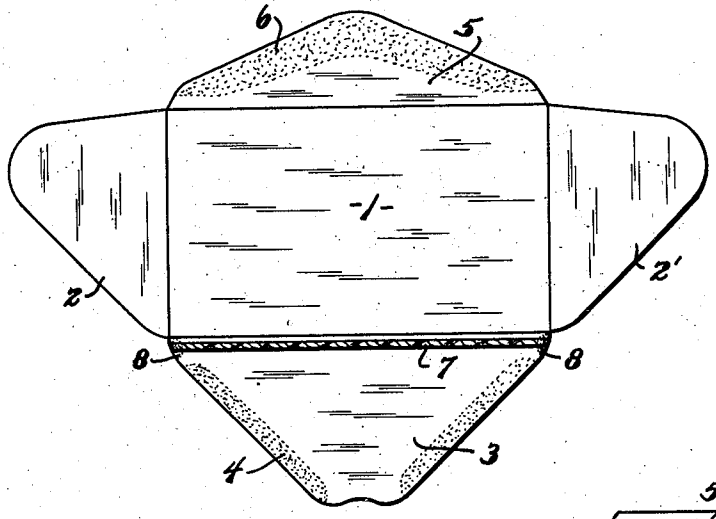
June 20, 1939. K. MacDONALD 2,162,958

ENVELOPE

Filed July 19, 1937

Fig. 1.



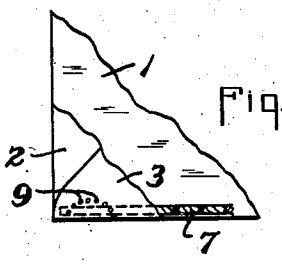


Fig. 2.

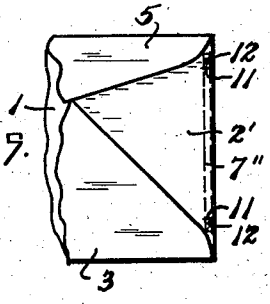
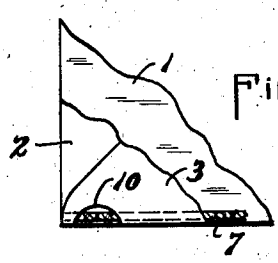


Fig. 3.



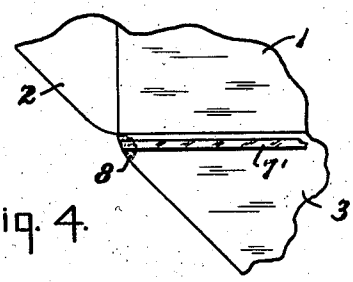


Fig. 4.

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UNITED STATES PATENT OFFICE

2,162,958

ENVELOPE

Kenneth MacDonald, Syracuse, N. Y., assignor of one-half to Howard W. Clasen, Syracuse, N. Y.

Application July 19, 1937, Serial No. 154,481

1 Claim. (Cl. 229—86)

This invention appertains to envelopes, and more particularly, to a new and improved device for facilitating the opening of envelopes to render their contents accessible for removal therefrom.

I am aware that heretofore strings or wires and the like have been applied to envelopes and used to cut the envelopes along one or more edges through manipulation of the string or wire as a cutting element, but such envelopes have not come into extensive use primarily because of the increased cost of manufacture of the envelopes, and more particularly, due to the fact that no practical and efficient means has been provided to normally prevent unauthorized opening of the envelopes, while at the same time providing convenient access to the cutting element when it reaches the hands of a person authorized to open the same.

Another important objection to the old envelope constructions mentioned above is that the cutting elements heretofore employed are generally so arranged as to prohibit the passage of the envelope through the usual automatic postal stamp cancelling machines, and are very likely to damage the machine if put through the same in the usual manner.

The primary object of this invention is to provide an envelope having an improved type of cutting element applied thereto, and which is more economical and of lighter and less bulky construction than those formerly proposed.

