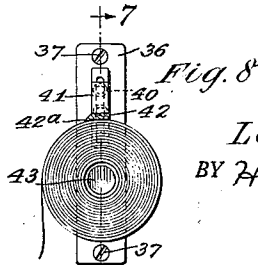
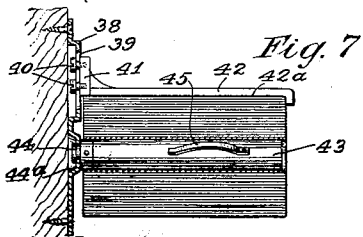
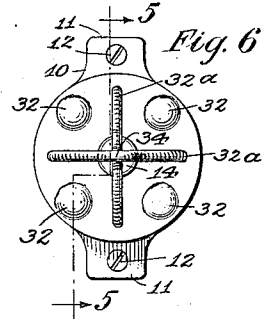
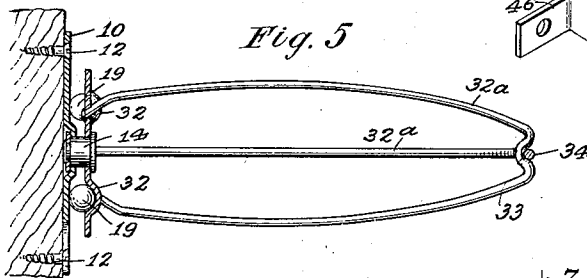
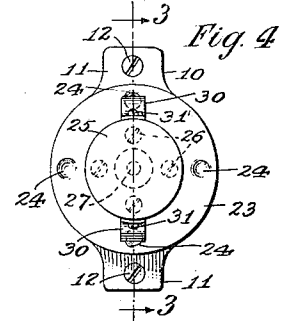
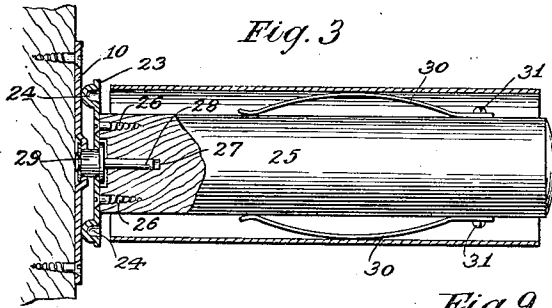
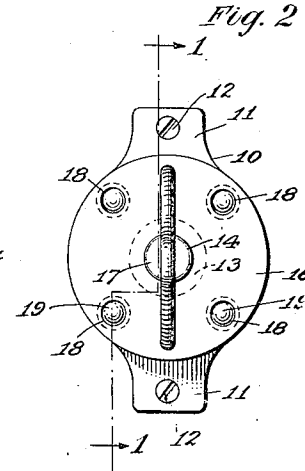
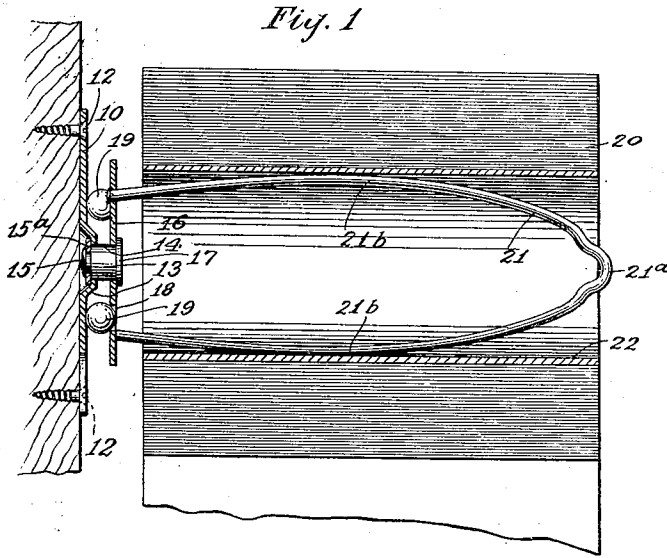


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L. S. HARVEY  
HOLDER FOR PAPER ROLLS

Filed June 5, 1923



INVENTOR.  
*Leaman S. Harvey*  
BY *H. G. Manning*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

LEAMAN S. HARVEY, OF WATERBURY, CONNECTICUT.

