(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 001 180**
A1

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **78300360.1**

(22) Date of filing: **06.09.78**

(51) Int. Cl.²: **B 65 D 27/06**
B 65 D 27/10

(30) Priority: **09.09.77 US 823203**

(43) Date of publication of application:
21.03.79 Bulletin 79/6

(84) Designated contracting states:
DE FR GB

(71) Applicant: **Moore Business Forms Inc.**
1001 Buffalo Avenue
Niagara Falls NY 14302(US)

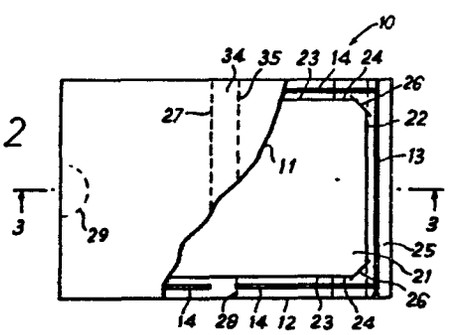
(72) Inventor: **Robertson, Victor J.**
2720 Woodlawn Avenue
Niagara Falls NY 14301(US)

(74) Representative: **Townsend, Derek Thomas**
75/79 Southwark Street
London SE1 OHY(GB)

(54) **Improvements in or relating to envelope assemblies having reusable feature.**

(57) A stuffed sealed envelope assembly (10) having insert material (21) immobilized therein by registration chips (25) attached only to the envelope and abutting against the marginal edges of the insert material, the outer plies (11,12) forming the envelope (10) having staggered lines of weakening (27,28) therein defining detachable removable and reusable portions with the latter being rechsable by a flap (34) defined between the lines of weakening.

FIG. 2



EP 0 001 180 A1

This invention relates generally to a stuffed sealed envelope assembly having a free insert therein, and more particularly, to such an assembly which is divisible into removable and reusable portions forming a return mailer for the latter portion.

U.S. Patent No.4,010,889, commonly owned herewith, discloses a stuffed sealed envelope assembly having an insert held in registry therein by means of retention chips attached to the envelope plies and abutting against marginal edges of the insert for preventing shifting movements thereof relative to the envelope. The insert is, therefore, rendered easily and quickly extractable from the envelope, upon removal of an envelope tear strip, with little friction resistance presented by the inner surfaces of the envelope plies. The retention chips may comprise severed portions of the insert capable of being varied in size corresponding to the size changes intended for the insert to thereby positively immobilize the insert regardless of its limited size change.

The use of this envelope assembly is nevertheless limited to that of a one-way mailer. It would be desirable to construct such an envelope assembly as a two-way mailer having a portion capable of being returned or constructed as having a reusable portion is disclosed in U.S. Patent No.3,411,699, although the insert contained within the envelope is removably secured to the outer plies along a line of weakening lying perpendicular to a removable tear strip provided for opening the envelope to expose the insert for extraction. The insert must, therefore, be extracted upon envelope opening by breaking the connecting plies between the insert and the envelope in a direction parallel to such ties. With such a construction the insert can therefore be extracted only with some difficulty since the addressee must reach into the opened envelope, grab the insert and apply a force parallel to the line of

connecting plies sufficient to break them in the process of insert extraction.

It is, therefore, an object of the present invention to provide an improved stuffed sealed envelope assembly. According to the present invention a stuffed sealed envelope assembly, comprising superimposed front and back plies, insert material having opposite side and end edges being captivated within the sealed envelope by registration means including chip elements in abutting engagement with and unattached to each of said side and end edges, lines of weakening in said plies dividing said plies into first and second sections, said first section overlying a portion of said insert material to facilitate opening of the envelope and extraction of said insert material upon separation of said sections along said lines of weakening, and means adjacent one of said lines of weakening for closing said second section for use as a reusable envelope.

Figure 1 is a perspective view of series-connected stuffed sealed envelopes constructed in accordance with the present invention with a portion thereof broken away for clarity:

A stuffed sealed envelope assembly in accordance with the present invention will now be described by way of example with reference to the accompanying drawings wherein:

Figure 2 is a top plan view of an individual envelope of the Figure 1 assembly also partly broken away for clarity:

Figure 3 is a cross-sectional view of the Figure 2 envelope taken substantially along line 3-3 thereof:

Figure 4 is a tope plan view similar to Figure 2 except that the envelope is shown in the process of insert extraction: and

Figure 5 is a bottom plan view of the resulting reusable portion of the envelope which remains after the envelope is separated incident to insert extraction.

