

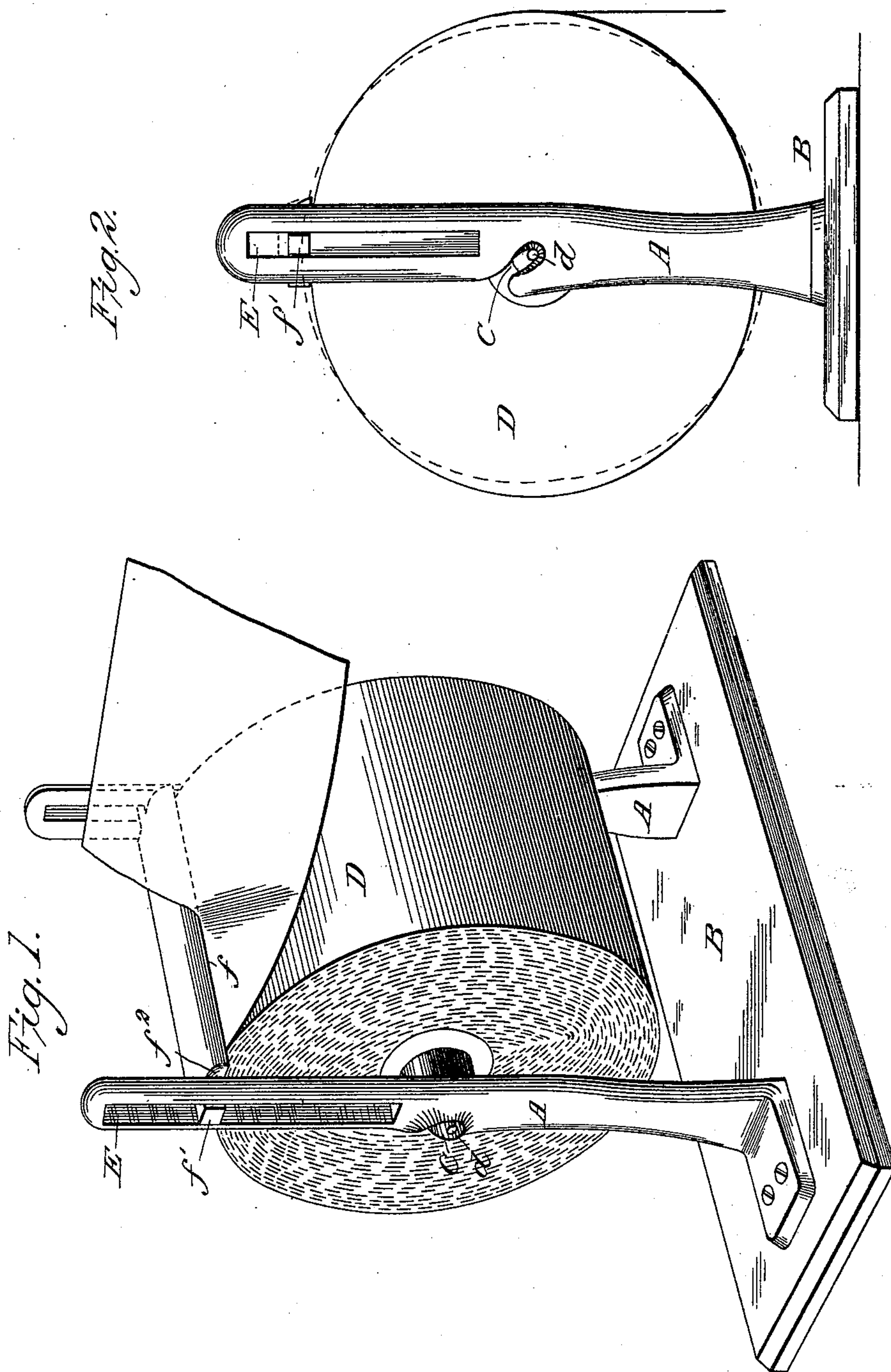
(No Model.)

2 Sheets—Sheet 1.

A. Q. ROSS.
PAPER ROLL HOLDER.

No. 405,121.

Patented June 11, 1889.



Witnesses:
H. A. Nicholson
E. D. Smith

Inventor.
Abbott Q. Ross,
by Church & Church
His attys.

