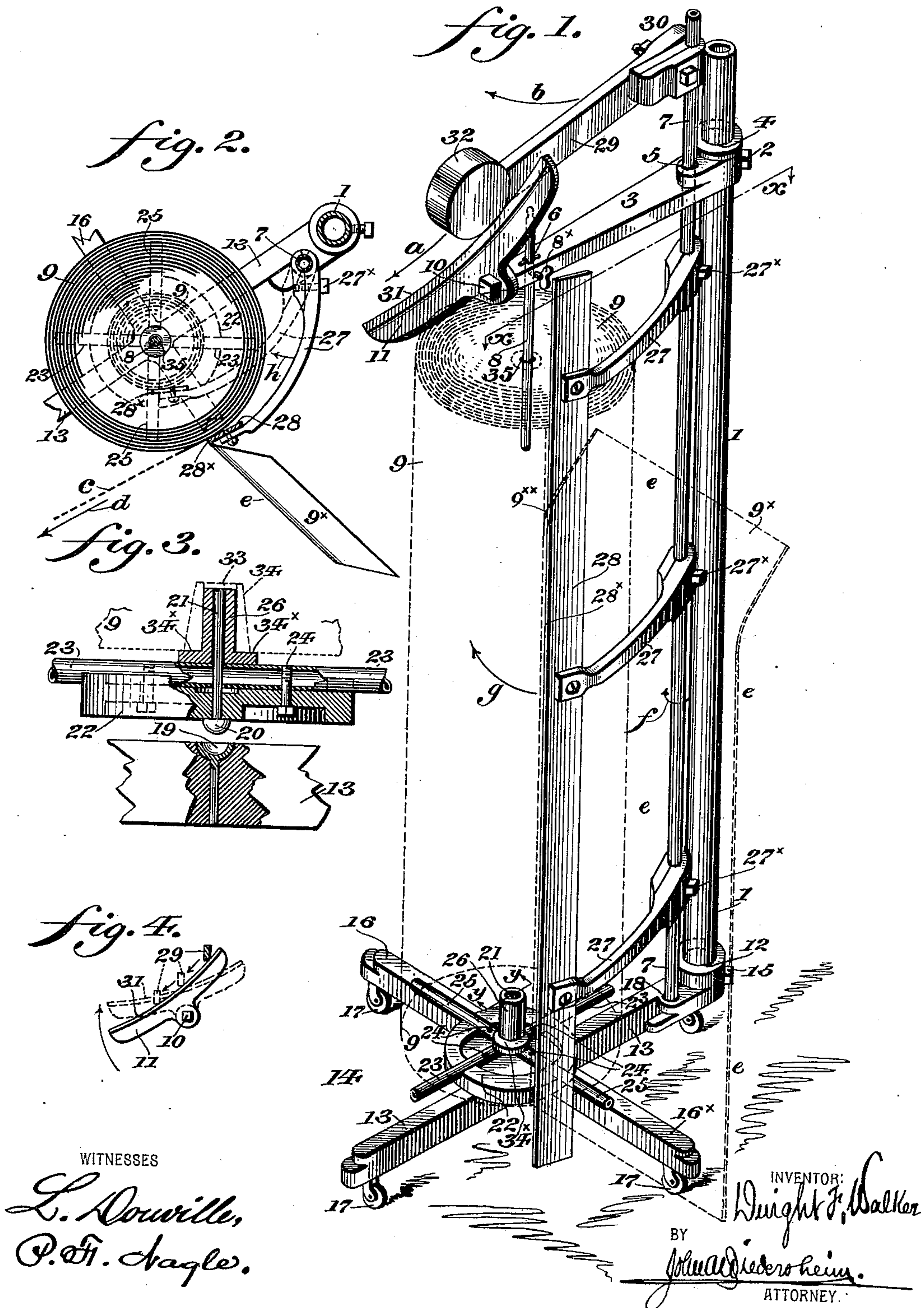


(No Model.)

D. F. WALKER.  
PAPER HOLDER AND CUTTER.

No. 582,837.

Patented May 18, 1897.





# UNITED STATES PATENT OFFICE.

DWIGHT F. WALKER, OF PHILADELPHIA, PENNSYLVANIA.

## PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 582,837, dated May 18, 1897.

Application filed December 31, 1896. Serial No. 617,577. (No model.)

*To all whom it may concern:*

Be it known that I, DWIGHT F. WALKER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Paper Holders and Cutters, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of paper holder and cutter especially adapted for supporting and manipulating large rolls of paper, said rolls being preferably supported in an upright position.

It also consists of novel means for keeping the blade or cutter which assists in severing the paper at the desired point always in contact with the roll as the diameter of the latter decreases without necessitating the employment of a spring or springs.

It also consists of a novel manner of supporting the paper-roll, whereby friction is reduced to a minimum.

It further consists of novel details of construction, all as will be hereinafter set forth, and specifically pointed out in the claims.