Referring to the drawings wherein like reference characters refer to like and corresponding parts throughout the several views, several series-connected envelope assemblies generally designated 10 are shown in Figure 1 constructed of outer plies 11 and 12 sealed along opposite sides by means of lines 13 of adhesive, and sealed crosswise at spaced intervals by means of lines 14 of adhesive thereby defining spaced envelope pockets. Feed bands 15 are removably secured along opposite sides of the outer plies by means of longitudinal lines 16 of perforations located parallel to and slightly outwardly of lines 13 of adhesive. These feed bands are typically provided with a series of spaced feed holes 17 therein for engagement with the feed pins of a tractor pin feed device or the like for moving the series-connected assembly past and through web processing equipment.

An intermediate ply 18 is disposed between the outer plies and is connected thereto by means of lines 13 and 14 of adhesive. Cross lines 19 of the perforations are provided in all three plies so as to facilitate separation as by bursting of assemblies 10 therealong individual units, as shown in Figures 2 and 3, with the feed bands removed. The intermediate ply is cut into individual plies or sheets 21 respectively lying within the pockets defined by lines 13 and 14 of adhesive in a manner similar to that disclosed in U.S. Patent No.4,010,889. The entirety of that disclosure is, therefore, specifically incorporated herein, by reference.

Sheets 21 define inserts produced from intermediate ply 18 by cutting the same along longitudinal lines 22 lying inwardly and adjacent lines 13 of adhesive. Diecuts 23 transversely of the assembly are made in the intermediate web adjacent and parallel to the cross lines of weakening, and short cuts 24 (see Figure 2) are made in the intermediate web as extensions of the diecuts and extending toward but not intersecting with the opposing cut lines 22.

The diecuts, cut lines and the outer periphery of each envelope assembly, therefore, define substantially U-shaped retention elements of chips 25 which are attached in series along cross lines 19 of perforations, until the envelope assemblies are burst from the continuous assembly, and which are attached at the four corners of each insert sheet 21. As described in the aforementioned '889 patent, the retention chips are completely severed from the remainder of their respective insert sheets during some convenient stage of the web processing operation so as to thereby free the inserts from any attachment to the envelope plies. Angular cuts 26 intersecting with cut lines 22 and 24 are made in the intermediate web by means of suitably provided cutting blades extending through the bottom ply 12, for example, to likewise produce diagonal cuts (not shown) in that ply. Such cuts in ply 12 thereby define vents for releasing any entrapped air within the envelopes so as to accordingly avoid any cushioning effect which may otherwise occur in stuffed envelope assemblies of this general type. The retention chips, which are now completely unattached from the inserts, lie in abutting engagement with the opposing end edges of the inserts and in abutting engagement with portions of opposing side edges of the inserts so as to positively immobilize the inserts in registry within the envelopes.

In lieu of a tear strip provided in the outer plies, as shown in the aforementioned '889 patent, the outer plies are herein respectively provided with longitudinal lines 27 and 28 of perforations which are offset from one another and which lie inwardly of one of the opposing edges of the inserts. Each envelope assembly 10 is thereby rendered divisible along these lines 27 and 28 as the envelope is grasped at opposite ends by the hands of the operator and moved in opposite directions shown by the arrows in Figure 4, so as to thereby snap the envelope apart along lines 27 and 28 of weakening. Outlines 29 and 31 of thumb tabs may be applied to upper ply 1[illegible] to serve as

locators for the operator's thumbs when insert 21 is to be extracted. As shown in Figure 4, outline 29 overlies an end of the insert while outline 31 overlies an opposing chip element 25 and is therefore located outwardly of the insert. These thumb outlines may respectively contain indicia such as "hold firmly here" and "grasp and snap" so as to instruct the operator to hold opposite ends of the envlope for separation thereof as the envelope is snapped open upon the application of force in opposite directions as shown by the arrows. Thus, the envelope is separated into removable and reusable portions 32 and 33 along lines 27 and 28 of weakening, with insert 21 being extracted from portion 33. One of the retention chips 25 remains contained within portion 33 after insert extraction, such portion 33 being reusable for return mailing or the like being made reclosable by means of a fold flap 34 capable of being folded along a fold line 35 so as to overlie ply 12 of portion 33. It should be noted that the portion of ply 11 defining flap 34 between lines 27 and 35 is unattached to underlying play 12, as shown by the gaps (one only in Figure 2) in lines 14 of adhesive so as to avoid interference with the envlope separating operation.

