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TOILET PAPER ROLL HOLDER

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1 Claim. (Cl. 242—55.2)

This invention relates to a holder for holding rolls of toilet paper in a manner to permit portions of the paper to be easily and conveniently drawn off the roll for use.

One object of the invention is to provide a holder of this character which permits a ready method of changing rolls without the necessity of removing any part of the holder.

Another object of the invention is to provide a roll paper holder embodying spring means for holding the roll in place, which spring means will center the roll and retain it securely while preventing any tendency of the roll cocking or assuming a position out of center with regard to its axis of rotation.

Still another object of the invention is to provide a holder which comprises few parts, and is therefore simple and inexpensive in construction, and in which springs for holding the paper roll are so disposed as to exert a pressure on the roll at points for a proper retaining action while avoiding all liability of displacement or injury to the springs.

The invention consists of the features of construction, combination and arrangement of parts, hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Fig. 1 is a top plan view showing the holder as mounted for use, the paper roll thereon appearing in section.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of the holder with the paper roll removed and a part of the holding bracket broken away.

Fig. 4 is a similar view of the bracket with the carrier spool appearing in longitudinal section.

Fig. 5 is a cross-section on line 5—5 of Fig. 4.

In carrying my invention into practice, I provide a roll holder comprising a supporting spindle 1 on which is revolubly mounted a roll supporting spool 2, formed of wood, metal or other suitable material. This spool 2 is mounted to turn freely on the spindle 1 between a stop flange or enlargement 3 arranged at one end of the spindle and a retaining nut or other member 4 disposed at the opposite or free end of the spindle. Upon the removal of this nut 4 the spool 2 may be fitted in position on the spindle and then retained against displacement by again applying the nut.

The spool 2 is designed for supporting the paper roll 5 in such manner as to allow the web of paper to be unwound as desired from the roll. The roll 5 is provided as usual with an

internal tubular core 6 of cardboard or other like material. The roll 5 is adapted to be applied to the spool by slipping it endwise onto the spool from the outer or free end thereof, and upon exhaustion of the paper strip the core 6 may be removed, to allow a new roll of paper to be applied, by slipping it endwise in the reverse direction from off the spool.

I provide novel means for holding the roll in position on the spool. To this end, the spool is provided with an annular series of longitudinal grooves 7 extending from end to end thereof, in all of which grooves is fitted and secured a double retaining spring 8. Each of these springs is of ribbon spring type and comprises a pair of bowed spring members 9 arranged on opposite sides of its longitudinal center, or constituting terminal portions thereof, said springs 9 being connected at their inner or adjacent ends by a substantially flat connecting plate or portion 10. The length of each duplex spring is somewhat less than the length of the groove 7 within which it is fitted, and the free ends of the spring members are provided with flattened bearing portions 11 to slidably engage the inner wall of the groove 7. These portions 11 are arranged in longitudinal alinement with the central attaching portion 10, which latter is secured to the spool by means of a suitable fastening device 12. In practice, any suitable number of these duplex springs may be employed. In the present instance, the spool is shown as provided with three grooves 7, arranged equidistantly apart at angles of 120°, about the circumference of the spool. More or less than three springs may, however, be employed provided they are arranged in such manner as to form staple supports for the paper roll and to act with a uniform spring pressure thereon to retain the roll in position upon the spool.

It will be observed that the bowed members 9 project outwardly beyond the groove 7, and in practice their middle or crest portions are so disposed with respect to the diameter of the core 6 that when the roll 5 is fitted in position the springs 9 will be pressed to a certain extent inwardly, so that they will have a spring reaction sufficient to bear with a proper pressure against the core 6 to hold the roll 5 securely in position against any possibility of displacement, while at the same time admitting of a free, easy and convenient removal of a core from which the paper is exhausted and the application of a new roll to the spool. In such yielding or receding movement of the spring members 9 their

end portions 11 are free to slide outwardly in the groove 7, as will be readily understood, to permit of such yielding action without undue resistance.

5 In practice, the spindle 1 may be mounted in any suitable manner upon a wall, toilet fixture or other suitable support. In the present instance, the spindle 1 is shown as being mounted upon and at right angles to a bracket arm 13
10 and provided with an attaching member 14 of any suitable form whereby it may be secured to a wall 15 or other suitable support.

In the use of the device, a roll 5 of paper is mounted upon the spool in the manner shown so
15 as to be retained thereon by the spring pressure of the spring members 9, which hold it secured to the spool against any possibility of casual independent slipping or movement in any direction,
20 while allowing free rotation of said roll with the spindle when the free end of the paper web is pulled upon for the purpose of detaching a portion thereof. When the supply of paper on the roll in use is exhausted the core 6 may be slipped
25 off the spool and another roll supplied for use in an obvious manner.

The advantages of my improved construction of roll holder are that it provides a simple and inexpensive type of support for holding a paper roll in position so that paper may be unwound
30 therefrom as required and so that accidental displacement of the roll is prevented. The core of an exhausted roll may be removed from the holder and a new roll applied in its place without the necessity of detaching any of the parts of the
35 holder. The spring retaining means used is of such construction that it holds the paper roll accurately centered with relation to the spool and axis of rotation of the latter, thus balancing the roll and allowing it and the spool to be freely

turned, while at the same time preventing cocking of the roll or its application in an uncentered or unbalanced manner rendering its appearance unsightly or making it difficult to turn the roll and unwind the paper therefrom. There are no
5 parts of the device liable to get out of order so that a durable type of holder is provided which will last indefinitely without repairs or replacement of parts.

While the structure disclosed for purposes of
10 exemplification is preferred, it will, of course, be understood that changes in the form, proportion and details of construction, falling within the scope of the appended claim, may be made without departing from the spirit or sacrificing any
15 of the advantages of the invention.

What I claim is:—

A holder for roll paper comprising a supporting spindle, a spool rotatably mounted on the spindle and provided with an annular series of
20 equidistantly spaced grooves, each opening at its outer side and ends through the periphery and ends of the spool, and an annular series of roll holding springs carried by the spool, one of said
25 springs being arranged within each groove, each spring being of a length substantially but not fully equal to the length of the groove and comprising a unitary metallic spring strip having a flat central portion resting on and fastened to the inner wall of the groove, correspondingly
30 formed bowed intermediate portions projecting outwardly beyond the groove with their convex sides outwardly disposed for engagement with the core of the paper roll, and flattened end portions slidably engaging the inner wall of the groove
35 to freely allow expanding and contracting movements of said bowed portions of the spring.

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