



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 442 897 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
04.08.2004 Bulletin 2004/32

(51) Int Cl.7: **B42F 7/00**, B65D 27/30,
G09F 3/02, B42F 7/02

(21) Application number: **03425042.3**

(22) Date of filing: **29.01.2003**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PT SE SI SK TR**
Designated Extension States:
AL LT LV MK RO

(72) Inventor: **Alfonsi Gabriele**
60044 Fabriano (IT)

(74) Representative: **Modiano, Guido, Dr.-Ing. et al**
Modiano & Associati SpA
Via Meravigli, 16
20123 Milano (IT)

(71) Applicant: **Cartiere Miliani Fabriano S.p.A.**
00196 Roma (IT)

(54) **Envelope, particularly for containing sheets and the like, with tamper-evident seal**

(57) An envelope, particularly for containing sheets and the like, with tamper-evident seal, comprising an envelope-like containment body (1) that forms a pouch (2) for accommodating a plurality of sheets (10) that can be closed by an openable flap (3) that interacts with a fixed

flap (4). The particularity of the invention consists in that it comprises a tamper-evident seal (20) that bears a product identification code (22) and can be arranged on the openable flap (3) and on the fixed flap (4). The seal cannot be restored once opened.

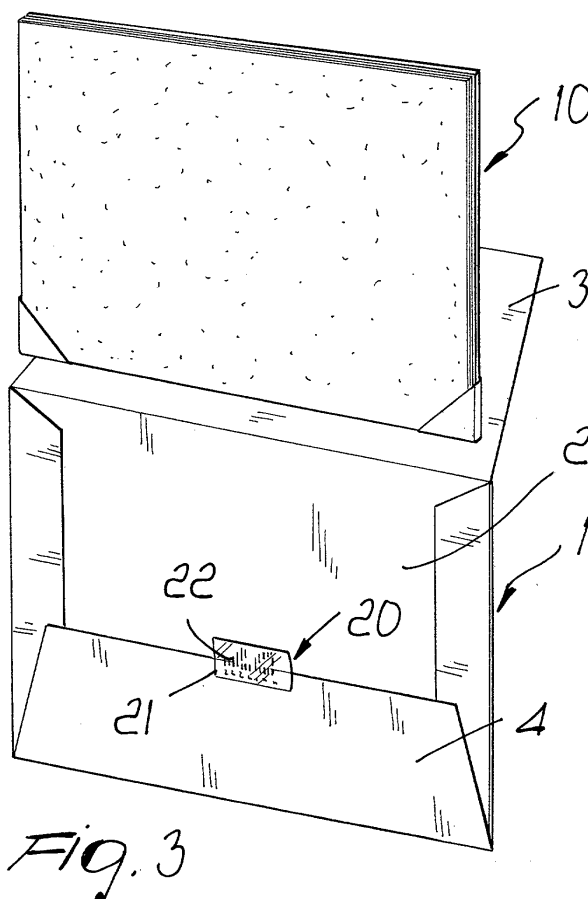


Fig. 3

EP 1 442 897 A1

Description

[0001] The present invention relates to an envelope, particularly for containing sheets and the like, with tamper-evident seal.

[0002] As is known, one problem that is currently strongly felt in the distribution of commercial products placed in envelopes and the like relates to the assurance that the envelope has not been fraudulently or unintentionally opened, possibly tampering with its content.

[0003] Considering in particular the field of envelopes or folders that contain drawing sheets or the like, currently the envelope has an openable flap, which in the closed position can be arranged below a fixed flap.

[0004] With a packaging of this kind, therefore, currently it is not possible to detect whether the envelope has been opened fraudulently or unintentionally, and therefore it cannot be ruled out immediately that sheets have been removed from the envelope or that for example the sheets contained therein have been dirtied.

[0005] Application of pieces of adhesive tape in order to connect one another the fixed flap and the openable flap has been found to be unable to fully solve the problem, since any unauthorized opening cannot be easily detected visually and verified by the buyer.

[0006] The aim of the invention is to solve the described problem, by providing an envelope, particularly for containing sheets and the like, with a tamper-evident seal, that allows to give great assurances of security regarding the complete integrity of the envelope and of its content.

[0007] Within this aim, a particular object of the invention is to provide a containment envelope in which unauthorized opening can be verified easily by an automatic apparatus, which accordingly informs the buyer immediately of the fact that unauthorized opening has occurred.

[0008] Another object of the present invention is to provide a containment envelope that thanks to its particular constructive characteristics is capable of giving the greatest assurances of reliability and safety in use.

