



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁵ : B65D 27/34</p>	<p>A1</p>	<p>(11) International Publication Number: WO 93/23302 (43) International Publication Date: 25 November 1993 (25.11.93)</p>
<p>(21) International Application Number: PCT/DK93/00160 (22) International Filing Date: 13 May 1993 (13.05.93) (30) Priority data: 0627/92 13 May 1992 (13.05.92) DK (71)(72) Applicant and Inventor: DAM, Erik [DK/DK]; Anemonevej 12, Laurbjerg, DK-8870 Langaa (DK). (74) Agent: GREGERSEN, N., H.; Aarhus Patentkontor, Skanderborgvej 40, DK-8000 Aarhus C (DK). (81) Designated States: AT, AU, BG, BR, CA, CH, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), ES, FI, GB, HU, JP, KP, KR, LU, NL, NO, NZ, PL, PT, RO, RU, SE, SK, SK (Utility model), UA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p>		<p>Published <i>With international search report. In English translation (filed in Danish).</i></p>
<p>(54) Title: ENVELOPE</p> <div style="text-align: center;"> </div> <p>(57) Abstract</p> <p>By an envelope (2) for forwarding letters and the like and of the type manufactured from a blank of paper or similar material by folding and glueing or welding, that is provided with a pocket-like cavity (4) and with a closing flap (6), which along a free end part is provided with a glue surface (8), and which at basis is provided with a folding line (14), the closing flap (6) between the glue surface (8) and the folding line (14) is provided with a perforation (16) stretching parallel to the free end edge of the closing flap. The envelope (2) is along a zone adapted to be glued together with the closing flap (6), provided with a second perforation (18) stretching parallel to said first perforation (16). In a simple manner it is hereby obtained that a new type of envelope, where the closing flap is provided with a reinforced tear-open strip, which between the perforations consists of at least two layers of paper, so that the envelope is easy to open in such a manner, that easy direct access for emptying the envelope is obtained.</p>		

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	FR	France	MR	Mauritania
AU	Australia	GA	Gabon	MW	Malawi
BB	Barbados	GB	United Kingdom	NL	Netherlands
BE	Belgium	GN	Guinea	NO	Norway
BF	Burkina Faso	GR	Greece	NZ	New Zealand
BG	Bulgaria	HU	Hungary	PL	Poland
BJ	Benin	IE	Ireland	PT	Portugal
BR	Brazil	IT	Italy	RO	Romania
CA	Canada	JP	Japan	RU	Russian Federation
CF	Central African Republic	KP	Democratic People's Republic of Korea	SD	Sudan
CG	Congo	KR	Republic of Korea	SE	Sweden
CH	Switzerland	KZ	Kazakhstan	SK	Slovak Republic
CI	Côte d'Ivoire	LK	Sri Lanka	SN	Senegal
CM	Cameroon	LI	Liechtenstein	SU	Soviet Union
CS	Czechoslovakia	LX	Luxembourg	TD	Chad
CZ	Czech Republic	MC	Monaco	TG	Togo
DE	Germany	MG	Madagascar	UA	Ukraine
DK	Denmark	ML	Mali	US	United States of America
ES	Spain	MN	Mongolia	VN	Viet Nam
FI	Finland				

Envelope

The present invention relates to an envelope for forwarding letters and the like, and of the type described in the introductory part of claim 1.

Envelopes for forwarding of letters shall according to the law keep some minimum demands, for instance it may be demanded, that an envelope not just may be opened and re-locked, without to be noticed.

Many envelopes of the mentioned type are provided as socalled self-adhesive with closing flaps with glue surfaces, which may be connected by folding together, as a latex-based type of glue preferably is used. However, this results in a poor sealing of the envelope, that is that it may be opened and re-locked without any marks.

The authorities and private companies, for instance financial institutions use more and more automatic envelope filling apparatuses for packing of periodic letters, for instance statement of accounts from financial institutions and the like. By means of modern automatic envelope filling apparatuses letters may be folded and inserted in envelopes, which then are closed and preferably sealed by means of the glue surface of the closing flap.

