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Carol

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[54] **RIGID MEANS TO SUPPORT A ROLL OF TOILET PAPER ON A DISPENSER BRACKET**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 107,971, Jan. 20, 1971, abandoned.

[52] **U.S. Cl.** **242/55.2**

[51] **Int. Cl.** **A47k 10/16,** A47k 10/22

[58] **Field of Search** 242/55.2, 55.53, 55.55, 242/68.4

[56] **References Cited**

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1,651,867	12/1927	Boynton	242/55.2
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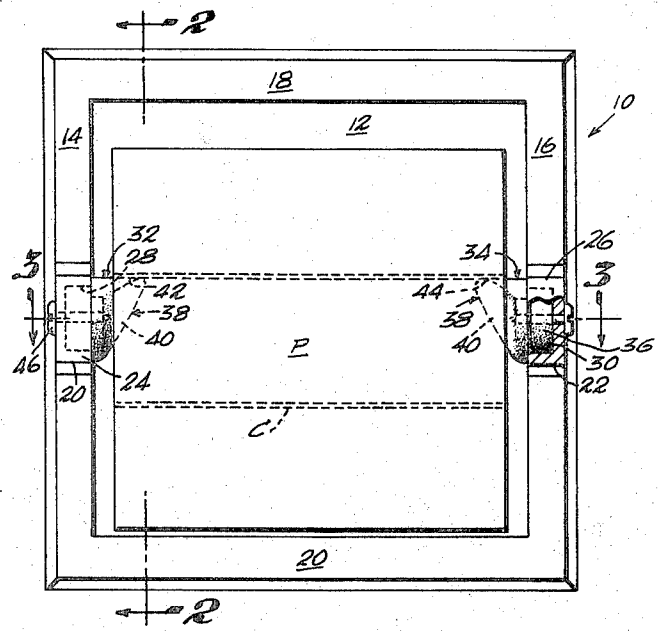
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[57] **ABSTRACT**

Means to support a roll of toilet paper comprising a pair of relatively short pegs, extending inwardly in a spaced apart, opposed relation from the end portions of a pair of outwardly extending arms, conventionally associated with a toilet paper dispenser bracket. The confronting end portions of both pegs are similarly beveled and the pegs are of a predetermined length whereby the bevels function as cams to temporarily deform the toilet paper roll, as it is manually wedged inwardly between the pegs, until the pegs drop into the opposed end portions of the cardboard tube about which the toilet paper is rolled.

