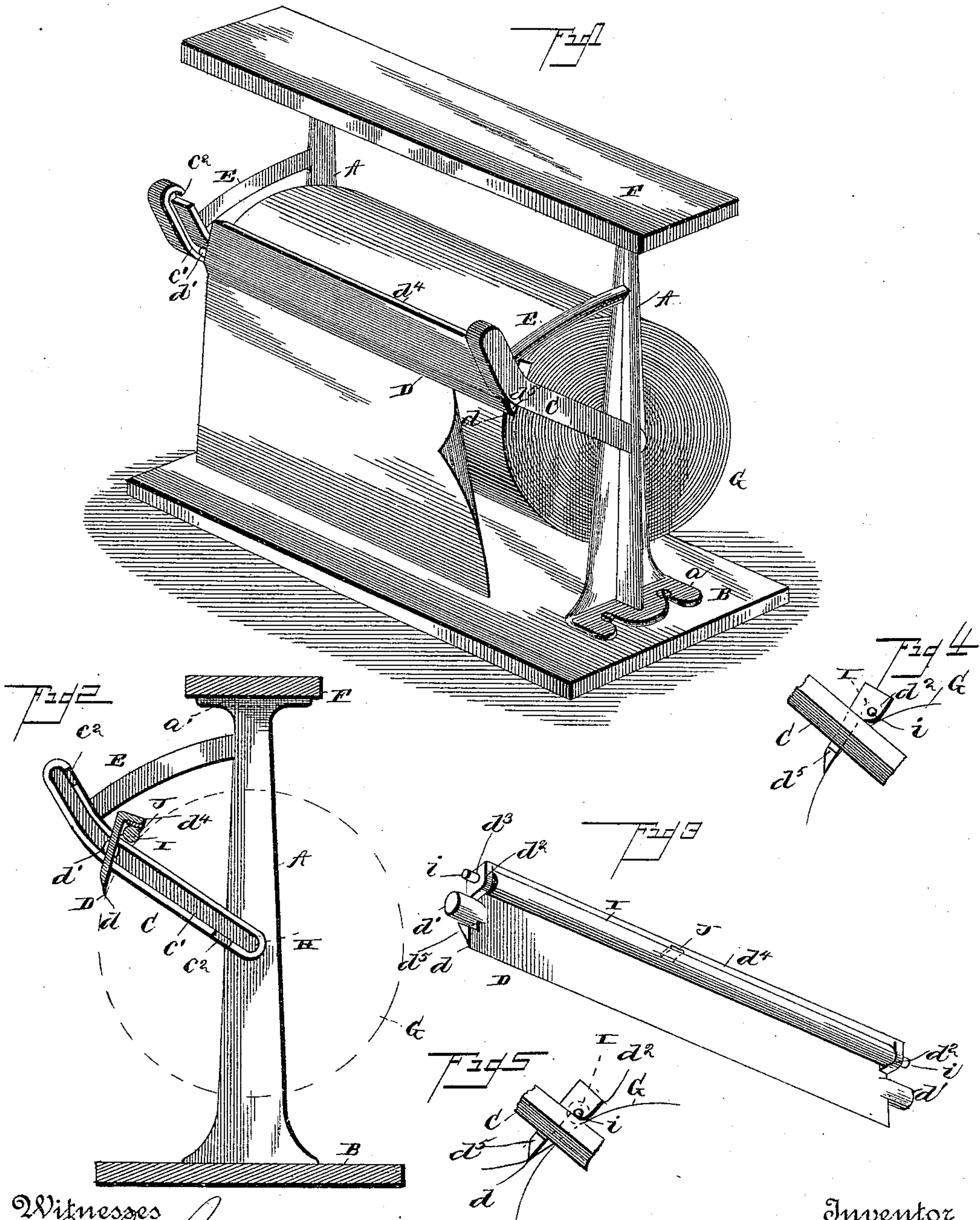


(No Model.)

J. M. BOLTON.
ROLL PAPER HOLDER AND CUTTER.

No. 448,113.

Patented Mar. 10, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES M. BOLTON, OF SPRINGFIELD, ILLINOIS.

ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 448,113, dated March 10, 1891.

Application filed October 18, 1889. Serial No. 327,403. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. BOLTON, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Stand and Knife for Paper Rolls, of which the following is a specification.

The invention relates to improvements in stands and cutting-knives for paper rolls.

The object of the present invention is to simplify, improve, and cheapen the construction of the cutting-knife and to enable the paper-roll and cutting knife to be readily inserted in and removed from their bearings.

