(No Model.)

N. R. STREETER.

KNOCKDOWN PAPER ROLL HOLDER AND CUTTER.

No. 492,975. Patented Mar. 7, 1893.

Fig. 1.

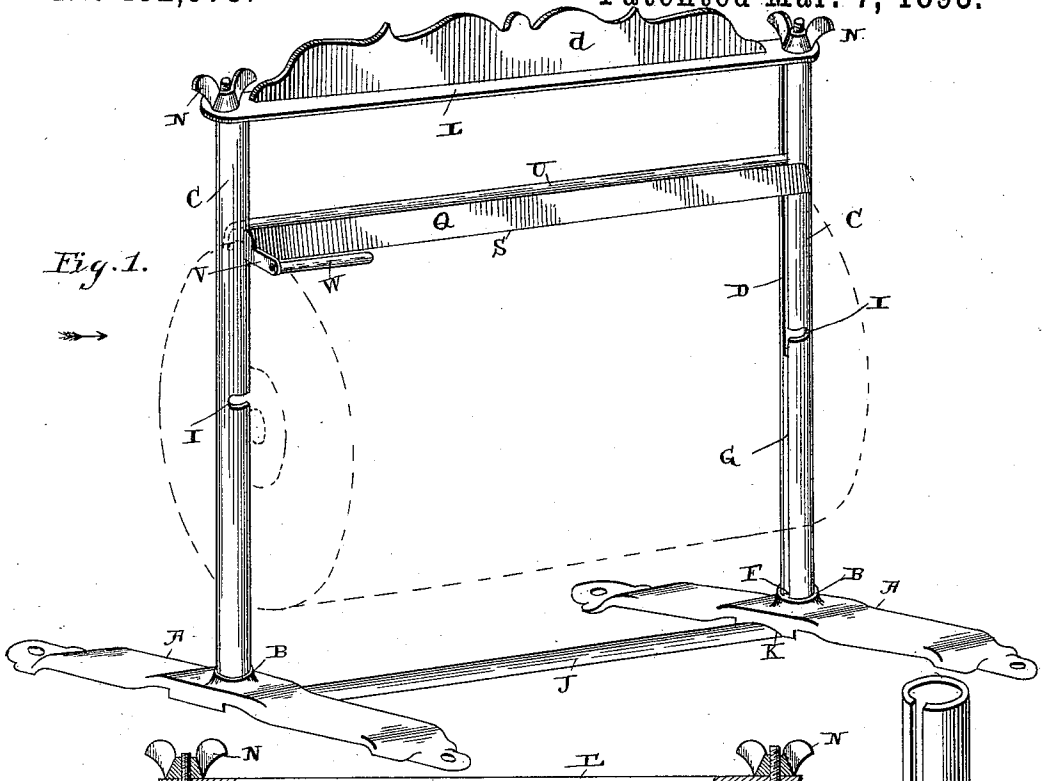


Fig. 2.

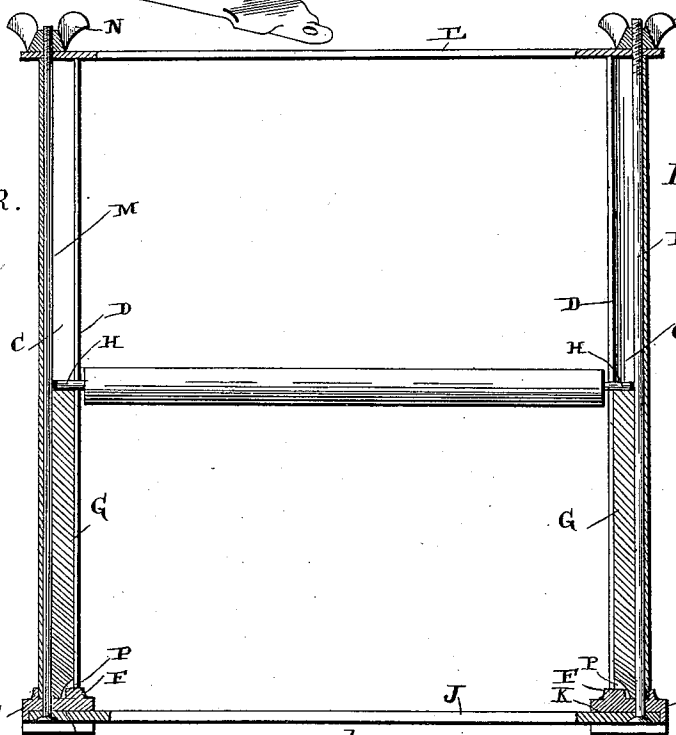


Fig. 4.

