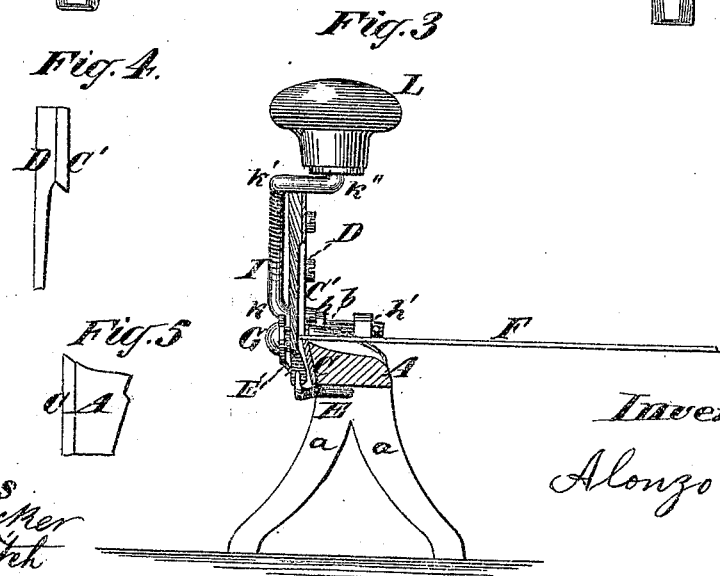
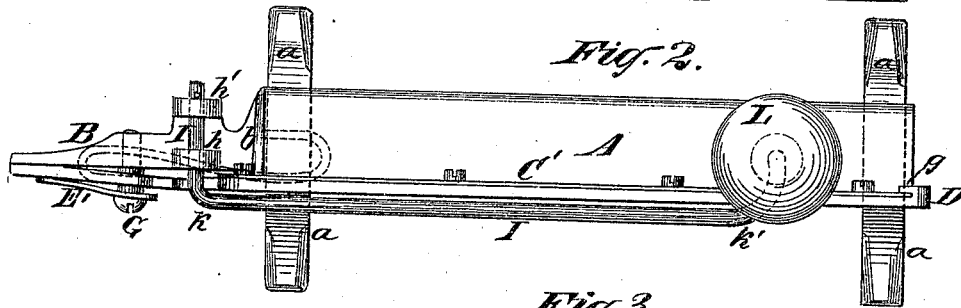
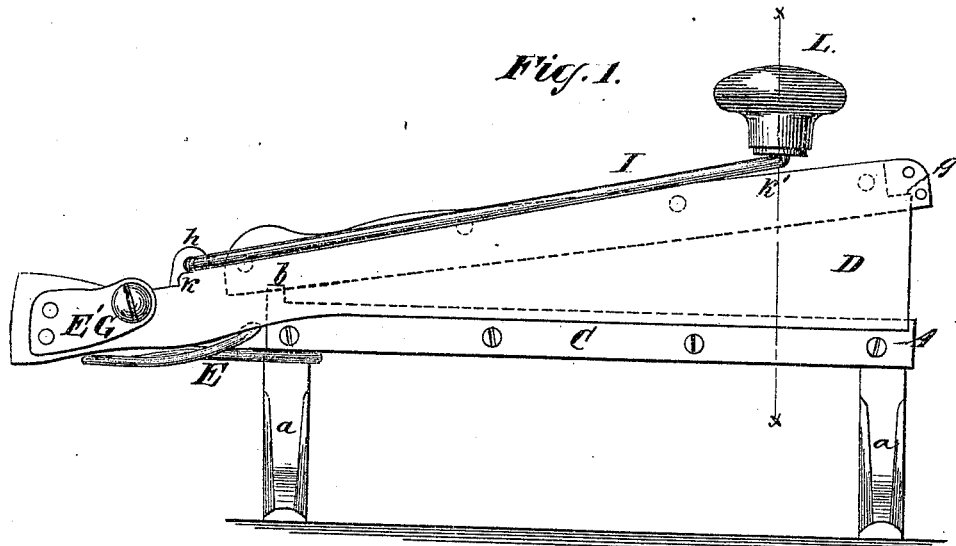


A. B. SEE.
MACHINES FOR OPENING ENVELOPES.

No. 195,407.

Patented Sept. 18, 1877.



Witnesses
John Becker
Theodore Kirk

Inventor
Alonzo B. See

UNITED STATES PATENT OFFICE.

ALONZO B. SEE, OF YONKERS, NEW YORK, ASSIGNOR OF ONE-HALF HIS
RIGHT TO NORTON P. OTIS, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR OPENING ENVELOPES.

Specification forming part of Letters Patent No. 195,407, dated September 18, 1877; application filed
July 2, 1877.

To all whom it may concern:

Be it known that I, ALONZO B. SEE, of Yonkers, in the county of Westchester and State of New York, have invented an Improvement in Cutting-Machines for Opening Sealed Envelopes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

My invention has for its object to supply a cheap, convenient, and small machine for rapidly opening sealed envelopes by cutting a narrow margin from the edge thereof without danger of injuring the inclosures.

