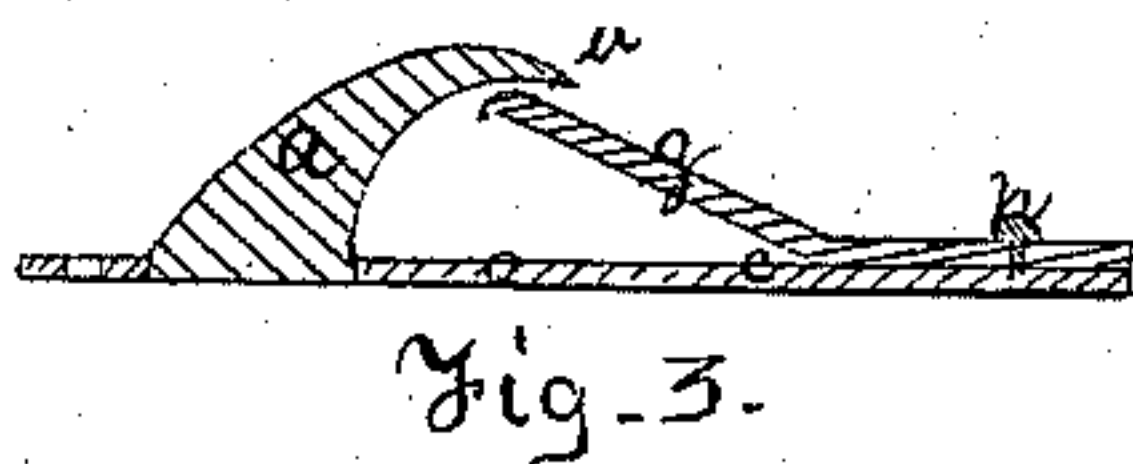
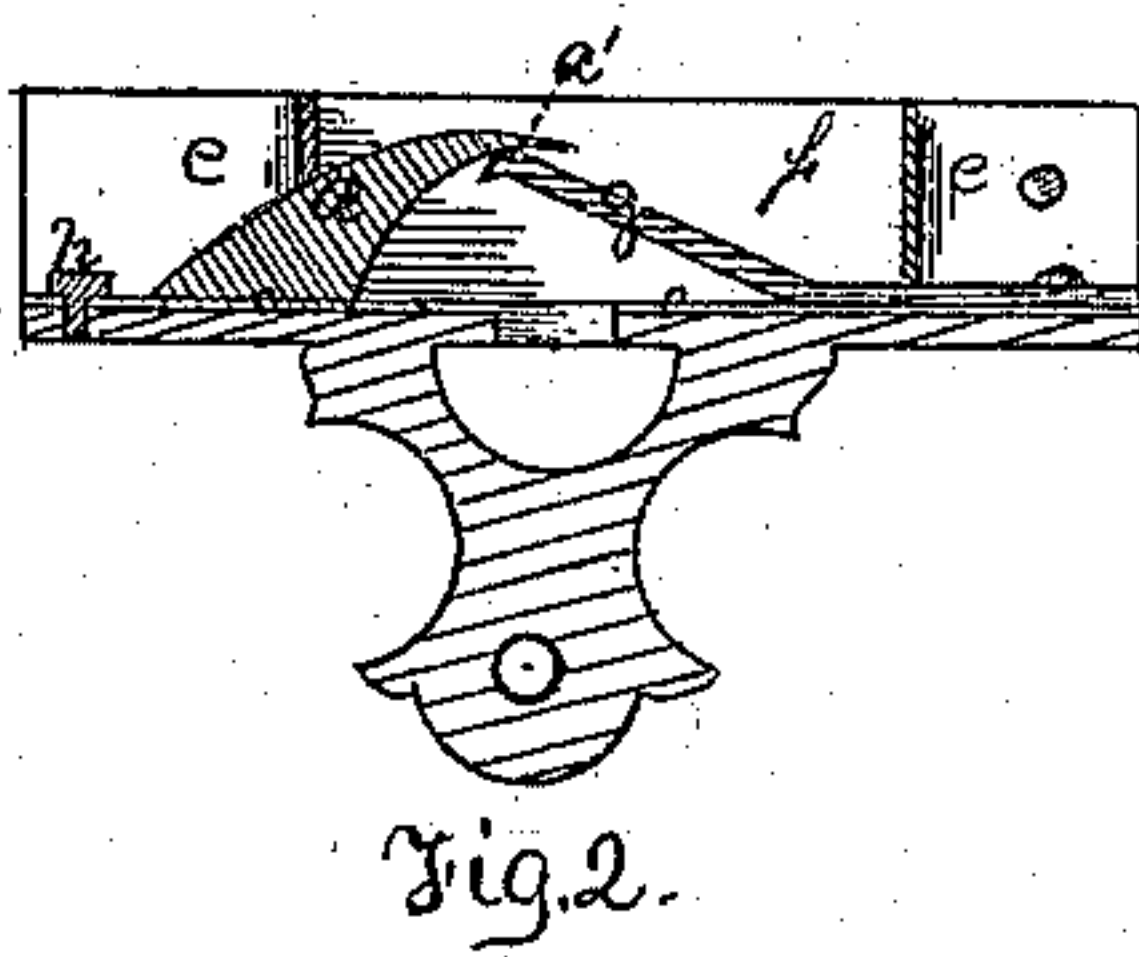
