Nov. 30, 1965 H. BOLGER 3,220,660

TISSUE HOLDER

Filed Aug. 9, 1963

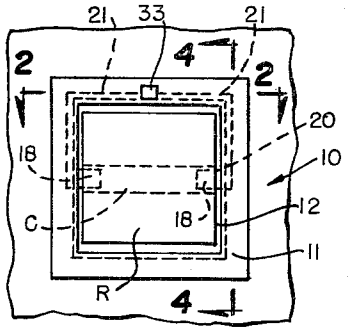


FIG. 1.

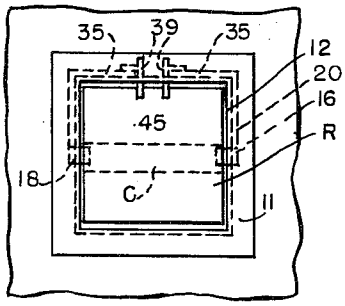


FIG. 8.

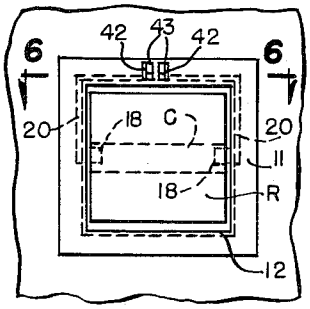


FIG. 5.

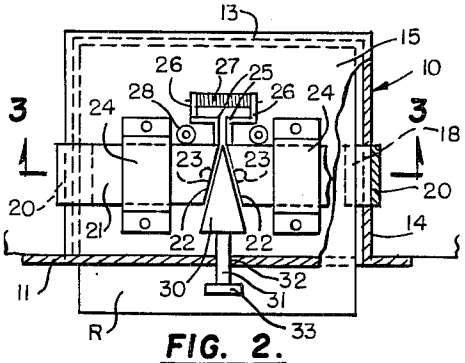


FIG. 2.

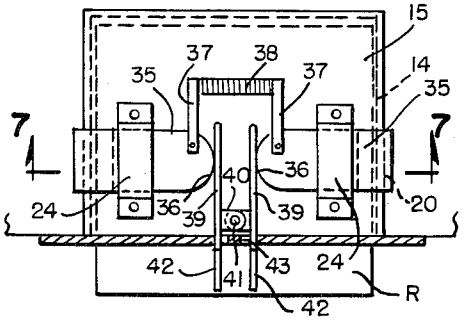


FIG. 6.

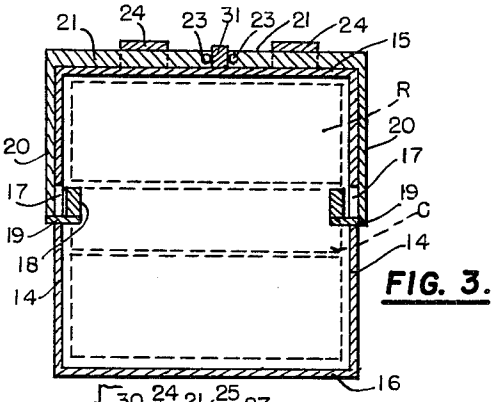


FIG. 3.

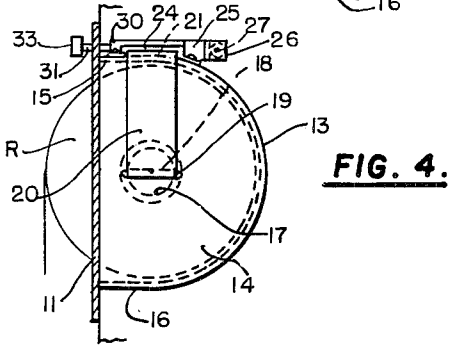


FIG. 4.

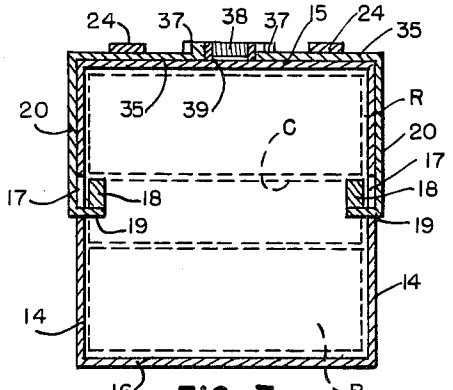


FIG. 7.

