

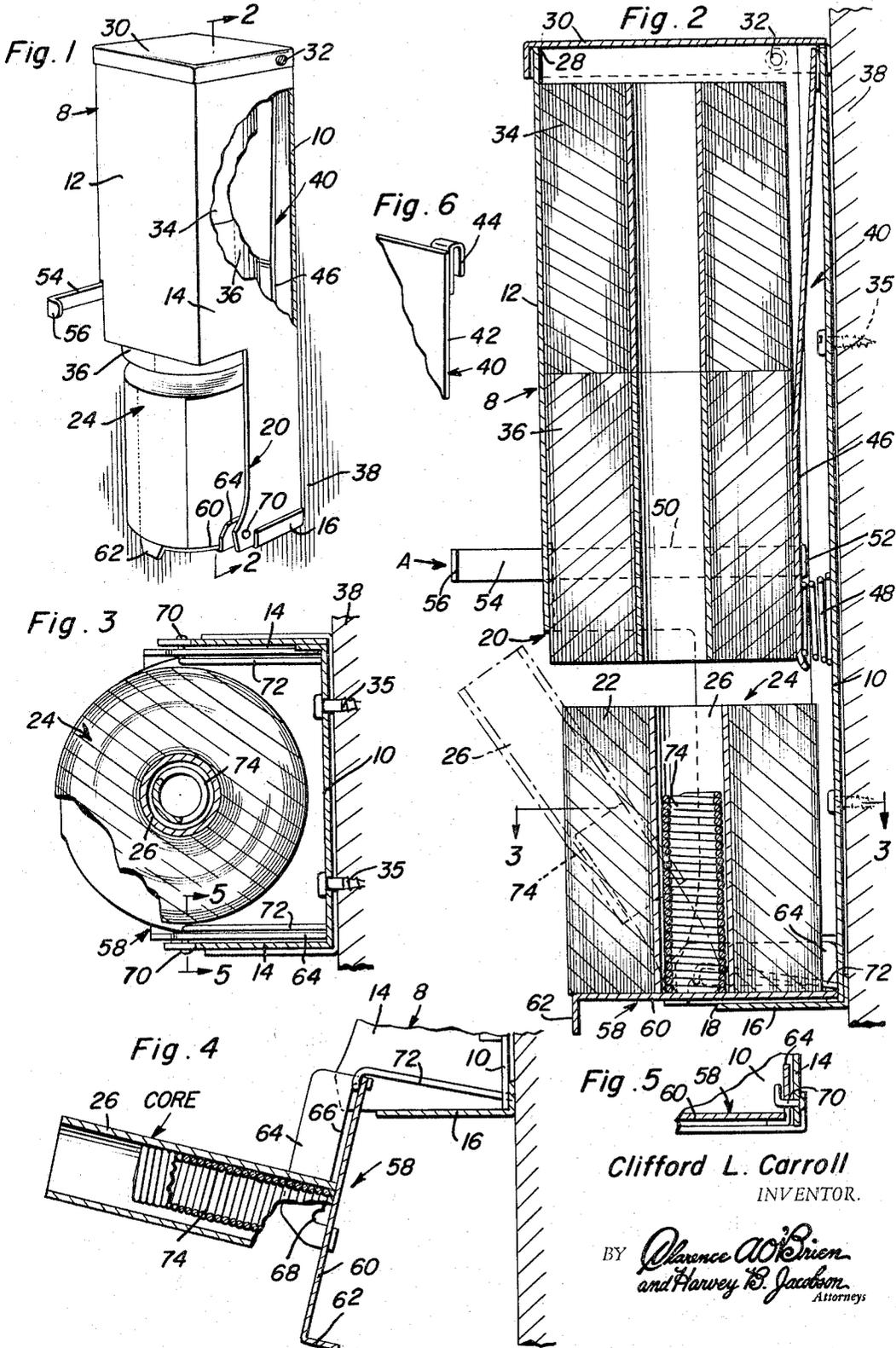
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HOLDER AND DISPENSER FOR TOILET PAPER

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HOLDER AND DISPENSER FOR TOILET PAPER

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The present invention relates to a holder and dispenser for at least one but preferably a plurality of rolls of toilet paper, the same being expressly, but not necessarily, functionally designed and structurally adapted to store several or more rolls of currently marketed brands of toilet paper.

