(No Model.)

A. Q. ROSS.

ROLL PAPER HOLDER AND CUTTER.

No. 408,752. Patented Aug. 13, 1889.

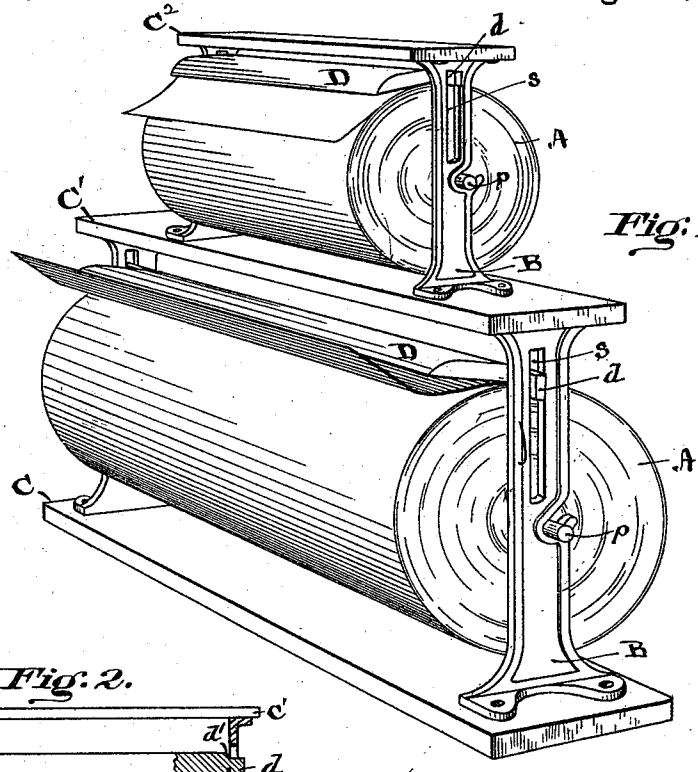


Fig: 1.

Fig: 2.

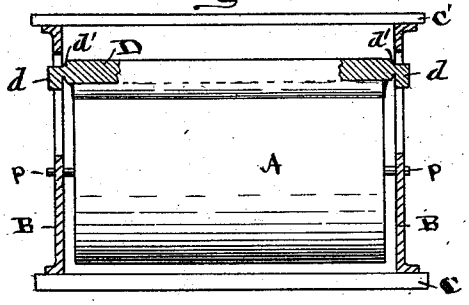
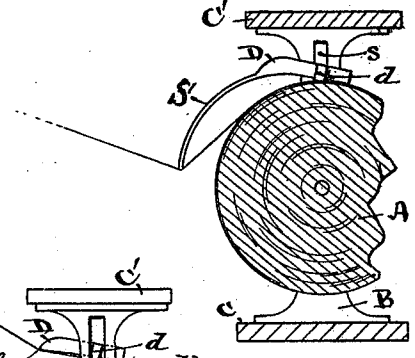


Fig: 5.



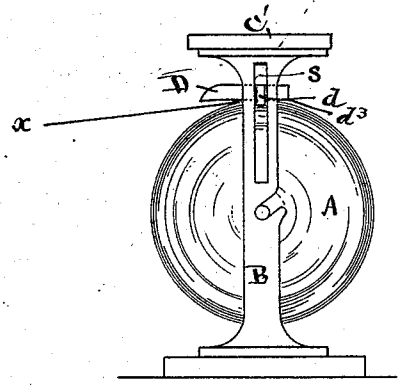


Fig: 3.

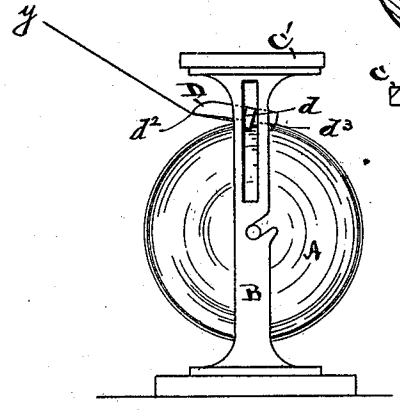


Fig: 4.

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UNITED STATES PATENT OFFICE.

ABBOTT Q. ROSS, OF CINCINNATI, OHIO.

ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 408,752, dated August 13, 1889.

Application filed June 20, 1888. Serial No. 277,692. (No model.)

To all whom it may concern:

Be it known that I, ABBOTT Q. ROSS, a citizen of the United States, residing at Cincinnati, Hamilton county, Ohio, have invented new and useful Improvements in Roll-Paper Holders and Cutters, of which the following is a specification.

My invention relates to roll-paper holders and cutters, its object being to produce a serviceable and simple stand device for holding wrapping-paper upon store-counters and to facilitate the removal of paper from time to time in desired quantities, as occasion demands.

