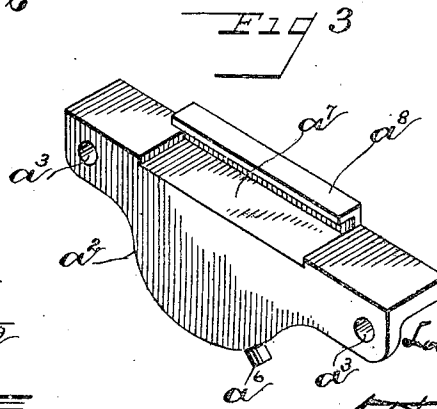
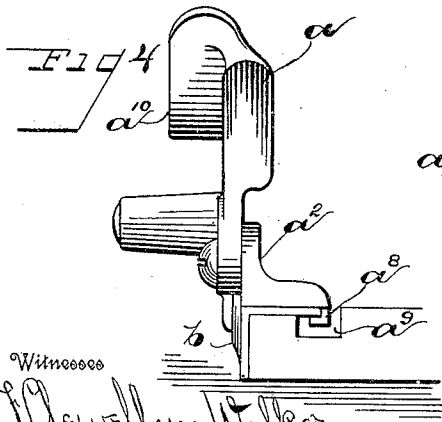
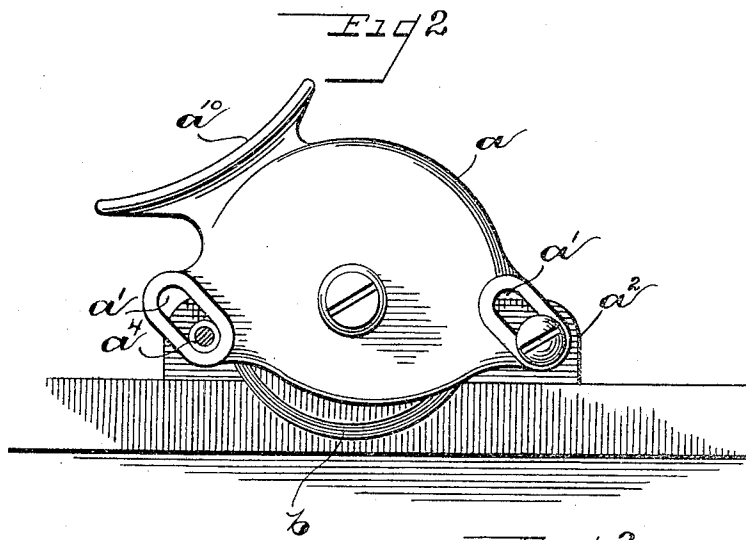
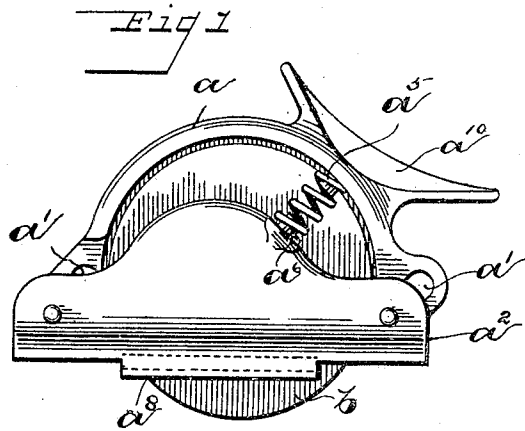


L. F. BRENING.  
PAPER CUTTER.  
APPLICATION FILED DEC. 26, 1905.

957,409.

Patented May 10, 1910.



Witnesses  
J. M. Walker  
Chas. J. Welch

Inventor  
Louis F. Brening  
By [Signature]  
Attorneys

# UNITED STATES PATENT OFFICE.

LOUIS F. BRENING, OF SPRINGFIELD, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO  
THE RIDGELY TRIMMER COMPANY, OF SPRINGFIELD, OHIO, A CORPORATION OF  
OHIO.

## PAPER-CUTTER.

957,409.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed December 26, 1905. Serial No. 293,269.

*To all whom it may concern:*

Be it known that I, LOUIS F. BRENING, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Paper - Cutters, of which the following is a specification.