5 Claims, 4 Drawing Figures



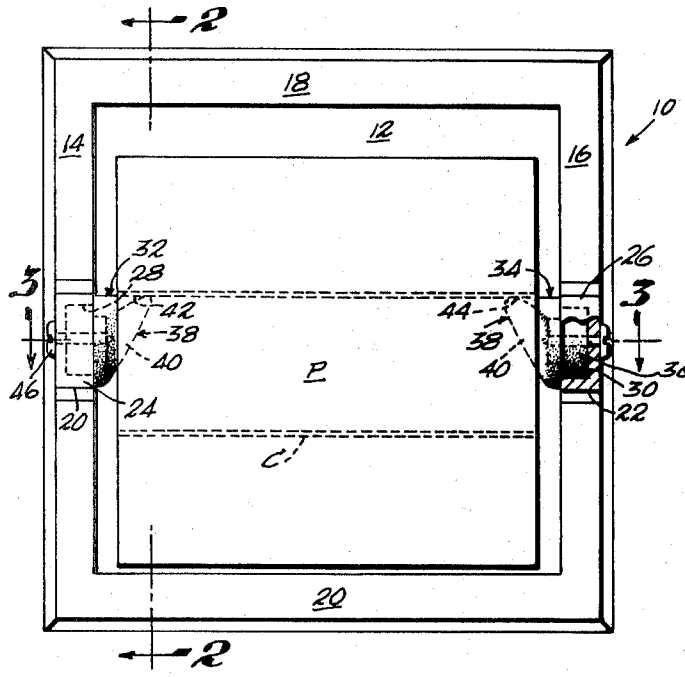


Fig. 1

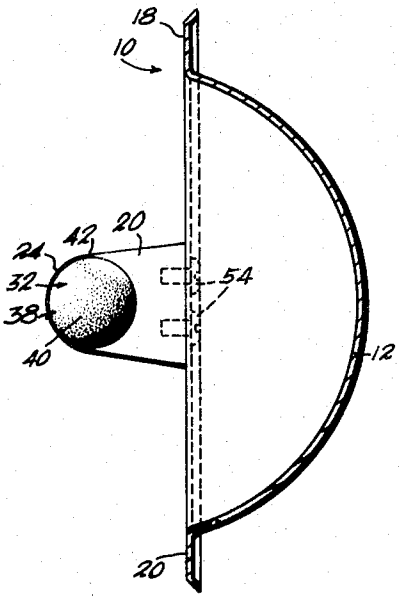


Fig. 2

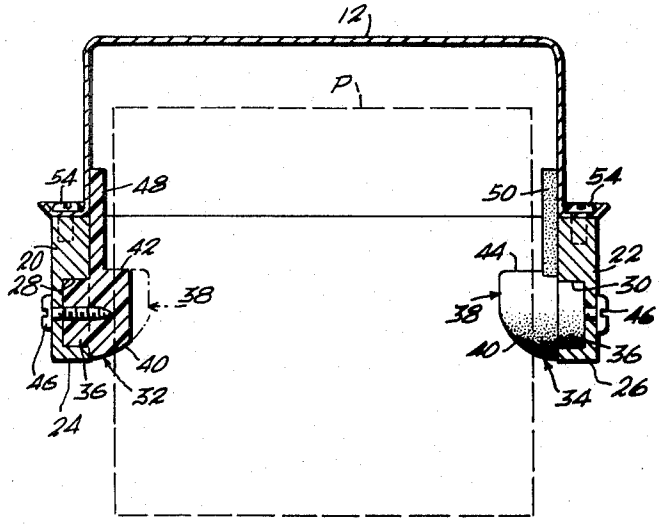


Fig. 3

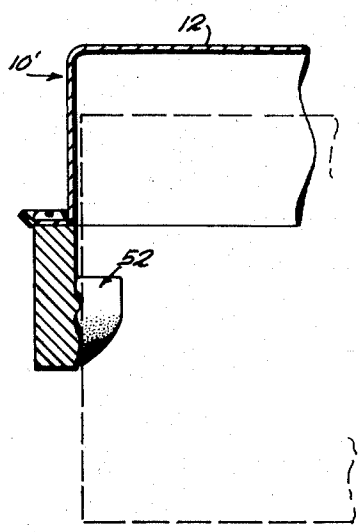


Fig. 4

RIGID MEANS TO SUPPORT A ROLL OF TOILET PAPER ON A DISPENSER BRACKET

This application is a continuation-in-part of my copending patent application, Ser. No. 107,971, filed Jan. 20, 1971 and entitled Toilet Paper Holder and Adaptor, now abandoned.

STATE OF THE PRIOR ART

U.S. Pat. No. 2,371,109 to R.S. Sanford discloses a toilet paper dispenser bracket comprised generally of a sheet metal base, for attachment to a wall, and a pair of outstanding resilient sheet metal bracket arms, each of which provides a toilet paper roll supporting boss and an annular flange to frictionally engage one end of a toilet paper roll adjacent the cardboard tube. The forward or outermost portion of each boss is beveled and when a roll of toilet paper is pushed thereagainst, between the bracket arms, the arms, being resilient, are deformed outwardly permitting passage therebetween of the toilet paper roll until the bosses are seated in the opposed ends of the cardboard tube.

U.S. Pat. No. 3,428,267 to F. S. Briles discloses a toilet paper dispenser comprising generally a hood or cover to substantially hide a roll of toilet paper when it is in place in the dispenser. The hood is fabricated of a resilient material and includes a pair of bosses extending outwardly from the opposed side walls thereof for seated engagement in the holes conventionally provided in the extended end portions of the arms of most recessed types of built-in toilet paper brackets. A pair of bosses are provided, in an inwardly extending, opposed relation, from each side wall, generally in axial alignment with the outer bosses.

In use, this device must first be removed from the built-in bracket whereupon the resilient side walls of the hood are flexed outwardly to insert a roll of toilet paper in a seated relation between the inner bosses. The side walls are then flexed inwardly to seat the outer bosses, on the hood side walls, in an engaged relation in the holes conventional with the built-in bracket arms.

This patent also discloses a modified form of structure employing all of the same operational features of the above-described form with the exception that the hood or roll cover is omitted.