In connection with automatic envelope filling apparatuses envelopes with only one closing flap are used, which flap at basis often has a folding line in the form of a perforation, as the closing flap hereby is easier to fold mechanically for closing of the envelope. The closing flap is provided with a glue surface of "moisten glue", that is a type of glue, which in order to catch has to be moistened with water, and which gives a safe sealing of the envelope.

The purpose of the invention is to provide an envelope of the type described in the introductory part, and by means of which further advantages in the use may be added.

The envelope according to the invention is distinctive in, that the closing flap between the glue surface and folding line is provided with a perforation stretching parallel to the free end edge of the closing flap, and that the envelope along a second closing flap adapted to be glued together with said first closing flap is provided with a second perforation stretching parallel to said first perforation. In a simple manner it is hereby
5 obtained that a new type of envelope, where the closing flap is provided with a reinforced tear-open strip, which between the perforations consists of at least two layers of paper, so that the envelope is easy to open in such a manner, that easy direct access for emptying the envelope is obtained.

10

Preferably the envelope is such provided, that said first perforation is provided close along the glue surface of said first closing flap, and that the second perforation consists of a folding line for said second closing flap, which is provided with glue of a type being able to co-operate with the glue surface of said first closing flap.

15

Appropriately the envelope is such provided, that said perforations are mutual parallel and that the distance between said perforations is some 5 to 30 mm, preferably about 10 mm.

20 The invention is described in the following with reference to the drawing, in which:

Fig. 1 shows an embodiment for an envelope - seen from the back and with the closing flaps folded in,

25 Fig. 2 shows the envelope cf. Fig. 1 - seen from the back and with the closing flaps unfolded,

Fig. 3 shows the envelope cf. Fig. 1 - seen from the back and closed by folding together the glue surfaces of the closing flaps,

Fig. 4 shows a sectional view of a modified embodiment of the envelope cf. Fig. 1, where the tear-open strip is provided with a grip-tongue, and

Fig. 5 shows, how the envelope cf. Fig. 4 is opened by means of the tear-open strip or the grip-tongue.

The envelope 2 shown in Figs. 1 - 3 comprises a pocket part 4 and a first closing flap 6, which on the inner side is provided with a glue surface 8 of a glue type being adapted to catch with a glue surface 10 of a second closing flap 12, that is that the envelope preferably is so-called self-adhesive. The closing flap 6 is between an upper folding edge or line 14 and the glue surface 8 provided with a transverse perforation 16. A folding line 18 between the second closing flap 12 and the pocket part 4 also consists of a transverse perforation, so that - between the perforations 16 and 18, when the envelope 2 is closed during folding the closing flaps 6 and 12 (Fig. 3) - a reinforced tear-open strip 20 consisting of two layers of paper glued together is formed.

Fig. 4 shows, how the closing flap 6 in front of the tear-open strip 20 is provided with a grip-tongue 22, which as shown in Fig. 5 is used for the gripping in order to open the envelope 2 by tearing off the tear-open strip 20. In practice the grip-tongue 22 may rather not project over the short sides of the envelope.

To avoid breaking the tear-open strip 20 during opening of the envelope 2, the perforations - as per se known - may comprise inclined sheeter lines, which secure correct break direction by tearing off the material between the perforations 16 and 18.

25

The main aspect of the invention - safe tearing open of an envelope - may be obtained in other manners, as the tear-open strip of the envelope might be found in the sides of the envelope, where the tear-open strip also might consist of two layers of paper glued together.

