March 30, 1954 R. A. GRAY 2,673,693

PAPER HOLDER

Filed April 4, 1952

Fig. 1.

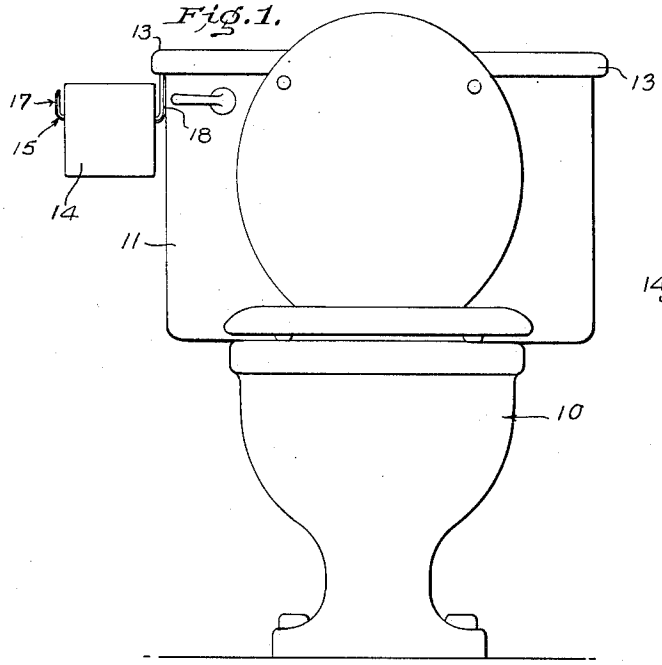


Fig. 4.

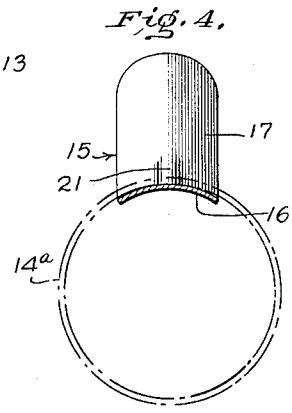


Fig. 5.



Fig. 2.

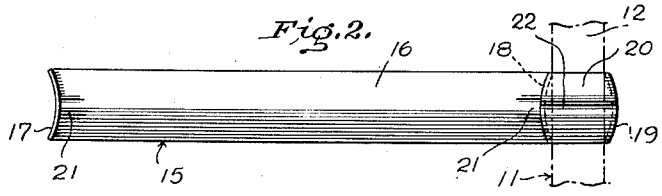


Fig. 6.

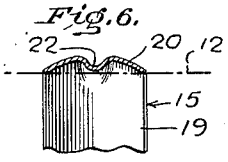


Fig. 3.

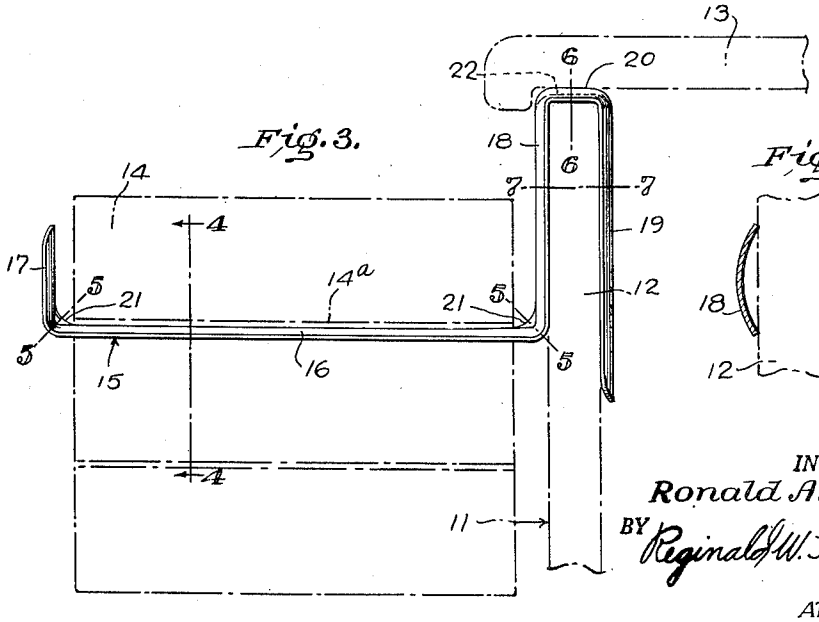


Fig. 7.

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PAPER HOLDER

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1 Claim. (Cl. 242—55.2)

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The present invention relates to holders for rolls of paper and more particularly to toilet tissue holders.

The principal object of the invention is to provide a holder of the above character which can be easily and quickly attached to and held against accidental displacement on a supporting structure without the use of screws, nails, or other fastening elements, and which will conveniently receive and efficiently hold a roll of paper for use of the paper from the roll.

Another object of the invention is to provide a holder as above set forth constructed from a single thin strip of inexpensive material formed to a shape that reinforces the material against excessive flexibility, that presents smooth, rounded surfaces in contact with the movable roll of paper, and that also presents spaced edge contact with the supporting structure for frictional engagement therewith.

It is also an object of the invention to provide a novel and improved holder of the above-indicated character which is extremely simple and substantial in construction, economical to manufacture, and thoroughly efficient and practical in use.