U.S. Pat. No. 2,606,724 to A.M. Hertz discloses a cover concealer and holder very similar to the Briles Patent with the exception of providing slotted, weakened side wall portions about the bosses.

BACKGROUND OF THE PRESENT INVENTION

The present invention employs a pair of short, bevel ended pegs molded integrally on toilet paper support arms or for fixed engagement in the conventional holes, provided in the toilet paper support arms of the widely used built-in, recessed or semi-recessed type of toilet paper dispenser brackets. However, it is equally applicable to flush mounted dispenser brackets.

One of the principal objects of the present invention is to provide a support means for a roll of toilet paper which permits the insertion of the roll thereon with the simple operation of pushing it between the support arms. To remove the tube, after the paper is used, it is only necessary to pull the tube out, which can be easily done by pinching the central zone together, which, on collapsing, shortens the tube axially somewhat so that a small force will be all that is required, if any, to remove the tube.

This invention permits the use of most types of modern, decorative types of dispenser brackets of this nature and offers no obstructions to mar the appearance thereof while offering a maximum degree of simplicity of operation, an inward installation movement and an outward extraction movement. There are no manual flexing operations or positioning of bosses, pins or the like in reception holes in the bracket arms.

Both of the short opposed pegs are preferably molded integrally with the support arms but may be fixed in a conventional spindle hole in the outer end of a support arm. In either event, there is provided an inwardly extending tapered portion which is angled to provide a horizontal top surface to firmly support the roll. When a roll of toilet paper is urged between the pegs, the tapered peg portions function as cams to temporarily flex the contact side portions of the paper roll inwardly. The very soft texture of the paper permits this function with the use of very little force. The nature of the tube permits inward flexing of the contact edge portions of the center cardboard tube of the roll without rupture, as occurs with an outward flexing thereof.

Because of the soft texture of the tightly wound paper, the flexed side portions virtually return to a normal condition. In like manner, the flexed edges edge the cardboard tube returns and if a slight distortion remains, it is smoothed back to normal the first time the toilet paper roll is rotated on the pegs.

It is therefore apparent that the rigid structure of the present invention provides for the roll insertion and cardboard tube removal operations, each by a single, very simple movement. By way of contrast, the aforementioned prior art patents all employ various forms of flexing elements, some requiring manual manipulation, or a totally unacceptable structure from an aesthetic viewpoint.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevational view of a conventional type of toilet paper dispenser bracket including one form of the support means of the present invention supporting a roll of toilet paper;

FIG. 2 is a vertical cross sectional view taken along the line 2—2 of FIG. 1;

FIG. 3 is a horizontal cross sectional view taken along the line 3—3 of FIG. 1; and

FIG. 4 is a modified form of the roll support means of the present invention illustrating a one-piece molded construction.

DETAILED DESCRIPTION OF THE PRESENT INVENTION

Referring to the drawings in which like reference numerals designate like or corresponding parts throughout the various views and with particular reference to FIGS. 1, 2 and 3, the numeral 10, generally designates a conventional type of recessed toilet paper dispenser bracket. The dispenser 10 is comprised generally of an arcuately configurated recessed back wall 12, integrally formed opposed side flanges 14 and 16 and top and bottom flanges 18 and 20, all cooperating to overlie the mounting wall about the periphery of the wall recess which receives the arcuate back wall 12. A pair of support arms 20 and 22 extend outwardly from the

respective side flanges **14** and **16** to receive therebetween, a roll of toilet paper P.

The outer ends **24** and **26** of conventional roll support arms **20** and **22** are often provided with recesses **28** and **30**, normally employed to receive the oppositely projecting pins of a spring loaded spindle, conventionally provided to pass through the central cardboard tube of a roll of toilet paper to rotatably support the roll.

The present embodiment provides a pair of relatively short pegs **32** and **34**, each providing an outer stud portion **36** for seated engagment in a hole **28** or **30** and an inwardly projecting portion **38**. The inwardly projecting portion **38** of each peg **32** and **34** is beveled at **40**. As illustrated in FIGS. **1**, **2** and **3**, the bevels **40** are preferably directed downwardly and outwardly in an opposed relation to provide coplanar top support surfaces **42** and **44** to engage the inner wall of a cardboard tube C of a roll of toilet paper P to support said roll while at rest and during rotation thereof when a length of paper is being withdrawn therefrom.

