April 11, 1944. N. F. DUNLOP 2,346,419

MAILING ENVELOPE

Filed Jan. 26, 1942 2 Sheets-Sheet 1

Fig. 1.

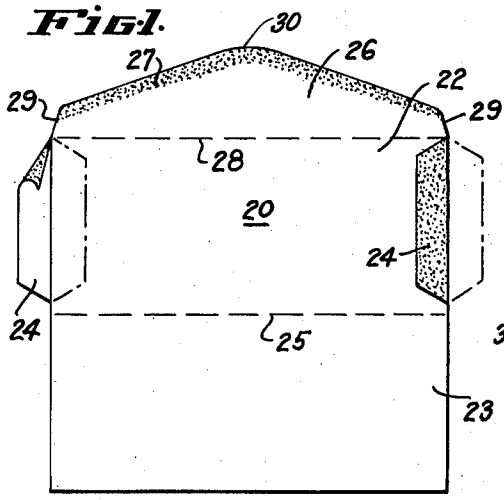


Fig. 3.

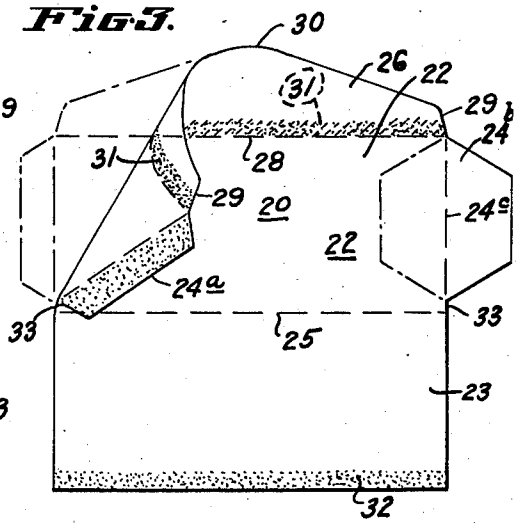


Fig. 2.

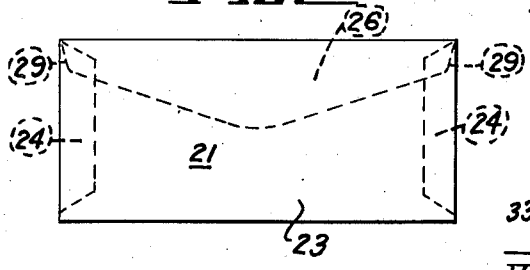


Fig. 4.

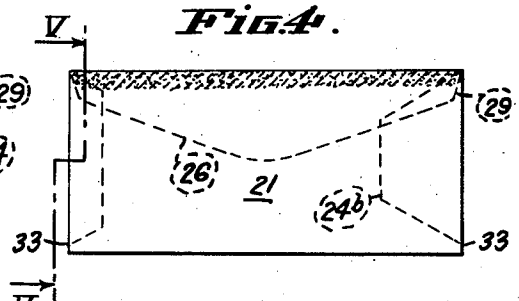


Fig. 6.

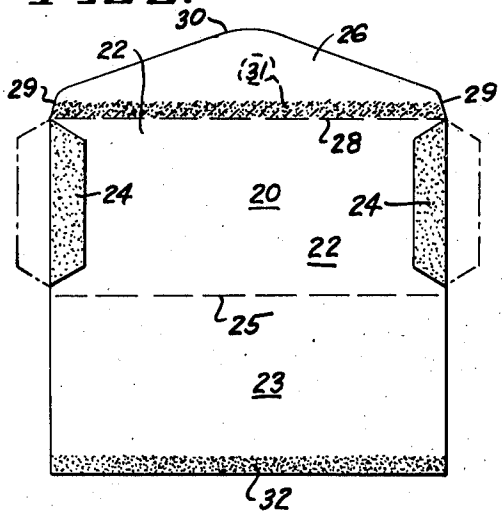


Fig. 7.