Figure 1 represents a perspective view of a paper holder and cutter embodying my invention. Fig. 2 represents a partial plan and partial horizontal sectional view of a portion of the same. Fig. 3 represents, on an enlarged scale, a partial side elevation and partial vertical section of certain detached portions of the device, the section being taken on line *y y*, Fig. 1. Fig. 4 represents, on a reduced scale, an end view of a detached portion of the device.

Similar figures of reference indicate corresponding parts in the several views.

Referring to the drawings, 1 designates a standard which in the present instance consists of a metal tube, to which is firmly secured by a set-screw 2 the arm 3, which latter is formed with openings 4, 5, and 6, it being noted that the upper portion of the standard 1 is passed through said opening 4, so as to permit said arm and standard to be secured together, as hereinbefore described.

The opening 5 has passed therethrough a tube or rod 7, which is freely rotatable in said opening 5, and for a purpose to be hereinafter described.

The opening 6 is for the reception of a rod 8, which latter is adapted to assist in retaining a roll 9 of paper or other material in the device, and in a manner to be hereinafter explained, and from which roll pieces may be cut when desired.

The end of the arm 3 adjacent to the rod 8 has secured thereto by a bolt 10 an arm 11, which may be rotated on said bolt as an axis, and for a purpose to be hereinafter described.

The lower end of the standard 1 is fitted in an opening 12 in an arm 13 in the base portion 14 of the device, and said end is firmly held in position in said opening by a set-screw 15.

16 and 16<sup>x</sup> designate arms which project at an angle to the arm 13, it being apparent that by this arrangement of the arms 13, 16, and 16<sup>x</sup> the standard 1 is supported on a base which retains said standard 1 in an upright position, as shown in Fig. 1.

The arms 13, 16, and 16<sup>x</sup> are provided with casters 17, which permit said arms, and consequently the entire apparatus, to be easily moved from place to place according to requirements. The arm 13 is provided with a socket 18, which lies in a vertical line with and directly beneath the opening 5 in the arm 3, and into this socket is loosely fitted the lower end of the rod 7. It will be apparent that by this construction the rod 7 may be easily rotated in its bearings in the arms 3 and 13, and for a purpose to be hereinafter described. The point of junction of the arms 13, 16, and 16<sup>x</sup> is provided with a socket 19, into which is placed the head 20 of a stem 21, so that said head may freely rotate in the socket 19. The stem 21 is passed through a disk 22 and also through a tube or rod 23, which latter rests on said disk and is secured thereto, in the present instance by bolts 24, as seen in Fig. 3.

25 designates tubes or rods which are placed in the present instance at a right angle to the rod 23 and are each secured to the disk 22 by a bolt 24. The ends of the rods 23 and 25 project beyond the periphery of the disk 22, as best seen in Fig. 1, so as to prevent the paper in the roll 9 from vertical displacement should the same tend to slip downwardly. A portion of the stem 21 projects above the tubes or rods 23 and 25, and on said portion



is loosely fitted a flanged collar 26, which is adapted to support the roll 9 of paper or other material placed in the device.

27 designates arms which are firmly secured by bolts 27 to the rod 7, so as to rock in unison with the same in order to cause a blade or cutter 28, which is secured to said arms, to bear against the periphery of the roll 9 of paper, so that a piece 9<sup>x</sup> may be cut from said roll 9 and along the cutting edge 28<sup>x</sup> of the blade 28, as best seen in Figs. 1 and 2.

29 designates an arm which is pivoted at 30 to the upper portion of the rod 7, it being noted that a portion of said arm 29 contacts with the edge 31 of the arm 11, and as the latter is in an inclined position the tendency of the arm 11 will be to deflect the arm 29 and cause the same to move in the direction indicated by the arrows *a* and *b* in Fig. 1, it being also noted that the rod 7 permits the arm 29 to rotate in a horizontal direction and the pivot 30 permits said arm to rotate in a vertical direction. The object of the arms 11 and 29 is to cause the blade 28 to accommodate itself to rolls of different or varying diameters. The arm 29 is weighted at 32, the object of said weight being to cause the blade 28 to bear firmly against the periphery of the roll 9 of paper, so that when a piece is cut along the edge 28<sup>x</sup> of the blade 28 the latter will not be removed from contact with said roll due to the pulling action on the paper during the process of severing or cutting the same.