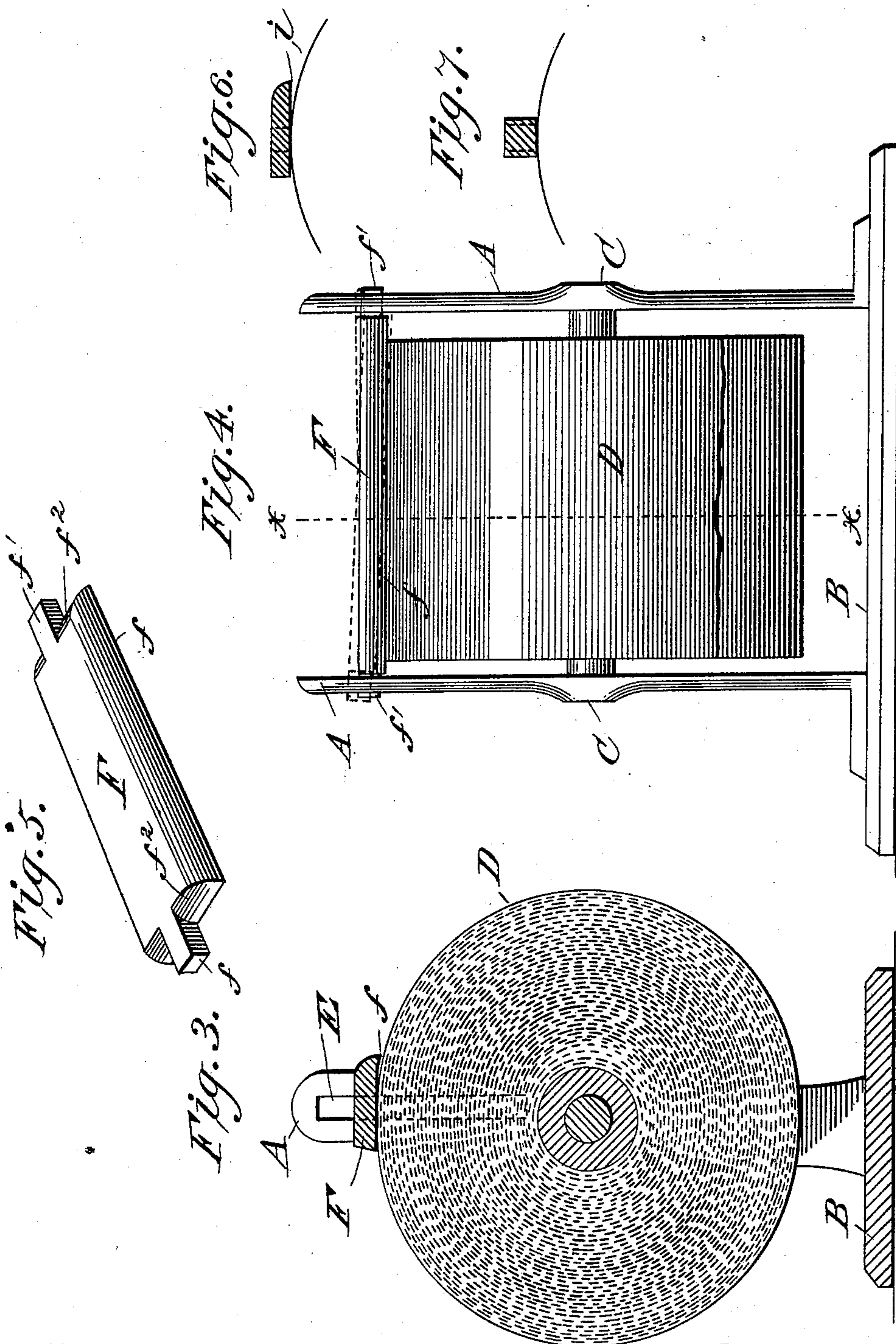
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UNITED STATES PATENT OFFICE.

ABBOTT Q. ROSS, OF CINCINNATI, OHIO.

PAPER-ROLL HOLDER.

SPECIFICATION forming part of Letters Patent No. 405,121, dated June 11, 1889.

Application filed July 31, 1888. Serial No. 281,580. (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, in the county of Hamilton and State of Ohio, have invented a new and Improved Paper-Roll Holder, of which the following is a specification.

My invention consists of a paper-holder designed particularly for use in stores and elsewhere for holding rolls of wrapping-paper, though it is also adapted for holding other kinds of paper in roll form. Its construction and operation will, it is thought, be clearly understood from the following description, taken in connection with the accompanying drawings, and what are deemed its peculiar points of novelty will be pointed out specifically in the subjoined claims.

Figure 1 of the drawings represents a perspective view of my improved roll-holder with a roll therein, showing the manner in which a sheet of paper is detached from the roll. Fig. 2 is an end elevation of the same, showing by dotted lines the ellipticity of the roll and the position the cutter-bar assumes automatically in accommodating itself to the surface of the roll. Fig. 3 is a cross-sectional view taken on the line $x x$, Fig. 4. Fig. 4 is a side elevation of the roll-holder and roll, the dotted lines illustrating the free and independent vertical movements of which the ends of the cutter-bar are capable; and Fig. 5 is a perspective view of the detached cutter-bar. Figs. 6 and 7 are views of modified forms of cutter-bars.

Similar letters of reference in the several figures indicate the same parts.

