April 23, 1968 H. A. SUTPHEN, JR 3,379,363

STUFFED SEALED ENVELOPES

Filed May 20, 1966 3 Sheets-Sheet 1

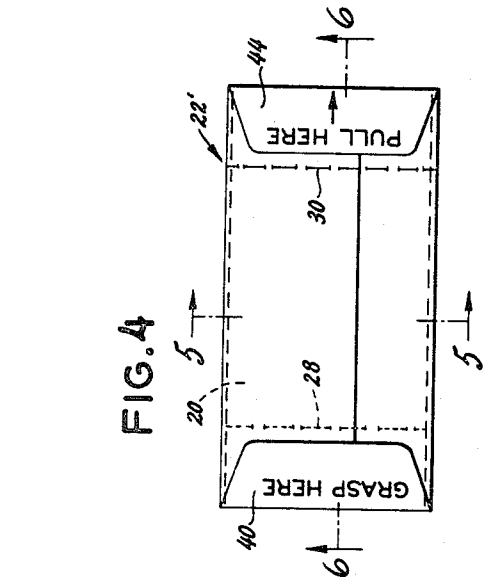


FIG. 4

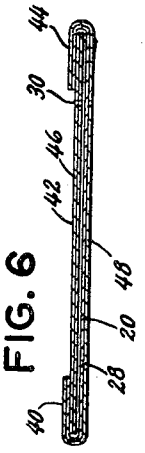


FIG. 6

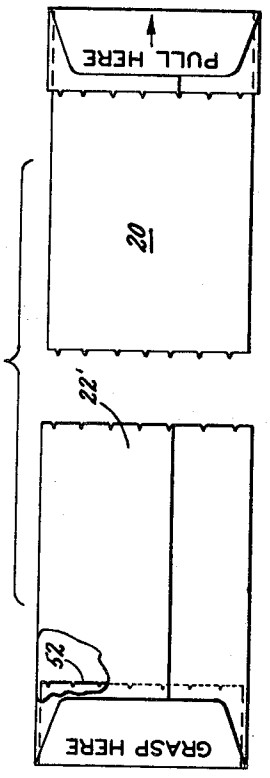


FIG. 7

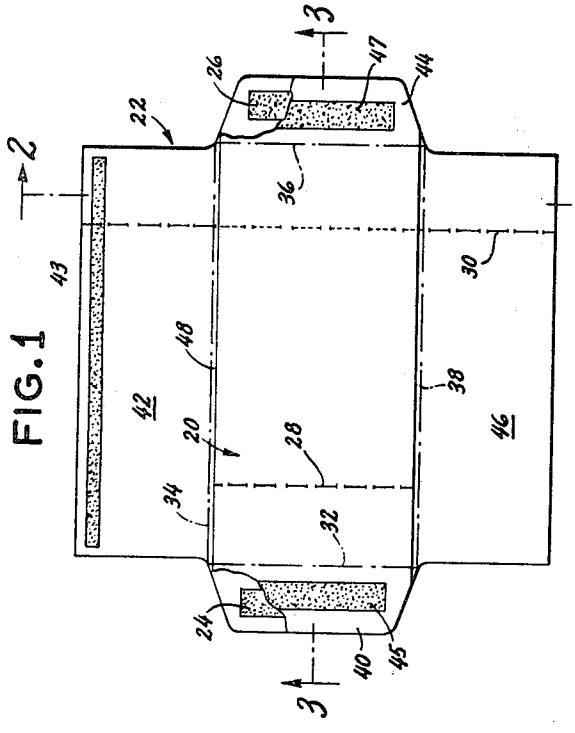


FIG. 1

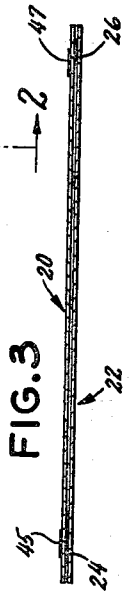


FIG. 3

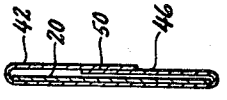


FIG. 5

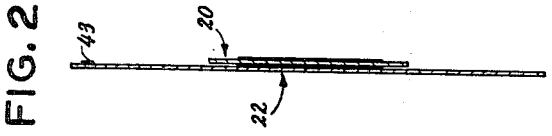


FIG. 2

INVENTOR
HAROLD A SUTPHEN. JR

BY
John F. Stevens
ATTORNEY

April 23, 1968 H. A. SUTPHEN, JR 3,379,363

STUFFED SEALED ENVELOPES

Filed May 20, 1966 3 Sheets-Sheet 2

FIG. 8

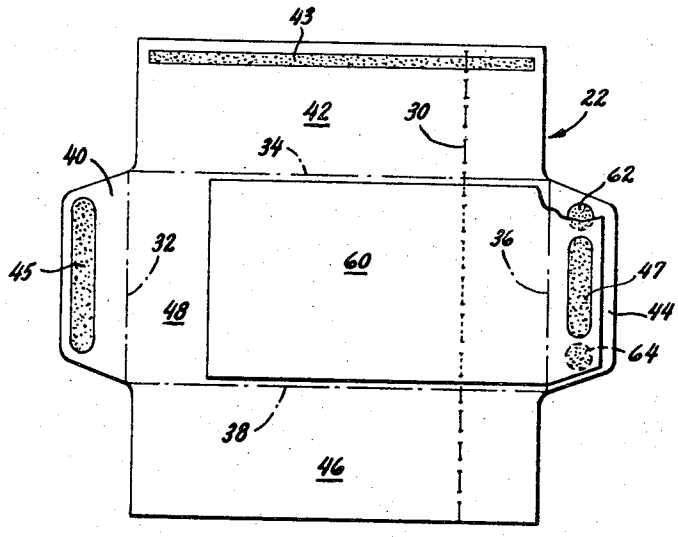
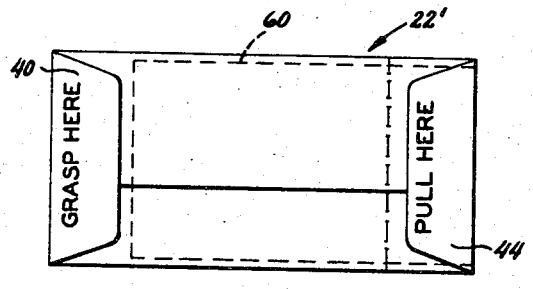