My invention relates to an improvement in paper cutters, particularly that class of paper cutters employing disks as cutters.

The object of my invention is to construct a device so arranged that the cutting action of the disk will be improved by the movement given to the disk by the hand of the operator. In the construction that I have illustrated there is given to the disk simultaneously a downward and forward movement, which results in an improved action of the disk.

Another object of my invention consists in the arrangement of the supporting frame of the device for engagement with the straight edge.

In the drawings, Figure 1 represents a side view of my improved device, Fig. 2 being a view taken from the opposite side thereof. Fig. 3 is a detail view of the supporting frame. Fig. 4 represents an end view.

Like letters of reference indicate like parts throughout the different views.

$a$  represents the casing or shell for the disk,  $b$ , the disk,  $b$ , being supported within said casing,  $a$ . The casing is formed with grooves,  $a^1$ , near the outer periphery thereof and at opposite sides, as indicated in Figs. 1 and 2. The supporting frame,  $a^2$ , (Fig. 3) is formed with perforations at its ends,  $a^3$ . There are fitted within these openings stems with rollers supported at the ends thereof, and these rollers,  $a^4$ , are adapted to fit within the grooves,  $a^1$ , and slide freely therein, so that when the casing of the disk is forced downwardly, the rollers will freely slide or move within said groove, and in that respect the grooves form guides for said rollers. I have shown a spring,  $a^5$ , (Fig. 1) which at its lower end encircles a pin,  $a^6$ , which projects from the supporting frame,  $a^2$  (Fig. 3); the upper end of the spring engages a pin which projects from the inner periphery of the casing  $a$ , as indicated in Fig. 1.

The supporting frame,  $a^2$ , is formed at

its ends with flat bearing surfaces, and its central body portion is recessed, as indicated at  $a^7$ . At this central portion there is formed a flange,  $a^8$ , which is adapted to bear against the straight edge, as indicated in Fig. 4. By this construction of the supporting frame,  $a^2$ , having a flange at its central portion and flat bearing surfaces at the end portions, the upper surface of the straight edge bears against the flat surface of the end portions, while the flange,  $a^8$ , engages the lower surface of the flange projecting within the groove,  $a^9$ , formed in the straight edge, as indicated in Fig. 4.

The operation of my device is as follows: The hand of the operator bears against the handle formed on the casing, indicated by reference letter,  $a^{10}$ , and pressure is exerted thereby against the tension of the spring,  $a^5$ , tending to hold the casing,  $a^2$ , and disk,  $b$ , supported thereby in its extreme upper position. This hand pressure causes the rollers,  $a^4$ , to move within the grooves,  $a^1$ , and the casing is thereby pushed downwardly carrying the knife with it, and the arrangement of the grooves, as shown, is such that the casing and disk are moved in a forward direction simultaneously with the downward movement thereof. The result of this is that the disk has an improved cutting action.

Having thus described my invention, I claim as follows:

1. In a paper cutter as described, the combination of a disk and a casing therefor, a supporting frame with which said casing is movably connected, parallel inclined guides directing the movement of said casing forwardly and downwardly in relation to said supporting frame, substantially as specified.

2. In a paper cutter, a cutting disk, a casing therefor, a supporting frame for said casing, a straight edge having an over-hanging ledge for the engagement of said paper cutter, a central projecting flange on said supporting frame engaging one side of said over-hanging ledge, projecting flanges offset in relation to said central flange engaging the opposite side of said over-hanging ledge, substantially as specified.

3. In a paper cutter, a cutting disk, a casing therefor, a supporting frame for said casing, a straight-edge having an over-hanging ledge for the engagement of said paper

cutter, bearing surfaces at opposite ends of  
said supporting frame engaging one side of  
said over-hanging ledge, and a bearing sur-  
face intermediate said afore-mentioned sur-  
5 faces engaging the opposite side of said over-  
hanging ledge, substantially as specified.  
In testimony whereof, I have hereunto set

my hand this 22nd day of December A. D.  
1905.

LOUIS F. BRENING.

Witnesses:

CLARA GALLAGHER,  
CHAS. I. WELCH.