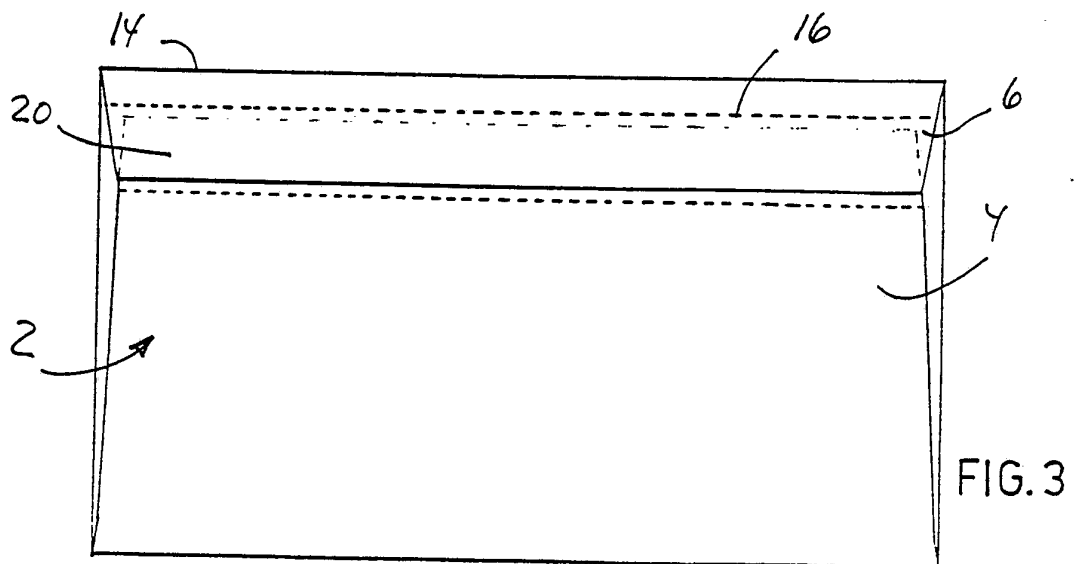
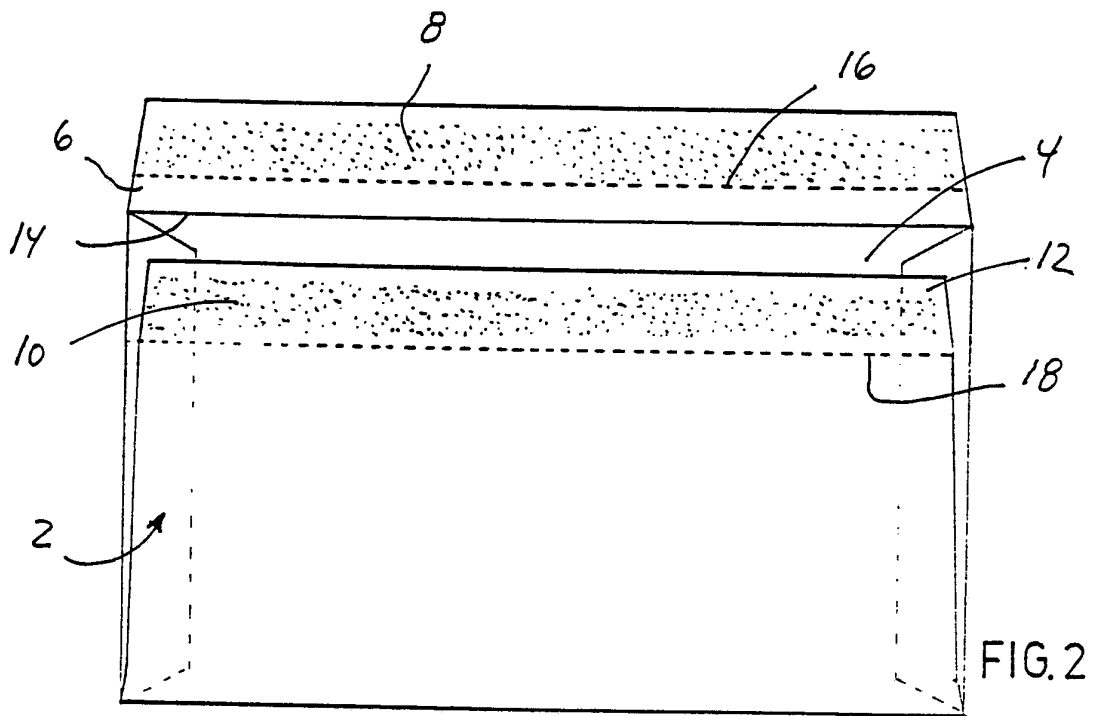
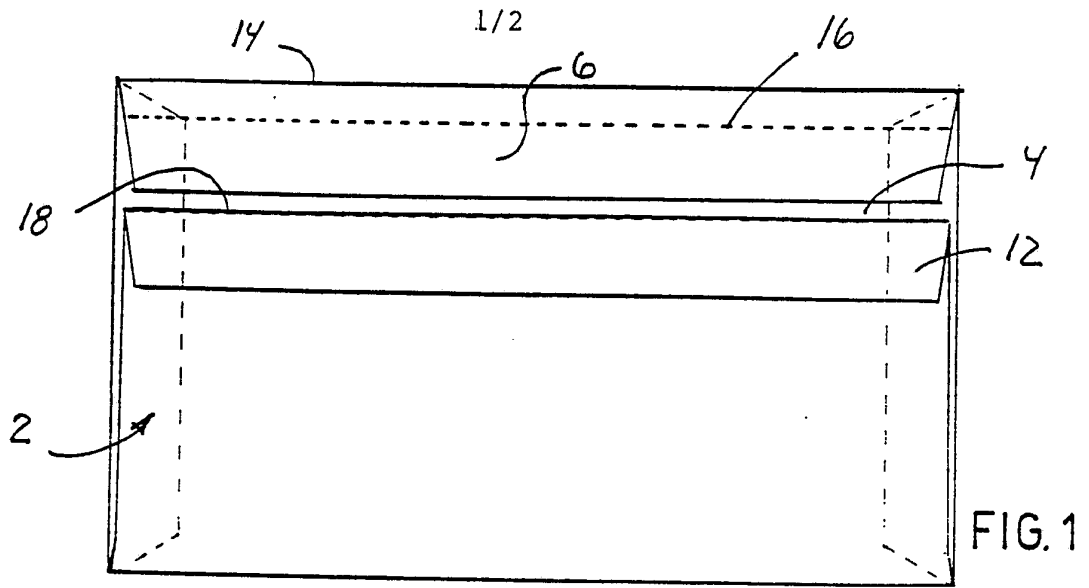
30