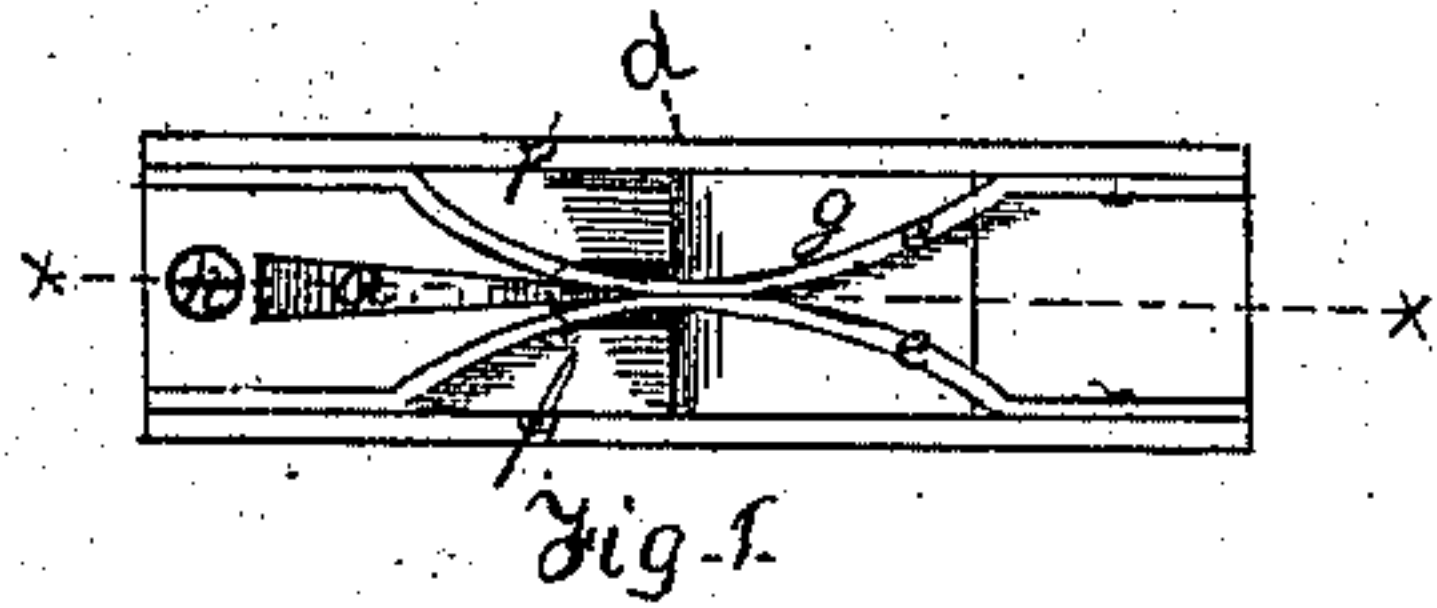