To clearly explain my invention, it may be well at the outset to distinguish between toilet-paper-roll devices, which deal with small rolls of very light paper and may be hung to a wall by a wire bail, and devices for holding heavy rolls of wrapping-paper, which often weigh two and three hundred pounds and rest upon a store-counter.

My invention relates to the latter class of these devices, and its principal object is to reduce the construction of the same to the lowest terms of simplicity, while embodying certain mechanical features desirable in such devices, to wit: a stand for holding a roll of any size pivotally, a straight-edge or "tearing-knife," a friction brake for governing the rotative momentum of the roll in unwinding, so as to prevent overrunning, and a lock to hold the roll while tearing off paper, these features being combined in my improved construction in a compact, cheap, and efficient apparatus, in which all extra parts, such as springs, catches, &c., are entirely avoided.

My invention is embodied in mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the device complete, showing two rolls, varying in size, mounted one above another upon the same stand. Fig. 2 is a front vertical elevation with the brake-bar sectioned longitudinally, and Fig. 3 an end view, both showing constructive features of the combined tearing-knife and brake-bar. Fig. 3 also indicates the normal position of rest. Fig. 4 shows the same parts as Fig. 3 in the position assumed in tearing off the paper. Fig. 5 shows the extended shield of the knife, which may be used upon upper rolls.

Referring now to the drawings, A designates the paper-roll, mounted on axial pivots *p p;* B B, the side standards in which said pivots have their supporting-bearings, and C C′ C^2 the base and top braces respectively, the upper brace C′ of the lower stand being the base of the upper stand.

In my improvement I discard springs, catches, and other extraneous parts, and place across the top of the roll A a bar D, constructed as hereinafter more particularly described, but held and guided by end projections *d* in a plane vertical, or approximately so, in slots or guides *s* of parallel surfaces in the side standards. This bar, acting by gravity, follows the descending periphery as the roll diminishes in size, thereby always preserving its proper relation thereto, and to accommodate any relative inequality of diameter at the opposite ends of the roll the shoulders *d′* of the bar adjacent to the projections *d* are rounded, as shown in Fig. 2, sufficient play being also allowed between the standards horizontally. The position of the bar under such abnormal conditions is indicated by dotted lines. Assuming a central longitudinal axis of the bar extending outward through the projections *d*, the sectional figure of said projections, at right angles to said axis, is rectangular and somewhat elongated vertically, as shown in Fig. 3, for reasons to be presently explained. The cross-sectional figure of the bar D, at right angles to said axis, is elongated horizontally at both sides of such axis, as shown in Fig. 3, the greater projection being at the front, where the bar is brought to a somewhat sharp cutting or tearing edge. In its normal position the bar rests tangentially upon the roll, so that any inequalities—such as lumps, &c.—of the paper pass under without obstruction, the roll being subject only to ordinary friction of the bar, due to the gravity of the latter acting upon its entire length of surface contact. The front of the bar projects tangentially beyond the periphery of the roll, whereby, after the tearing process, the edge of the unsevered strip may be conveniently grasped for a new hold.

The action in tearing off a strip is as follows: The parts being in the normal position shown in Fig. 3, the paper is drawn out in the position x to a sufficient distance and then moved upward into the line y and bent to an angle across the front edge d^2, constituting the "knife" or "tearing-edge" of the bar D. The upward pull upon the front edge d^2 of the bar slightly "tilts" the same, and in so doing the projections d, being vertically elongated in the guide-slots s, are brought into diagonal relations with the sides of the slots and clamped therein, as shown in Fig. 4. The clamping engagement just referred to thus forms a fulcrum, constituting the bar D a lever of the first class, and the upward pull upon the edge d^2 depresses the rear edge d^3 upon the periphery of the roll A and forms a practical lock to the roll while the paper is being severed by the pull across the front edge d^2. Upon release the bar D reassumes the position shown in Fig. 3, and the edge of the unsevered strip falls down beneath the edge d^2 and is in such position conveniently regrasped. The addition of the shield S is only desirable when the height of the roll is such that the desired elevation of the severing-strip cannot otherwise be obtained. Its action is indicated by the dotted lines in Fig. 5.

I may construct the bar D of hard wood or of cast-iron. In the latter case it adds to the effectiveness of the apparatus to smooth the contact-surface of the bar. I may also increase the weight of the bar by the imposition of independent weights as riders.

I claim as my invention and desire to secure by Letters Patent of the United States—

In a roll-paper holder and cutter, in combination with the roll and the vertically-slotted side supports, a friction-bar resting tangentially upon the roll by gravity and guided in the slots by vertically-elongated projections, the bar being formed to a tearing-edge forward of said projections and to a friction-edge in rear thereof, and adapted by the pull of the paper outward and upward against said tearing-edge to clamp the projections diagonally in the guide-slots and depress the rear or friction edge of the bar against the roll, substantially as and for the purpose set forth.

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

ABBOTT Q. ROSS.

Witnesses:
L. M. HOSEA,
L. E. HOSEA.