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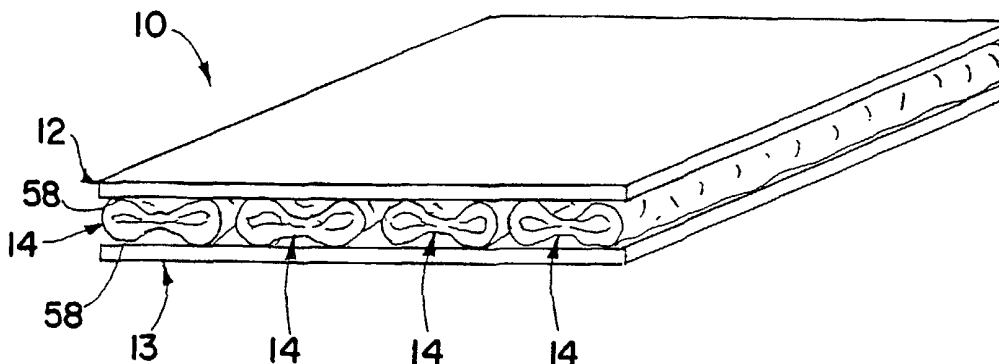
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PACKING PRODUCT AND APPARATUS AND METHOD FOR MANUFACTURING SAME



(57) Abstract: A packing product and apparatus and method for manufacturing same are disclosed. The packing product (10) includes at least one face sheet (12) and at least one crumpled sheet pad (14) attached to the face sheet. A package (90) and method of packaging an article are also disclosed, the package including a container (c), one or more crumpled sheet pads (74) positioned in the container (c), one or more face sheets (72) positioned adjacent to the crumpled sheet pads (74), and an article positioned in the container (c) in at least partial abutting relation to the one or more face sheets (72). The one or more face sheets (72) may have portions that are folded to envelop the article. Also, the face sheet (112) may include an opening (116) having a pattern corresponding to a shape of the article (A). A pad producing apparatus (460) includes a dunnage supply machine (470) for supplying a strip of dunnage (472), a folding device (476) for forming a fold line (540) in and transverse to the strip of dunnage (472), and a capture chute (480) for guiding and accumulating the folded strip of dunnage (472) so that a first layer (548) downstream of the fold line (540) overlaps a second layer (544) upstream of the fold line (540), thereby forming an accordion-like pad.

WO 01/089936 A3



INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/16738

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B65D81/127 B31D5/00		
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) IPC 7 B65D B65B B31D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, 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	WO 98 15472 A (ASTON PACKAGING LTD ;MORLEY TIMOTHY CORBEN (GB)) 16 April 1998 (1998-04-16) page 2, paragraph 3; figures 1-6	1-3,5-9, 30,31, 37-39, 68,69
A	---	76
X	WO 99 32371 A (WEIPPERT HELMUT) 1 July 1999 (1999-07-01) page 5, line 6 - line 11; figures 2,3	1-3,5-9, 12,14, 15,37
A	---	76
A	DE 299 00 303 U (RAINER HANISCH INDUSTRIEVERTRE) 1 April 1999 (1999-04-01) page 1, last paragraph -page 2, paragraph 1	1

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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		
<input checked="" type="checkbox"/> Patent family members are listed in 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 10 December 2001		Date of mailing of the international search report 15. 04. 2002
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Spettel, J

INTERNATIONAL SEARCH REPORT

Internal Application No
PCT/US 01/16738

3.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 198 02 087 A (REICHENECKER HANS STOROPACK) 22 July 1999 (1999-07-22) figures ---	1,37
A	US 3 096 879 A (SCHUMACHER STANLEY P) 9 July 1963 (1963-07-09) figures ---	1,37
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 655 (M-1721), 12 December 1994 (1994-12-12) & JP 06 255676 A (KAWAKAMI SANGYO KK), 13 September 1994 (1994-09-13) abstract ---	1
A	US 6 053 324 A (WEDER DONALD E) 25 April 2000 (2000-04-25) column 2, line 33 - line 43 column 2, line 58 - line 65; figure 126 -----	1,37,76

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/16738

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-72,76

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-72,76

product, use and method of manufacturing the product composed of a sheet and an attached crumpled sheet including the special technical feature over the prior art according to W0 98 15472 A wherein the crumpled sheet includes a ply folded on itself

2. Claims: 73-75

Packaging method involving placing a crumpled sheet, a face sheet and an article in a container

3. Claims: 77-90

Packaging method involving placing a crumpled sheet onto a sheet, folded around an article

4. Claims: 91, 93-112

An apparatus for producing a zig-zag folded dunnage product

5. Claim : 92

An apparatus for producing a dunnage product out of a sheet

INTERNATIONAL SEARCH REPORT

information on patent family members

Inter. Application No PCT/US 01/16738
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