No. 741,860. PATENTED OCT. 20, 1903.

W. A. WHEELER.

PAPER ROLL SUPPORT.

NO MODEL. APPLICATION FILED MAR. 24, 1903.

Fig. 1.

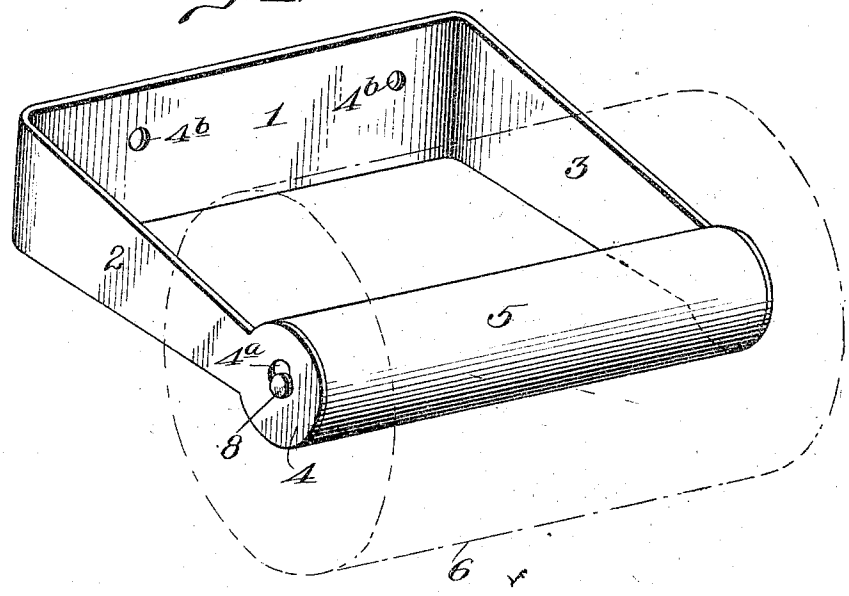


Fig. 2.

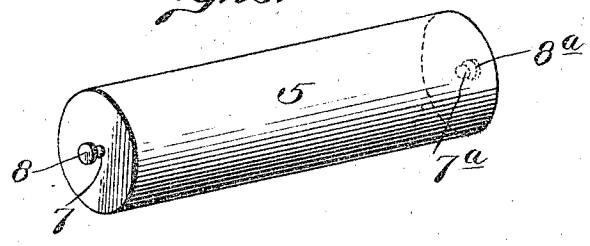
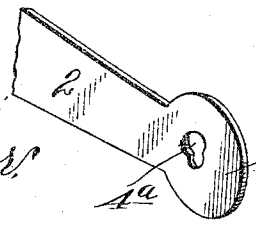


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM A. WHEELER, OF ALBANY, NEW YORK.

PAPER-ROLL SUPPORT.

SPECIFICATION forming part of Letters Patent No. 741,860, dated October 20, 1903.

Application filed March 24, 1903. Serial No. 149,344. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WHEELER, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented new and useful Improvements in Paper-Roll Supports, of which the following is a specification.

This invention relates to certain new and useful improvements in paper-roll supports, and aims to construct a support for holding a roll of paper so that when desired the paper can be readily removed from the roll and that when occasion requires a new roll of paper can be readily attached to the support.

The invention further aims to construct a support for the foregoing purpose which shall be extremely simple in its construction, strong, durable, light in weight, effective in its use, and comparatively inexpensive to manufacture.

To this end the invention consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claim hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like reference characters indicate corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of the paper-roll support, the roll of paper being shown in dotted lines. Fig. 2 is an elevation of the core, showing one of the headed journals; and Fig. 3 is a detail view showing the end of one of the suspension-arms.

Referring to the drawings by reference characters, A denotes what may be termed a "supporting-bracket" constructed of a suitable light metallic material, preferably thin steel, and formed of a base-plate 1, having integral therewith a pair of outwardly-extending and yielding suspension-arms 2 3, which can be moved in opposite directions or toward each other or in the same direction, as occasion requires. The outer end of each of the arms 2 3 is substantially circular in contour, as at 4, and approximately central of the circular portion a keyhole-shaped opening 4^a is provided—that is to say, the opening 4^a is constructed with a substantially circular portion and a semi-oval-shaped portion, the latter being much smaller than the former. The function of constructing the opening 4^a in this manner will be hereinafter referred to. The base-plate 1 is or may be provided with a plurality of openings 4^b, through which can extend a suitable fastening means for securing the bracket in position.