[0009] Another object of the present invention is to provide a containment envelope that can be obtained easily starting from commonly commercially available elements and materials and is also competitive from a merely economical standpoint.

[0010] This aim and these and other objects that will become better apparent hereinafter are achieved by an envelope, particularly for containing sheets and the like, with tamper-evident seal, comprising an envelope-like containment body that forms a pouch for accommodating a plurality of sheets that can be closed by an openable flap that interacts with a fixed flap, characterized in that it comprises a tamper-evident seal that can be arranged on said openable flap and on said fixed flap and which cannot be restored once opened.

[0011] Further characteristics and advantages will be-

come better apparent from the description of a preferred but not exclusive embodiment of a containment envelope, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a schematic perspective view of a containment envelope for drawing sheets that is intact and in the closed position;

Figure 2 is a schematic view of the step of the opening of the envelope;

Figure 3 is a view of the step of the extraction of the contained sheets;

Figure 4 is a view of the envelope in the fraudulently closed condition; and

Figure 5 is an enlarged-scale view of the detail of the tamper-evident seal after it has been tampered with.

[0012] With reference to the figures, the envelope, particularly for containing sheets and the like, with tamper-evident seal, according to the invention, comprises an envelope-like containment body, generally designated by the reference numeral 1, which is advantageously made of paper-like material and forms internally a seat or pouch 2 that can be closed by an openable flap 3 that interacts with a fixed flap 4.

[0013] A plurality of drawing sheets, generally designated by the reference numeral 10, can be accommodated removably within the seat 2.

[0014] The particular feature of the invention consists in that there is a tamper-evident seal, generally designated by the reference numeral 20, which is constituted by a self-adhesive label 21 that bears a code, for example a bar code 22.

[0015] In the closed position, with the package intact, as shown in Figure 1, the bar code is perfectly readable by ordinary equipment provided at the point of sale.

[0016] Once opening occurs, the product identification code, constituted for example by the bar code 22, being provided on the self-adhesive part of the label, is in practice destroyed, remaining partly connected to the label and partly connected to one of the flaps to which it had been applied; therefore, when the envelope is fraudulently closed again, it is not possible to restore completely the tamper-evident seal and accordingly the equipment provided at the cash registers to recognize the product on sale are unable to read the label and therefore it becomes evident also to the buyer that the package has been tampered with.

[0017] From the above description it is evident that the invention achieves the intended aim and objects, and in particular the fact is stressed that the provision of a tamper-evident seal constituted by a self-adhesive label that bears the product identification code allows to make any tampering immediately detectable and does not allow fraudulent restoring of the initial conditions.

[0018] Furthermore, the high degree of security achieved is obtained by using particularly simple

means, constituted as mentioned by a simple self-adhesive label that bears the product identification code.

[0019] The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims.

[0020] All the details may further be replaced with other technically equivalent elements.

[0021] In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to requirements.

[0022] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such reference signs do not have any limiting effect on the scope of each element identified by way of example by such reference signs.

Claims

1. An envelope, particularly for containing sheets and the like, with tamper-evident seal, comprising an envelope-like containment body (1) that forms a pouch (2) for accommodating a plurality of sheets (10) that can be closed by an openable flap (3) that interacts with a fixed flap (4), **characterized in that** it comprises a tamper-evident seal (20) that can be arranged on said openable flap (3) and on said fixed flap (4) and cannot be restored once opened.
2. The containment envelope according to claim 1, **characterized in that** said tamper-evident seal (20) bears the product identification code (22).
3. The containment envelope according to one or more of the preceding claims, **characterized in that** said tamper-evident seal (20) is constituted by a self-adhesive label (21).
4. The containment envelope according to one or more of the preceding claims, **characterized in that** said self-adhesive label (21) bears the product identification code (22) arranged at the adhesive layer so that it separates when it is detached from the flap (3) of the envelope-like containment body (1) to which it is applied.
5. The containment envelope according to one or more of the preceding claims, **characterized in that** said product identification code is constituted by a bar code (22).