Although this invention was devised and perfected with the thought in mind that it will serve best in public places, for example in hotels, motels and the like, it is such in construction and adaptability that it will serve exceptionally well in private homes.

By way of introduction it is to be pointed out that the invention is regarded as an improvement on many and varied prior art containers and dispensers. It has to do with an adaptation which is an improvement upon my prior Patent 2,991,951 of July 11, 1961 directed to a toilet paper container and dispenser. Briefly, Patent 2,991,951 is characterized by a container in which a plurality of rolls of toilet paper are stacked and protectively enclosed. The container has a lid or cover equipped upper open end by way of which the rolls of paper can be placed and encased in the confining space of the container or housing and has an uncovered discharge or dispensing opening at the bottom portion of its front by way of which sheets from an enclosed roll opposite the discharge opening may be withdrawn and readily torn loose for use, and spindle means which is axially mounted in the container and on which at least one roll of paper is stationed, supported and freely turnable for ready usage.

With further reference to the prior patent it will be noted that the spindle for the in-use roll (FIG. 4) is fixedly mounted on the shelf-like bottom and oriented with the aforementioned discharge opening. Despite the size and locale of the spindle it has been found that removing the cardboard core of the used-up roll has posed a problem. It follows that one object of the present invention is to change the construction of the spindle so that it is flexible and resilient and is such that it assures better spindle performance.

More significantly, the improved spindle herein disclosed is in the form of a stout but bendably yieldable coil spring. Also, instead of mounting the spindle (either a rigid or resilient spindle) rigidly as in the prior patent, the spindle in the present adaptation is mounted on and constitutes a component part of a unique extensible and retractable adapter, more particularly, a simple slidingly mounted tray, the latter being so arranged and of such capability that it can be completely slid or pulled out through the dispensing opening and allowed to pivot or swing down to a position which locates the core holding spindle so that it is an easy step to remove a partly used roll or just the core, after which the empty tray and spindle or, alternatively, with a fresh roll applied, can be slid back into a normal tray position within the confines of the lower part of the holder or container.

The invention is such that the container is provided with a hinged or equivalent cover making the container space loadable from the top, that is when the container is mounted in a completely exposed position on a wall or equivalent support. When, as is sometimes the case, the container is submerged and substantially enclosed within the recess of the wall surface and is therefore not top-loading, the loading can be accomplished from the bottom by way of an adequately wide and high roll inserting and removing opening. Then, too, and instead of using a

projectible and retractible tray, it would be within the purview of the invention to merely substitute a flexible and resilient spindle for the rigid type of spindle shown and covered in the aforementioned prior patent 2,991,951.

Another improvement resides in the provision of means which is installed within the confines of the container to take the place of the manually actuatable latch which (in my prior patent) bridges the upper portion of the dispensing opening and is accessible by way of said opening and actuatable to releasably suspend the rolls which are stored in the upper part of the container in readiness for use. To this end a spring biased plate or equivalent device is embodied in the upper part of the container and functions to suspend the rolls of paper with which it is cooperable. This plate is provided with a manually released spring returned arm which is accessible at the front of the container, whereby to more satisfactorily achieve the over-all and improved end result desired.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in perspective of the improved holder and dispenser for toilet paper with portions broken away to more clearly show the features which characterize the present invention.

FIG. 2 is an enlarged view taken on the plane of the vertical section line 2—2 of FIG. 1.

FIG. 3 is a horizontal section on the line 3—3 of FIG. 2.

FIG. 4 is a fragmentary view with parts in section and elevation detailing the construction and manner of use of the aforementioned extensible and retractible tray.

FIG. 5 is a fragmentary detail section on the plane of the section line 5—5 of FIG. 3.

FIG. 6 is a fragmentary perspective view of one upper corner portion of the spring biased roll holding plate constituting one of the features of the present improvement.