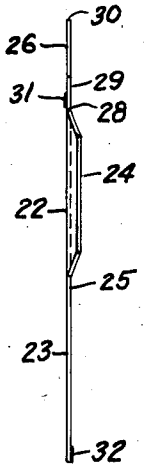
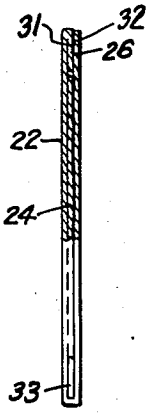


Fig. 5.



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Fig. 8.

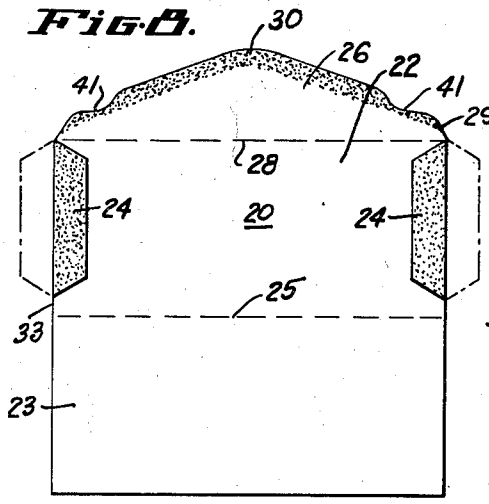


Fig. 10.

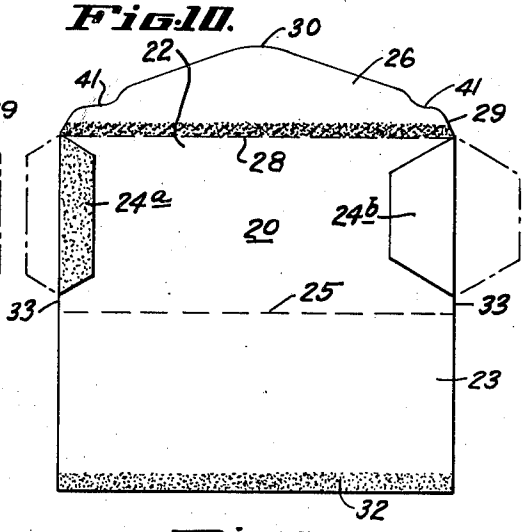


Fig. 9.

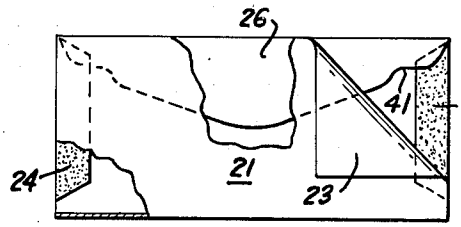


Fig. 11.

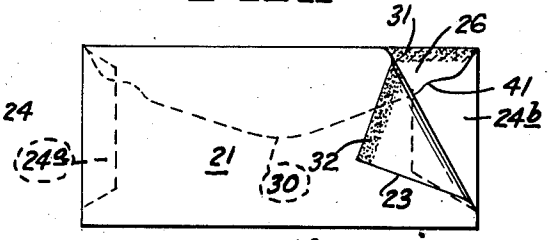


Fig. 12.

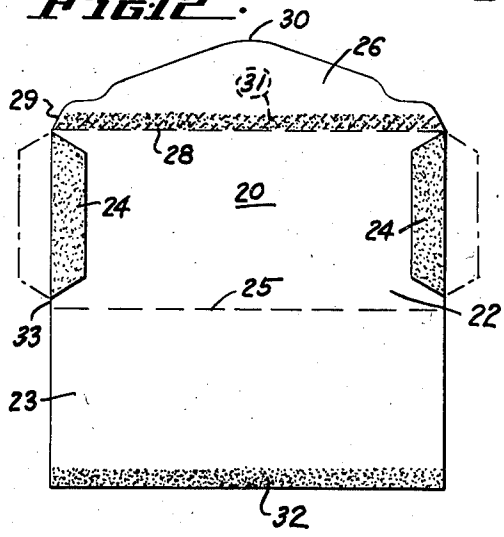


Fig. 13.

