

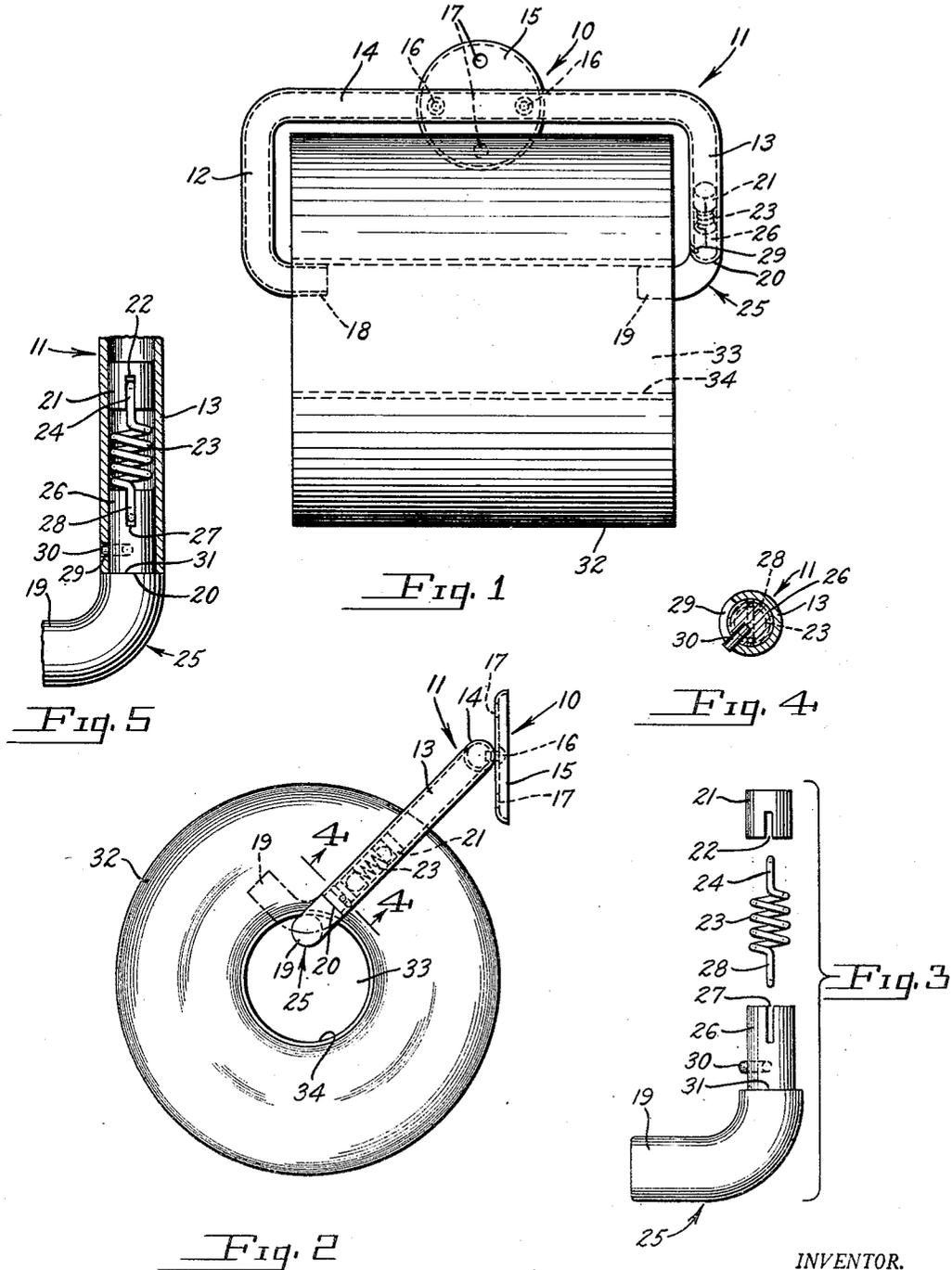
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TOILET TISSUE HOLDER

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TOILET TISSUE HOLDER

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This invention relates to new and useful improvements in toilet paper holders and has for an object the provision of a very practical toilet tissue roll holder onto which a roll of paper may be easily and quickly applied and from which the empty spool may be easily and quickly removed.