The stud portions **36** are rigidly fixed in the respective recesses **28** and **30** by screws **46**, preferably in combination with a suitable adhesive, to prevent rotation of the peg studs **36** within the recesses **28** and **30**.

A roll of toilet paper P is disposed on the pegs **32** and **34** by manually positioning one of the pegs in the hole on one side of the roll and wedging the other side of said roll, preferably inwardly and upwardly, between the pegs **32** and **34** until said pegs are disposed within the opposed end openings of the cardboard tube C. During the insertion movement, the toilet paper and cardboard tube are temporarily deformed along at least one side line of contact with the bevels **40**. However, the nature of the very soft textured paper and the tube results in a substantial return to normal after the roll is installed.

In the form of the invention illustrated in FIGS. **1**, **2** and **3**, the pegs **32** and **34** are adapted for use with a conventionally sized dispenser bracket **10** and may be provided with inwardly extending centering fingers **48** and **50**, of a predetermined thickness, to limit the sidewise movement of the roll of toilet paper P on the pegs **32** and **34**. Most standard dispenser brackets now in use are sized to accommodate the awkward manipulations, necessitated by the use of conventional spring-loaded spindles, for installing a roll of toilet paper or removing a cardboard tube. Because it is preferable to limit the inward extension of pegs **32** and **34** into the cardboard tube C, the centering fingers **48** and **50** may be utilized to limit the sidewise movement of the roll P.

FIG. **4** fragmentarily illustrates one side of a dispenser bracket **10'** which is sized, in width, to eliminate the centering fingers **48** and **50** and to illustrate the pegs **52** as integrally molded on the support arms. In this form, each of the pegs **52** can be somewhat shorter than the pegs **32** and **34** of FIGS. **1**, **2** and **3** with no danger of the roll of toilet paper becoming dislodged or malfunctioning during rotation thereof.

In the two forms illustrated, the arms **20** and **22** are rigidly fixed by screws **54** to the respective side flanges **14** and **16**. However, due to the desired rigid nature of the device, the entire structure, including the tapered pegs **32** and **34** can be integrally, rigidly molded or cast of a suitable material in any conventional manner, the latter being a preferred construction.

What is claimed is:

1. Support means for dispensing paper from a roll of toilet paper comprising,

a rigid wall receptacle adapted to be mounted to a wall and having a front opening mouth sized to receive a portion of a conventional size toilet paper roll therein oriented in an attitude with the axis of the roll extending laterally of the mouth,

an outwardly extending rigidly supported arm extending outwardly of the receptacle on opposite sides of the mouth,

a short peg rigidly carried on each of the arms, said pegs being in confronting relation, and defining a support axis for the roll,

each peg being beveled to a distal end of reduced cross section relative to the cross section of the proximal end of said peg,

the terminal ends of said pegs being spaced apart a distance somewhat less than the axial length of a roll of toilet paper, and

the proximal ends of said pegs being permanently spaced apart a distance greater than the width of a roll of toilet paper, and

said pegs defining a cam surface between their respective terminal and proximal ends, and

said pegs being of rigid material to inwardly deform at least one end of a roll of toilet paper forceably wedged between the distal ends of the pegs and into the mouth to be nested in said receptacle and rotatably supported and captivated on said pair of pegs until the diameter of the roll is reduced upon dispensing the paper,

said dispenser receptacle, rigid support arms and said pegs being formed as an integral unit.

2. Support means as defined in claim **1** wherein both of said cam surfaces are similarly angeled, relative to the receptacle, in an opposed relation to provide horizontal coplanar top surfaces on said pegs to engage the inner wall of the center cardboard tube of a roll of toilet paper to support same.

3. Support means as defined in claim **2** wherein said cam surfaces are angled outwardly and somewhat downwardly.

4. Support means as defined in claim **1** wherein the outer end portions of the rigid support arms are provided with holes, normally used to support a conventional roll support spring-loaded spindle, and each of said pegs is individually formed with a stud portion for fixed, rigid engagement in one of said holes.

5. Support means as defined in claim **1** including a finger, formed integral with each of said pegs, projecting along and in engagement with an inner side wall of an arm and the dispenser receptacle to limit the sidewise movement of a roll of toilet paper engaged on said pegs.

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