

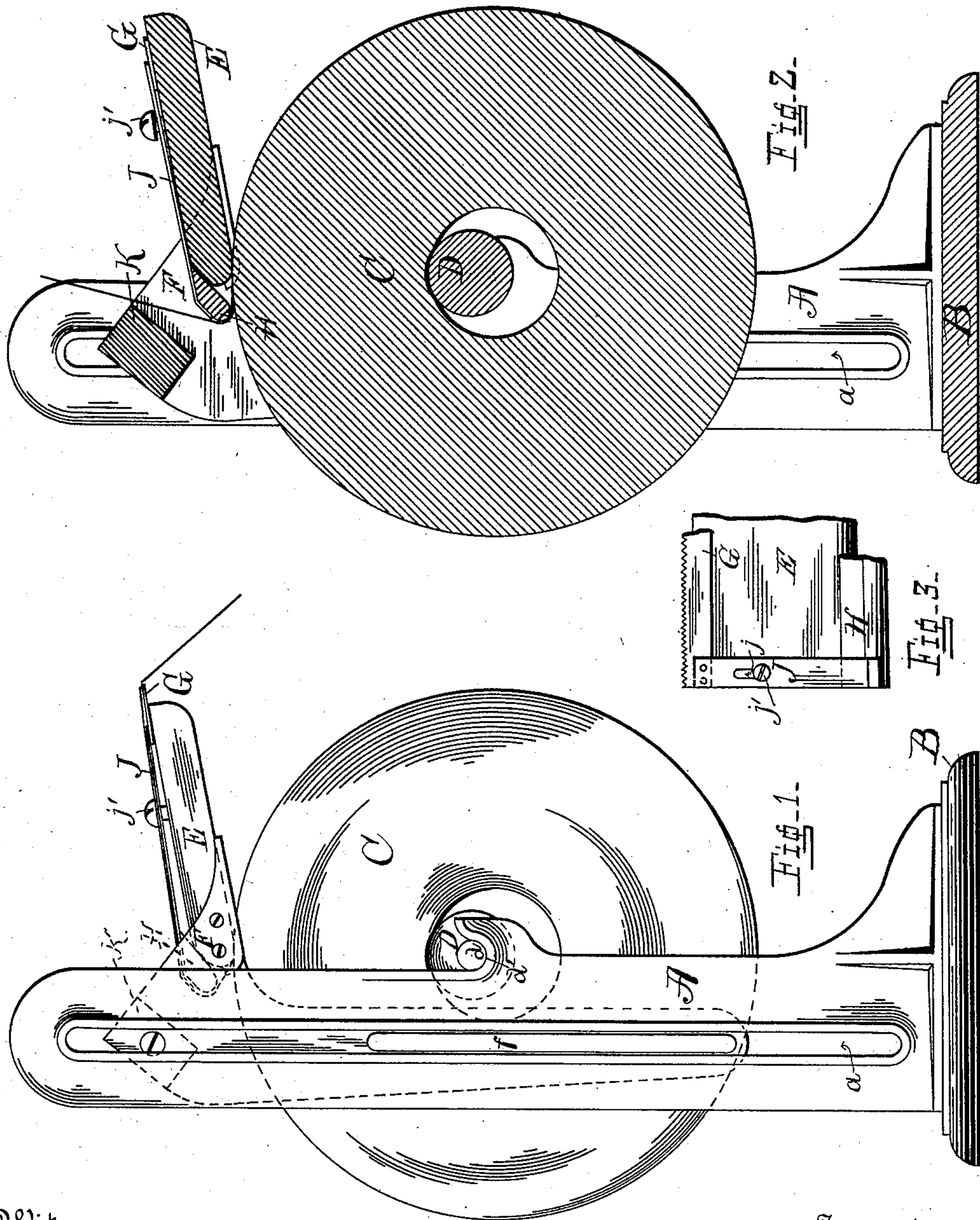
(Model.)

E. HAIMAN.

PAPER HOLDER AND CUTTER.

No. 389,506.

Patented Sept. 11, 1888.



Witnesses

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PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 389,506, dated September 11, 1888.

Application filed December 23, 1887. Serial No. 258,842. (Model.)

To all whom it may concern:

Be it known that I, ELIAS HAIMAN, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Paper Cutter and Holder; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of paper-cutters that are arranged to cut or tear sheets of paper of any desired length from a roll of paper which is suspended on journals, the object being to provide a simple and convenient apparatus, that will carry the roll of paper and allow it to revolve freely while the desired length of paper is being drawn off of the roll, and to effectually prevent the revolution of said roll of paper while the sheet is being torn off.

The device consists of a stand, on which is journaled the roll of paper on a mandrel that is preferably smaller than the hole in the center of the roll, a cutting-table that slides vertically in grooves or slots in the stand and puts tension on the paper to a greater or less extent as it is being cut or drawn, as the case may be, and a reciprocating knife that is projected beyond the front corner of the table and held in that position until the paper shall have been torn off, and that will recede beyond the corner of the table on the tension being removed, and means for projecting the cut end of the paper upwardly, all of which will be hereinafter fully set forth, and the parts thought to be new pointed out in the claims.