As shown in Figure 5, flap 34 may be provided with a line 36 of adhesive for sealing the closed flap in place. Such adhesive may be of a rewettable glue variety, or may be of a pressurized strip or the like overlying adhesive 36. Tape 37 is, of course, removed before flap 34 is folded prior to being sealed in place.

From the foregoing it can be seen that a simple and easy to operate yet highly effective stuffed sealed envelope assembly having a free and unattached insert immobilized therein has been constructed as having a reusable portion which may be closed and sealed so as to avoid the need for two items of correspondence otherwise required for a return mailing operation. The

reusable portion may be stuffed with insert 21 or a copy thereof upon the folding of same. Lines 27 and 28 of weakening may be disposed of the envelope farther to the left thereof when viewing Figure 4, as compared to that illustrated, so long as line 27 overlies a portion of the insert. And, the invention is not intended to be limited to a construction including a single insert sheet as illustrated, but may include a plurality of similarly constructed insert sheets and/or other types of insert material without departing from the scope of the invention.

Obviously, any other modifications and variations of the invention are made possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than specifically described.

WHAT WE CLAIM IS:

1. A stuffed sealed envelope assembly, comprising superimposed front and back plies, insert material having opposite side and end edges being captivated within the sealed envelope by registration means including chip elements in abutting engagement with and unattached to each of said side and end edges, lines of weakening in said plies dividing said plies into first and second sections, said first section overlying a portion of said second insert material to facilitate opening of the envelope and extraction of said insert material upon separation of said sections along said lines of weakening, and means adjacent one of said lines of weakening for closing said second section for use as a reusable envelope.

2. The envelope assembly according to claim 1, wherein said closing means comprises a reclosable flap, said lines of weakening being offset from one another and defining said flap in said second section.

3. The envelope assembly according to claim 2, wherein said flap has a quantity of glue thereon for sealing said second section upon use as a reusable envelope.

4. The envelope assembly according to claim 1, wherein said chip elements include severed portions of said insert material.

5. A stuffed sealed envelope assembly comprising superimposed front and back plies and insert material within the sealed envelope, said insert material having opposing side and end edges, means for immobilizing said insert material including fixed chip elements within the envelope

unattached to and abutting at least a portion of said side and end edges, said plies having lines of weakening therein spaced inwardly of one of said edges so as to delimit removable and reusable envelope portions together with the remainder of the envelope, and means adjacent one of said lines of weakening for closing said reusable envelope portion after said portions are separated along said lines of weakening.

6. The envelope assembly according to claim 5, wherein said lines of weakening are offset from one another so as to define said closing means as a flap in said reusable portion.

7. The envelope assembly according to claim 6, wherein said flap has a quantity of pressurized adhesive thereon for sealing said flap upon closing, and masking overlying said adhesive being removable preparatory to sealing.

8. The envelope assembly according to claim 6, wherein said chip elements comprise portions of said insert material severed therefrom.

9. A stuffed sealed envelope assembly constructed and arranged substantially as herein described with reference to the accompanying drawings.