The invention consists in the construction and novel combination and arrangements of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a cutting stand and knife constructed in accordance with the invention. Fig. 2 is a vertical sectional view. Fig. 3 is a detail perspective view of the cutting-knife. Fig. 4 is a side elevation showing the normal position of the knife, and Fig. 5 is a similar view showing how the knife swings when the paper is drawn upon.

Referring to the accompanying drawings by letter, A designates a pair of vertical standards, which have feet *a* at their lower ends, that are bolted or otherwise secured to a suitable base or support B. The standards are provided at a suitable point, preferably about midway of their ends, with upwardly-inclined arms C, which are provided on their inner facing sides with grooves *c'*. The grooves *c'* have their lower ends rounded to form journaled bearings and are provided a short distance from their ends with openings *c''*, that are preferably arranged at opposite sides of the arm and permit the journals or trunnions of a cutting-knife D and the shaft which carries the roll of paper to be readily inserted and removed from the groove of the inclined arm. Curved braces E are provided, which connect the standard to the inclined arm, and the standards, braces, and arms are preferably cast integrally; but they may, if desired, be formed separately and secured together. The upper ends of the standard are

connected by a cross-bar F, which is bolted or similarly secured to horizontal plates *a'* at the upper ends of the standards, the plates being similar in size and shape to the feet *a* at the lower ends of the standards. The roll of paper G is mounted on a suitable shaft H, whose journals find bearings in the lower ends of the grooves *c'* of the inclined arms, and the knife or cutting blade D is straight and has a plain lower surface and has its front edge *d* beveled. It is provided at its ends with integral journals *d'*, which are inserted in the grooves *c*. The back of the knife or cutting blade D is provided at the ends with depending ears *d''*, which are provided with perforations *d'''*, in which is journaled a cylindrical roller I, which bears against the paper and holds the front or beveled edge at a tangent to the roll in order to adapt the blade to cut readily the paper when the free end of the latter is drawn outward; and in order to prevent the beveled edge *d* swinging out too far from the paper by the blade turning on its journals *d'* the cylindrical roller I has its journals *i* projecting beyond the ears *d''* of the cutting-blade D and adapted to engage the upper sides of the inclined arms, whereby the rotary movement of the knife or cutting blade on its journals *d'* is limited. The rear edge of the cutting-blade is provided with a depending flange *d''''*, which is formed integral therewith and with the ears *d''*, and when it is desired to prevent the rotation of the roller I to retard the unwinding of the paper a small plug J, of rubber, is forced between the roller and the depending flange *d''''*. A projection *d'''''* is formed at the front of the knife upon one side to engage the lower edge of one of the inclined arms C and to also aid in limiting the swinging or rotary motion of the knife-blade and hold the latter against the paper when tearing a piece off the roll. As the paper is used and the roll becomes smaller in diameter, the knife will gradually drop by gravity in the grooves and accommodate itself to the size of the roll. The knife when desired may be reversed and placed in the lower ends of the grooves, and the paper is then placed above the knife and gradually sinks and approaches the latter as it becomes used.

The inclined arms C may be arranged at the top or bottom of the standards and upon either side thereof, and I desire it to be understood that I do not limit myself to the precise details of construction herein shown and described, as I may without departing from the spirit of the invention make various minor changes therein.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be understood.

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

1. The combination of the standards having the inclined arms provided with grooves, the roll of paper journaled in said grooves, the knife provided at its ends with integral journals arranged in said grooves, and means for limiting the rotary motion of the knife and holding the same in proper position for cutting, substantially as described.

2. The combination of the standards having inclined arms provided with grooves, the roll of paper journaled in said grooves, and the knife provided at its ends with integral journals arranged in the grooves and having upon one of its ends a projection adapted to engage the side of one of the arms to limit the rotary motion of the knife and hold the latter against the paper, substantially as described.

3. The combination of the standards hav-

ing the inclined arms provided with grooves, the roll of paper journaled in said grooves, the knife provided at its ends with integral journals and having depending ears d^2 , and a roller journaled in said ears and having its journals projecting beyond the knife and adapted to engage the sides of the arms, substantially as and for the purpose described.

4. The combination of the standards provided with inclined arms having grooves, the roll of paper journaled in said grooves, the knife having integral journals and provided with depending ears d^2 and a flange d^4 , a roller journaled in said ears and having its journals projecting beyond the knife and engaging the sides of the arms, and a plug interposed between the roller and the flange, substantially as and for the purpose described.

5. The combination of the standards having arms provided with grooves and having openings communicating with the grooves arranged at their sides and within a short distance of their ends, the roll of paper journaled in the grooves, and the knife provided at its ends with integral journals arranged in the grooves, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES M. BOLTON.

Witnesses:

E. R. ROBERTS,

S. A. TOBIN.