

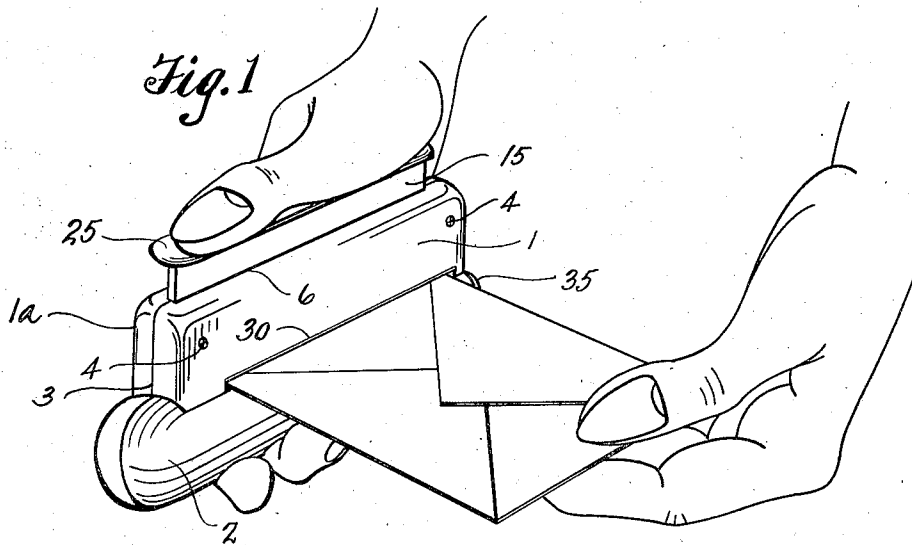
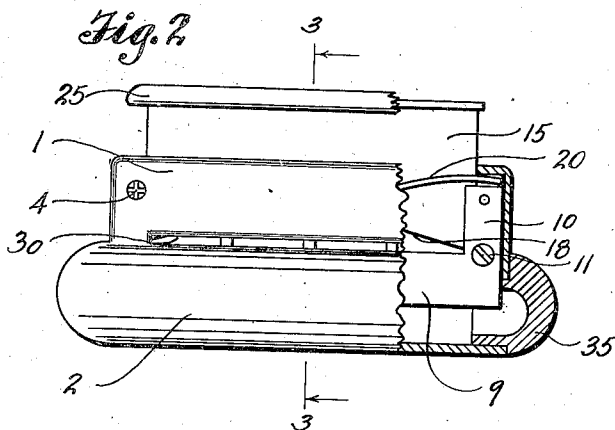
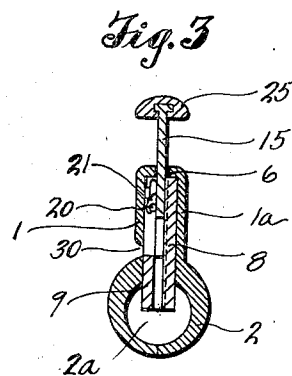
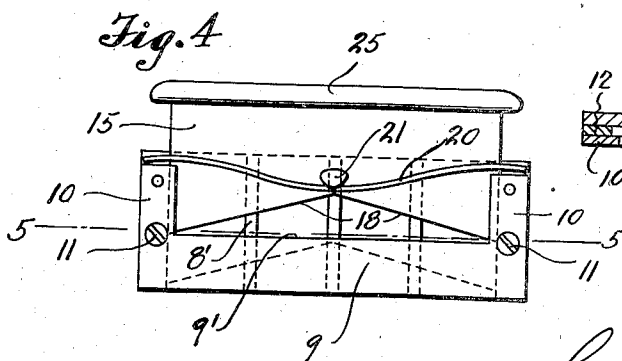
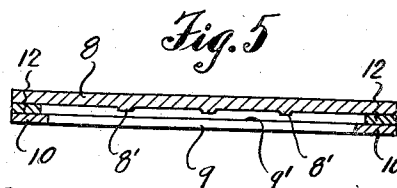
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ENVELOPE OPENER

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ENVELOPE OPENER

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2 Claims. (Cl. 30—131)

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This invention relates to envelope opening devices, and it has reference more particularly to devices for opening sealed envelopes of those kinds generally used for the mailing of letters, cards and the like; it being the principal object of this invention to provide an envelope opening device that is simple in construction, convenient to use, easy to operate and whereby a very narrow strip may be cut from the edge of an envelope properly applied thereto, to completely open it along that edge, and without cutting or damaging any paper or card contained in the envelope.