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United States Patent Office 3,220,660 Patented Nov. 30, 1965

3,220,660

TISSUE HOLDER

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Filed Aug. 9, 1963, Ser. No. 301,076
4 Claims. (Cl. 242—55.53)

This invention relates to a toilet tissue holder and is particularly applicable for use with toilet tissue in roll form.

A primary object of this invention is the provision of an improved means for facilitating the removal and replacement of rolls after the tissue has become exhausted.

An additional object of the invention is the provision of means in association with a roll tissue holder of means whereby the lugs which normally engage the ends of the open central core of such a roll may be retracted with a minimum of effort and difficulty in order to permit removal of the core of an exhausted roll, and maintained in retracted position until a new full roll is positioned in the holder.

A further object of the invention resides in the provision of the device of this character which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture, assemble and utilize.

Still other objects will in part be obvious and in part be pointed out hereinafter and shown in the accompanying drawings.

Wherein:

FIGURE 1 is a front elevational view of one form of tissue holder embodying the instant inventive concept shown as inset in a recess in the wall;

FIGURE 2 is an enlarged sectional view, partially broken away, taken substantially along the line 2—2 of FIGURE 1, as viewed in the direction indicated by the arrow;

FIGURE 3 is a sectional view taken substantially along the line 3—3 of FIGURE 2, as viewed in the direction indicated by the arrow;

FIGURE 4 is a sectional view taken substantially along the line 4—4 of FIGURE 1, as viewed in the direction indicated by the arrow;

FIGURE 5 is a view similar to FIGURE 1 but showing a modified form of construction;

FIGURE 6 is an enlarged sectional view taken substantially along the line 6—6 of FIGURE 5, as viewed in the direction indicated by the arrows;

FIGURE 7 is a sectional view taken substantially along the line 7—7 of FIGURE 6, as viewed in the direction indicated by the arrows; and

FIGURE 8 is a view similar to FIGURES 1 and 5, but showing a still further modified form of construction.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Having reference now to the drawing in detail, more particularly to the species of the invention disclosed in FIGURES 1 to 4, there is generally indicated at 10 a toilet tissue holder constructed in accordance with the instant invention which is comprised of a face plate 11 having a relatively large, rectangular central aperture 12 therein, dimensioned to accommodate a conventional roll of toilet tissue provided with the usual open central hollow core C. The holder 10 also includes an arcuate rear wall portion 13 having a substantially horizontal top portion 15 and a similar bottom portion 16 secured to the face plate 11, and further includes opposite end walls 14 constructed in conformity to the curvature of the rear wall 13. The end walls 14 are each provided with central openings 17 which, when a roll R is in position in the holder, align with the open ends of the core C.

Roll supporting lugs or studs 18 extend through the openings 17 and are mounted on flanges 19 which comprise horizontally disposed end portions of arms 20 which extend vertically up the side walls 14 to a point adjacent the top portion 15, at which time they terminate in inwardly extending, right-angularly disposed plates or plate members 21.

The two plate members are provided with inclined inner surfaces 22 which incline outwardly away from the face plate 11, and which are provided with roller or ball bearings 23 inset at intermediate points therein. Straps 24 serve to hold slidable plates 21 in juxtaposition to top portion 15 in such manner that they may be linearly moved relative to the top portion 15.

A pair of opposed brackets 25 extend rearwardly from each plate 21, the brackets including offset extremities 26, between which is connected a coil spring 27, for the purpose of biasing the ends 22 of the plates 21 toward each other. Vertically mounted roller bearings 28 are positioned on top portion 15 adjacent the rear portions of plate 21 to facilitate sliding motion thereof.

A wedge 30 is positioned between the tapered end portions 22 of plates 21 and provided with a stem 31 which extends outwardly through an opening 32 in the top of face plate 11 and terminates in a push-button 33.

The operation of the device should now be readily understandable. When it is desired to remove and replace a roll of paper or the core thereof, simple pressure on the button 33 causes wedge 30 to separate the inclined ends 22 of plates 21, which separation moves the arms 20 and their associated flanges 19 and lugs or studs 18 outwardly to release the central core C from its engagement therewith. The core may then be readily removed and a new roll placed in the container. Release of the push button 33 will now permit the lugs or studs 18 to re-engage the open core of the roll and the latter is ready for use.

