

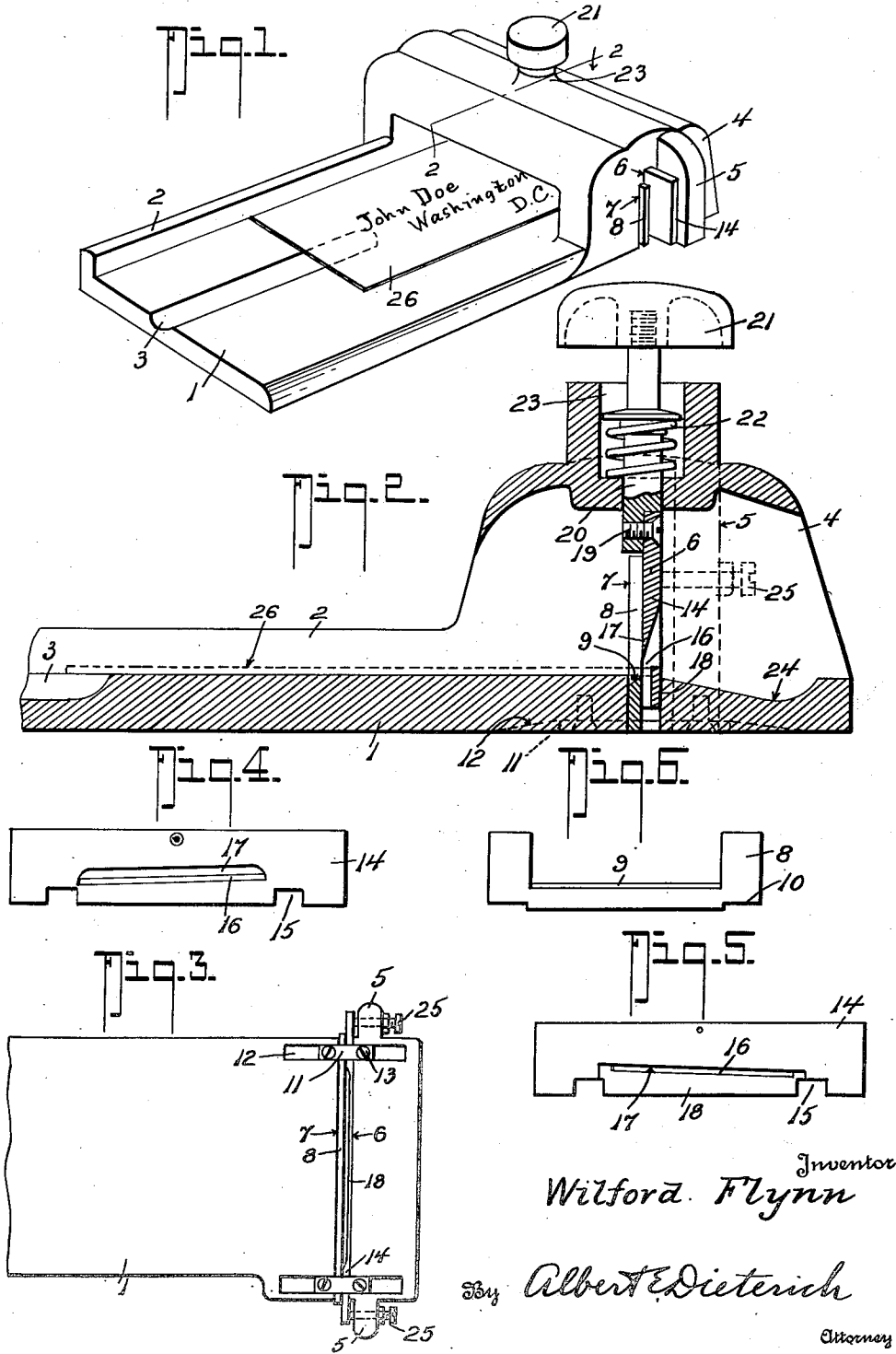
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ENVELOPE OPENER

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ENVELOPE OPENER

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8 Claims. (Cl. 30—241)

My invention relates to the art of envelope opening devices and it particularly has for its objects: to provide a device for use, principally, in offices and other places where many letters are received daily; to provide a device by which an edge of the envelope can be severed for access to the contents without damaging the contents; to provide a device that is neat in appearance and one which can be manufactured at low cost and which will efficiently serve its intended purposes.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, and then be particularly pointed out in the appended claims, reference being had to the accompanying drawing, in which:

Fig. 1 is a perspective view of a preferred embodiment of my invention.