FOR THE APPLICANTS

0001180

FIG. 1

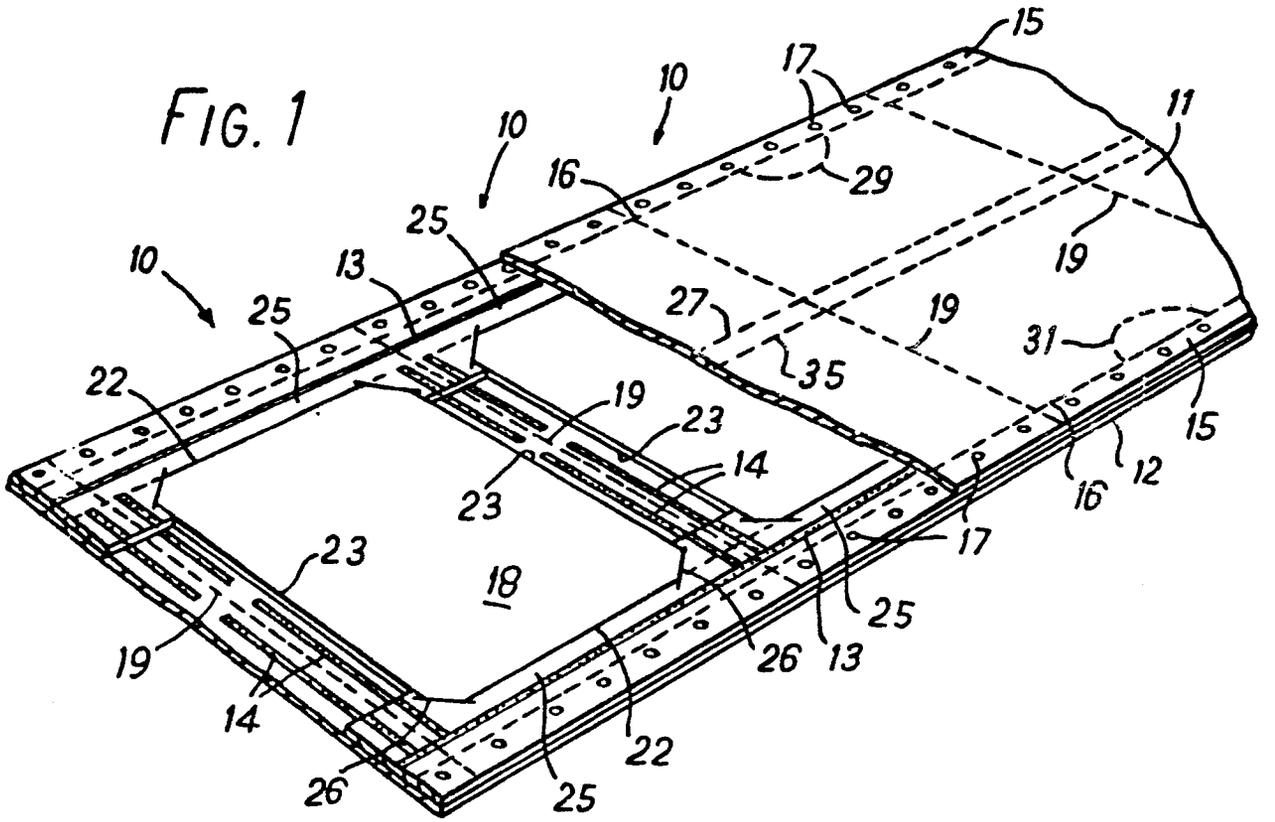


FIG. 2

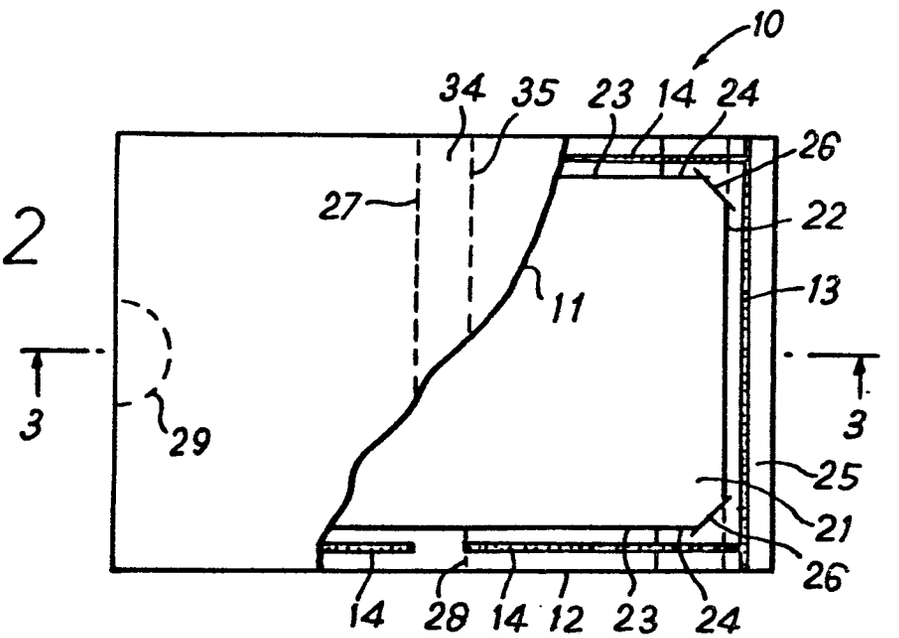


FIG. 3

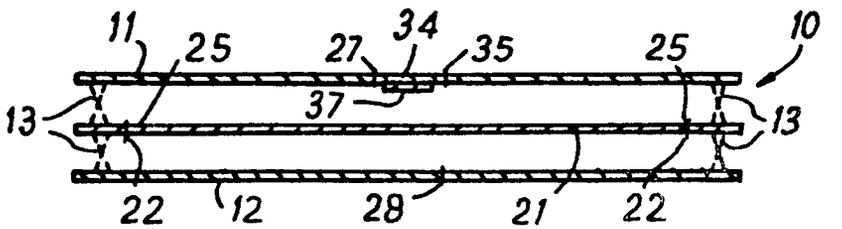


FIG. 4

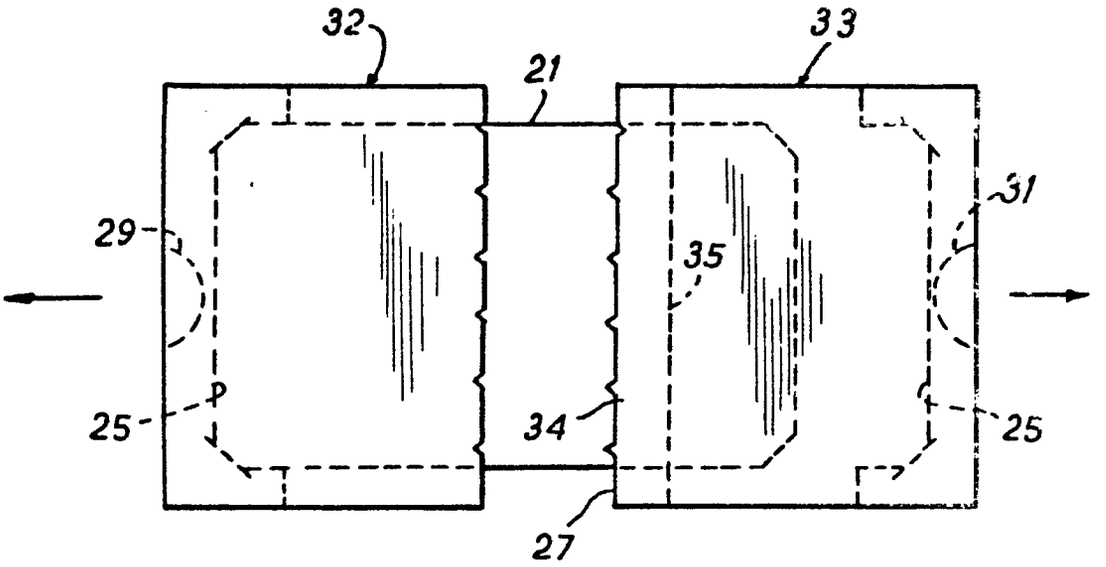
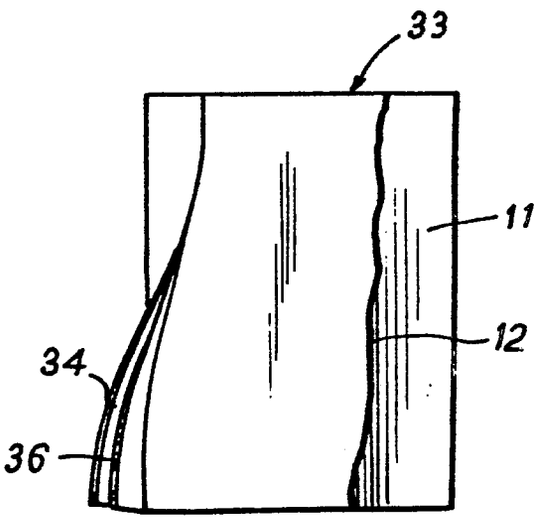


FIG. 5



European Patent Office

EUROPEAN SEARCH REPORT

Application number
EP 78 30 0360

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.²)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	B 65 D 27/06 27/10
	US - A - 3 062 431 (TIDE WATER OIL COMP.) * The whole document *	1-3,5,6,9	
D	US - A - 4 010 889 (At the name of the applicant) * The whole document *	1,4,5,8,9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.²) B 65 D 27/00 B 41 L

CATEGORY OF CITED DOCUMENTS

X: particularly relevant
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention
E: conflicting application
D: document cited in the application
L: citation for other reasons

&: member of the same patent family, corresponding document

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	08-12-1978	BAERT

EPO Form 1503.1 06.78