A further object is to provide a toilet tissue roll holder having the characteristics indicated and which comprises a bracket structure rigidly mounted and including a fixed roll engaging finger having a free end over which an end of the roll of paper may be moved and having a swingable or turnable finger which may be pushed aside as the roll is moved into the bracket and then will snap back into position entering the roll, such last finger being spring loaded.

Other objects and advantages of the invention will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it is to be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawing:

Fig. 1 is a front elevational view showing the toilet paper roll holder of the invention as when in use;

Fig. 2 is an end elevational view taken as looking from the right in Fig. 1 and with the movable finger of the bracket shown by dotted lines in its shifted position;

Fig. 3 is an exploded view showing the various elements of the movable finger;

Fig. 4 is a detail sectional view on an enlarged scale taken as along the line 4—4 of Fig. 2; and

Fig. 5 is an enlarged view partly in section and partly in elevation and showing details of construction.

Referring in detail to the drawing, at 10 is generally indicated our improved toilet tissue holder and the same includes a somewhat U-shaped frame or bracket portion generally designated 11 and including side arms 12 and 13 and a connecting portion 14. A mounting plate or the like 15 is rigidly secured to the mid portion of the connecting portion 14 by screws, although it will be understood that the plate may be secured in any other desired manner as by soldering, spot welding or the like. Plate 15 above and below the bracket connecting portion 14 is provided with openings or holes or

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perforations 17 for the passage of securing screws or other means to be used in mounting the holder to a wall or other support.

U-shaped bracket 11, in addition to the side arms 12 and 13 and connecting portion 14, includes a pair of spaced substantially aligned opposite projecting roll supporting fingers 18 and 19 extending one from the inner end of each of said side arms. Of these, the finger 18 comprises an integral extension of the free end portion of the bracket arm 12. Here it is noted that this bracket 11 may be formed of rod, although it is illustrated as comprising a length of tubing bent to provide the portion 14, the arms 12 and 13 and the finger-like portion 18. Additionally, the entire bracket may be of metal or of plastic or there may be parts of each of such materials.

Arm 13 of the bracket does not have its free end portion laterally bent but stops as at 20. Then an anchoring means or plug 21 is entered into the arm and may have a forced fit therein or is otherwise rigidly secured therein and this plug through its outer end is kerfed or slotted as at 22. A coil spring 23 has its flat inner end or eye portion 24 received in the slot 22. Thereafter an elbow-like portion 25, including the finger 19 as a part thereof, has a reduced diameter end portion 26 entered through the open free end of the arm 13. Portion 26 is of a diameter to have a smooth bearing within the free end portion of the arm 13 and through its inner end has a kerf or slot 27 receiving the eye 28 at the opposite end of the spring 23.

The elbow-like element 25 is adapted to have limited turning movement relative to the bracket 11 and specifically with respect to the arm 13 of said bracket. For the purpose of limiting the turning movement of the portion 26 of the element in the bracket arm and also for securing the element to the bracket arm, the latter toward its free end and through its rear and inner sides is provided with an arcuate circumferentially extending slot 29 extending for approximately ninety degrees. A screw or pin 30 passes through this slot 29 and is threaded into or otherwise made rigid with the portion 26 of the element 25. This screw 30 is of a diameter to move in the direction of the length of the slot and has only clearance movement insofar as the diameter of the screw relates to the width of the slot.

When assembling the present holder, the plug 21 is positioned in the arm 13 and then the spring 23 is dropped through the open free end of the arm and the eye 24 of the spring located in the

slot or kerf 22 in the plug. Then the reduced diameter portion 26 of the element 25 is entered through the free end of the arm 13, the screw 30 being dismounted, and the kerf or slot 27 of said element portion receives the eye 28 of the spring. Now the screw 30 is applied and it maintains the portion 26 of the element within the arm 13 of the bracket and maintains the shoulder 31 of the element against the free end of arm 13. Additionally, it will be clear that the element 25 serves to prevent the spring 23 moving out of the bracket arm.