FIG. 9



April 23, 1968 H. A. SUTPHEN, JR 3,379,363

STUFFED SEALED ENVELOPES

Filed May 20, 1966

3 Sheets-Sheet 3

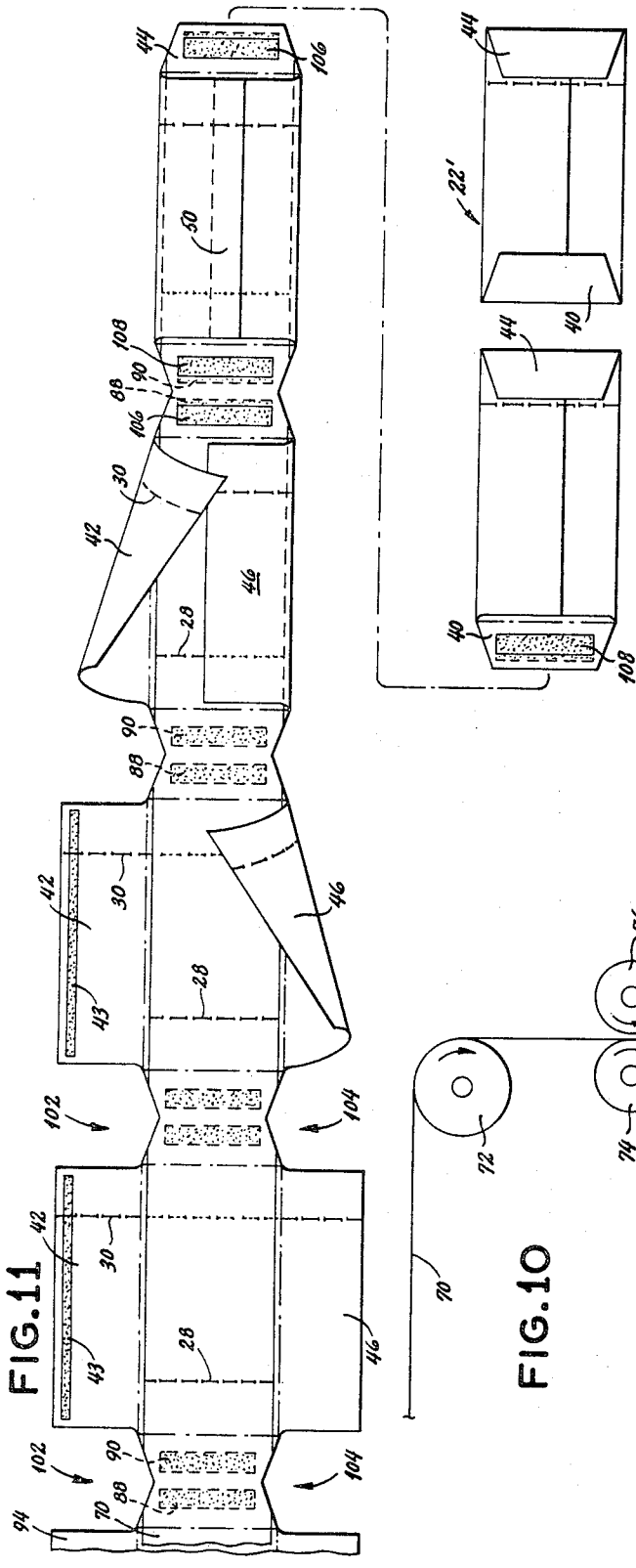


FIG. 11

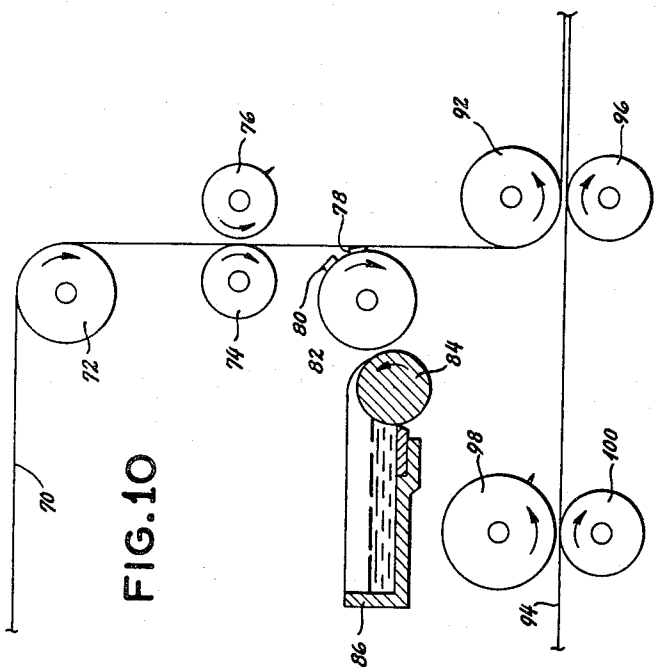


FIG. 10

United States Patent Office 3,379,363 Patented Apr. 23, 1968

3,379,363

STUFFED SEALED ENVELOPES

Harold A. Sutphen, Jr., Longmeadow, Mass., assignor to United States Envelope Company, Springfield, Mass., a corporation of Maine

Filed May 20, 1966, Ser. No. 551,573
3 Claims. (Cl. 229—85)

This invention relates generally to stuffed, sealed envelopes, and more specifically, this invention relates to stuffed, sealed envelopes having a unique opening feature for readily exposing the contents, and a method for efficiently manufacturing such envelopes from continuous webs of paper or similar flexible material.

The term "stuffed envelope" is commonly used in the art when referring to an envelope into which its intended contents have been inserted. The contents, however, are usually inserted, either mechanically or manually, after the envelope has been completely folded and sealed except for the closing or sealing flap, which customarily remains free until after the inserting operation is performed.

It is an object of the present invention to provide a stuffed, sealed envelope, or an envelope-insert combination, in which the envelope portion and insert portion are interrelated in structure so as to function as a unit in a unique manner, whereby a single, simple application of opposed lateral forces acting at opposite ends will open the envelope and expose its contents simultaneously.

It is another object of this invention to provide a method of efficiently manufacturing such stuffed, sealed envelopes, or envelope-insert combinations, from two continuously moving webs of flexible material. Furthermore, if it is desired, more than two webs of material may be used to provide multiple insert portions.

Such stuffed, sealed envelopes are particularly useful in the distribution of game coupons, advertising material, etc. at grocery stores, service stations, and many other places which distribute such material as an incentive for a customer who receives one of the stuffed, sealed envelopes to return to the distributor, and hopefully, bring additional business to that distributor. For example, the stuffed, sealed envelopes, according to this invention, may conveniently be used in the distribution of coupons on which there is printed a portion of a simulated check or bill. Envelopes containing portions of such simulated checks or bills are distributed by some stores and service stations to persons who visit their places of business. As soon as any visitor collects enough portions to make up a complete check or bill, he becomes eligible to win a prize. Obviously, such coupons must be hidden from view prior to the distribution thereof, and tightly sealed envelopes have been found to be a very successful means for properly concealing the coupons. It is also highly desirable in this particular envelope to incorporate therein some kind of a novelty opening device, such as that provided by the present invention, to aid in attracting attention of customers, and thus derive the proper benefit from the advertising feature of the envelope and its contents.