The letters A A represent two supports or standards, which are preferably mounted upon and securely fastened to a suitable base B, which may be a store-counter or other object. These supports A are provided with open bearings C, in which the journals or axis d of a roll of paper D may be readily introduced and removed when desired, and they are also provided with vertical or substantially-vertical slots E, which constitute guides for the cutter-bar. It is required of the cutter-bar that it shall ride or float upon the paper roll, rising and falling bodily to conform to the ellipticity or untrueness of the roll, and rising at one end and falling at

the other if the roll be conical-shaped; that it shall have a cutting-edge removed from the bearing-point against which the end of the paper may be pulled to sever a sheet, and that it shall be made sufficiently heavy to serve as a friction-brake and prevent the racing of the roll to enable the paper to be drawn upward against its cutting-edge in the severing operation without disturbing it, and to hold the roll in the position in which it is left after a sheet has been separated. All these functions or capabilities are secured by the employment of a cutter-bar such as indicated by the letter F in the accompanying drawings. This cutter-bar is substantially flat on its under surface, and has one of its lower corners slightly extended and beveled off, as shown at f , to form the cutting or tearing edge. It is provided with projections or extensions $f' f'$ at its ends, which fit loosely within the guide-slots E of the supports or standards A, and it is rounded or beveled off at $f^2 f^2$, so that either end may rise or fall independently of the other. In action this cutter-bar floats easily upon the roll and conforms to both the size and contour thereof without binding in its guides in the slightest degree, this smoothness of action resulting from the fact that it bears on the roll in a plane or planes substantially parallel to the plane of the guides in which it works, rising and falling in said planes.

The importance of this function of the bar in automatically adjusting itself to irregularities of the roll will be better appreciated when it is stated that the paper rolls as sold in the market are more or less irregular in form and contour. However truly cylindrical they may be when first produced, they become in handling, in storage, and in shipment irregular in various ways and to a varied extent. As the material contains more or less moisture when produced and is more or less absorbent of the moisture of the atmosphere, it happens that by being piled in quantities or by rough handling the circular contour is converted into an ellipse or an irregular polygon, and often becomes, in addition, somewhat conical, and these irregularities become "set" in the roll. It is necessary, therefore, that the gravitating cutter-bar should possess the utmost freedom of adjustability, in order to bear at all times

equally upon the roll and impose a uniform resistance to the rotation of the roll upon its pivotal axis. The described combination effects this by permitting the bar to rise or fall
 5 freely in its guides either as a whole or at either end independently of the other, as before stated.

To remove paper from the roll, it is only necessary that the end of the paper be pulled
 10 until the roll has been rotated to the extent required to yield a piece or sheet of paper of the required length, and then drawn upward and sidewise across the cutting-edge *f*. The new end can be grasped by slightly rotating
 15 the roll forward until said end is exposed to view in front of the bar.

While I prefer the form of the cutter-bar shown in Fig. 3, a bar with a perfectly straight under surface from edge to edge, such as
 20 shown in Fig. 6, may be employed, or a square bar, such as shown in Fig. 7. In both these modifications the bearing-surfaces press upon the roll in planes substantially parallel to the plane of the guides, and the cutting-edges do
 25 not bear on the paper.

Having thus described my invention, what I claim as new is—

1. The combination, with the freely-suspended roll of paper, of a floating weighted
 30 cutter-bar held by gravity alone against the periphery of said roll and having a cutting-edge removed from the point of contact between said bar and roll, whereby said cutter-bar is caused to act as a friction-brake to the
 35 roll to adapt itself automatically to the size and contour of the roll and to serve as means for severing the free end of the paper when the latter is pulled upward against it, substantially as described.

40 2. A paper-roll holder embodying supports in which to suspend a roll of paper, a weighted

cutter-bar for bearing by gravity alone upon the suspended roll of paper and having a cutting-edge removed from its contact or bearing point, against which the paper is adapted
 45 to be separated by an upward draw upon it, and guides in which the cutter-bar works, substantially as described.

3. The combination of a paper roll, supports in which the same is journaled, a weighted
 50 cutter-bar bearing by gravity alone upon the paper roll and having a cutting-edge at one of its lower corners removed from the bearing-point, and having, also, guiding end projections and slotted guides in which the
 55 projections on the end of the cutter-bar are free to play up and down, substantially as described.

4. In a paper-roll holder, the combination, with the slotted supports having bearing for
 60 receiving the journals of a paper roll, of the weighted cutter-bar provided with the cutting-edge at one of its lower corners and shouldered ends co-operating with slots in the supports, and having rounded or beveled portions
 65 which permit of the free independent vertical movement of its end, substantially as described.

5. The combination, with the slotted supports, of the roll of paper journaled therein
 70 and the weighted cutter-bar guided by the slots in the supports and bearing by gravity alone on the roll in a plane or planes substantially parallel to the plane of said guide-slots and having its front side beveled to constitute a tearing-edge that is removed from the
 75 bearing-point, substantially as described.

ABBOTT Q. ROSS.

Witnesses:

MELVILLE CHURCH,
 THOMAS DURANT.