ENVELOPE HAVING TAMPER DETECTION MEANS

Filed Aug. 23, 1945
This invention relates to improvements in envelopes, and aims, among other things, to provide an envelope which is cheap and simple to manufacture and may be made of a single piece of paper or other suitable material; which is creased so as to form the rear and other parts of the envelope and then sold as a flat sheet, for easy assembly by the user, wherein means are provided for making detection easy if the envelope is tampered with; and wherein, when desired, special means may be provided for causing discoloration of parts thereof in the event that the envelope is steamed open.

Having thus briefly and broadly stated some of the objects and advantages of the invention I will now describe it in detail with the aid of the accompanying drawing, in which:

Figure 1 is a rear view of the envelope when closed.

Figure 2 shows the envelope fully open but creased for folding.

Figure 3 shows the envelope with the rear panel, the ears and the flap partly folded, and the larger tabs in folded position.

Figure 4 is a rear view of the envelope showing one side of the rear panel bent back somewhat, and

Figure 5 is another rear view showing portions broken away to disclose the relative positions of the tabs and ears.

Figure 6 is a section on the line 6-6 of Figure 1, and

Figure 7 is a detail showing a modified gumming arrangement.

Referring to the drawing, my envelope consists of a single piece of paper or other suitable material folded at 2 to form a front panel 3 and a rear panel 4, and extending from the end of the front panel 3 remote from the fold 2 is a flap 5 which is rearwardly folded at 6 and is usually provided with adhesive as shown at 8a for attachment across the outer face of the rear panel 4. Formed integral with each lateral margin of the front panel 3 are tabs 7 and 8 which are inwardly folded at 9 against the rear face of the said panel. Formed integral with each lateral margin of the rear panel 4 is an ear 10 which is inwardly folded at 11 against the front face of the said panel. The folds 9 and 11 on each side of the envelope are in alignment, and the folds 12 are slit at 12 from the outer extremity of the rear panel 4 for a distance slightly greater than the depth of the tabs 7 along their folds 5. The tabs 7 which extend from adjacent

the flap 5 continue for a lesser distance along the folds 9 than the tabs 8 which extend from adjacent the tabs 7 substantially to the fold 2. The opposite sides of the tabs 7 and 8 are preferably inclined toward one another from the folds 9.

The front faces of the folded ears 10 are adhesively secured to the rear faces of the folded tabs 7, and the tabs 7 are inserted through the slits 12 and lie between the rear faces of the ears 10 and the front or inner faces of the rear panel 4 to both of which they are adhesively secured so that a communication (not shown) of substantially the same width and height as the panels 3 and 4 may be inserted directly against the inner face of the front panel 3 after which the flap 5 is adhesively secured to the outer face of the rear panel 4 in the conventional manner.

The adhesive attachments, with the exception of course of the flap 5 to the rear panel 4, may be made either during fabrication or subsequently by the user. In the latter case I prefer that adhesive be applied to the front faces of the tabs 7 as shown at 7a for attachment to the rear faces of the upper portions of the ears 10, that is the portions of the ears which lie adjacent the outer ends of the rear panel 4; to the rear faces of the larger tabs 8 as shown at 8a for attachment to the front faces of the ears 10; and to the front face of the rear panel 4 as shown at 4a opposite the tabs 7 for attachment to the rear faces of the latter. Perforations 14 are also preferably formed in the tabs 7 and 8 and in the flap 5 so that tears are very liable to occur in the envelope, when sealed, is tampered with. To facilitate detection in the event of tampering some of the surfaces, for instance the portion 6a of the rear panel 4 against which the flap 5 is sealed may have a piece of acid or alkaline impregnated paper 15 secured thereon; on the opposite face of the paper 15 a piece of indicator paper 16 such as neutral litmus paper is adhesively secured, and the outer face of the indicator paper is gummed for sealing against the rear flap 5. Then if the flap 5 is steamed open the impregnated paper 15 discolors the indicator paper 16 as the adhesive between them is broken down and the discoloration is visible through the perforations in the flap.

While in the foregoing the preferred embodiment of the invention has been described and shown, it is understood that alterations and modifications may be made thereto provided the said alterations and modifications fall within the scope of the appended claims.

What I claim is:

1. An envelope including a piece of material
3 folded upon itself to form a front and a rear panel, a perforated flap integral with the extremity of the front panel remote from the fold, said flap being folded back over the rear panel, adhesive means for attaching the flap to the rear panel, inwardly folded perforated tabs on opposite sides of the front panel extending between the latter and the rear panel, inwardly folded ears on opposite sides of the rear panel between the latter and the front panel, adhesive means for securing the tabs and ears on each side to one another and both ears to the inner face of the rear panel, at least one of the adhesive means including a layer of impregnated paper adhesively attached to one portion of the envelope, a piece of indicator paper adhesively attached to the impregnated paper whereby discoloration of the indicator paper may be observed through the perforations, and a layer of adhesive on the outer face of the indicator paper for securing it to another portion of the envelope.

2. An envelope including a piece of material folded upon itself to form a front and a rear panel, a flap extending from the extremity of the front panel remote from said fold, said flap being folded back over the rear panel for attachment thereto, inwardly folded tabs on opposite sides of the front panel, inwardly folded ears on opposite sides of the rear panel, the ears on each side being partly severed from the rear panel by slits extending along the folds, one tab on each side extending through one of the slits and lying between one of the ears and the rear panel and the other tab on each side lying between one ear and the front panel, and adhesive means for securing the tabs on each side of the ear on that side.

3. The combination in claim 2, wherein adhesive means is provided for attachment of one tab on each side to the rear panel.

4. An envelope including a piece of material folded upon itself to form a front and a rear panel, a flap extending from the extremity of the front panel remote from said fold, said flap being folded back for attachment to the rear panel, inwardly folded tabs on opposite sides of the front panel, inwardly folded ears on opposite sides of the rear panel slit along said folds from the outer extremity of the rear panel for a distance slightly greater than the depth of the tabs adjacent the flap, the latter tabs extending through said slits and lying between the rear panel and the ears, the tabs adjacent the folded end of the front panel lying between the latter and the ears, and adhesive means for securing the tabs and ear on each side to one another, and the tabs extending through the slits to the rear panels.

5. The combination in claim 4, wherein the adhesive means includes layers of gum on the front faces of the tabs adjacent the flap, on the rear faces of the other tabs, and on the inner face of the rear panel opposite the tabs adjacent the flap.

DONALD L. DRUMMOND.

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