More specifically stated, the object of this invention is to provide an envelope opening device that may be held and operated by one hand, and comprising a housing or case containing a stationary shear blade and a movable shear blade, and having a slot in a wall thereof designed to receive the edge portion of an envelope that is to be opened, in a manner for locating that edge between the blades; there also being means associated with the blades for accurately positioning the edge of the envelope therebetween so that upon actuation of the movable shear blade to effect the cutting operation, the edge portion of the envelope will be cut off to the limited extent that is necessary for insuring safety to the contents of the envelope.

It is also an object of this invention to provide a device of the above stated character that is designed to be conveniently held in one hand and to be actuated by that hand while the other hand is free for the applying and removing of the envelopes therefrom.

Yet another object of the invention is to provide coacting shearing blades of an improved design whereby any tendency to cut angularly across the edge of the envelope or to cause the cut to run out of the envelope is overcome.

Still further objects of the invention reside in the details of construction of parts, in their combination and mode of operation, as will herein-after be fully described.

In accomplishing the foregoing and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein—

Fig. 1 is a perspective view illustrating the form and use of an envelope opening device embodied by the present invention.

Fig. 2 is a side view of the device with a part of the case or housing broken away for better illustration of parts contained therein.

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Fig. 3 is a cross-section, taken on line 3—3 in Fig. 2, particularly illustrating the relationship of the blades.

Fig. 4 is an elevation of the blade assembly of the device removed from the housing.

Fig. 5 is a cross section on line 5—5 in Fig. 4.

Referring more in detail to the drawings—

In its present preferred form, the device comprises a housing or case of a size and shape convenient to be held in one hand, as shown in Fig. 1. This housing is made up of complementary opposite side sections 1 and 1a forming, when assembled, a substantially rectangular hollow case having a somewhat enlarged tubular lower edge portion 2 as shown best in Fig. 3. The two opposite side sections of the case have their edge portions fitted together in a close joint, as at 3 in Fig. 1, and the parts are held together by a plurality of screws 4 applied through their end portions as understood by reference to Fig. 1.

By reference to Fig. 3, it will be understood that the upper portion of the case is hollow and that its hollow space opens into a chamber 2a in the tubular portion 3 across its lower edge. Also, there is a longitudinal slot 6 along the top edge of the case for the passage of the movable cutter blade as will presently be understood.

Within the housing, or case that is formed by parts 1 and 1a, there is contained the blade assembly unit including the blades whereby the edge of an envelope may be cut off to open the envelope. The blade assembly unit will be best understood by reference to Figs. 3, 4 and 5, wherein it is seen to comprise a rectangular back plate 8, to which the stationary shear blade 9 is fixed. As shown in Fig. 4, the back plate is vertically ribbed as at 8a and the stationary blade comprises the cross bar equipped at its opposite ends with upstanding legs 10—10. Between these legs, across the top edge of the bar, is the shearing edge 9'. The blade 9 is secured to the back plate 8, as in Figs. 4 and 5, by screws 11 applied through its ends and it is held accurately spaced from the back plate 8 by spacing rails or bars 12—12 that are disposed between the end portions of the back plate and the legs 10—10 at corresponding ends of the blade.

The movable blade 15 is disposed flatly against the back plate 8, between the spacing bars 12—12 which latter guide it in its vertical action. As noted in Fig. 4, the inner edge portions of the legs 10—10 overlap the vertical end edges of blade 15 to hold it in place. The movable blade 15 has an inverted V-shaped cutting edge 18 symmetrically formed therein, that extends the

full width of the blade and this is designed to coact with the shearing edge of the stationary blade.