A further object of the invention is to provide an improved assembly of the cutting element and envelope wherein the cutting element can be conveniently and speedily grasped when the envelope is to be opened, through a simple and easy operation of the fingers, but which is normally so arranged as to minimize inadvertent or unauthorized opening of the envelope.

The invention resides in part in the use of an improved material commercially known as "Cellophane", or some equivalent material of a cellulose derivative type, and which is availed of to constitute the envelope cutting or slitting element. The invention also resides in part in an improved envelope construction and its novel relation to the cutting element.

Other objects and advantages of the invention will be hereinafter described, and the novel features thereof defined by the appended claim.

In the drawing:

Figure 1 is a plan view of a common envelope blank having my improved cutting element applied thereto in accordance with the invention;

Figure 2 is a fragmentary view, in elevation, of one corner of the envelope in its completed form, as viewed from the rear side, and illustrating one form of construction for facilitating access to the cutting element applied to and normally concealed within the envelope;

Figure 3 is a view generally corresponding to Figure 2, and illustrating a slightly modified envelope construction;

Figure 4 is a fragmentary plan view of an envelope blank similar to Figure 1, and illustrating a slightly modified form of cutting element; and

Figure 5 is a fragmentary view in elevation of a sealed envelope, illustrating a still further modified construction and arrangement of the cutting element.

Like reference characters designate corresponding parts in the several figures of the drawing, wherein 1 designates the portion of the envelope which constitutes the front side, 2, 2' the usual laterally extended flaps which are adapted to be folded over upon the side 1 in a well known manner to form with the section 3 the backside of the envelope when the latter is folded over the folded flaps 2, 2' and secured thereto along its marginal edges as by means of an adhesive 4. 5 designates the usual closure flap, having an adhesive 6 applied to its mariginal edge so as to enable the same to be sealed in a position overlapping the back of the envelope when folded over upon the same. So much of the envelope construction as just described is well known in the art of envelope manufacture, and it is to be understood that my invention is not limited to this particular construction since the same might be applied to other envelope constructions, as will be more readily apparent from the following description.

In the case of the envelope construction illustrated in Figure 1, I preferably apply the cutting or slitting element, generally designated 7, to the inner face of the rear section 3 adjacent to the fold line between the front side 1 and the section 3, so that when the latter is folded towards the side 1, and over the end flaps 2, 2', the cutting element 7 will lie within the envelope and in a concealed and substantially normally inaccessible position, thereby minimizing inadvertent or unauthorized opening of the envelope through means of the cutting element 7 after the closure flap 5 has been sealed. The cutting element 7 is secured at its opposite ends to the section 3 adjacent to the opposite corners thereof, as by means of a suitable adhesive 8.

The cutting element is preferably composed of "Cellophane" or some suitable cellulose derivative product. Such material has been found to be eminently suited to the purposes of this invention, because of its extreme toughness and great tensile strength, even when made in the form of a thin, narrow ribbon. According to the form of the cutting element 7 illustrated in somewhat exaggerated size in Figures 1, 2, 3 and 5, the "Cellophane" is twisted so as to reduce the same to a thread-like or filament form, and in so doing, the cutting element 7 is strengthened and rendered practically unbreakable under normal use of the same to open the envelope in the manner hereinafter described. The thread-like formation of the element 7 may be attained by twisting a relatively narrow, flat ribbon of "Cellophane", and if desired, the twisted "Cellophane" may be pressed flat so that its thickness is reduced to very nearly its initial thinness, in which case, the normal thickness of the envelope will not be materially increased through the application of the cutting element thereto. It is to be understood, however, that it is not essential that the "Cellophane" be flattened after twisting, since even in its unflattened twisted condition its thickness is inconsequential, and the envelope will readily pass through the usual automatic stamp cancelling machine without likelihood of injury to either the machine or the envelope. By reason of its lightness in weight, the additional weight of the envelope, after application of the cutting element 7 thereto, is inconsequential, and this is quite important in the case of relatively large envelopes where it is desired to keep the weight of the envelope down to a minimum, and consequently, the cost of transmission through the mail.

