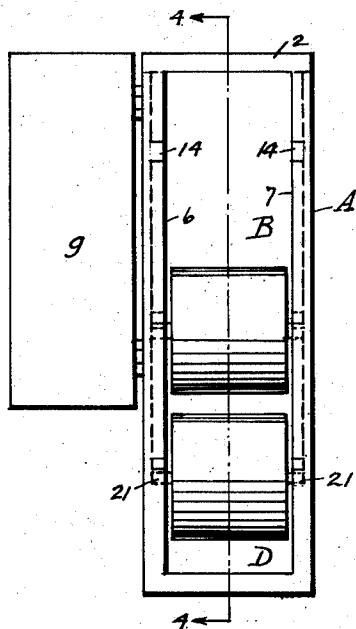


Fig. 4.

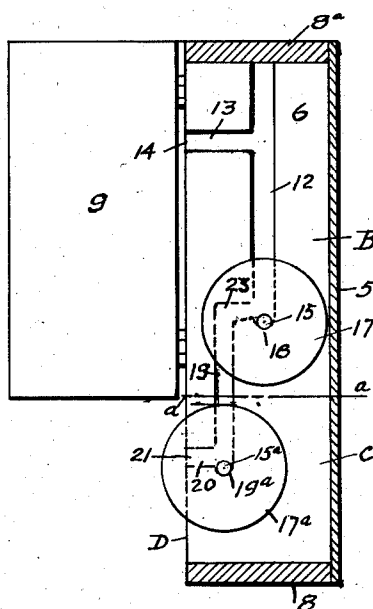


Fig. 1.

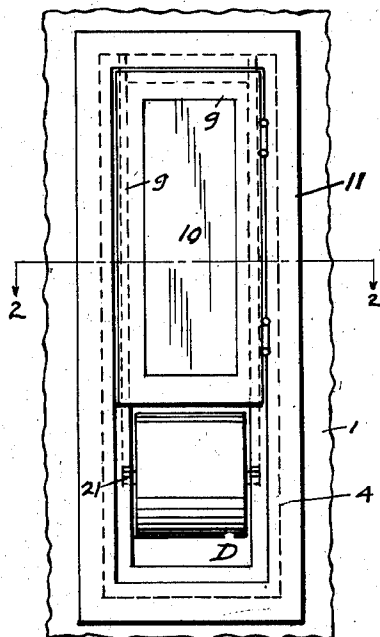
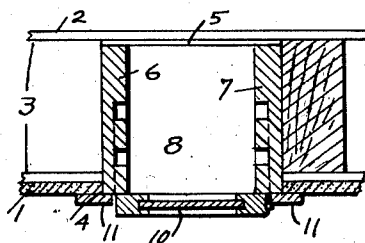


Fig. 2.



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DISPENSING APPARATUS OF THE MAGAZINE TYPE

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3 Claims. (Cl. 242—55.3)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

This invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention generically relates to a dispensing apparatus of the magazine or reservoir type for storing material on and dispensing it from the roll; more especially it is directed to a wall cabinet or built-in-cabinet structure adapted to contain a series of rolls of toilet paper, paper toweling or the like, and to support the rolls in stacked formation above a feed or service roll for the purpose of permitting convenient replacement of the service roll with a replenishing roll from the bottom of the stack as occasion may demand.

One object of this invention is to provide a cabinet structure of the character specified comprising a magazine section opening at its lower end into a feed or service roll section, the magazine section containing a series of rolls of toilet paper, paper toweling or the like, which are supported in stacked formation above a feed or service roll rotatably journaled within the feed roll section and in juxtaposition with respect to an outlet through which the paper from the roll is adapted to be drawn, the two sections having means for enabling the bottom roll of the stack to be dislodged and advanced into feeding position adjacent the outlet.

Another object of this invention is to provide a structure of the type indicated comprising a cabinet formed with upper and lower communicating magazine and feed roll sections respectively, the magazine section having a pair of vertically disposed guides adapted to receive the ends of a plurality of spools and to support the lowermost of the spools so that the paper rolls carried thereby will be held in stacked formation, and the feed roll section having a similar set of guides disposed in advanced and off-set relation with respect to and having their upper ends connected with the magazine guides, so as to enable the bottom roll of the stack to be dislodged, horizontally advanced and dropped into the feed section with the extremities of its spool journaled in suitably formed seats at the lower ends of the guides and adjacent the feeding outlet.

