(No Model.)

C. E. SACKETT

ENVELOP.

No. 587,660. Patented Aug. 3, 1897.

Fig 6—7

Fig 5

Fig 1

Fig 8—9

Fig 10—11

Fig 2

Fig 4

Fig 3

Figs 12—16—13—17—14—18—15—19

WITNESSES:

Wm Ogden

Ralph Goebel

INVENTOR

Chas. E. Sackett

UNITED STATES PATENT OFFICE.

CHARLES E. SACKETT, OF FALL RIVER, MASSACHUSETTS.

ENVELOP.

SPECIFICATION forming part of Letters Patent No. 587,660, dated August 3, 1897.

Application filed February 12, 1897. Serial No. 623,073. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SACKETT, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Envelop, of which the following is a specification.

My invention relates more particularly to that class of envelops used for mailing letters and other valuable documents, but is applicable to all purposes for which envelops are required.

The object of my invention is to do away with the necessity of moistening the gummed flap of an envelop, as is now universally required, and to secure greater safety in sealing it. Probably nine-tenths of all envelops sealed are moistened by being licked with the tongue, a process neither nice nor healthy, and especially objected to by females who now enter largely into office-work. Physicians and boards of education throughout the world are endeavoring to do away with all sources of contamination with the mouth or tongue, and this improvement is in the interests of a better civilization.

While endeavoring to accomplish my purpose I also aim to furnish an envelop as cheap to manufacture and as attractive in every form as those now in use.

My improvement consists, essentially, of three principal parts—a sealing-flap, concealed beneath which is a self-acting catch, a slot in the body of the envelop into which the flap is to be inserted, and a cross-piece backing the slot arranged to form a pocket to guide the flap downward within the envelop, its lower edge forming a bar around which the catch locks itself automatically. All these elements may be cut or stamped from a single sheet of paper, but I do not limit myself to that construction, as it might be desirable to use mixed material or, in the interest of cheapness, separate pieces of paper.

The details of construction are clearly set forth in the accompanying drawings and specification, in which—

Figure 1 is a view of the envelop as formed from a single sheet of paper before folding. Fig. 2 is a view of the same folded and sealed, the dotted lines showing the arrangement of all internal parts. Fig. 3 is a view of an envelop designed to be formed from the least quantity of paper for cheap purposes, such as pay-envelops. Fig. 4 is a view of the same folded and sealed. Fig. 5 is a plan view of the formation of the catch; Fig. 6, of the folding, and Fig. 7 of the setting of the same. Figs. 8 and 9 show a simpler form of catch. Fig. 10 shows the method of inserting the flap into the slot. Fig. 11 is a section of the interior parts after sealing. Figs. 12, 13, 14, and 15 show the use of other materials than paper in forming the catch. Figs. 16, 17, 18, and 19 show edge views of the same.

Attention is called to the fact that all edge views show precisely the same conformation and characteristics in the catch, differing only in the material used.

The construction of the envelop is as follows: It may be stamped from any sheet of paper in any desirable shape ready to fold at one impression, as may be seen by reference to Fig. 1, in which 1 2 3 4 are the lines on which the envelop is to be folded. 5 is the upper flap, 6 the left, 7 the right, and 8 the lower flap.

At 9 and 10 in the lower flap are stamped or cut two slots, as shown. The upper flap is formed to present tongues or projections 11 and 12 of the proper width and position to register with and easily enter said slots. These tongues 11 and 12 are stamped from the paper sufficiently long to permit of their end being doubled upon itself as many times as is desirable to form a stiff barb O, as shown in Figs. 6 to 9. In the case of stiff papers once is enough. In weaker papers the end is gummed, as shown on the water-lines in Fig. 5, doubled down, as in Fig. 6, and set to harden, as in Fig. 7, leaving no gummed surface exposed; or the ends of the tongues may be gummed and folded over, and before setting pieces of cardboard, very thin metal, or very light spring-wire set in them to form barbs, as shown in Figs. 12 to 19. In all cases these barbs are concealed beneath the flap and point upward and incline backward, which features are essential to the best working of this invention. The side flaps 6 and 7 are elongated, as shown at 20 and 21, to form a cross-bar. (Shown in Fig. 2 as meeting at the center 22.) This will answer in stiff papers,