Also, a particular advantage of the stuffed, sealed envelope according to this invention is the fact that it lends itself easily to the efficient and speedy manufacture of large quantities of such envelopes from two or more webs of paper. The webs may conveniently be preprinted with the intended message, advertisement, or game material. The webs are superimposed in a manner such that they assume a particular relationship to each other and are secured together at pre-determined locations, rendering the resultant product a unique envelope-insert combination which functions in the intended manner described above.

With the above and other objects in view, as will

hereinafter appear, the invention comprises the devices, combinations, arrangements of parts hereinafter set forth and illustrated in the accompanying drawings of a preferred embodiment of the invention, from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the drawings:

FIGURE 1 is a plan view of a sheet of insert material placed in position over an envelope blank prior to its being enclosed in the envelope blank, in accordance with this invention.

FIGURE 2 is a sectional view of the insert sheet and envelope blank, taken substantially along line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view of the insert sheet and envelope blank, taken substantially along line 3—3 of FIGURE 1.

FIGURE 4 is a plan view of a folded stuffed, sealed envelope in accordance with this invention.

FIGURE 5 is a sectional view taken substantially along line 5—5 of FIGURE 4.

FIGURE 6 is a sectional view taken along line 6—6 of FIGURE 4.

FIGURE 7 is a plan view illustrating the envelope after opening, exposing the message sheet.

FIGURE 8 is a plan view of an insert sheet and envelope blank, illustrating a different embodiment of this invention.

FIGURE 9 is a plan view of a folded stuffed, sealed envelope according to this invention, made from the envelope-insert shown in FIGURE 8.

FIGURE 10 is an elevation view in schematic, illustrating how two webs of flexible sheet material may be combined as a first step in a method of making the stuffed, sealed envelope illustrated in FIGURES 1–7 inclusive.

FIGURE 11 is a plan view showing the successive stages of forming the stuffed sealed envelope in accordance with this invention.

Referring to the drawings, FIGURE 1 shows a sheet of insert material **20** placed in face to face relation with a central section of the envelope blank **22**. As shown in this embodiment of the invention, the sheet of insert material **20**, hereinafter referred to as "insert" for simplicity, and envelope blank **22** are coextensive at two opposite ends so that they both may be cut simultaneously, as a unit, from two superimposed webs of paper or similar flexible material. It is not necessary in this invention, however, that the insert **20** and envelope blank **22** be coextensive at the opposite ends, as will be described in detail hereinafter, but this embodiment is easily adaptable to an efficient method of manufacture.

Both the insert **20** and the envelope blank **22** are suitable for use in existing printing processes and machinery. The envelope blank **22** may be printed on the outside with advertising material if desired, and on the inside with a tinting or design to prevent the printing on the insert from showing through the envelope.

As best shown in FIGURES 1 and 3, the insert **20** and envelope blank **22** are connected near their coextensive ends, preferably by adhesive areas **24** and **26**. Actually, this connection may be spaced inwardly from the edges more than that shown in the drawings if desired, as long as the insert **20** and envelope blank **22** are free of each other between the line of weakening **28** on the insert and the line of weakening **30** on the envelope blank.

The lines of weakening **28** and **30** are preferably positioned near the ends of the insert **20** and envelope blank **22**, so as to provide the largest possible span between said lines of weakening, while still allowing room between each of the lines of weakening and the end of the envelope

to grasp with the hands, as will be described in more detail hereinafter. The lines of weakening **28** and **30** may conveniently be lines of perforations.