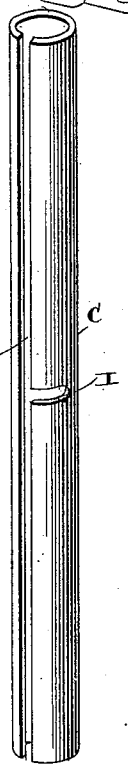
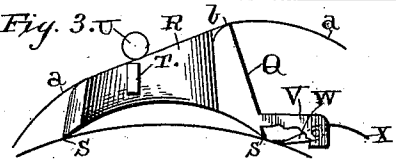


Fig. 3.



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UNITED STATES PATENT OFFICE.

NELSON R. STREETER, OF GROTON, NEW YORK.

KNOCKDOWN PAPER-ROLL HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 492,975, dated March 7, 1893.

Application filed January 26, 1892. Serial No. 419,218. (No model.)

To all whom it may concern:

Be it known that I, NELSON R. STREETER, of Groton, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Knockdown Paper-Roll Holders and Cutters; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in knock-down paper roll holders and cutters, and it consists in the particular arrangement and combination of parts, and in their construction, which will be fully described hereinafter and particularly referred to in the claims.

The object of my invention is to provide a knock-down paper roll holder frame, which is so constructed that it can be quickly taken apart and put together, and which is simple and cheap to manufacture, and which when set up is as firm as a rigid frame; the frame is also so constructed that when taken apart it occupies very little room, and can be packed in a small narrow box for the purpose of transportation.

In the drawings:—Figure 1 is a perspective view of a roll paper holder and cutter which embodies my invention complete. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is an end view of the cutter, looking in the direction indicated by arrow in Fig. 1. Fig. 4 is a detached perspective view of one of the hollow standards.

A indicates two narrow castings which form the supporting base of the holder. These castings or bases are preferably of the shape here shown; that is having the configuration and outline illustrated, and provided with screw holes at each end for the purpose of attachment to a counter or other object. Formed upon or in the upper faces of these bases A, preferably at their centers, are the circular cavities or sockets B, which receive the lower ends of the hollow standards C. These hollow standards C are here shown, (and preferably so,) formed of sheets of metal, of any suitable kind, which are bent into a circular form, leaving their edges slightly separated as shown more plainly in Fig. 4, to form a vertical slot D at their inner sides, which extends from end to end. Formed at the inner periphery of the sockets B, are the inwardly extending projections F, which project into the slots D at the lower ends of the standards, and prevent the standards from having any rotary movement whatever, and assist in placing them, as well as holding them in their proper position. Placed in the lower ends of these standards C, are the vertical plugs G, which extend upward therein a suitable distance to form a support for the ends of the roller bearings H. Cut in the front sides of these standards are the horizontal slots I through which the roller bearings H are inserted. It will be noticed that these slots are above the upper ends of the plugs G, so that the said bearings are held in the slots D below the slots I, which prevents them from becoming displaced from the standards, as will be readily understood.

The bases A are united by the bar J which has its opposite ends placed in transverse grooves K formed in the under side of the bases, under the sockets B. These grooves do not extend to the outer side of the bases A as shown in Fig. 2 so that they present a finished appearance at their outer edges, and also to prevent the ends of the cross piece J from showing. A transverse tie plate or bar L unites the upper ends of these standards. All of the parts of the frame already described are clamped firmly together by means of the vertical rods M which pass through openings made in the ends of the bottom cross or tie bar J, through openings made at the outer periphery of the sockets B, of the bases A, and along the outer inner periphery of the standards C. These rods M are preferably provided with headed lower ends, though they may be screw threaded and provided with nuts if desired, and their upper ends extend through the upper tie bar L, and are screw threaded to receive thumb nuts N. In this manner all parts of the frame are firmly and securely held together against any shake or movement whatever, while at the same time the whole of the frame can be quickly taken down and packed away in a small space, by simply removing the thumb nuts N. The plugs G, are preferably, though not necessarily of wood,

and are provided with a groove in their outer sides to allow the passage of the rods M between them and the inner side of the standards. The lower ends of these plugs are also slightly cut out at their inner sides as shown at P, to allow room for the projections F, of the sockets B.

The trouble with knock-down paper roll holders heretofore made has been, that they were not firm, but are shaky, and unsteady after a little wear. By means of my construction however, all of the parts are securely and firmly clamped as will be understood, and can be tightened up at any time, should they become loose. When tightly clamped, the entire frame is as firm as though it were a rigid frame.