Another object of this invention is to provide a cabinet structure formed into upper and lower communicating magazine and feed roll sections, the magazine section having an opening adapted to be closed by a hinged closure member, formed to define an outlet in the feed roll section for paper withdrawing purposes, and the two sec-

tions being provided with interacting guideways having means for loading the magazine section with replacement rolls and additional means for effecting removal of the feed roll spool when its paper has been exhausted.

Another object of this invention is to provide a holder for a considerable supply of toilet paper or the like, which embodies but few parts, is inexpensive to produce and which may be located in a wall space with its front portion flush with the outer surface of the wall or constructed as a cabinet adapted to be attached to the wall.

With these and other objects in view, this invention consists in certain novel details of construction, combination and arrangement of parts to be more particularly hereinafter described and claimed.

Briefly stated, this invention comprises a rectangularly shaped cabinet interiorly formed with upper and lower vertically disposed magazine and feed roll sections respectively, the magazine section having a hinged closure and the feed roll section being provided with an outlet for paper withdrawal, means in connection with the side walls of the magazine section for loading said section with a series of paper rolls arranged in stacked formation and means in the feed roll section and coacting with guide means in the magazine section by which the bottom roll of the stack may be advanced relative to the stack, dropped into the feed roll section and suitably supported with respect to the outlet in the cabinet.

Referring to the accompanying drawing in which corresponding parts are indicated by similar reference characters:

Fig. 1 is a fragmentary front elevation illustrating the built-in-form of the instant invention with a feed or service roll operatively positioned relative to the outlet in the lower portion of the cabinet;

Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1;

Fig. 3 is a front elevation illustrating the cabinet form of the instant invention, which is adapted to be attached to a wall or the like and showing the closure member in open position, and Fig. 4 is a transverse vertical section taken on the line 4—4 of Fig. 3.

In the illustrated embodiment characterizing this invention, and referring especially to Figs. 1 and 2 of the drawing, there is shown a wall structure embodying front and rear plaster and lath wall sections 1 and 2, which define a wall space 3 into which the instant cabinet A is

adapted to be fitted. Front section 1 of the wall is formed with an opening 4 to permit the cabinet structure A to be inserted in the wall space 3 and positioned as shown in Fig. 2 of the drawing.

Cabinet A consists of rear wall portion 5, side wall portions 6 and 7, bottom portion 8 and top portion 8a. These components of the cabinet define a space, which for convenience in discussion, hereinafter will be referred to as magazine section B and feed roll section C, the division being indicated by the dotted line a-a, Fig. 4. In this connection it is to be understood that cabinet A may be constructed of metal and wood as shown, or completely of metal, if so desired.

Magazine section B is closed by a door 9 having a central panel 10 and it is hinged to the trim 11 surrounding opening 4 in the wall, as shown in Figs. 1 and 2 of the drawing. Door 9 does not extend the full height of the cabinet but is terminated at a point spaced from the bottom of the cabinet, hence when the door is closed it defines an outlet D through which the paper from the feed roll may be withdrawn and into which the feed roll is adapted to project.

The side wall portions 6 and 7 of magazine section B are formed with vertically disposed parallel guideways 12 intersected adjacent their upper ends by horizontally extending parallel guideways 13. The outer ends of guideways 13 are open as at 14 to receive the extremities of the spools 15 upon which are mounted the replacement rolls 17. With this arrangement the rolls may be successively fed to the vertical guides 12 for the purpose of loading the magazine. The lower ends of guideways 12 are formed with arcuate seats 18 for supporting the extremities of the lowermost spool 15 of replacement rolls 17, as shown in Fig. 4 of the drawing.

In addition to the guides 12, side wall portions 6 and 7 of the cabinet are also formed with vertically disposed parallel guideways 19 which extend between the magazine section B and feed roller section C. The lower ends of guideways 19 terminate in arcuate seats 19a which serve to journal the extremities of spool 15a of the feed roll 17a in a forward position in feed roll section C, so that a portion of the roll 17a projects into the outlet D, as shown in Figs. 1 and 4 of the drawing. The lower ends of guideways 19 connect with horizontally extending guideways 20 which are open at their outer ends as at 21 to permit withdrawal of the spool 15a of feed roller 17a when the paper of said roll has been exhausted.

In order to position the replacement roll 17 in feeding relation with respect to outlet D in section C, guides 19 are located in an advanced position relative to the guides 12 in magazine section B, and the upper ends of the guideways 19 are connected to the lower extremities of guideways 12 by a guideway 23 which extends at a slight angle to vertical guides 12. By inclining guideway 23 in this manner the extremities of spool 15 of replacement roll 17 are removed from their seat and placed in the guideways 23, the spool will then gravitate along the guideways 23 into guides 19 and descending said guideways will come to rest with its extremities disposed in seats 19a, thus advancing the feed roll 17 into proper feeding relation with respect to the outlet D.