After the parts are assembled the normal location of the screw 30 is at the bottom or rearmost portion of the slot 29 with the finger 19 in opposed relation and substantially in alignment with the finger 18. The spring 23 serves to maintain the element 25 normally in the described position. This is true since the spring is preloaded by turning the element 25 on its portion 26 as a center after the element is coupled with the spring to tension the latter, and then inserting the screw 30.

In connection with this spring, it is noted that its body portion is of substantially the internal diameter of the arm 13. This facilitates locating of the eye 24 in the slot 22 since the spring is necessarily substantially longitudinally centered with the arm 13 and the plug 21. Additionally, during use of the device as will hereinafter be described, the spring being of the diameter stated with respect to the internal diameter of the arm 13, it will be clear there is very little play between these parts and on loading and release of the spring the same cannot move out of proper alignment or proper position in the arm 13.

When a roll 32 of paper is to be mounted on the holder 10, the roll is grasped in one hand and held at a slight angle so as to enter its hollow central portion over the finger 18. Then the other end portion of the roll is moved upwardly, the top side of the roll engaging finger 19. As this movement of the roll is continued, the finger 19 yields and swings upwardly turning about the longitudinal axis of the arm 13 and as the finger 19 reaches a substantially vertical position, as suggested in Fig. 2, the adjacent end of the roll moves past the finger until the opening 33 of the usual hollow core 34 of the roll comes opposite the finger when the spring 23 having been further loaded by the turning of the finger in the manner described returns the finger to its normal position again disposing the screw 30 against the bottom or rearmost portion or end of the slot 29.

To remove an empty spool or core 34 from the bracket or holder 10, the operator merely swings one end of this spool or core upwardly against the finger 19 whereupon the entire element 25 yields against urging of the spring 23 until that end of the spool or core is removed from the finger and then by an outward lateral movement the opposite end of the core or spool is removed from the finger 18.

Having thus set forth the nature of our invention, what we claim is:

1. A toilet paper holder comprising a bracket including a connecting portion and side arms, a pair of spaced oppositely extending substantially aligned roll supporting fingers extending one from the inner end of each of said side arms, one of said arms hollow through its inner end, means inwardly of the inner end of said arm and having an open ended slot facing toward the free end of said arm, a coil spring within said arm and having a flat end portion in said slot whereby the spring is anchored against bodily rotation relative to the

arm, the finger for said hollow bracket arm comprising an arm of an elbow-like element, said element having its other arm entered into the inner end portion of said bracket arm for turning movement therein about its own axis, said bracket arm having a slot therethrough and extending circumferentially thereof, a pin rigid with the mentioned arm of said element and extending into said slot whereby turning of said element relative to the bracket arm is limited by engagement of said pin with an end of said slot, said other arm of said element having an open ended slot therein facing through its free end, said element having a normal position wherein said pin is against an end of said slot and its finger forming arm is substantially aligned with the other finger of said holder, and said coil spring having its other end portion flat and received in the kerf or slot in the said other arm of said element whereby turning of said element on the axis of its mentioned arm tensions said spring and said spring will return the element to its normal position when turned therefrom and released.

2. A toilet paper holder comprising a bracket including a connecting portion and side arms, a pair of spaced oppositely extending substantially aligned roll supporting fingers extending one from the inner end of each of said side arms, one of said arms hollow through its inner end, a coil spring within said arm, means securing the inner end of said spring against turning movement in said arm, the finger for said hollow bracket arm comprising an arm of an elbow-like element, said element having its other arm entered into the inner end portion of said bracket arm for turning movement therein about its own axis, said bracket arm having a slot therethrough and extending circumferentially thereof, a pin rigid with the mentioned arm of said element and extending into said slot whereby turning of said element relative to the bracket arm is limited by engagement of said pin with an end of said slot, said element having a normal position wherein said pin is against an end of said slot and its finger forming arm is substantially aligned with the other finger of said holder, and said coil spring anchored at its other end to said other arm of said element whereby turning of said element on the axis of its mentioned other arm tensions said spring and said spring will return the element to its normal position when turned therefrom and released.