FIGURES 5, 6 and 7 disclose a modified form of construction wherein the container or receptacle is substantially identical to that of the previous modification and wherein identical reference characters refer to identical parts.

In this form of the invention, however, the plates 21 with their inclined or beveled ends 22 are replaced by plates 35 having arcuate or rounded ends 36, the plates being linearly movable to effect disengagement of the lugs 18 from the core of the roll in the same manner as that previously described. In this modification, however, relatively straight arms 37 extend rearwardly from the ends of the plates 35 and are connected by a spring 38 which serves to bias the ends of the plates toward each other. A pair of arms 39 extend between the plates with the outer surface of one arm in engagement with each arcuate end. Each arm 39 is provided with inwardly extending lugs 40 which are centrally interconnected and mounted on a pivot 41. The extremities 42 of the arm extend through openings 43 in the front wall 11 and the arrangement is such that compression of the extending portions 42 serves to pivot the arms 39 outwardly against the rounded ends 36 to move the plates 35 outwardly and dis-engage the lugs 18 from the interior of the core C.

FIGURE 8 discloses a similar face plate 11 having a central opening 12 which contains a roll R having a core C the ends of which are engaged by studs or lugs 18. In this modification, arms 20 are provided and extend to plates 35 which are identical to the previously described plates 35. However, in this modification the ends of the arms 39 which engage the arcuate ends of the plates 35 are provided with downwardly extending finger portions 45 which extend through suitable openings in the top portion 15 of the rear wall and to expose through the opening

12. In this modification also compression of the portions 45 serves to disengage the lugs 18 from the ends of the core to permit removal and replacement of the same.

From the foregoing it will now be seen that there is herein provided an improved toilet tissue holder, which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

I claim:

1. A toilet tissue holder comprising a casing including an arcuate rear wall having a relatively flat top portion and a relatively flat bottom portion, end walls and a face plate having an opening therein adapted to expose a roll of toilet tissue in the casing, said end walls having aligned openings therein, studs projecting through said openings adapted to engage in the end openings of the core of the roll of tissue, horizontally extending flanges secured to said studs extending outwardly through said openings, vertical arms integral with said flanges and extending to the tops of said walls, inwardly extending plates extending over said flat top portion of said rear wall, said plates having juxtaposed aligned ends, strap means slidably mounting said plates on said top portion, spring means yieldably holding said aligned ends in juxtaposed relation, means extending between said ends for separating said plates and hence moving said arms, flanges and studs outwardly adapted to release said studs from said core to permit removal and replacement of said roll, means extending outwardly of said face plate to actuate said means for separating said plates, said means for separating said plates comprising a wedge extending between said aligned juxtaposed ends, said ends being tapered to accommodate said wedge, and said means to actuate said means for separating said plates comprising a stem secured to the wide end of said wedge extending outwardly through an opening in said face plate and a push button on said wedge, and roller bearings mounted in said ends of said plates for engagement by said wedge.

2. The structure of claim 1 wherein guide bearings are mounted on said top portion of said rear wall adjacent the sides of said plates.

3. A toilet tissue holder comprising a casing including an arcuate rear wall having a relatively flat top portion and a relatively flat bottom portion, end walls and a face plate having an opening therein adapted to expose a roll of toilet tissue in the casing, said end walls having aligned openings therein, studs projecting through said openings adapted to engage in the end openings of the core of the roll of tissue, horizontally extending flanges secured to said studs extending outwardly through said openings, vertical arms integral with said flanges and extending to the tops of said walls, inwardly extending plates extending over said flat top portion of said rear wall, said plates having juxtaposed aligned ends, strap means slidably mounting said plates on said top portion, spring means yieldably holding said aligned ends in juxtaposed relation, means extending between said ends for separating said plates and hence moving said arms, flanges and studs outwardly adapted to release said studs from said core to permit removal and replacement of said roll, means extending outwardly of said face plate to actuate said means for separating said plates, ends of said plate being arcuately convexed and the means for separating said plates comprising a pair of arms and a linkage pivotally connecting intermediate portions of said last-mentioned arms, the outer ends of said arms beyond said linkage extending through openings in said face plate in parallel relation, said outer ends comprising said means for actuating the means for separating said plates, whereby compression of said ends of said last-mentioned arms separates said inner ends of said plates.

4. The structure of claim 3 wherein said outer ends of said arms are provided with depending portions extending into the opening in said face plate.

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