There is little structural difference between the built-in-form of cabinet shown in Figs. 1 and 2 and the wall type disclosed in Figs. 3 and 4 and for this reason the same reference characters have been applied to both forms of the in-

stant invention. In the cabinet type however, the trim is omitted and door 9 is hinged to the side wall portion 6, as shown in Figs. 3 and 4 instead of to the trim as shown in Figs. 1 and 2.

With the structural arrangement just described it will be seen when the paper of feed roll 17a has been exhausted, its spool 15a may be withdrawn through guides 20 and openings 21, to clear seats 19a for the next feed roll 17a. To position a new roll of paper in the feed roll section C the bottom roll of the stack is lifted sufficiently to dislodge the extremities of its spool 15 from their seats 18 and to position said extremities in guideways 23 whereupon the spool will gravitate along guideways 22 into guideways 19, and descending guideways 19 as previously stated, will come to rest with its ends journalled in seats 19a as shown in Fig. 4 of the drawing, and with the paper roll protruding into outlet D to facilitate withdrawal of the paper.

Although rolls of toilet paper and toweling have been referred to in the specification, it is to be understood these expressions are intended to embrace various rolled material such as carpet, linoleum, wire netting and the like, all of which may be used in connection with the instant invention.

Having described my invention, what I claim as new and wish to secure by Letters Patent is:

1. An apparatus of the magazine type for storing material on and dispensing it from the roll and comprising a container formed with a magazine section, and a feed roll section arranged in superimposed and communicating relation, the feed roll section having a dispensing outlet, means for supporting a series of spool carried rolls of toilet paper, toweling or the like, in stacked formation within the magazine section, said means including vertically disposed, laterally spaced, parallel guides for engaging the opposite ends of the spools carrying said paper rolls and means at the lower extremities of the guides for supporting the spool of the bottom roll of said stack immediately above the feed roll section, said first mentioned means including guide means for directing the spools of the paper rolls into the upper ends of said vertical guides within the magazine section, means in connection with the roll supporting means whereby the bottom roll may be removed from the stack and discharged into the feed roll section, said last mentioned means including vertically disposed laterally spaced parallel discharge guides communicating at their upper ends through horizontally disposed guides with the lower ends of the vertical guides in the magazine section, said discharge guides being disposed in a plane horizontally off-set with respect to the guides in the magazine section, and means at the lower ends of said discharge guides for automatically seating the spool of the discharged roll in paper supplying position relative to the dispensing outlet.

2. An apparatus of the magazine type for storing material on and dispensing it from the roll and comprising a container formed with communicating magazine and feed roll sections, the latter being provided with a dispensing outlet, means for supporting a series of spool carrying rolls of toilet paper or the like in stacked formation in the magazine section with the bottom roll of the stack immediately above the feed roll section, said means including vertically disposed magazine guideways for engaging the opposite ends of spools carrying said paper rolls, said guideways being arranged in parallel relation

and terminating at their lower ends in spool supporting seats, means in connection with said seats whereby the bottom roll may be removed from the stack and discharged into the feed roll section, said last mentioned means including parallel discharge guideways forwardly offset with respect to the magazine guideways, said discharge guideways being formed at their lower ends with seats adapted to journal the discharged roll in feeding position relative to the dispensing outlet.

3. An apparatus of the magazine type for storing material on and dispensing it from the roll and comprising a container formed with communicating magazine and feed roll sections, the latter being formed with a dispensing outlet, means for supporting a series of spool-carrying rolls of toilet paper or the like in stacked formation in the magazine section with the bottom roll of the stack immediately above the feed roll

5 section, said means including vertically disposed magazine guideways for engaging the opposite ends of the spools carrying said rolls, said guideways being arranged in parallel relation and terminating at their lower ends in elbows, the bends of said elbows being formed with spool supporting seats, means in connection with said elbows whereby the bottom roll may be removed from the stack and discharged into the feed roll section, said last mentioned means including parallel 10 discharge guideways forwardly offset with respect to the magazine guideways, the upper ends of said guideways being in communication with the free ends of said elbows and the lower ends thereof terminating in seats adapted to journal the discharged roll in feeding position relative to the dispensing outlet.

TOMASO CAVOTO,