An envelope according to the invention might comprise two closing flaps, of which the first flap is provided with a strong adhesive glue surface, which temporarily is connected with a silicone coating, which along the closing flap is applied to the outside of the envelope. The second closing flap, which - if the occasion should arise - might comprise
5 said tear-open strip, does not need to be provided with glue surface. When the envelope has to be sealed, first said closing flap is loosened from the silicone coating, whereafter the envelope is closed and sealed effectively by folding together the closing flaps.

Of course it will also be within the scope of the invention, that only one of the closing
10 flaps is provided with a glue coating, for instance a strongly acting moisten glue.

CLAIMS

1. An envelope for forwarding letters and the like and of the type manufactured from a blank of paper or similar material by folding and glueing or welding, that is provided with a pocket-like cavity and with a closing flap, which along a free end part is provided with a glue surface, and which at basis is provided with a folding line, **c h a -**
5 **r a c t e r i z e d** in that the closing flap between the glue surface and the folding line is provided with a perforation stretching parallel to the free end edge of the closing flap, and that the envelope along a second closing flap adapted to be glued together with said first closing flap is provided with a second perforation stretching parallel to said first perforation.
- 10
2. An envelope according to claim 1, **c h a r a c t e r i z e d** in that said first perforation is provided close along the glue surface of said first closing flap, and that the second perforation consists of a folding line for said second closing flap, which is provided with glue of a type being able to co-operate with the glue surface of said first closing
15 flap.
3. An envelope according to claims 1 and 2, **c h a r a c t e r i z e d** in that said perforations are mutual parallel and that the distance between said perforations is some 5 to 30 mm, preferably about 10 mm.