These, together with various auxiliary features and objects of the invention which will later become apparent as the following description proceeds, are attained by the present invention, a preferred embodiment of which has been illustrated, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a front elevation of a water closet showing the improved holder attached to the flush tank thereof and showing a roll of paper on the holder;

Figure 2 is a top plan of the holder showing in dot-and-dash lines a portion of the flush tank;

Figure 3 is a side elevation of the holder showing in dot-and-dash lines portions of the flush tank and the roll of paper;

Figure 4 is an enlarged cross section taken on line 4—4 of Figure 3;

Figure 5 is a similar section taken on either of the pair of lines 5—5 of Figure 3; and

Figures 6 and 7 are sections on lines 6—6 and 7—7, respectively, of Figure 3.

Referring more particularly to the drawing wherein like numerals designate similar parts throughout the various views, attention is first directed to Figure 1 wherein it will be seen that there is indicated generally by the numeral 10 a water closet provided with the usual flush tank 11 with side and end walls 12. On the upper

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edges of the walls 12, a slightly flanged and loosely fitted lid 13 rests for closing the tank.

The improved holder forming the subject of the invention and indicated generally by the numeral 15 is constructed in a single piece and is preferably made from a thin strip of metal that is bent and drawn to shape with the use of forming dies. The holder consists chiefly of a horizontal bar 16 having vertical upturned arms 17 and 18 at opposite ends thereof, and a depending leg 19 that extends back on the arm 18 and is spaced therefrom by a spacer member 20 connected to the upper ends of the arm 18 and leg 19. All of these parts of the holder are constructed of material of the same width and thickness and all are arched in cross section throughout their entire widths for stiffening the parts and also for presenting smooth, rounded bearing surfaces and engaging edges at different locations along said parts.

The bar 16 upon which a roll of paper 14 is held and turned is of a length slightly greater than the width of the paper and is arched upwardly on a radius slightly less than the inside radius of the cardboard tube 14a upon which the paper is wound, as shown in Figure 4, for providing a smooth surface on which the tube turns. The upturned arms 17 and 18 that engage the ends of the roll of paper 14 to keep the paper on the bar 16 are arched towards one another for also presenting rounded, contacting surfaces to the roll of paper. As it is necessary to insert the arm 17 into the cylindrical opening in the cardboard tube when placing a new roll of paper or removing a tube from which the paper has been used onto or off of the bar 16, said arm 17 is of a length slightly less than the inside diameter of the cardboard tube.

The upturned arm 18, depending leg 19, and spacer member 20 are arranged relative to one another to provide an inverted U-shaped hook that is adapted to engage over the upper edge and down opposite sides of a wall 12 of the flush tank 11 for supporting the bar 16 on a horizontal plane. The leg 19 is arched away from the arm 18, and the spacer member 20 is arched upwardly, thus providing spaced edges along these parts as well as on the arm 18 for frictional engagement with the wall 12. As shown in Figure 3, the arm 18 is of a greater length than the arm 17, and it is the length of the arm 18 that determines the height of the roll of paper on the flush tank. Also in the same figure, it can be seen that the depending leg 19 extends below the horizontal plane of the bar 16 which permits

placement of the holder on the flush tank with one hand by simply engaging the lower end of the leg 19 over the upper edge of the wall of the tank and pulling down on the holder.

Where the upturned arms 17 and 18 join the bar 16, reinforcing fillets 21 are provided which are of considerably less width than the material from which said bars and arms are constructed. The fillets are formed by shaping the end portions of the material of said bar and arms, and their purpose is to strengthen the holder at such locations. For strengthening the joints of the arm 18 and leg 19 to the spacer member 20, said spacer member is indented centrally thereof providing a channel 22 extending around its joining portions to said arm and leg, as shown in Figures 2 and 6.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the construction, manner of use, operation, and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, various changes may be made without departing from the spirit and full intendment of the invention.

What is claimed is:

A holder for supporting a tubular roll of toilet tissue on a vertical wall of a flush tank, said holder being constructed by bending a single strip of thin material of the same width throughout its length in a shape comprising a horizontally arranged bar that is arched upwardly in cross section throughout its entire width on a radius less than the inside radius of the tubular roll of toilet tissue and on which said roll rests and

is turned, an upturned substantially vertical arm joined to each end of said bar by bending said strip material, said arms being substantially parallel to one another and being arched in cross section throughout their entire widths toward one another thereby presenting curved surfaces for engagement with the ends of said roll of paper upon movement of said roll endwise on said bar, one of said arms being of a height less than the other and less than the inside diameter of the tubular roll of toilet tissue, a horizontal spacer member joined at one of its ends to the upper end of the longer of said arms and extended to the side of said arm opposite to that from which said horizontal bar extends, said spacer member being arched upwardly in cross section throughout its width, and a depending leg joined at its upper end to the other end of said spacer member and being spaced from said longer arm substantially the thickness of a wall of the flush tank, said depending leg being arched transversely away from said arm throughout its width and being of a length greater than that of the arm to which it is connected thereby causing said leg to project below said horizontal bar, the transverse arching of the longer arm, spacer member, and depending leg providing edge engagements of such elements with the opposite sides and top surfaces of a wall of the flush tank for retaining the holder in position on the tank.

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