Figure 1 in the accompanying drawing is a side view of my invention. Fig. 2 is a top view, and Fig. 3 a vertical section, of the same on the line *x x* in Fig. 1. Figs. 4 and 5 are diagrams, illustrating the construction and attachment of the cutting-blades.

A is the bed-plate of the machine, which supports all the working parts, and which is preferably formed with legs *a*, the whole being cast in a single piece. Said bed-plate is, moreover, formed with an extension, B, Fig. 2, which supports certain bearings, hereinafter described. Said bed-plate also has formed on it an upward projection, *b*, Figs. 2 and 3, which acts as a lateral stop for the envelope in cutting the same, as hereinafter described, and also supports a shear-blade, C, Figs. 1, 3, and 5, rigidly attached to the side of the bed-plate A by screws or otherwise, the edge of said shear-blade being uppermost, and formed on that side of the blade which faces away from said bed-plate. To the extension B of the bed-plate A is pivoted a plate, D, Figs. 1, 2, 3, and 4, which carries a detachable shear-blade, C', Figs. 2, 3, and 4. Said shear-blade C' has its edge formed on the lower border on that side of the same which faces the bed-plate A, as shown in Fig. 4. To the under side of the bed-plate A is attached a spring, E, Figs. 1 and 3, which, when the machine is not in operation, holds the plate D and its attached shear-blade C' in the position shown in Figs. 1 and 2, in which position an envelope, F, may be inserted between the shear-blades,

as shown in Fig. 2. To the side of the plate D, near the pivoted end thereof, is attached a spring, E', Figs. 1 and 2, which spring is perforated at the end remote from its attachment to the said plate D, to permit the passage through said spring of the pivot G. Said spring E' acts to press the plate D and its attached shear-blade C' toward the shear-blade C, to hold the edge of said blades in proper cutting relation with each other, a counter-pressure being exerted on the opposite side of the blade C' by the shear-blade C. On the end of the plate D, remote from the pivot G, is formed a stop, *g*, which, abutting against the bed-plate A, limits the downward oscillation of the said plate D and its attached blade C'. On the top of the extension B of the bed-plate A are formed bearings *h h'* for an oscillating bar, I. Said bar is bent to form nearly a right angle at *k*, and also at *k'*, that part of said bar between the said bends being parallel, or nearly so, with the plate D. The bent part of said bar at *k'* rests upon the upper edge of the plate D, and the bent part at *k* passes through the bearings *h h'* over the top of the plate D, which abuts against said bent part *k* of the bar I, forming a stop to limit the upward oscillation of said plate when lifted by the spring E. Said bar is also bent at *k''* to form a vertical support and attachment for a knob, L, fitted and attached thereto. The said bar I, being elastic and bearing upon the said plate D at *k'*, easily slips laterally on said plate in such manner that any lateral motion of the knob under the hand of the operator does not effect the proper cutting relation of the shear-blades, as would be the case were the knob directly attached to the plate D.

The operation is as follows: The envelope F to be opened is placed between the shear-blades C C', as shown in Fig. 3, the margin to be cut off resting against the plate D, which acts as a gage to limit the width of the piece cut off. A single blow with the hand on the knob L then cuts off a narrow margin and opens the envelope.

Instead of being pivoted to the extension B of the bed-plate, the movable gage-plate and its attached shear-blade may reciprocate

vertically in ways, and instead of making the said gage-plate and shear-blade in separate pieces, they may be formed in a single piece.

I am aware that two gangs of shears have been pivoted together, so as to cut up election-slips; but such could not perform the functions claimed by me, for the reason that the shears would cut up the entire envelope into strips, thereby destroying its contents.

By my invention I am enabled to cut off from one edge of the envelope a very narrow strip or shaving for the purpose of opening the envelope to conveniently remove the contents, and envelopes can be opened with great rapidity and without any possible danger of injuring the contents.

I claim—

1. In a machine for opening envelopes, the combination of the gage-plate D and the shear-blade C', directly attached to one side of said gage-plate, the latter forming an abutment against which the edge of the envelope bears, substantially as described, whereby a narrow strip can be cut off from the edge of the envelope when the gage and shear-blade are depressed, as set forth.

2. A machine for opening envelopes, em-

bodying in its construction the combination of a frame, A, the stationary shear-blade C, the gage-plate D, and the shear-blade C', directly attached to one side of said gage-plate, the lower portion of the latter forming an abutment against which the edge of the envelope bears, substantially as described, whereby, when the gage-plate and its shear-blade are depressed, a narrow strip can be severed from the edge of the envelope, as set forth.

3. The combination, with a stationary shear-blade and a movable gage-plate and attached shear-blade, of a spring applied to operate upon the movable gage-plate for pressing it toward the face of the stationary shear-blade, substantially as and for the purpose described.

4. The combination, with the oscillating gage-plate D, pivoted to the bed-plate, and carrying the shear-blade C', of the knob-bar I, resting upon the said gage-plate, for operating the same, substantially as and for the purpose set forth.

ALONZO B. SEE.

Witnesses:

WM. P. FITCH,
THEODORE FITCH.