2/2

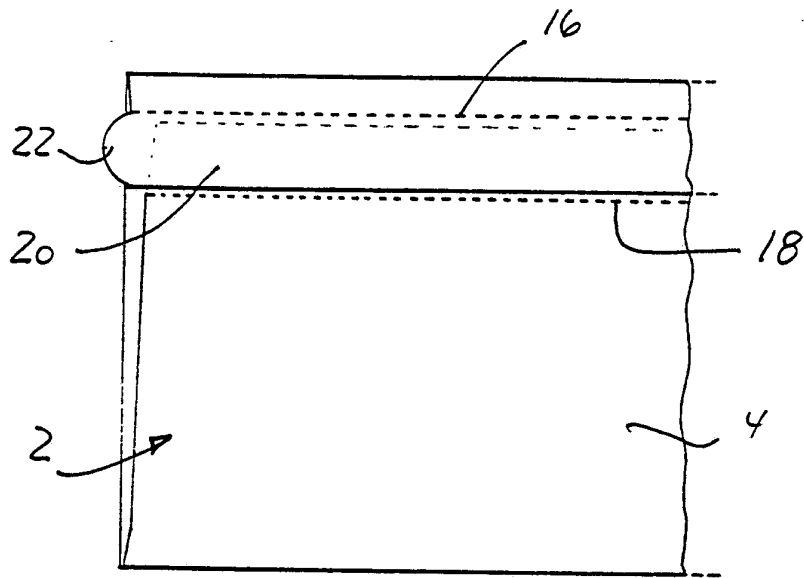


FIG. 4

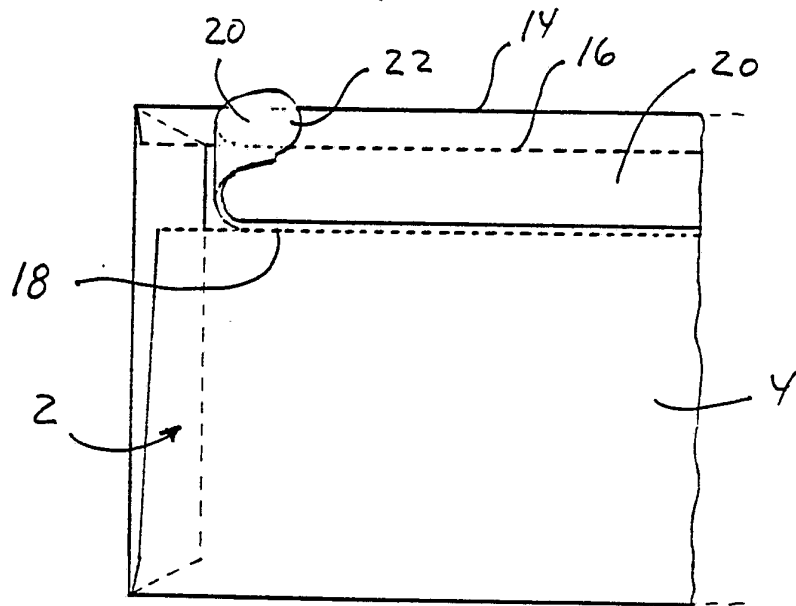


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.

PCT/DK 93/00160

A. CLASSIFICATION OF SUBJECT MATTER

IPC5: B65D 27/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC5: B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CH, A, 537313 (THOMAS WEBER), 13 July 1973 (13.07.73), column 1, line 24 - line 43, figures 1-3 --	1-3
A	US, A, 2074949 (W.E. SWIFT), 23 March 1937 (23.03.37) --	1
A	US, A, 2099303 (W. HOHWART), 16 November 1937 (16.11.37) -- -----	1

 Further documents are listed in the continuation of Box C.
 See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 August 1993

Date of mailing of the international search report

23 -08- 1993

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Authorized officer

Björn Lindkvist
Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT
Information on patent family members

02/07/93

International application No.
PCT/DK 93/00160

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CH-A- 537313	13/07/73	NONE	
US-A- 2074949	23/03/37	NONE	
US-A- 2099303	16/11/37	NONE	