The elongated vertically disposable container (holder or housing) is denoted generally by the numeral 8 and is made of sheet material, which may be transparent or not, and it comprises a flat back or rear wall 10 and opposed front wall 12 and spaced parallel side walls 14. There is also a horizontal bottom wall 16 whose leading or front edge is cut back and positioned within the confines of the container as denoted at 18 (FIG. 2). It will be noted that the front wall and side walls are cut-away as denoted generally at 20 to provide a dispensing or discharge opening which is at a predetermined height or level above the ledge-like bottom wall or shelf 16. This opening is of a size to permit access to the paper 22 on the in-use or bottom roll 24 as shown in FIGS. 1 and 2. As is customary this roll of paper is provided at its hub portion with an open-ended tubular cardboard or equivalent core 26. It will be noted too that the upper end portion of the container is open as at 28 and is provided with a readily openable and closable lid or cover 30 which is hinged to the rear portions of the side walls as at 32. In practice the rear or back wall 10 is such that it serves to accommodate fastening screws or the like 35 which are employed to mount the device on a wall or other support 38. The rolls of paper in the upper chamber or part of the container are denoted at 34 and 36, these rolls being in end-to-end or stacked relationship. These rolls are in readiness to drop down by gravity to take the place of the roll 24 after the paper on the latter has been used up. The means preferred to accomplish this result comprises a built-in or self-contained device 40. The means or device 40 preferably comprises a vertically elongated plate 42 whose upper corner portions

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are provided with hooks 44 which are simple and releasably hooked over the upper edge of the rear wall. The lower half portion 46 of this plate is bent toward the roll 36 and is provided with a coil spring 48 which is interposed between the plate and the rear wall and which serves to press a portion of the plate against the bottom part of a roll 36 to hold it in its elevated but ready-to-use position. In order to operate this plate a rigid metal strap or arm 50 is provided and this arm has one end 52 joined to the plate and has its other forward end portion 54 projecting beyond the front wall of the opening 20 where it is provided with a finger-piece 56 which is pushed in the direction of the arrow in order to exert pressure against the spring loaded or spring biased plate 40. It will be evident that by exerting pressure of the finger in the direction of the arrow A the arm will transmit motion to the plate and will compress the spring 48 and will allow the roll 36 to drop down and by timely releasing the arm the next-above roll 34 will be trapped and held in its ready-to-serve position.

With reference now to the novel means shown to advantage in FIG. 4 it will be seen that broadly this means is extensible and retractible. More specifically the means comprises a simple tray 58. The tray in turn comprises a flat bottom or plate 60 having a finger-grip 62 at its free end. The opposite longitudinal edge portions of the plate or tray are provided with spaced parallel upstanding flanges 64 having elongated slots 66 and keeper notches 68. The slotted flanges are keyed and slidingly mounted on laterally directed outer end portions 70 (FIG. 5) of a pair of spaced parallel fixedly mounted guide rods 72. These rods parallel the interior surfaces of the side walls 14. They are correctly shaped to slidingly mount the tray and to permit it to be withdrawn and returned in a seemingly self-evident manner. The central or median portion of the bottom of the tray is provided with a short vertical spindle. While it is within the purview of the concept to provide and use a rigid centralized spindle atop the tray, the one shown and customarily employed comprises a stout but nevertheless manually bendable coil spring 74. This spring is of the approximate height shown in FIG. 2 and accordingly terminates at its upper end in a plane well below the plane of the top part of the dispensing opening 20. With reference again to FIG. 4 of my prior patent it is reiterated that the holding spindle is rigid. In the instant case and where the tray could be omitted, as is sometimes the situation, the spindle 74 here need only be flexible. This is to say the spring spindle 74 itself permits removal of the core without pulling the tray out and this is brought out in phantom lines in FIG. 2. There are instances however when the tray 58 is locked in place (such as in public places where a padlock is applied) and then the flexible and resilient spindle would also come in handy for removing a defective roll by the authorized attendant or simply taking off the cardboard core 26 as pointed out above. Furthermore, it is within the purview of this invention to provide a sliding tray with a spindle which instead of being flexible and resilient is rigid as for example the type shown in the prior patent. Because of the fact that the tray can be pulled out it would not necessarily be so that the spindle would have to be flexible. It is evident therefore that the spring spindle is necessary only if the slidingly mounted tray is locked (by padlock not shown) into position and that the spring spindle itself whether on a tray or not would be amply flexible to allow the core to be flexed and removed.

Normally with the tray retracted and within its position-of-use shown in FIGS. 1 and 2 the spindle is perpendicular and in proper axial relationship to the chamber portion of the container. This allows the hub or core 26 of the roll 24 to be slipped into position over the spindle. In fact the roll of paper can be allowed to drop into place to start with or it is permissible to simply place two rolls 34 and 36 in the chamber portion, to pull

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out the tray and place the roll 24 thereon and then slide the tray back into the usable position shown in FIGS. 1 and 2.