The reference character 5 denotes a removable core for the roll of paper 6. The core 5 may be of any suitable shape, but as shown is cylindrical in contour, and this is the preferred construction. Secured in each end of the core 5 is a journal. These journals are designated by the reference characters 7 7^a and are provided with a head 8 8^a, respectively. The journals 7 7^a are of a much smaller diameter than the core 5, and the heads 8 8^a are slightly larger in diameter than the journals 7 7^a. The core 5 is substantially of the same diameter as the circular portions 4 of the arms 2 3, so that when the ends of the core 5 bear against the circular portions 4 the bearing-surfaces between the same will be equal. The core 5 when in position acts as a brace between the arms—that is to say, prevents the arms from being bent toward each other—and under such circumstances it is preferable to have the circular portion of the arms 2 3 of the same diameter as the core. If the core 5 be of a different configuration than that as shown, the ends of the arms 2 3 are adapted to conform to the contour and size of the core. The core 5 is adapted to extend through the roll of paper 6, an opening being provided in the roll for such purpose, and the core 5, in connection with the headed journals 7 7^a, these latter being seated in the openings 4^a of the arms 2 3, will support the roll of paper in position. The circular or larger portions of the openings 4^a are slightly of a greater diameter than the heads 8 8^a of the journals 7 7^a, so that when it is desired to place the core 5, with the roll of paper 6, in position the heads 8 8^a of the journals 7 7^a can readily pass through the openings and the journals 7 7^a be seated in the smaller portions of the openings 4^a. The smaller portions of the openings 4^a are of such size as to permit of the rotation of the journals 7 7^a when the paper is drawn off the roll, which action causes the roll

of paper 6, core 5, and journals 7 7ª to be bodily rotatable. When the journals 7 7ª are in the smaller portions of the openings 4ª, the inner faces of the heads 8 8ª are opposite the outer face of the arms 2 3, so that when an attempt is made to move the arms 2 3 in opposite directions the heads 8 8ª will engage the arms and prevent them from spreading, the journals 7 7ª and heads 8 8ª thus acting as a brace. It will be evident that when the roll of paper is placed in position one of the journals—say, for example, the journal 7—is extended through the opening 4ª in the arm 2 and the arm 3 bent outwardly slightly, so that the other journal, 7ª, can be passed through the opening 4ª in the said arm 3, and when the arm is released by the person placing the roll of paper in position the said arm will assume its normal position, owing to the fact that it is made of spring metal and, furthermore, owing to the action of the head 8ª of the journal 7ª against the arm 3.

It will be evident that the support for the roll of paper is light, yet strong, inexpensive, but effective, the roll of paper being easily placed in position, but securely held, and if not ornamental is not conspicuous, all the parts going to make up a desirable fixture for general household use. Although the support is a light one, yet it has the requisite strength, due to the support given its arms against lateral pressure by the roll of paper, which quite fills in the space between the arms. As the roll decreases in diameter the strength is maintained through the employment of the headed journals of the core, which support the roll. Obviously without the employment of such journals slight lateral pressure when the roll of paper is much reduced in diameter would disengage it from the holder. The bracket being constructed, preferably, of thin steel, a yielding pressure is applied to the ends of the rolls, which prevents waste of paper through its too free movement and also admits of the use of rolls varying slightly in length. The headed journals strengthen or brace the support against lateral pressure when the roll of paper is not firmly wound or has become so reduced in diameter that it is no longer effective for that purpose. The headed journals are so arranged relatively to the core and roll of paper that pressure applied to the roll or to one of the arms of the bracket will be opposed by both arms. This is due to the limited space between the heads of the journals and the ends of the core, which does not much exceed the thickness of the arms of the support. Lateral pressure on the roll is resisted by both arms. Without the headed journals but one arm would do so. Hence with such journals one arm has the resistance power of both arms or twice that of one. The headed journals also prevent the spreading of the arms. Although this is one of the functions of the headed journals, yet their chief force is to resist lateral pressure in either direction on the outside of the arms.

A support constructed as light as the one hereinbefore described and unstaid in any manner would easily be bent out of shape when in use—for example, if a person should lean against it or strike it in moving about—but braced in the manner as set forth by the journals a support is obtained which is a very substantial and serviceable device.

By providing the ends of the arms 2 3 with the openings the ends of the arms are not weakened, and it also permits the placing of the roll from the front, which is very desirable.

It is thought the many advantages of my improved paper-roll support can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and it will furthermore be evident that changes, variations, and modifications can be resorted to without departing from the spirit of the invention or sacrificing any of its advantages, and I therefore do not wish to restrict myself to the details of construction hereinbefore described and as shown in the accompanying drawings, but reserve the right to make such changes, variations, and modifications as come properly within the scope of the protection prayed.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A roll-paper support comprising a bracket having a broad flat base terminating at each end in a laterally-extending suspension-arm, each of said arms tapering toward its outer end and having its outer end substantially circular in contour, said circular ends of said arms approximately centrally thereof provided with an irregular-shaped opening and said base provided with openings through which is adapted to extend suitable fastening means for securing said bracket in position, a core adapted to be arranged between the said enlarged circular ends of said arms, and journals secured in the ends of said core and adapted to be seated in the said irregular-shaped openings and provided on their outer ends with heads adapted to engage said arms to support them against lateral pressure and said heads further adapted to prevent the dislodgment of the journals and core of said arms, substantially as herein shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM A. WHEELER.

Witnesses:
EDGAR WHEELER,
H. P. BISHOP.