Disposed along one face of the movable blade, is a leaf spring 20 which, at a medial point, engages against the under side of a lug 21 applied to that face of the movable blade. At its ends, the spring engages against the top ends of the legs 10—10 as shown in Fig. 4. Normally this leaf spring operates to support the movable blade in a raised position at which its cutting edge is above the edge of the lower blade and the edge of an envelope may be received between the cutting edges of the two blades. The spring 20 however yields when pressure is applied downwardly on the movable blade to effect an envelope opening operation.

The blade assembly unit as above described is applied within the hollow upper portion of the case and fits snugly therein between the two opposite halves thereof, as shown in Fig. 3, and it may be held in place by passing the screws 4 through holes in its end portions.

When so assembled in the case, the movable blade extends upwardly through the case opening 6. It is equipped across its top edge with a rounded pressure bar 25 for comfort in use.

Formed in one side wall of the case, is a horizontal slot 30 which registers flush with the shear edge of the stationary blade, as will be understood by reference to Fig. 3, so that upon the application of an end of an envelope through the slot, as illustrated in Fig. 1, it will pass between the shearing edges of the blades and will engage against the back plate to thereby accurately position it relative to the blade edges for the cutting operation.

Assuming the parts to be constructed and assembled as described, the use of the device of Fig. 1 is substantially as follows:

The operator holds the device in the palm of one hand with the fingers of that hand underlying the tubular portion of the housing and the thumb overlying the top edge bar of the movable blade. The envelope, held by the other hand, is then applied through the slot 30 and its edge brought flatly against the back plate 8 of the blade assembly. The operator then depresses the movable blade downwardly and effects the shearing off of the inner end portion of the envelope.

The spacing of the back plate from the cutting edge of the stationary blade is accurately determined and is of such distance that the edge portion of the envelope removed will just open the envelope, but without endangering its contents. The shearing is effected by the engaging of the ends of the V-shaped blade edge 18 with the envelope and cutting toward the intermediate point. The portion of the envelope which is thereby cut off is moved downwardly through the open space between blades and deposited in the hollow tubular chamber 3a of the case. These strips of paper may be removed from the case upon the removal of a cap 35 that is applied to an end of the tubular chamber left open for that purpose.

As soon as hand pressure is removed from the movable blade, the leaf spring operates to lift it

back to its initial position, ready for another operation.

Devices of this character are quick and effective in use, relatively simple in construction, and relatively inexpensive.

Housings may be made of metal, plastic or other suitable material.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is:

1. An envelope opener of the character described comprising a hollow housing adapted to be held in the hand and formed in one side wall with a longitudinal slot for the reception of the edge portion of an envelope therethrough and having a chamber in the base portion thereof to receive clippings from the blades, a blade mounting frame secured in the housing, a shear blade fixed in said frame and extending along said slot to receive the edge of an inserted envelope thereacross, a complemental shear plate having guided movement in said frame from and into shearing contact with the fixed blade, a spring acting against the movable plate to normally hold it at its open position; said movable plate having a part thereof extended from the housing for the actuation of the plate while the opener is held in the hand.

2. An envelope opener of the character described comprising a hollow housing adapted to be held in the hand and comprising opposite side portions, one of which is formed with a longitudinal slot for the reception of the edge portion of the envelope therethrough, and there being a slot along the top edge of the housing, and a chamber along the lower portion to receive clippings from the blades, a blade mounting frame clamped between the opposite side portions of the housing and comprising a base bar forming a blade that is disposed along said longitudinal slot and across which the edge of and inserted envelope will be located; said frame comprising opposite end members serving as guides and a shear plate mounted between said guides for movement from and into shearing contact with the first mentioned blade and extending from the top edge of the housing through said slot therein for the actuation of the blade, and a spring held in said frame and engaging said shear plate to move it to its opposite position; and a back plate fixed in said frame and against which the edge of an inserted envelope will be engaged to determine the location of the cut along the edge of the envelope.

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