If desired, the cutting element may be secured to the envelope at one or more intervals in its length, as well as at the ends thereof, or it may be secured thereto throughout its entire length, as desired.

After the envelope has been sealed, and when it is desired to open the same, one of the corners of the envelope, at one end of the cutting element 7, may be torn off, thus giving access to the end of the cutting element. The end of the cutting element can then be grasped between the fingers and forced away outwardly from the folded edge of the envelope in which the cutting element lies, thus causing the cutting element to progressively cut or slit the envelope along its edge in an obvious manner, and without damage to the contents of the envelope.

Instead of relying upon removal of a corner of the envelope to render the end of the cutting element accessible, I preferably employ an arrangement as illustrated in Figure 2, wherein the envelope is provided with a series of perforations 9, preferably formed in the rear section 3 near one or both corners thereof. These perforations are preferably arranged on an arc so that the same may be conveniently engaged by the thumb nail or the nail of one of the fingers, in such manner as to tear out a small segment from the corner of the section 3, and thus expose the end of the cutting element 7, after which, the end of the cutting element may be grasped between the fingers and pulled out with an envelope slitting motion in the manner described above. In lieu of the perforations 9, a cut-out or notch 10, as illustrated in Figure 3, may be substituted therefor. Otherwise, the construction of the envelope shown in Figure 3 and its associated cutting element is the same as shown in Figures 1 and 2.

Referring to Figure 4, the cutting element 7' is shown in the form of a narrow, flat ribbon, as distinguished from its twisted form shown in the other figures. The ribbon may be composed of a single thickness of "Cellophane" of suitable narrow width to afford the necessary strength, or it may be folded double, in which case sufficient strength may be attained, while preserving a very narrow width of cutting element. If desired, the envelope of Figure 4 may or may not be provided with the perforations 9 shown in Figure 2 or the cut-out or notch 10 shown in Figure 3.

In each of the constructions shown in Figures 1 to 4 inclusive, the cutting element is preferably arranged at the bottom edge of the envelope, opposite to the closure flap 5. This arrangement is considered best since the cutting element is in an out-of-the-way position and will not interfere with the insertion or removal of the envelope contents. It is to be understood, however, that the cutting element may be secured to the envelope along any one or more of the edges of the envelope, including the edge at which the closure 5 is disposed, if desired.

Referring now to Figure 5, I have shown the envelope opening or cutting element 7'' applied to the envelope at one of its side edges, and as a further modification of the construction, the opposite ends of the cutting element 7'' extend through small slits 11, 11 so that the ends 12, 12 of the element 7'' are normally exposed at the back of the envelope for convenient and quick access to the same. The ends 12, 12 are preferably adhesively secured to the outside of the end flap, as for example, the flap 2'. Of course, only one end of the cutting element 7'' may be extended through the flap 2' and secured to the outside thereof, if preferred, with the opposite end secured to the inside of the flap. To open the envelope illustrated in Figure 5, it is merely necessary to loosen one end 12 of the cutting element 7'' and grasp the same between the fingers and then pull the cutting element outwardly through the folded edge and towards the opposite corner in the same manner as in the case of the other constructions previously described.

While the specific details have been herein shown and described, the invention is not confined thereto, as changes and alterations may be made without departing from the spirit thereof as defined by the appended claim.

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

As a new article of manufacture, an envelope having an elongated relatively flat "Cellophane" opening member secured thereto within a fold at the bottom edge thereof and provided with means adjacent to at least one bottom corner thereof and confined to one side of the fold for rendering one end of the opening member accessible for manipulation of the opening member to rip or slit the edge of the envelope.

KENNETH MacDONALD.