

(No Model.)

C. C. JOHNSON.

HOLDER AND CUTTER FOR WEB PAPER.

No. 302,736.

Patented July 29, 1884.

FIG. 1.

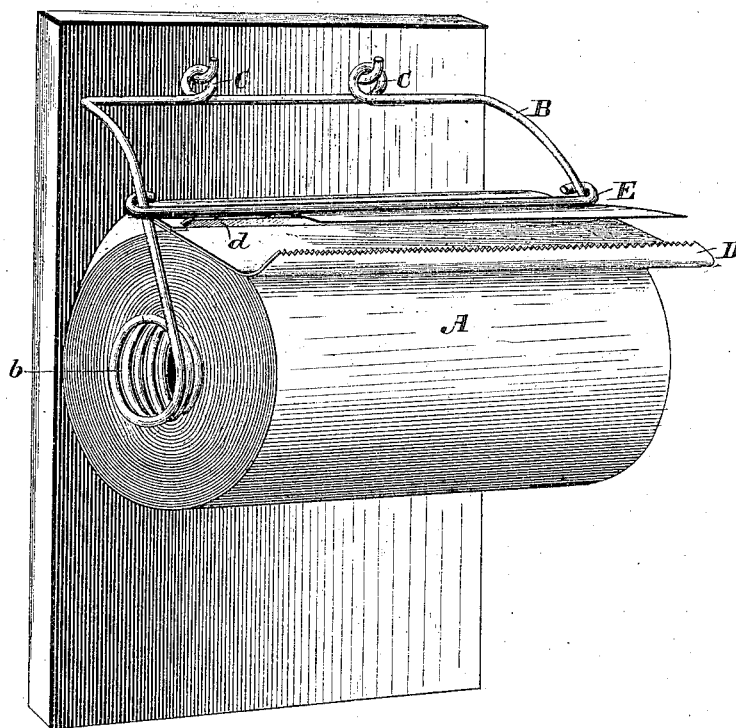


FIG. 2.

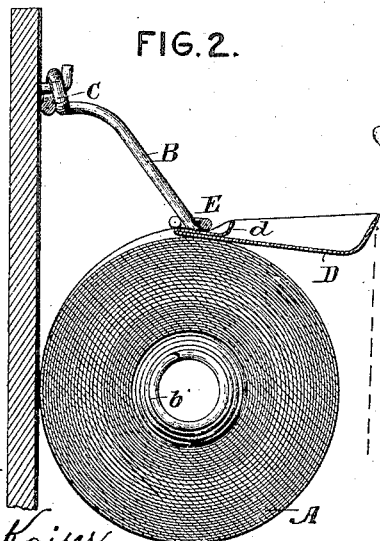
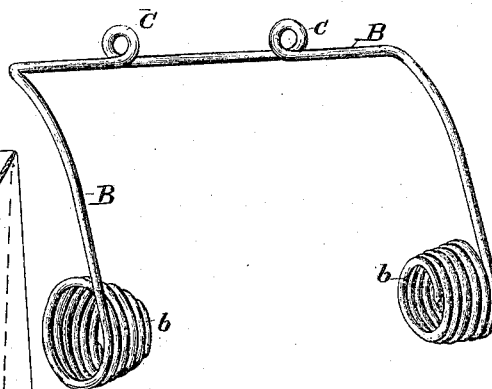


FIG. 3.



ATTEST

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Att'y.

# UNITED STATES PATENT OFFICE.

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## HOLDER AND CUTTER FOR WEB-PAPER.

SPECIFICATION forming part of Letters Patent No. 302,736, dated July 29, 1884.

Application filed May 22, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. JOHNSON, of Springfield, in the county of Windsor and State of Vermont, have invented certain new and useful Improvements in Holders and Cutters for Web-Paper; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to that class of paper holders and cutters adapted to support the rolls or wound webs of paper axially, and provided with some sort of cutting or severing device, by means of which a piece of any desired length may be unwound from the web, and conveniently and readily severed therefrom for use.

Previous to my invention paper holders and cutters of this type have been made of various constructions, the most of which have been more or less complicated, and more or less deficient or undesirable in practical operation.

My invention has for its main objects to provide for use a contrivance of the type mentioned, which, while it shall be simple and economic of manufacture, shall be exceedingly efficient in its practical operation; and to these main ends and objects my invention consists in the novel devices and combinations of devices, which will be hereinafter more fully described, and which will be particularly pointed out and defined in the claims of this specification.

To enable those skilled in the art to make and use my invention, I will now proceed to more fully describe the construction and operation of a machine embodying the several features of my improvement, referring by letters to the accompanying drawings, which form part of this specification, and in which I have illustrated my invention carried out in that form in which I have so far successfully practiced it.