A weighted gravity cutter Q is placed between the standards C and rests upon the paper roll by gravity alone, being thus free to follow the inequalities of the roll, and by gradually falling accommodate itself perfectly to the roll as it is reduced in size. This cutter Q is made from a single piece of cast metal which is deeply concaved at its under side to produce the two bearing and cutting edges S at its opposite sides. By this construction it will be observed that the only bearing points of the cutter are its two bearing edges as seen plainly in Fig. 3. The knife is guided upon the standards in one of two ways, to be now described, or if desired they may be used together. I prefer to provide the cutter with projections T only at each end thereof, that extend into the slots D of the standards C. These projections may be omitted however and the ends of the cutter concaved as shown at R to partially extend around the standards as will be understood, and thus guided and held between the standards in its up and down movements. Owing to this construction of cutter, when the paper is being cut at one edge thereof, the opposite edge forms a stop for the roll to prevent it from turning, and at the same time prevents the edge being used as a cutter from rising when the paper is pulled upward for cutting it; as the guiding means upon the ends of the cutter form a fulcrum and the opposite cutting edge a stop against the roll as will be readily seen. Should it be desired to cut the paper by drawing it downward, it is passed between the upper surface of the cutter, and a roller U which rests thereon as shown at *a*, Fig. 3, and over an upper cutter edge *b*, of the cutter bar Q. The paper passing in this manner it can be cut by a downward pull thereon as will be understood. The roller U is made of a piece of wire of suitable size to reach across between the standards and extend through the slots D thereof. After a sheet has been cut from the roll, and it is desired to cut another, the roll must be slightly turned to bring the edge thereof from under the cutter to be caught by the finger. As the edge clings to the roll, the finger nail frequently has to be used to get hold of it and this is especially true when heavy paper is used. In order to raise the edge of the paper from the roll to be caught by the fingers, I provide the cutter bar Q at one end with an extension V to the outer end of which is loosely pivoted an inwardly extending blade or plate W which has its edge resting upon the roll just in front of the cutting edge of the bar Q. By this means when the roll is slightly turned, the blade W runs under the edge of the paper, and guides it outward over it as shown at X Fig. 3, when it is readily caught by the fingers, to be drawn out to any desired length and then cut in the ordinary manner. This blade is here shown short, which I prefer, though it can be extended from standard to standard without departing from the spirit of my invention. So also it will be understood that this blade W may be supported in front of the cutting edge of the cutter bar independent of the bar in any suitable manner, without departing from the broad idea of my invention.

Secured to the bar L in any suitable manner is a vertical plate *d*, to be used for advertising purposes. This plate however may be omitted as it does not form an essential part of my invention. Should it be desired to have a smaller frame above the one here shown, it can be readily done, by placing standards upon the top of the bar L, using the said bar as a base, and securing the standards by passing rods through them in the same manner here shown.

I here show the standards formed of a sheet of suitable metal as described, but it will be readily understood that tubes or ordinary gas pipes can be substituted for them. In this instance an inverted L-shaped slot will be made therein for supporting the roller bearings as will be understood, and the ends of the cutter bar concaved as before described to slide upon the tubes.

The bar J is not absolutely necessary, for when the bases A are secured to the counter the frame will be firm without it. I prefer to use it however, as it then forms a firm frame to be lifted around without injury thereto.

I have described this holder as being used in an erect position upon the top of a counter, but it will be readily understood that it can be secured to the underside of a counter or other object, and depend therefrom by screwing the bases thereto by screws. In this event, the plug G will be placed at the other ends of the standards, and the cutter placed between the bar J and the paper roll, in the same manner here shown and described of placing it between the bar L and the roll of paper. It will thus be seen that I produce a very simple, cheap, firm, and durable knock-down paper roll holder, which is readily taken apart and packed in a small space for transportation.

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

1. A paper roll holder comprising hollow standards having vertical slots at their inner sides which extend from end to end, vertical plugs within the standards and resting upon the base for supporting a paper roll shaft, transverse slots communicating with the vertical slots above the upper ends of the plugs, a tie bar for the upper ends of the standards, and clamping bolts which pass through the base, the standards and the tie bar, substantially as described.

2. A paper roll holder comprising hollow standards having means for supporting a paper roll shaft, a base having sockets provided with inwardly extending projections at one side, the lower ends of the standards having slots to receive the said projections, a tie bar for the upper ends of the standards and clamping bolts which pass through the base, standards and the tie bar, substantially as shown.

3. A paper roll holder, comprising a supporting frame, a paper roll journaled therein, a cutter, a paper raiser or blade supported in front of the cutting edge of the cutter and resting upon the paper roll a support for the said blade, substantially as specified.

4. In a paper roll holder and cutter, the combination with a cutter bar having a cutting edge, of a paper raising blade pivoted and having its free end engaging the paper roll in front of the said cutting edge, and a support to which the said blade is pivoted.

5. In a paper roll holder, and cutter, the combination with a cutter, of a short paper raising blade supported at one end of the paper roll and engaging therewith in front of the cutter, as and for the purpose described.

6. A cutter for paper roll holders having a paper raising blade connected thereto, and engaging the paper roll in front of the said cutter, as and for the purpose specified.

7. A cutter for paper roll holders having a short paper raising blade connected thereto at one end and extending inward and engaging the paper roll in front of the cutter, for the purpose described.

8. A cutter for paper roll holders having a forward extension at one end, and a paper raising blade pivoted thereto, the free end of the blade extending inward and resting upon the paper roll in front of the cutter, as and for the purpose set forth.

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

NELSON R. STREETER.

Witnesses:

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