The operation is as follows: The rod 8 is raised so that the space between its lowermost extremity and the top of the collar 26 shall be somewhat greater than the length of the roll 9 of paper which is to be placed in the device. The roll 9 of paper is then placed so that the opening 33 in a plug 34 in the central and lower portion thereof shall be in alinement with the collar 26 and a trifle above it. The roll 9 is then lowered on the collar 26 and the latter enters said opening 33, thereby causing the plug 34 to rest on the flange 34<sup>x</sup> of the collar 26 and be supported by the same. The opening 35 in the upper portion of the roll 9 is then brought in alinement with the rod 8, and the latter is then lowered so that a portion of the same enters said opening 35, as seen in Fig. 1, and thereby assists in retaining said roll 9 in position in the device. A set-screw 8<sup>x</sup> firmly retains the rod 8 in position when the same is placed in the opening 35 in the upper portion of the roll 9. When a roll 9 of paper is placed in the device, a portion of the former will contact with the blade 28 and move the same, and consequently impart a partial rotation to the rod 7, which serves as an axis for said blade. This will cause the arm 29 to slide upwardly on the arm 31. If desired, however, the arm 29 may be raised and held in its elevated position, so as to cause the blade 28 not to contact with the roll 9 when the latter is being placed in the device, it being evident, however, that

when said roll is in position in the device the arm 29 is lowered so as to rest on the arm 31, and thereby cause the blade 28 to contact with the roll 9 of paper.

When it is desired to cut a piece of paper from the roll 9, the loose end (shown in dotted lines at *c* in Fig. 2) is pulled in the direction indicated by the arrow *d* in said figure, thereby unrolling a portion of paper from the roll 9, and the unrolling is continued until the desired length of paper is acquired. The unrolled portion is then brought at an angle to the cutting edge 28<sup>x</sup> of the blade 28, as shown at *e* in full lines in Fig. 2 and in dotted lines in Fig. 1, after which said unrolled portion is pulled against the cutting edge of said blade, as shown at 9<sup>xx</sup>, in the usual manner, and thereby severed from the roll 9.

The roll 9 of paper decreases in diameter whenever a piece is cut therefrom, and although this reduction in the diameter of the roll is almost imperceptible, as the same is produced gradually, yet when a considerable quantity of paper has been removed from the roll the reduction in its diameter is readily seen. The diameter of the roll 9 when first placed in the device is shown in full lines in Fig. 2 and in the same figure is shown in dotted lines, the reduced diameter of the roll being due to a considerable quantity of paper having been removed therefrom. In order then to cause the blade 28 to accommodate itself to the varying diameters of the roll 9, so as to at all times remain in contact therewith, the arms 11 and 29 are employed, as hereinbefore stated, it being evident that the arm 29 will ride down the edge 31 of the arm 11 as the roll 9 diminishes in diameter, and in so doing will impart a partial rotation to the rod 7, to which it is pivoted, and cause the same to move in the direction indicated by the arrow *f* in Fig. 1, and said rod will then cause the blade 28 to move in the direction indicated by the arrows *g* and *h* in Figs. 1 and 2, respectively.

The pressure of the blade 28 against the roll 9 of paper may be regulated by varying the inclination of the arm 11, as shown in Fig. 4, it being evident that when said arm is inclined, as shown in dotted lines in said figure, the pressure of the blade 28 against the roll 9 will be less than when said arm is inclined to the extent indicated in full lines.

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

1. A paper cutter and holder having mechanism for journaling a roll of paper, an oscillatory shaft with a cutting-blade, extending the length of said paper, an inclined arm, and a weighted arm pivotally connected with said shaft and bearing on said inclined arm.

2. In a paper-holder, an oscillating shaft with a cutting-blade attached thereto, the inclined arm 11 and the weighted arm 29 secured to said shaft so as to oscillate therewith.

3. In a paper holder and cutter having a



suitable base, an upright extending therefrom, an arm projecting laterally from said upright, devices common to said arm and base for holding a roll in position, a rod 5 freely movable in suitable supports and carrying a blade or cutter adapted to contact with said roll, a weighted arm pivotally mounted on said rod, an inclined arm suitably supported against which said weighted arm is adapted to contact, and means for 10 adjusting said inclined arm.

4. In a paper cutter and holder, a base having the socket 19, the stem 21 with its head 20 in said socket, the disk 22 through which 5 said stem passes, the rod 23 resting on and secured to said disk, the tubes 25 secured to said disk, and extending radially beyond the same, and the flanged collar 26 on said stem.

5. In a paper cutter and holder, a suitable 10 base, means for supporting a roll of paper thereupon, a rod or tube extending upwardly from said base, a stationary arm projecting from said rod, means connected to said arm for holding the upper portion of said roll in

position, a rod freely rotatable on said base, 25 arms projecting from said rod and adapted to sustain the blade or cutter which contacts with said roll, an arm 29 pivotally mounted on said movable rod, a weight on said arm, and an inclined adjustable arm adapted to 30 support said pivotal arm, whereby said blade is always caused to contact with said roll.

6. In a paper holder and cutter, a base having horizontally-extending arms, a vertical 35 standard secured in the outer end of one of said arms, the arm 3 connected to the upper end of said standard, mechanism connected with said base and upper arm for journaling a roll of paper thereon, an oscillating shaft 40 journaled in said upper arm and base, a cutting-blade connected with said shaft, an inclined arm connected with said upper arm, and a weighted arm bearing on said inclined arm and connected with said shaft.

DWIGHT F. WALKER.

Witnesses:

JOHN A. WIEDERSHEIM,

WM. C. WIEDERSHEIM.