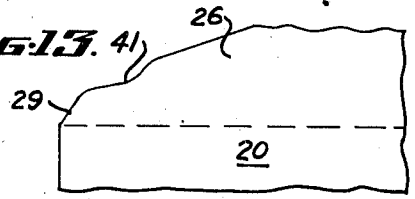
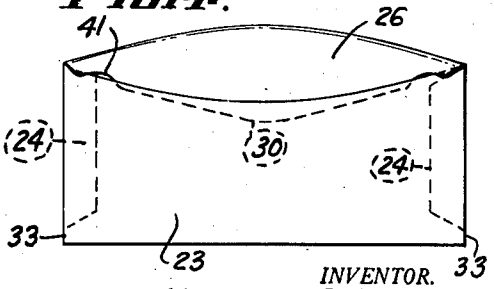


Fig. 14.



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UNITED STATES PATENT OFFICE

2,346,419

MAILING ENVELOPE

Newell F. Dunlop, San Francisco, Calif.

Application January 26, 1942, Serial No. 428,264

3 Claims. (Cl. 229—68)

This invention relates to mailing envelopes, and particularly to envelopes of the type which provide a front and a back wall which have unbroken surfaces and which are relatively connected at certain edges and disconnected at other edges and having other particularly advantageous features, including a so-called sealing flap whereby the open pocket of the envelope may be closed.

The envelope of the invention may take several advantageous forms, one of which wherein the two overlying walls which may be designated a front wall and a rear wall present unbroken surfaces of substantially the same area and shape, so that the two walls overlie a substantially similar plane; another advantageous form of structure is provided, wherein the so-called sealing flap is arranged and designed to eliminate difficulty in inserting the flap within the envelope.

Among the objects of the invention are to provide an envelope which has its front wall and its back wall comprising unbroken surfaces and overlying the same plane in area and shape, so that when the envelope is closed, either by sealing or by loosely folding the sealing flap therein, the front and back surfaces of the walls present the same general appearance, this being particularly advantageous for use of the envelope for advertising purposes wherein the entire surface of the front and back walls may be lithographed or printed, except for the space for address.

A further object is to provide an envelope in which the sealing flap is so designed that the folding thereof within the envelope is facilitated by the shape and contour of the edge of said sealing flap adjacent to the longitudinal ends thereof.

A further object, in connection with the foregoing objects, is to provide an envelope with an infolding sealing flap wherein the open edge of the envelope pocket may be sealed with the sealing flap infolded within the envelope without interfering with the unbroken outer surfaces of the front and rear walls.

A further object is to provide what is known as a postage-saver envelope, wherein the two parallel longitudinal edges of the envelope are closed and one end thereof is sealed, the other end remaining open and being provided with a flap which may be infolded to hold an enclosure in the envelope and yet prevent the envelope from being sealed at that end, whereby a cheaper postage rate may be available.

With the foregoing and other objects in view, all of which will be more particularly described with their advantages in this specification, the invention consists in the parts and combinations of parts herein described and illustrated in the accompanying drawings, it being understood that variations in size, proportions, form and degree may be resorted to within the scope of appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, which is hereby referred to as a part of this specification—

Fig. 1 is a plan view of an envelope blank for one form of the invention.

Fig. 2 is an elevational view of one face of the envelope of Fig. 1.

Fig. 3 is a plan view of an envelope blank of a modified form of the invention.

Fig. 4 is an elevational view of one face of the modification shown in Fig. 3.

Fig. 5 is an enlarged vertical end view partly in section on line V—V of Fig. 4.

Fig. 6 is a plan view of an envelope blank of another modified form of the invention.

Fig. 7 is an end view of Fig. 6.

Fig. 8 is a plan view of an envelope blank of another modified form of the invention similar in character to Fig. 1, showing modification of sealing flap.

Fig. 9 is an elevational view of one face of the modification shown in Fig. 8.

Fig. 10 is a plan view of an envelope blank of a modified form of the invention similar in character to Fig. 3, showing a modification of sealing flap.

Fig. 11 is a fragmentary elevation view of envelope from the blank of Fig. 10, one wall being turned back to show detail of structure.

Fig. 12 is a plan view of an envelope blank of a modified form of the invention similar in character to Fig. 6, showing a modification of sealing flap.