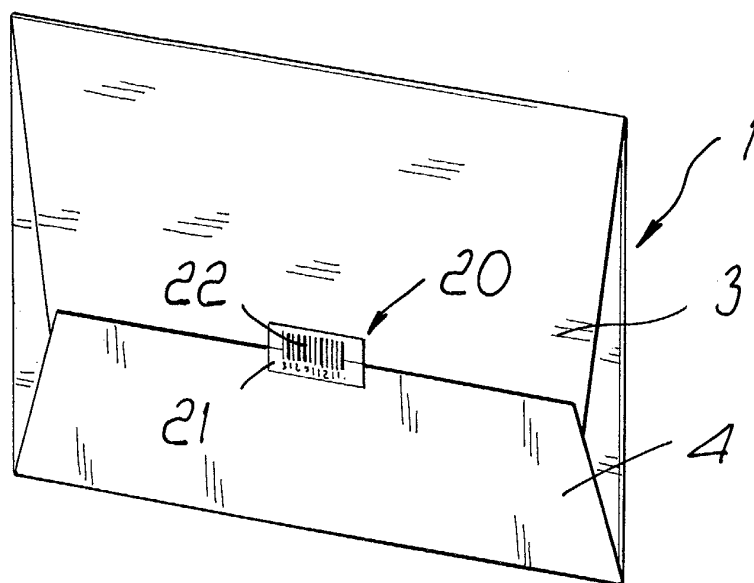


Fig. 1

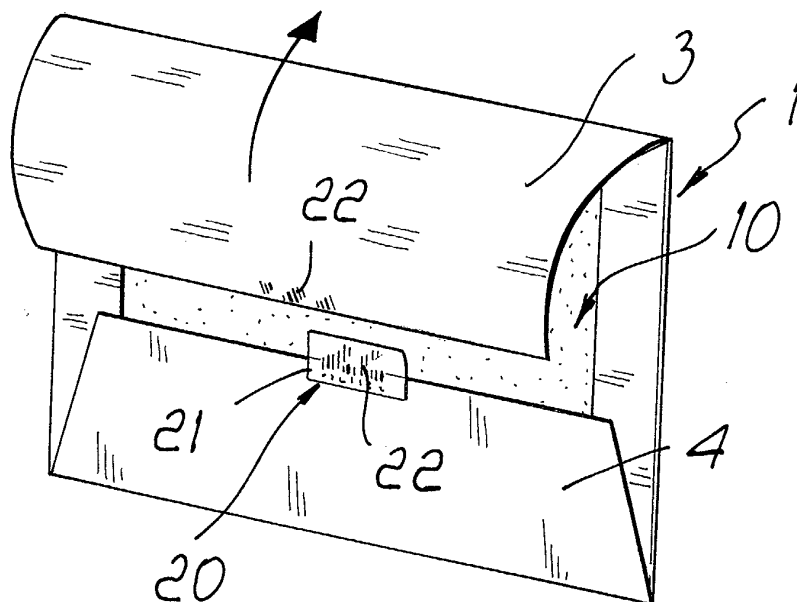


Fig. 2

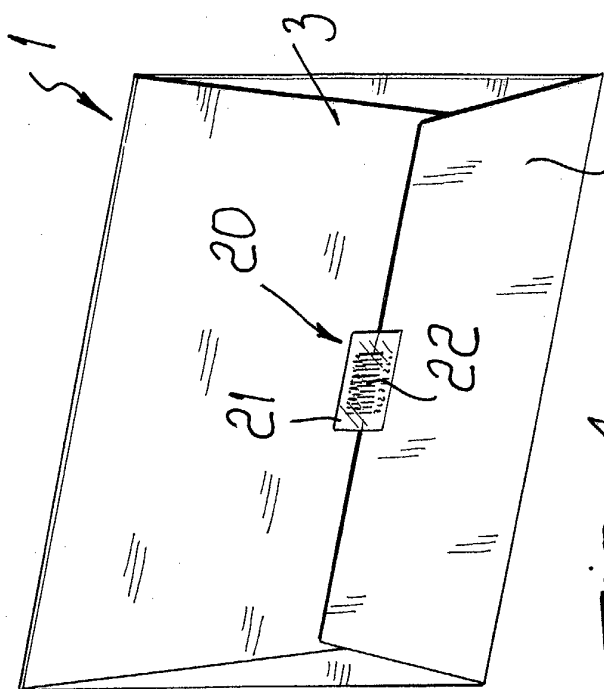


Fig. 4

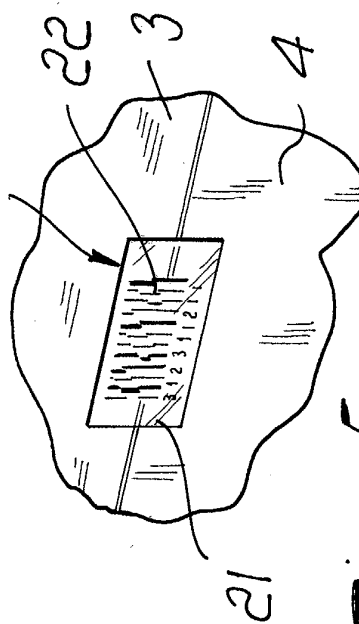


Fig. 5

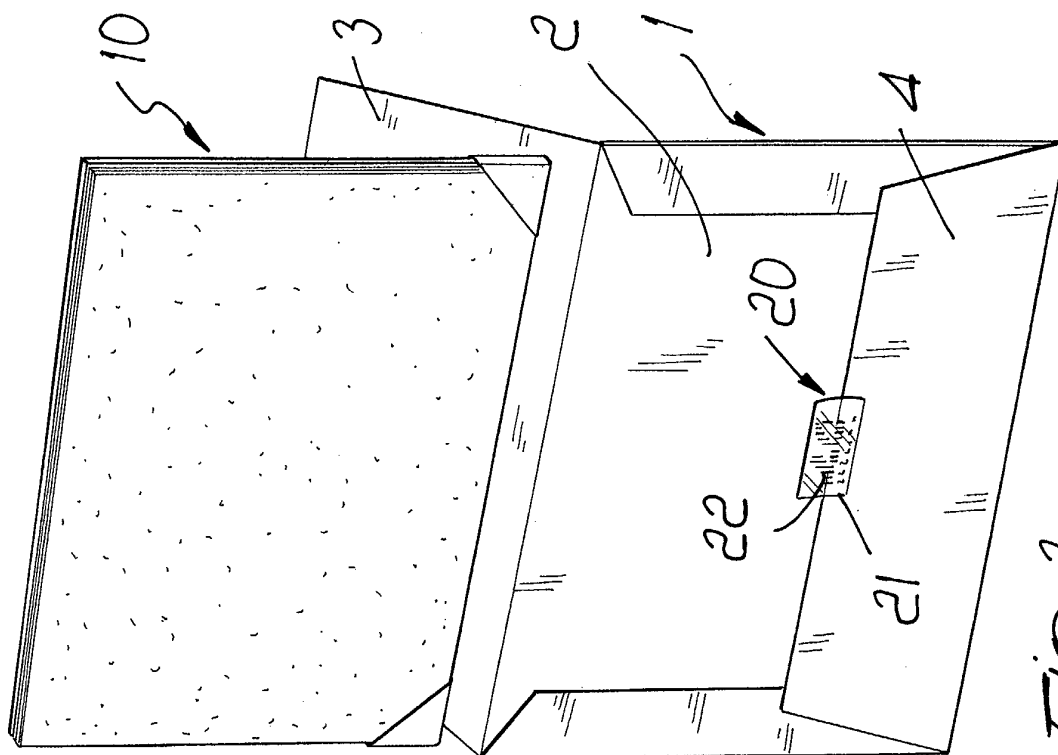


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 42 5042

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 2001/003396 A1 (FARREN NICHOLAS ERNEST) 14 June 2001 (2001-06-14) * page 1, paragraph 7 - page 1, paragraph 16; figures *	1-5	B42F7/00 B65D27/30 G09F3/02 B42F7/02
X	WO 93 19445 A (TRIGON IND LTD) 30 September 1993 (1993-09-30) * page 4, line 21 - page 5, line 24; figures 2,3 *	1-5	
A	US 5 077 001 A (MAKOWKA KENNETH R) 31 December 1991 (1991-12-31) * column 6, line 22 - column 6, line 52; figure 4 *	1-5	
A	EP 1 056 066 A (ARCA ETICHETTE SPA) 29 November 2000 (2000-11-29) * the whole document *	1-5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B42F B65D G09F
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 4 June 2003	Examiner Louvion, B
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 42 5042

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-06-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2001003396 A1	14-06-2001	AU 1553697 A	22-08-1997
		EP 0880770 A1	02-12-1998
		WO 9728522 A1	07-08-1997

WO 9319445 A	30-09-1993	AU 3759493 A	21-10-1993
		WO 9319445 A1	30-09-1993

US 5077001 A	31-12-1991	CA 1334955 A1	28-03-1995
		CA 1338065 A1	20-02-1996
		GB 2225311 A ,B	30-05-1990
		GB 2258214 A ,B	03-02-1993
		NZ 231439 A	25-09-1991
		US 5391136 A	21-02-1995
		US 5405197 A	11-04-1995

EP 1056066 A	29-11-2000	IT MI990341 U1	27-11-2000
		IT MI992007 A1	27-03-2001
		EP 1056066 A2	29-11-2000