In the accompanying drawings, Figure 1 is an end view showing all the parts, the paper being drawn over the edge of the knife, which is projected beyond the table preparatory to cutting or tearing it off. Fig. 2 is a vertical cross-section through the machine and roll of paper, showing the end of the paper projecting upwardly and the knife drawn back beyond the corner of the table. Fig. 3 is a top view of one end of the knife and the frame to

which it is attached, showing the slots and screws by which it is guided and its movement limited.

In the figures, like reference-marks indicating corresponding parts in the several views, A are upright supports, and are shown in the drawings as attached to a base-board, B. These supports may, however, be attached to the counter or other convenient place, and may, instead of being attached at their bottom, as shown, be attached by brackets in any desired position on the frame or supports, by which they may be attached to a vertical wall or under a counter, the only essential being that they be held in an upright position and a proper relative distance apart.

C is the roll of paper, and D a mandrel through its center. This mandrel has at each end a journal, *d*, each of which runs in an open box, *d'*, in the supports A. The mandrel D is smaller than the hole in the center of the roll of paper, for a reason that will be hereinafter set forth.

In the support A are vertical slots *a*. On each end of the table E is a bracket, F, on the outer side of each of which is the flange *f*, Fig. 1, which slides in the slot *a*. The table E rests on the roll of paper, and the flanges *f* keep the table in a proper position to the roll of paper and permit it to follow down on the paper as the roll becomes smaller.

At the front corner of the table E is the knife G, which is fastened to a frame composed of the bar H and the parts J. The part J of each has a slot, *j*, Figs. 1 and 2. The bar H is sloped on its under side, as shown in those figures. The knife G may be sufficiently wide to reach back and attach to the bar H, or it may form a substitute or equivalent part for the bar H by being bent downwardly to perform the functions of that bar in the same way, and in either case should have the slots *j*; but I prefer the specific construction shown. The roll turns upwardly on the right-hand side, as shown in Figs. 1 and 2, and, calling that the front side of the roll, the free end passes upwardly behind the bar H, as shown in Fig. 2. Drawing the free end of the paper about horizontally will carry the bar H forward and project the knife beyond the corner of the table, as shown

in Fig. 1, the slot *j* permitting a sufficient forward movement for that purpose. When the desired amount of paper is drawn beyond the knife, it should be drawn downwardly and be cut or torn over the edge of the knife. To prevent the slipping of the paper while it is being drawn over the edge of the knife it is preferable that the edge be serrated, as shown in Fig. 3. On the tension of the paper being released the slope on the under side of the bar H will cause the weight of it to draw the knife backwardly to the position shown in Fig. 2, and the free end of the paper will, by its tendency to straighten, assume approximately the position shown in that figure, which will allow of its being freely taken hold of for the purpose of drawing it out again, the bar K preventing it going too far.

It is found that rolls of paper do not, as a general thing, balance when hung on journals that are central to the hole through said rolls, for which reason the mandrel D is made as much smaller than the hole as will insure that the weight of the paper will be sustained by the top of the mandrel. That part of the roll just around the hole in the center is sufficiently soft to allow the mandrel to seat itself in it and prevent, by its friction, the heavy side of the roll from turning the same from its position. The proportionate size of the mandrel to the hole should be such as to produce an indentation of the mandrel that would require a slight tension on the paper as it is drawn forward from the roll to overcome it, as much at least as would be equal to the probable difference in weight of any two sides of a roll of paper, the greater part of the tension being the result of the friction on the roll caused by the table E resting on it. As the end of the paper is drawn downwardly, as shown in Fig. 1, the friction

of the table on the roll is greatly increased, and the roll thereby made to resist the pulling of the paper from the roll over the knife as the paper is being cut or torn off.

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

1. In a paper holder and cutter, a stand supporting the roll of paper on journals and having slots *a*, in combination with the table E, carrying a knife at its outer top corner, and having brackets F and flanges *f*, substantially as shown and described, and for the purpose specified.

2. In a paper holder and cutter, the combination of a roll of paper carried on journals, the table E, the bar H, having a rearwardly-sloping front surface, the slotted connecting parts J, and the screw *j'*, substantially as shown and described, and for the purpose specified.

3. In a paper holder and cutter, the combination of a stand supporting a roll of paper on journals and having slots *a*, the table E, having brackets F and flanges *f*, a cutting-knife, and the bar K, substantially as shown and described, and for the purpose specified.

4. In a paper holder and cutter, the roll of paper C, the bar H, and the bar K, all sustained by supports and combined and arranged substantially as shown and described, in conjunction with a cutting device, for the purpose of utilizing and regulating the natural resilience of the free end of the paper in elevating said free end from the cutting device.

In testimony whereof I affix my signature in presence of two witnesses.

ELIAS HAIMAN.

Witnesses:

JOSEPH SPIRO,
A. P. WOOD.