Fig. 13 is an enlarged fragmentary view of one end of sealing flap.

Fig. 14 is a perspective view with open top of envelope pocket spread, and the sealing flap of Figs. 8 to 13 partially inserted in the envelope pocket.

Referring to the drawings in which like reference characters indicate corresponding parts in the several views, **20** indicates generally a form of blank for making an envelope and **21** indicates an envelope after the blank form has been folded and its respective parts connected in envelope forming relation.

Referring to Figs. 1 and 2, the blank **20** is pro-

vided with a portion 22 which forms a front wall, a portion 23 which forms a back wall, the front wall and back wall being of substantially the same area and shape so as to provide unbroken surfaces on both front and back faces of the completed envelope, this being particularly advantageous for lithographing both faces of the envelope when it is in flat, blank form, and providing a completed envelope having similar appearance at both its faces when the sealing flap, hereinafter described, is folded within the envelope. One of the walls, 22, 23, preferably the front wall 22, is provided at its opposite ends with side flaps 24, one face of which is provided with an adhesive wash, or gummed as indicated by stippling, so that the walls, 22, 23, may be folded along the line 25 into overlying envelope forming relation and be secured at the ends in that position by the adhesived or gummed side flaps 24. The front wall 22 is provided at the upper longitudinal edge, which is in reality an edge of the opening of the envelope pocket, with a sealing flap 26, which may, if desired, be gummed along a narrow strip adjacent its edge as at 27, the sealing flap 26 being capable of being folded down on the fold-line 28, and thus the envelope in Figs. 1 and 2 may be employed for either folding the sealing flap within the envelope in what is sometimes called in the trade an unsealed indicia envelope, or the sealing flap 26 may be employed in the usual manner by wetting the gummed strip 27 and gluing it to the outer face of the rear wall 23 for sealing the envelope in what is referred to, in relation to postal rates, as a first class envelope. It is preferred that the opposite ends of the sealing flap portions be provided with an angular break in its edge adjacent the end, so as to provide a shoulder 29 which will more deeply or completely close the end of the envelope at its upper, open edge; that is to say, with relation to the longitudinal fold-line 28 which delineates the junction of the front face and the sealing flap. The free edge of the sealing flap is at a substantially and considerably greater degree of angularity between the line 28 and the shoulder 29 than the degree of angle of the free edge of the sealing flap between the shoulder 29 and its peak portions 30. In other words, if the angle of incline of the free edge between peak 30 and shoulder 29 were projected or extended, it would intersect the base fold line 28 beyond the edge of the front and rear walls which define the length of the envelope when formed. Thus, when the sealing flap is folded down within the envelope as in Fig. 2, there is a substantial width at the ends of the sealing flap 26 which either lies within the envelope, in case of an infold of the flap 26, or overlies the outside of the envelope at the end portions in the event that it is desired to employ the envelope by sealing the flap 26 on the outside of the rear face 23. While the shoulder 29 is referred to as an angle, it is to be understood that the apex of the angle may be trimmed to present a rounded edge.

In Figs. 3, 4, and 5 there is disclosed a type of envelope blank 20 and completed envelope 21 known in the trade as a postage-saver type due to the fact that at least one end of the envelope remains unsealed but may be semi-closed by an integral side flap 24*b* foldable on line 24*c*, the free end of which may be inserted within the envelope to prevent the contents thereof from sliding out, and, of course, may be withdrawn for postal inspection or removal of contents. In this postage-saver type the side flap at one end, say the flap 24*a* may or may not be gummed, depending on whether it is desired to have one end of the envelope sealed or both ends unsealed. But an adhesive may be placed on the flap 24*a* and still leave that end open by not wetting the adhesive when closing the envelope. It is common practice with the postage-saver type to place the contents of the envelope on the flat blank and then form the envelope around the contents. In the postage-saver type of Figs. 3 and 10 the flap 24*b* does not have any mucilage or gum thereon, preferably is of substantially greater width than flap 24*a*, being for the purpose of infolding into the envelope body after the contents have been placed in the envelope and thus loosely close that end of the envelope without sealing thereof.