3. A holder for a roll of paper and the like comprising a generally U-shaped bracket consisting of a bent single length of tubular stock including a connecting portion and substantially parallel side arms, a finger comprising the bent free end portion of one of said arms and extending substantially parallel with said connecting portion but in spaced relation to the latter, a second finger mounted on the free end portion of the other of said arms and including a portion in opposed substantially aligned relation with the first mentioned finger, means comprising a right-angulary related integral extension of the second mentioned finger telescoping with the free end portion of the other of said arms and rotatable relative thereto about the longitudinal axis thereof whereby the second mentioned finger is mounted for turning movement on said other arm about an axis substantially coincident with that of the longitudinal axis of said other arm, cooperating means between the second mentioned finger and said other arm for limiting such turning movement of the second finger, and

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spring means resisting such movement and adapted to return such second finger to its normal position when moved therefrom and released.

4. A holder for a roll of paper and the like comprising a bracket including a connecting portion and side arms, a pair of spaced oppositely extending substantially aligned roll supporting fingers extending one from the inner end of each of said side arms, one of said arms hollow through its inner end, means inwardly of the inner end of said arm and having an open ended slot facing toward the free end of said arm, a coil spring within said arm and having a flat end portion in said slot whereby the spring is anchored against bodily rotation relative to the arm, the finger for said hollow bracket arm comprising an arm of an elbow-like element, said element having its other arm entered into the inner end portion of said bracket arm for turning movement therein about its own axis, a pin and slot connection comprising a circumferentially extending slot and a radially extending pin between said bracket arm and the mentioned arm of said element with said pin extending into said slot whereby turning of said element relative to the bracket arm is limited by engagement of said pin and one end of said slot, said other arm of said element having an open ended slot therein facing through its free end, said element having a normal position wherein said pin is against an end of said circumferentially extending slot and its finger forming arm is substantially aligned with the other finger of said holder, and said coil spring having its other end portion flat and received in the kerf or slot in the said other arm of said element whereby turning of said element on the axis of its mentioned arm tensions said spring and said spring will return the element to its normal position when turned therefrom and released.

5. A holder for a roll of paper and the like comprising a bracket including a connecting portion and side arms, a pair of spaced oppositely extending substantially aligned roll supporting fingers extending one from the inner end of each of said side arms, one of said arms hollow through its inner end, a coil spring within said arm, means securing the inner end of said spring against turning movement in said arm, the finger for said hollow bracket arm comprising an arm of an elbow-like element, said element having its other arm entered into the inner end portion of said bracket arm for turning movement therein about its own axis, a pin and slot connection comprising a circumferentially extending slot and a radially extending pin between said bracket arm and the mentioned arm of said ele-

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ment with said pin extending into said slot whereby turning of said element relative to the bracket arm is limited by engagement of said pin and one end of said slot, said element having a normal position wherein said pin is against an end of said circumferentially extending slot and its finger forming arm is substantially aligned with the other finger of said holder, and said coil spring anchored at its other end to said other arm of said element whereby turning of said element on the axis of its mentioned other arm tensions said spring and said spring will return the element to its normal position when turned therefrom and released.

6. A holder for a roll of paper and the like comprising a connecting portion and a pair of substantially parallel side arms extending from said connecting portion, a finger supported on the inner end portion of one of said arms and extending substantially parallel with said connecting portion but in spaced relation to the latter, a second finger supported by the other of said arms and including a portion in opposed substantially aligned relation with the first mentioned finger, means comprising a right angularly related integral extension of the second mentioned finger telescoping with the inner end portion of the other of said arms and rotatable relative thereto about the longitudinal axis thereof whereby the second mentioned finger is mounted for turning movement on said other arm about an axis substantially coincident with that of the longitudinal axis of said other arm, a pin and slot connection comprising a circumferentially extending slot and a radially extending pin between said bracket arm and the mentioned arm of said element with said pin extending into said slot whereby turning of said element relative to the bracket arm is limited by engagement of said pin and one end of said slot, and a spring resisting such turning movement of said element and adapted to return the same to its normal position with said pin and one end of said slot in engagement when the element is moved therefrom and released.

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