The envelope blank **22** is scored along lines **32**, **34**, **36**, and **38**, defining flaps **40**, **42**, **44**, and **46** respectively, each being hingedly connected to the central panel **48**. Each of the said flaps is foldable along its fold line, to enclose the insert **20**. Preferably, the envelope blank as illustrated in FIGURE 1 is folded around insert **20** by first folding flap **46**, then **42**, which adhesively connects to flap **46** by means of adhesive strip **43**, and the smaller end flaps **40** and **44** last, resulting in the stuffed, sealed envelope shown in FIGURES 4, 5, and 6. The flaps **40** and **44** become adhesively connected to flaps **42** and **46** by means of adhesive strips **45** and **47**. It should be understood that various types of flap arrangements may be utilized in accordance with this invention, and the particular flap arrangement shown in the drawings is not intended to be restrictive in any sense of the word. For instance, the well-known triangular flap style envelope may be utilized. Also, it is contemplated that the so-called "seamless" style envelope, i.e., front and back walls adhered directly to each other without the use of intermediary end flaps (such as **40** and **44** in FIGURES 1–7 inclusive), may be utilized in accordance with this invention.

As best shown in FIGURES 1 and 4, the insert **20** is slightly more narrow than the space between score lines **34** and **38** to permit easy folding of the flaps **42** and **46** around the insert **20**, into overlapping relation along an adhesively connected seam **50** (FIGURE 5). The folded flaps **40**, **42**, **44** and **46** form one main panel of the envelope, and the aforementioned main panel **48** forms the other. When the flaps are completely sealed to each other, the contents of the envelope are completely hidden.

As mentioned previously, it may be desirable in certain situations to use multiple inserts with this envelope. The invention is not restricted to the single insert shown in the drawings. When multiple inserts are used, the additional inserts would be superimposed over the single insert illustrated in FIGURE 1, with the weakened line **28** of each insert substantially at the same position. Multiple inserts may be connected near their ends, and also to the ends of the envelope blank **22**. In the embodiment of the invention shown in FIGURES 1–7 inclusive, the inserts **20**, whether single or multiple, are firmly connected to opposite ends of the envelope by being incorporated into the end folds and by the adhesive areas **24**, **26**, **45**, and **47**. In all cases, however, the insert, or inserts **20** are completely free of the envelope blank **22** between the weakened line **28** of the insert or inserts **20** and the weakened line **30** of the envelope blank **22**.

Referring now particularly to FIGURES 4 and 7, application of opposed lateral forces to the opposite ends of the stuffed, sealed envelope **22'** in the indicated manner, will cause the envelope **22'** to open, or separate along the weakened line **30**, which extends completely around the girth of envelope **22'**. Simultaneously as envelope **22'** separates along weakened line **30**, the insert **20**, being firmly anchored at both ends of envelope **22'**, separates along its weakened line **28**, leaving a stub **52** in the larger portion of envelope **22'**. Due to the relative positions of the weakened line **28** on the insert and weakened line **30** on the envelope **22'**, an appreciable message-carrying portion of insert **20** is exposed with the end stub of envelope **22'**. As shown in FIGURE 7, a single, simple operation is all that is required to break open the previously completely sealed envelope **22'**, and to expose the major, usable portion of the insert **20**. If desired, the insert **20** may be removed from the end stub of envelope **22'** by tearing or cutting.

FIGURE 8 illustrates a modification of this invention in which the insert **60** is not coextensive with opposite ends of the envelope blank **22**. In this embodiment of my invention, the end of the coupon falls short of the edge of flap **44**, and is secured thereto by adhesive areas **62** and **64**. It should be understood, however, that the insert **60** could just as well be connected to panel **48**, to the right of weakened line **30** (as viewed in FIGURE 8) if desired, instead of being connected to flap **44**. Here again, the edges of the insert **60** lie inside fold lines **34** and **38** of envelope blank **22** to permit each folding of the flaps **42** and **46**. As shown in FIGURE 8, the other end of insert **60** is free of the envelope blank **22**. The only place of connection between insert **60** and envelope blank **22** is to the right of weakened line **30**, as viewed in FIGURE 8. The left end of the insert falls short of the score line **32** which will define the end of the stuffed, sealed envelope. It should also be understood that the flaps will be folded and adhesively connected in the same manner as described hereinbefore for the embodiment of the invention shown in FIGURES 1–7 inclusive.

FIGURE 9 illustrates the completely folded envelope **22'** and the hidden insert **60** is shown in dotted lines. Weakened line **30** extends completely around the girth of the envelope **22'**. This envelope **22'** may be opened, or pulled apart, in the same manner as that described for the embodiment shown in FIGURES 1–7 inclusive. Referring to FIGURE 10, a web **70** of flexible sheet material, later to be cut into individual inserts for stuffed, sealed envelopes, is passed over guide roll **70** and through the pair of perforating rolls **74** and **76**. Any convenient web perforating mechanism well known in the art may be used to create a line of perforations extending across substantially the entire width of the web. It is not necessary to this invention that the weakened line be perpendicular to the edges of the envelope **22'** as shown in FIGURES 1–7 inclusive. The weakened line of the insert may be at an angle to the edges of the envelope **22'**, or alternately, several different angular configurations may be utilized if desired, resulting in the weakened line across web **70** being other than in a perpendicular relation to the side edges of the web **70**.