Assuming that the roll of paper 24 has been used up and it is desired to remove the core 26 it will be evident that by simply catching hold of the finger-piece 62 and pulling the tray out and allowing it to drop down to the self-suspended position shown in FIG. 4 the user can readily remove the core and either place a new roll on the spindle and put the tray back in its normal usable position. If the tray is empty when it is slid back into place it will be seen that by operating the aforementioned trippable arm 54, the release means 40 comes into play and allows the roll 36 to drop down over the spindle in readiness for use.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A holding, storing and dispensing device for rolls of toilet paper wherein each roll embodies a tubular cardboard core with toilet tissue wound thereon comprising: a vertically elongated container providing an enclosed space for a plurality of rolls of toilet paper stacked one above the other, the front bottom portion of said container being provided with a toilet paper clearing and dispensing opening of requisite width and extending upwardly from the plane of the bottom of said container to a height sufficient to permit dispensing of toilet paper from the roll in alignment with said opening, and also permitting one to pass a full roll through said opening for reloading, if desired, that portion of the container above the opening providing a storage space and serving to enclose extra rolls of toilet paper capable of gravitating into the lower portion of the container when the paper or the roll therein has been used up, manually releasable spring-biased means operatively mounted within the confines of the upper portion of said container and releasably supporting said extra rolls of paper until needed for use in said bottom portion, and a manually yieldable spindle mounted axially and vertically in said lower portion and adapted to support and accessibly retain the lowermost in-use roll of toilet paper, said spindle being of a vertical height less than the height of said dispensing opening, said manually releasable spring-biased means comprising a plate connected with and movably suspended from a coating component part of said container and which is interposed between said part and the rolls of paper proximal thereto, said plate provided with a spring which yieldably urges the plate to assume and normally retain its roll holding position and to serve its purpose, and a manually trippable arm secured at a rearward end to said plate and projecting forwardly to an accessible operating position in front of said container, whereby when the arm is pressed toward the container, the spring is depressed and permits the plate to move to its roll-releasing position, said plate being vertically elongated and provided at an upper end with hooks removably hung over the upper edge of a rear wall of said container, said spring comprising a coil spring affixed to one side of a lower end portion of said plate.

2. In combination, a pair of tubular roll members, a holding, storing and dispensing device for said roll members, said device comprising upstanding support and guide means, the lower end of said support and guide means including generally horizontal abutment means, an upstanding spindle supported from said abutment means and projecting upwardly therefrom, one of said roll members being disposed on and supported from said abutment means in upstanding position thereon and with said

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spindle projecting upwardly at least partially through said one roll member, the other roll member of said roll members being operatively associated with said support and guide means for gravity urged movement therealong between an elevated position spaced at least slightly above said one roll member and a lowered position occupying the position in which said one roll member is disposed with said spindle projecting at least partially upwardly through said other roll member when said one roll member is removed, said support and guide means including means releasably retaining said other roll member in said elevated position, said spindle and said one roll member, when said other roll member is in said elevated position, terminating at their upper ends below the bottom of said other roll member with the upper end of said one roll member spaced slightly below the lower end of said other roll member, at least the upper end portion of said spindle being sufficiently horizontally laterally displaceable, independently of lateral displacement of the lower terminal end of said spindle, to enable said one roll member to be axially withdrawn from the upper end of said spindle without interference with said other roll member, said spindle including means biasing said spindle toward a position with the upper end thereof in position for telescopic movement of the lower end of said other roll member thereover after said one roll member is removed and said other roll member is released for movement by gravity to said lowered position.

3. The combination of claim 2 wherein said abutment means is slidingly supported from said support and guide means for lateral outward displacement of said abutment

means relative to said support and guide means sufficient to move said spindle into a position enabling withdrawal of said one roll member therefrom independent of lateral displacement of the upper end of said spindle relative to the lower end thereof.

4. The combination of claim 3 wherein said abutment means is also pivotally supported from said support and guide means for rotation about an axis disposed generally at right angles to the longitudinal axis of said support and guide means and extending transversely of the direction in which said abutment means is slidingly displaceable during sliding displacement of said abutment means.

5. The combination of claim 2 wherein said support and guide means includes means enclosing at least all but the lower end portion of said other roll member when the latter is in said elevated position.

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