In the drawings, Figure 1 is a perspective view showing the parts of the contrivance and the web of paper in the conditions in which they would appear when ready for use. Fig. 2 is a vertical section, with a portion of the web pulled off ready to be severed from the

main supply. Fig. 3 is a perspective view of the web-sustaining reel or bail-like support separated from the web and from the other parts of the contrivance.

In these several figures the same parts will be found designated by the same letters of reference.

A represents an ordinary roll or wound web of water-closet paper, which is mounted upon the helically-wound plug-like portions *b* of the wire bail-like frame B. This bail-like frame is preferably made (by turning the wire) with two eyes, at C C, to facilitate the fastening up or hanging up of the bail against any wall or partition where the contrivance is to be used, as illustrated.

D is a combined cutting-knife and roll-brake, which is preferably made, as shown, of sheet metal, with its forward cutting-edge bent upwardly and serrated in a manner well understood, to facilitate the severance of the paper. This cutter and brake D is formed with two notches or indentations at either end and near its back edge, which engage, as shown, with the nearly vertical portions or side bars of the bail or roll-support B; and a short distance forward of the points where the device D engages with the side bars of the bail said device is provided with an upwardly-projecting rib or flange, *d*, in rear of which rests upon the device D, by gravity, a presser-bar or tension-bar, E, which is preferably formed of a piece of wire, the ends of which are bent into hook-like or eye form, so as to engage with the side bars of the bail B in such manner as to permit the said presser-bar to freely slide up and down on said bail.

In fitting the contrivance for use, the side bars of the bail are sprung apart, so as to permit the engagement with the central hole of the roll of paper of the plug-like portions *b* of the bail. The sliding knife and brake device D is then permitted to descend and rest on top of the roll of paper, the free end of the paper being passed over said device D, and the presser-bar E is then allowed to descend on top of the projecting portion of the paper web, all as clearly illustrated in the drawings.

In the use of a contrivance such as shown,

and so far described, the operation is as follows: When it is desired to use some of the paper, the free or projecting end of the web is grasped, and any desired quantity is pulled 5 off in the direction indicated at Fig. 2. Then by pulling the drawn-off portion of the web downwardly, as indicated by dotted lines at said figure, and pulling on the web, the initial effect is to pull the device D down onto the 10 upper portion of the periphery of the paper roll with a force due to the pull on the paper augmented by the leverage exerted by the device D, since the pull of the paper on the serrated edge of D acts to force the plate D 15 down onto the roll near its rearmost edge and slightly in advance of the fulcrum line at which said plate is engaged with the side bars of the bail B. A slight sidewise pull on the paper thus effects the complete severance of the 20 pulled-off portion from the rest of the web by the action of the serrated edge of the device D, and the free end of the cut web naturally assumes the position seen at Fig. 1 by reason of the action of the presser-bar E, which, ex- 25 erting its weight on the paper immediately in rear of the upwardly-projecting rib or flange *d*, causes the paper to assume the position shown, and leaves its free end in a most convenient condition to be again grasped for another operation of the machine. 30

It will be seen that by the construction of the holder B of a single piece of wire, with the tapering coils *b*, an exceedingly cheap and efficient means for supporting the roll of paper 35 is provided, and one to which the rolls of paper for use may be alternately supplied in a most convenient manner by simply springing apart the lower ends of the wire bail and inserting the tapering coils in the axial aperture of the 40 roll.

By making the device D with simple notches at either end to engage with the side bars of the bail, as shown, said device may be slid up on the side bars of the reel, out of the way, for

the ready insertion of a fresh roll of paper; 45 and in fact may, if desired, be entirely removed from the bail. The presser-bar E operates sufficiently for the purpose explained, and the action of the device D is such, it will be understood, that in drawing off portions of 50 the web it excites a slight tension on the paper, so that it will not be pulled off too easily, and then when the web is pulled down to perform the cutting operation it acts initially, as already explained, as a sort of lever-brake on 55 the roll.

Of course the precise forms, as well as the sizes and proportions of the parts, may be varied more or less without changing the principle of construction or mode of operation of 60 the machine, and hence without departing from the gist of my improvements.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a bail-like holder 65 for supporting the roll or wound web of paper, a cutting bar or device which rests by gravity on top of the roll, and which acts, as described, as a lever-brake to retard the rotation of the roll by the pulling action on the free end of 70 the paper necessary to do the cutting.

2. A bail-like roll-holder formed with integral tapering plug-like portions *b*, substantially as and for the purposes described.

3. In combination with a roll-supporting 75 device or holder, a cutting and braking device free to descend by gravity as the size of the roll becomes reduced, and a presser-bar resting on top of the free portion of the web, and in rear of an upwardly-projecting rib or flange 80 on the combined brake and cutter, all substantially as and for the purpose described.

In witness whereof I have hereunto set my hand this 17th day of May, 1884.

CHARLES C. JOHNSON.

In presence of—

JUSTUS DARTT,  
A. M. ALLBE.