but in weaker papers they should be carried across, lapped, and gummed upon each other to make a stronger cross-bar. The lower flap is now gummed upon its edges to be folded over and attached to the side flaps, as is usual in the manufacture of envelops; but in this case the gumming is done along the lines shown in Fig. 1 of the lower lap 8, in which a large central space of gum the depth of the cross-bar securely unites its two ends at the center and with the gumming of the outer edges of the flap forms pockets 23 and 24 immediately below the slot-openings 9 and 10. These pockets, closely gummed at their sides to the cross-bar, are very essential to the best working of the catch, for when the tongues are inserted in the slots to seal the envelop the pressure between the front and back of these pockets—*i. e.*, the outer face of the lower flap of the envelop and the inner cross-bar—flattens down the barb, which immediately the tongue has passed below the lower edge of the cross-bar springs out and locks itself around the edge of the bar, from which position it will be found impossible to withdraw it without tearing the envelop or to dislodge it, as it cannot be got at.

As I have before stated, the barbs and cross-bars may be made by doubling the paper, of any strength desired, but great strength will be found unnecessary. No gummed surfaces of any kind are shown on the finished envelop. They are only used in the manufacture.

In Figs. 3 and 4 I show the application of this principle to very cheap envelops, such as pay-envelops, where many hundreds have to be sealed at one time and moistening them is very arduous. Here I avoid the elongation of the side flaps, which involve a waste of paper, and use only very narrow straight side pieces, as shown at 6 and 7, but the lower flap 8, which contains the slot 9, is lengthened sufficiently to allow of its end being bent over to form the necessary cross-bar 22 to back the slot, and thus form the pocket 23 for the tongue 11 to enter. Its edges and the sides 6 and 7 are then gummed and folded over, as usual, on the water-lines shown. The upper flap 5 is formed with a barb below it, as shown, and the envelop is ready to seal, as shown in Fig. 4. Fig. 10 shows the position of the sealing-flap and barb and the dotted lines the manner of entering it in its slot and pocket in the act of sealing, where it is retained as shown in Fig. 11.

It is obvious that the position of the barb beneath the sealing-flap must be adjusted to the depth of the cross-bar, so that when inserted its point will certainly reach below it. Envelops differ very much in form and have many uses. It is clearly impossible to illustrate all. I have shown an upper and a side opening and a single and double tongue, but I desire to state, broadly, that I do not confine myself to any fixed number of tongues, or pockets, or barbs, or the position of the slots or pocket-openings. The higher they are placed on the sealing side of the envelop the less chance is there of inserting anything behind the tongue in an endeavor to wrench it out. In long legal envelops a greater number of tongues may be desirable, though end openings for all such envelops and the doing away with the long gummed surface now required to be moistened is clearly the proper thing and would afford much greater security with a single tongue. Envelops with my improvement may always be used with great convenience as reference-envelops for all kinds of papers by simply flattening down the barb temporarily. The tongues can then be easily withdrawn from the pockets. The barbs may be raised at any time to render the envelop self-sealing again.

In the use of envelops elegance of appearance enters largely into their usefulness for many purposes, and it is a novel and desirable feature in my improvement that all the sealing mechanism is entirely concealed, whether in the pack before sealing or after sealing, thus presenting outwardly the same appearance of envelop as the public is now accustomed to.

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

1. In an envelop, the combination of a cross-bar arranged within the body of the envelop by elongating, gumming and overlapping any of its flaps, and a barb arranged beneath the sealing-flap of said envelop, so as to automatically lock itself over the said cross-bar in the act of sealing, substantially as described and shown.

2. In an envelop, the combination of a slot arranged in the body of the envelop, a cross-bar arranged behind it and forming therewith a pocket to which the slot gives entrance, a tongue arranged upon the sealing-flap registering with said slot, and a barb arranged beneath the tongue to lock over said cross-bar for the purpose set forth and substantially as described and shown.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHAS. E. SACKETT.

Witnesses:
JOHN H. SIGGERS,
H. H. SIMMS.