Patterns of adhesive are printed on predetermined areas of web **70** by the applicator pads **78** and **80**, carried by the roll **82**, which pick up adhesive by peripheral contact with reservoir roll **84**. Reservoir roll **84** rotates inside box **86** which contains adhesive material. Roll **82** rotates in timed relation with the web **70** and perforating rolls **74** and **76**, so as to apply the adhesive in patterns substantially as shown at **88** and **90** in FIGURE 11. Web **70** is then fed under roll **92** and into contact with web **94**, in timed relation with the movement of web **94**, so that the two webs are united and adhesively connected at **88** and **90** as they pass between rolls **92** and **96**.

The web **94** of envelope material is first fed through perforating rolls **98** and **100** before being united with web **70**. Perforating rolls **98** and **100** rotate in timed relation with the perforating rolls **74** and **76** acting on web **70**, such that the lines of perforations **28** on the insert material web **70**, and the lines of perforations **30** on the envelope material web **94**, will assume a predetermined, spaced relation with each other, as best shown in FIGURE 11. It should also be understood that the weakened line **30** extending across the envelope **22'** does not have to be perpendicular to the edges of the envelopes **22'**, but it may be in an angular position as hereinbefore described.

Webs **70** and **94** are combined in a manner such that the connections therebetween, i.e., the adhesive areas **88** and **90**, lie on each side of an imaginary line through which cuts will be made in the combined web to separate adjacent envelopes. This can easily be seen by an examination of the FIGURE 11 as a whole. Thus, when the webs **70** and **94** are combined, the adhesive areas **88** and **90**, the lines of perforations **28**, and the lines of perforations **30** assume a predetermined spacing and relationship with each other whereby the envelopes and inserts described in FIGURES 1–7 inclusive may be formed.

After combining webs **70** and **94**, portions of web **94**

at laterally opposite positions are removed to define the flaps **42** and **46** of adjacent envelopes. This is sometimes called "notching" in the art, and in this invention, the notches **102** and **104** may actually cut slightly into the web **70** of insert material. It should be understood that both the webs **70** and **94** at this point have been printed. These notches **102** and **104** may be formed by any convenient well-known means, such as flying cutters.

As viewed in FIGURE 11, the two webs **70** and **94** move from left to right in unison. After notches **102** and **104** are cut, the flaps **42** and **46** defined thereby are folded into overlying position with the web **70** and adhesively connected along a seam **50** by means of the adhesive strip **43**, which is applied by well-known, conventional means. Adhesive strips **106** and **108** are applied to the web **70** between the notches and will be used to seal the end flaps **40** and **44**. Partially folded envelopes **22'** are then severed from the united webs along an imaginary line between the areas **106** and **108** of adhesive. Leading flap **44** is next folded and adhesively connected by its adhesive **106** to the flaps **42** and **46**. Trailing flaps **40** is then folded and adhesively connected to flaps **42** and **46** by means of its adhesive area **108**. The stuffed, sealed enevelopes **22'** are then gathered for packing.

Other and further modifications apart from those indicated herein could be made within the spirit of this invention.

I claim:

1. A stuffed, sealed envelope comprising, in combination, a sheet of insert material, an envelope enclosing said sheet, two opposite ends of said sheet and envelope being substantially coextensive and said sheet and envelope being connected only near said coextensive ends, a weakened line extending around the girth of said envelope and spaced inwardly from one end of said connected ends, a weakend line extending across said sheet at the opposite connected end but inward from said connection, whereby the end of said envelope and said sheet may be pulled apart as a unit exposing an appreciable area of said sheet.

2. An envelope according to claim **1** which includes multiple sheets enclosed within said envelope.

3. An envelope according to claim **1** in which said sheet is divided into a plurality of portions by weakened lines.

References Cited

UNITED STATES PATENTS

702,100	1/1902	Keller	229—85
1,180,542	4/1916	Roden	229—85
3,061,174	10/1962	Zalkind	229—85

JOSEPH R. LECLAIR, *Primary Examiner.*

R. PESHOCK, *Assistant Examiner.*