L. A. MILLER.
ENVELOP OPENER.

No. 105,356

Patented July 12, 1870.



Witnesses:
R. W. Grenshall
Thos. Ke.

Inventor:
L. A. Miller,
by Bakewell & Johnston,
his Attys.

UNITED STATES PATENT OFFICE.

LEBBEUS A. MILLER, OF SEWICKLEYVILLE, PENNSYLVANIA.

IMPROVEMENT IN ENVELOPE-OPENERS.

Specification forming part of Letters Patent No. 105,356, dated January 14, 1870.

To all whom it may concern:

Be it known that I, LEBBEUS A. MILLER, of Sewickleyville, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Envelope and Paper Cutters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of my improved envelope-opener, showing the guiding-springs. Fig. 2 is a sectional view of the same through *x x*, Fig. 1, showing the cutting-knife. Fig. 3 is a sectional view of the knife and knife-plate, and Fig. 4 is a sectional view showing the connection of knife and knife-plate.

Like letters of reference indicate like parts in each.

The nature of my invention consists in the construction of an envelope-opener and paper-cutter having a guide-plate, in combination with the knife-blade and side springs.

The base of the knife-blade is fastened to a plate, *c*, the point or cutting-edge projecting inward, and the plate is slid into a box or frame, *d*, (which box is open at both ends and on one side,) under the edges of two springs, *e e*, which are fastened to the sides of the frame *d*. The springs *e e*, fastened to the inner faces of the sides *f* of the frame *d*, are of such shape that the extreme point of their curve shall come opposite to the point of the knife-blade *a*.

Fastened to the opposite end of the plate *c* from the end to which the knife-blade is fastened is a spring or rigid plate, *g*, the free or bent end of which rises up until it comes under and back of the knife-point *a'*. This is for the purpose of holding the envelope or paper to be cut up against the edge of the knife *a*. The plate *c* is fastened to the bottom side of the frame *d* by means of a rivet or screw, *h*, which can be taken out at pleasure, so that the plate may be removed for sharpening the knife, &c.

To make use of my invention the corner of the envelope to be opened must be inserted between the guiding-springs *e e*, in front of the point of the blade *a*, and then drawn through between them, they guiding it to and the plate *g* forcing it up against the sharp edge

a' of the knife *a*. The edge *a'* cuts into and through the paper, and will continue to do so so long as the paper is drawn against it. The operation is the same in cutting the leaves of books, papers, &c.

The bottom plate of the frame *d* can, if so desired, be cut out or perforated just under the knife-blade and forward of the end of the plate *g*, to prevent the clogging of the knife-blade *a* with paper shavings.

By the use of the plate *g* the point *a'* is prevented from entering the envelope far enough to injure its contents.

The knife-point need not be inserted in any opening in the envelope to give it a bite, for it will cut into any corner of an envelope and make an opening for itself.

The frame *d*, I desire to make of any shape whatever, wishing to cover the use of the springs *e e* and plate *g* with the knife in any shape of frame. The several parts are made of any desired material suitable for the purpose.

My improvement is rendered very convenient by being attached to a pen-holder or pencil.

The plate or spring *g* can be set and bent in various other ways than that shown, the one shown being merely a convenient form.

The knife *a* is much more secure when fastened to the plate *c* by a dovetail joint, as shown in Fig. 4, and it is thus I prefer to have it, although riveting and other modes of fastening answer the purpose.

The springs *e e* adapt themselves equally well to either an empty or bulky envelope. These springs, I am aware, have previously been used in the manner and for the purposes set forth, as also the knife *a*.

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

The guide-plate *g*, in combination with side springs, *e e*, and blade *a*, arranged in a case, *d*, substantially as described.

In testimony whereof I, the said LEBBEUS A. MILLER, have hereunto set my hand.

L. A. MILLER.

Witnesses:

THOS. B. KERR,
JOHN GLENN.