Fig. 2 is an enlarged detail vertical longitudinal section on the line 2—2 of Fig. 1.

Fig. 3 is an inverted plan view of the detail of Fig. 2 but on the same scale as Fig. 1.

Fig. 4 is an elevational view of the movable knife blade and stop member.

Fig. 5 is an elevational view of the same from the side opposite that shown in Fig. 4.

Fig. 6 is an elevational view of the stationary knife blade.

In the drawing, in which like numbers of reference indicate like parts in all the figures, 1 represents a base having an upturned flange 2 along one edge and a finger groove 3 in its top face. At one end of the base is a combined knife holding and guiding bridge member 4, the vertical sides of which are vertically slotted as at 6 and 7, the slots merging with each other. Slot 6 receives and guides the movable blade 14, while the slot 7 receives the stationary blade 8.

Lugs 5 extend sideways of the bridge 4 and carry blade-adjusting screws 25, best shown in Fig. 3.

The blade 8 is held up in place by means of removable plates 11 which are secured in grooves 12, on the underside of the base 1, by screws 13, the blade 8 having notches 10 to receive the plates 11 (see Figs. 2 and 6). The blade 8 also has a bevelled cutting edge 9 which does not extend above the upper face of the base 1, see Fig. 2.

The blade 14 has slots 15 to ride across the plates 11 as the blade is moved down and up. The blade 14 also has a slot 16 which lies, preferably, at an inclination to the horizontal and the blade at the top of the slot is bevelled as at 17 to form a cutting edge. At the bottom of the slot 16 the blade is thinned to provide a portion

18 set a predetermined distance away from blade 8 (the cutting edge face lies against blade 8) and this portion 18 projects above the plane of the top surface of base 1 a sufficient distance to constitute an abutment against which the edge to be severed of the envelope is brought to rest (see dotted lines of envelope in Fig. 2).

The blade 14 is secured at 19 to a plunger 20 that passes through a bearing hole in the bridge 4 and the cup or recessed boss 23 and carries a button 21. The plunger 20 is normally held up, with the blade 14 raised, by a spring 22 located in the boss 23 (see normal position of parts in Fig. 2).

In order to take up wear and maintain proper contact between the movable and stationary blades 14, 8, set screws 25 are provided in the lugs 5.

By reason of the inclination of cutting edge 17 when plunger 20 is depressed a shearing action takes place, thus severing a thin edge-strip from the envelope 26, the severed strip eventually being deposited in the trough 24 of the base.

The provision of the groove 3 enables the finger to be placed under the edge of the envelope when lifting the same from the base after the opposite edge has been cut.

In using the device the envelope is laid on the base 1 against the flange 2 and slid from left to right in Figs. 1 and 2 until its leading edge engages cutter portion 18. The envelope is held down to the base with one hand and plunger 20 is moved down by the pressure of the other hand on button 21.

The abutment part 18 may be designed normally to project up above the base level enough to stop one envelope or it may be designed to project higher to take two or more superposed envelopes at a time, in which latter event the slot 16 would of course be correspondingly enlarged upwardly and knife edge 17 raised proportionately.

Other modifications of the invention will readily occur to those skilled in the art, within the scope of the invention and the appended claims.

From the foregoing description, taken in connection with the accompanying drawing, it is thought that the construction, operation and advantages of the invention will be clear to those skilled in the art to which it relates.

What I claim is:

1. In an envelope opener, a base, a bridge member on the base, said bridge member and base having knife-blade receiving slots, a stationary knife-blade and a movable knife-blade located in said slots in face-to-face contact, said stationary knife-blade having its cutting edge located so as not to project above the top face plane of the base, said movable knife-blade having a slot the upper edge of which is constituted by the cutting

edge of the blade, the lower edge of the slot lying in a plane sufficiently above the face plane of the base to constitute an envelope edge stop and being offset away from the stationary blade a predetermined distance, and yieldable means continuously tending to hold up the movable blade.

2. In an envelope opener, a base, a bridge member on the base, said bridge member and base having knife-blade receiving slots, a stationary knife-blade and a movable knife-blade located in said slots in face-to-face contact, said stationary knife-blade having its cutting edge located so as not to project above the top face plane of the base, said movable knife-blade having a slot the upper edge of which is constituted by the cutting edge of the blade, the lower edge of the slot lying in a plane sufficiently above the face plane of the base to constitute an envelope edge stop and being offset away from the stationary blade a predetermined distance, and yieldable means continuously tending to hold up the movable blade, said base having a flange against which envelopes may be guided.