In the envelope blanks of Figs. 3, 6, 10 and 12, there is provided on the opposite sides of the blank 20 strips of a thin wash of adhesive gum, 31 and 32, which are relatively parallel, one strip 32 being on the longitudinal marginal edge of the face of back seat 23, which becomes the inner face of the envelope, and the other strip of adhesive 31, being on the opposite side of the blank and longitudinally of that portion of the sealing flap which adjoins the face wall 22 at fold-line 28. The two strips of adhesive 31, 32 are cooperative to form a seal relative to each other but neither one is effective to form a seal independent of the other. Such cooperative self-sealing adhesives are well-known to the art as dry adhesives, and one such solution is a rubber composition, another is a latex, although any other suitable relatively cooperating dry-sealing adhesives may be used. No claim is made herein for a particular type of dry-sealing adhesive as a part of this invention.

From Figs. 3, 6, 10 and 12 it will be noted that in those exemplifications of the invention employing the self-sealing adhesives 31, 32 the side flaps 24, 24*a* and 24*b* are of substantially lesser length at their connection to wall 22 than the height dimension of the wall 22. This arrangement of structure provides the advantage of a short slotted opening 33 at the end of the side edge of the completed envelope so that a paper cutter may be inserted therein for purposes of readily opening the envelope. As is well-known in opening envelopes which are sealed, it is customary to insert a knife or other paper cutter under a sealing flap which is ordinarily on the outside of the completed and sealed envelope. But such an outside flap or seal breaks the surface of the outer face of the envelope, whereas in the present invention it is desired to have both of the outer faces unbroken, and therefore there is no outside flap. This slicing of envelopes always takes place from a side edge, as a practical matter. Inasmuch as the flap 26 is folded within the envelope and sealed therein in the structures of Figs. 6 and 12, and inasmuch as the two walls 22, 23 completely overlie each other, it would be difficult to open the closed envelope from its side edge with a paper-opener or knife, unless a convenient means were provided wherein the point of the paper-cutter or knife could be inserted into the envelope. This advantage is not so necessary in the postage-saver type of envelopes of Figs. 3 and 10, which have at least one end remaining open, as it is in envelopes of the type of Figs. 6 and 12, wherein both of the ends of the envelope, as well as the longitudinal edges are closed. The shortening of the side

flaps 24, 24a is preferably at the bottom of the side edge adjacent the fold-line 25.

Referring to Fig. 6 there is provided a blank for an envelope which may be termed an infold sealing type having the overlying front and rear walls 22, 23 of the same area and shape so as to provide both outer wall surfaces as unbroken planes, the side flaps 24 being gummed and being of less length than the side edges of the wall 22 and thereby providing small, unclosed side openings 33 for receiving the point of an envelope opener, when the envelope is sealed with the flap 26 infolded, and the two parallel gummed strips 31, 32 cooperate to close the receiving opening of the envelope pocket.