HOLDER FOR PAPER ROLLS.

Application filed June 5, 1923. Serial No. 643,576.

This invention relates to holders for paper-rolls and more particularly to a holder for a roll of toilet paper.

One object of the invention is to provide a holder of the above nature which will enable a paper roll to be readily put on or taken off by use of but one hand of the operator.

A further object is to provide a paper-roll holder of the above nature in which the paper clamping member is provided with friction-reducing means to permit the paper-roll to rotate freely upon its axis.

A further object is to provide a paper-roll holder of the above nature in which the roll of paper will be detachably secured in position by a resilient U-shaped spring which is practically invisible when the paper-roll is in position, and which is adapted to receive any length of paper-roll.

A further object is to provide a paper-roll holder of the above nature which will be simple, cheap to manufacture, easy to install and manipulate, and very efficient and durable in use.

With these and other objects in view, there have been illustrated on the accompanying drawing several forms in which the invention may be conveniently embodied in practice.

Fig. 1 represents a longitudinal sectional view, of one form of paper-roll holder embodying the principles of the invention, taken along the line 1—1 of Fig. 2.

Fig. 2 is a front view of the holder shown in Fig. 1.

Fig. 3 is a longitudinal sectional view of a modified form of paper-roll holder, taken along the line 3—3 of Fig. 4.

Fig. 4 is a front view of the holder shown in Fig. 3.

Fig. 5 is a longitudinal sectional view of a further modified form of paper-roll holder taken along the line 5—5 of Fig. 6.

Fig. 6 is a front view of the holder shown in Fig. 5.

Fig. 7 is a longitudinal sectional view of a still further modified form of the invention in which a slidable tearing and holding member is located on top of the paper-roll.

Fig. 8 is a front view of the holder shown in Fig. 7.

Fig. 9 is a perspective view of a modified form of supporting plate.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates a supporting plate, preferably formed of thin sheet metal, and having a pair of oppositely disposed ears 11. The ears 11 are provided with apertures for receiving screws 12, by means of which the supporting plate 10 is rigidly held upon a wall or other support. The plate 10 is also provided with a raised central section 13 having an aperture within which is fitted a rivet 14, one end of said rivet having a head 15 upset upon a washer 15<sup>a</sup>. The other end of the rivet 14 passes through a base plate 16 and has a head 17 tightly engaging said base plate. The base plate 16, as more clearly shown in Fig. 2 is provided with four spaced holes 18 located at intervals of 90 degrees around the circumference of said plate, forming seats for ball-bearings 19, which are adapted to ride upon the flat surface of the supporting plate. As will be evident, the ball-bearings 19 greatly reduce the friction between the supporting plate and base plate and permit the paper-roll to rotate freely. The friction between the supporting plate and base plate, however, should preferably be sufficient to prevent the roll from unwinding more than several turns each time the paper strip is pulled. In other words, there will be no danger of having the roll continue to unwind after it has been released, permitting paper to hang down and touch the floor, as was the case with the former types of holders which were supported at each end of the spindle.

The paper-roll 20 is adapted to be detachably held in position by a U-shaped wire clamp 21 having a looped intermediate section 21<sup>a</sup> and outwardly curved sides 21<sup>b</sup>. The extremities of the wire clamp 21 are riveted or otherwise secured to the base plate 16, as clearly shown in Fig. 1. The paper-roll 20 is preferably provided at its center with the usual cardboard supporting tube 22 adapted to be engaged by the wire clamp 21.