3. In an envelope opener, a base, a bridge member on the base, said bridge member and base having knife-blade receiving slots, a stationary knife-blade and a movable knife-blade located in said slots in face-to-face contact, said stationary knife-blade having its cutting edge located so as not to project above the top face plane of the base, said movable knife-blade having a slot the upper edge of which is constituted by the cutting edge of the blade, the lower edge of the slot lying in a plane sufficiently above the face plane of the base to constitute an envelope edge stop and being offset away from the stationary blade a predetermined distance, yieldable means continuously tending to hold up the movable blade, and means on the bridge for adjusting the contact of said blades.

4. In an envelope opener, a base having an upstanding flange along one side and a finger groove in its top face, a bridge member extending across the base and having transversely slotted vertical walls, the slots extending down through and across the base, a fixed blade located in the slots and having a cutting edge flush with the top surface of the base, said fixed blade having recesses in its bottom edge, retaining plates secured to the base and in part located in said recesses for holding the fixed blade in place, a movable blade also located in the slots in face-to-face contact with the fixed blade, said movable blade having a cross slot inclined to the horizontal and being provided with an upper bevelled cutting edge and a lower abutment element the latter being offset with respect to said upper cutting edge, and spring means for holding said movable blade normally elevated with its abutment element and slot above the level of the top face of the base.

5. In an envelope opener, a base having an upstanding flange along one side and a finger groove in its top face, a bridge member extending across the base and having transversely slotted vertical walls, the slots extending down through and across the base, a fixed blade located in the slots and having a cutting edge flush with the top surface of the base, said fixed blade having recesses in its bottom edge, retaining plates secured to the base and in part located in said recesses for holding the fixed blade in place, a movable blade also located in the slots in face-to-face contact with the fixed blade, said movable blade having a cross slot inclined to the hori-

zontal and being provided with an upper bevelled cutting edge and a lower abutment element the latter being offset with respect to said upper cutting edge, spring means for holding said movable blade normally elevated with its abutment element and slot above the level of the top face of the base, and means for adjusting the contact of said blades.

6. In an envelope opener, a base having an upstanding flange along one side and a finger groove in its top face, a bridge member extending across the base and having transversely slotted vertical walls, the slots extending down through and across the base, a fixed blade located in the slots and having a cutting edge flush with the top surface of the base, said fixed blade having recesses in its bottom edge, retaining plates secured to the base and in part located in said recesses for holding the fixed blade in place, a movable blade also located in the slots in face-to-face contact with the fixed blade, said movable blade having a cross slot inclined to the horizontal and being provided with an upper bevelled cutting edge and a lower abutment element the latter being offset with respect to said upper cutting edge, spring means for holding said movable blade normally elevated with its abutment element and slot above the level of the top face of the base, means for adjusting the contact of said blades, said means comprising set screws carried by the bridge member and engaging the movable blade for adjusting the contact of said blades and taking up wear.

7. In an envelope opener, a base, a bridge member on the base, said bridge member and base having vertically disposed knife-blade receiving slots extending crosswise of the base, a stationary knife and a movable knife located in said slots in face-to-face contact, said stationary blade having its cutting edge so located as not to project above the top face plane of the base, said movable knife-blade having a slot the upper edge of which is constituted by the cutting edge of the blade, the lower edge of the slot lying in a plane sufficiently above the face plane of the base to constitute an envelope edge stop and being offset away from the stationary blade a predetermined distance, and yieldable means continuously tending to hold up the movable blade, said base having a trough to receive the severed edges of envelopes.

8. In an envelope opener, a base having an upstanding flange along one side and a finger groove in its top face, a bridge member extending across the base and having transversely slotted vertical walls, the slots extending down through and across the base, a fixed blade located in the slots and having a cutting edge flush with the top surface of the base, said fixed blade having recesses in its bottom edge, retaining plates secured to the base and in part located in said recesses for holding the fixed blade in place, a movable blade also located in the slots in face-to-face contact with the fixed blade, said movable blade having a cross slot inclined to the horizontal and being provided with an upper bevelled cutting edge and a lower abutment element the latter being offset with respect to said upper cutting edge, and spring means for holding said movable blade normally elevated with its abutment element and slot above the level of the top face of the base, said base having a trough to receive the severed edges of envelopes.