In Figs. 8 to 14 inclusive there is disclosed a modified form of the envelopes disclosed in Figs. 1 to 7 inclusive, the modification consisting of forming each of the opposite ends of the free edge of sealing flap 26 in the nature of an ogee curve 41, the purpose of which is to provide a smooth folding-in edge of the sealing flap of the envelope and preserving the closure effect of the shoulder 29 of the flap 26 as previously described. It will be noted particularly from the enlarged views of Figs. 13 and 14 that the angle of the shoulder 29 is slightly rounded and fades into the ogee curve 41 which connects with the edge portion of the flap which extends to the peak 30. When it is intended to infold the flap 26 into the envelope, the normal manual operation spreads the upper unconnected edges of the envelope into a deformity which, in plan, is somewhat diamond-shaped, as shown in Fig. 14. This permits the peak 30 of the flap 26 to be inserted into the envelope. However, as the opening approaches the side edges of the envelope, the diamond-shaped opening becomes narrow and the shoulder 29 of the sealing flaps is obstructed in its entrance into the envelope. It is normally necessary to pass the fingers of the operator's hands along the flap 26 from one end to the other, so that the ends enter completely into the envelope. However, by the employment of the ogee curve 41, it is only necessary to insert the peak 30 into the envelope, including the portions of the flap adjacent to peak 30, which will bring the free edge of the wall 23 into contact with the commencement of the ogee curve 41, so that the inherent resilient rebound or snap of the envelope structure, when it is released from manual pressure, causes the free edge 23 to travel along the ogee curve 41 and completely snap the flap into the envelope as the envelope flattens itself when released from the manual pressure. The employment of this ogee curve 41 is especially adapted to envelopes which have the front wall and the rear wall, such as 22, 23, of substantially the same area and shape to provide an unbroken surface to each wall, since in that type of envelope there is not the amount of free space to allow the infold of the flap 26. However, it is to be distinctly understood that the employment of this ogee curve is not specifically limited to types of envelopes having front walls and rear walls as thus characterized, since the use of the ogee curve will find advantageous application in any type of envelope in which it is desired to employ an infolding sealing flap. While the flap 26 has been herein generally referred to as a sealing flap, such description is for purposes of identification and to distinguish it from the side flaps, since it is obvious that when the flap is employed as an infolded flap without sealing, it does not become a sealing flap in the ordinary sense in which that term is used in envelopes where the flap seals to the outer wall of the rear face of the envelope.

Having described the invention, I claim:

1. In an envelope formed from an integral blank of flexible material and having a front wall and a rear wall relatively overlying and connected at their bottom edge and at their opposite ends to provide an envelope pocket open at an upper edge, a generally triangular closure flap connected to one of said walls and having a peak centrally intermediate the ends of its free edge and having its base connected to said one wall on a fold-line whereby said flap may be folded into an overlying relation to at least a portion of said front and rear walls, the free edge of said closure flap being inclined from said peak toward the opposite side ends of said envelope at an angle of incline which would intersect the base line of the flap beyond the side edges of the envelope if said lines were extended, said free edge of the flap having at its opposite ends an ogee curve providing a shoulder and an adjoining indent scallop, the shoulder portion being more nearly adjacent to the end of the sealing flap.

2. An envelope blank comprising an integral sheet of flexible material, and including a front wall portion and a rear wall portion, each of said wall portions being of substantially the same area and shape, and having unbroken surfaces adapted for overlying relation in a formed envelope by folding of the blank on a longitudinal line centrally thereof, said walls having side flaps which, in the envelope blank, extend beyond the plane of the wall portion, at least one of said side flaps having an adhesive surface whereby the front wall and back wall may be relatively connected for closure at an end to provide an envelope pocket open at an edge which carries a closure flap; and a generally triangular closure flap portion integrally formed in said blank and connected at its base to one of said wall portions at said last mentioned edge, said closure flap having its base line substantially coinciding with the open edge of the formed envelope and being adapted for folding thereat to overlie a portion of the plane of said front and rear walls when said walls are co-planar in envelope forming relation, the free edge of said closure flap having a peak centrally intermediate its ends and being inclined from said peak toward the opposite side ends of the envelope blank at an angle of incline which would intersect the base line of the flap beyond the side edges of the front and back wall if said lines were extended, said free edges of the flap having each of the opposite ends of its free edge defined by an ogee curve providing a shoulder and an adjacent indent scallop, the shoulder portion being more nearly adjacent to the end of the closure flap.

3. An envelope formed from an integral blank of flexible material and having a front wall and a rear wall relatively overlying and connected at their bottom edge and having at the opposite ends flaps which in the envelope blank extend beyond the ends of said front and back walls and are adapted for folding inwardly to overlie the area of the front and rear walls when said walls are in envelope-forming relation, a closure flap having its base-line connected to one of said walls on a fold-line at the edge opposite the said bottom edge, whereby said flap may be folded

into an overlying relation to at least a portion of said front and rear walls, the free edge of said flap having at its opposite ends an ogee curve providing a shoulder and an adjoining indent scallop, the shoulder portion being more nearly adjacent to the end of the closure flap, and said free edge extending from said scallops and converging upwardly toward each other and away from said base-line at an angle of incline which would intersect the base-line beyond the side edges of the envelope if said lines were extended.

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