In the modified form of the invention disclosed in Figs. 3 and 4, the supporting plate 10 is identical in form with that shown in Figs. 1 and 2, but in this instance a base plate 23 is provided with four depressions 24 which directly engage the supporting

plate 10 and serve to reduce the friction between the plates without requiring the use of ball-bearings. In this form of the invention, the paper is detachably clamped in position by means of a wooden spindle 25, preferably cylindrical in shape, said spindle being secured to the base plate 23 by screws 26. The spindle 25 is provided at its inner end with a tubular recess 27 within which a pin 28 is adapted to fit. The pin 28 is an extension of the rivet 29 which is otherwise similar to the rivet 14 previously described. The card-board tube in this form of the invention is detachably clamped by means of a pair of outwardly extending resilient leaf springs 30 preferably secured at their ends to opposite sides of the spindle 25 by means of screws 31 and having their free ends in slidable contact with said spindle.

In the form of the invention disclosed in Figs. 5 and 6, the base plate is provided with a series of four raised indentations 32 shaped to fit a series of ball-bearings 19. In this form of device as will be clear from the drawings, the supporting plate 10 and rivet 14 are identical with those of the device illustrated in Figs. 1 and 2, but instead of engaging the paper-roll with a single U-shaped wire clamp 21 as in Figs. 1 and 2, a pair of clamping wires 32<sup>a</sup> are employed. The ends of the wires 32<sup>a</sup> are secured to the base plate at points mid-way between the raised indentations 32 in any suitable manner as by soldering or riveting. The inner wire 32<sup>a</sup> is provided at its mid-point with a depression 33 (see Fig. 5) adapted to form a seat for the mid-point 34 of the other wire 32<sup>a</sup>—see Fig. 5—thus forming a very strong and durable construction.

In Figs. 7 and 8 a paper holder is disclosed in which the supporting plate is constructed in rectangular form. The supporting plate 36 is adapted to be secured to the wall of the room in any suitable manner as by screws 37. The upper portion of the plate 36 is provided with a raised central section 38 having a slot 39 for slidably receiving the heads of a pair of screws 40, said screws being connected to a rectangular follower member 41. The follower member 41 is provided with an outwardly extending arm 42 having a knife-edge 42<sup>a</sup> adapted to rest upon the roll of paper and permit sheets thereof to be readily torn off whenever desired. In this form of device the paper is engaged by a wooden spindle 43 swiveled at 44 to a raised section 44<sup>a</sup> of the supporting plate 36. No ball-bearings or other special anti-friction means are employed. The spindle 43 is provided with a single leaf

spring 45 similar to the springs 30 shown in Fig. 3.

When it is desired to support the paper roll with its axis parallel to the wall of the room the modified form of supporting plate illustrated in Fig. 9 will be employed. This form of supporting plate comprises an angle bracket having a base 46 adapted to lie in contact with the wall and to be secured thereto by screws or other suitable fastening means. The bracket is also provided with an outwardly projecting leg 47 adapted to form a support for the base plate serving the same purpose as the supporting plate 10 in Figs. 1 to 6.

One advantage of this invention is the ease with which paper-rolls may be slipped into operating position and the fact that it is unnecessary to remove the spindle from its support as was the case with former types of paper-roll holders now in general use.

A further advantage is the absence of detachable parts which might be adapted to become loose or slip out of position.

While this invention has been herein illustrated as applied to toilet paper holders, it will be understood that it may be equally well employed for holding twine, wrapping paper, ribbon, etc. within its general principles and scope.

While there have been disclosed in this specification several forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosures, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within scope of the following claim.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent, is:

In a paper roll holder, a flat plate for attachment to a wall, a flat disc for supporting a resilient roll-holding wire, anti-friction means for holding said plate and disc in spaced relation, and a short rivet member passing through said plate and provided with an enlarged headed-over flange for engaging the rear of said plate, said rivet member serving as a pivot bearing for said flat disc and for connecting said disc to said plate.

In testimony whereof, I have affixed my signature to this specification.

LEAMAN S. HARVEY.