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(54) **Separation element for packing bottles into boxes.**

(57) Dividers for enabling articles such as bottles and bunches of grapes to be shipped in a manner which utilizes space economically comprise blanks of cardboard or like material which have a series of crease lines across them. Some crease lines form valleys when the blanks are folded and others form ridges. In some forms the crease lines converge and diverge in such manner that generally triangular shipping spaces are provided between adjacent ridges. When bottles are to be shipped, the bottles can be arranged in two oppositely arranged series with the necks intermeshed along the centre zone of the box. In another form each of a number of parallel crease lines has a first part which forms a ridge and a second part which forms a valley. A zig-zag crease line (24) which forms a ridge extends transversely of the blank (10). The parallel crease lines change from ridge (16,22) to valley (18,20) at an apex of the zig-zag crease line, and, on each side of the zig-zag crease line, crease lines which form valleys alternate with crease lines that form ridges.

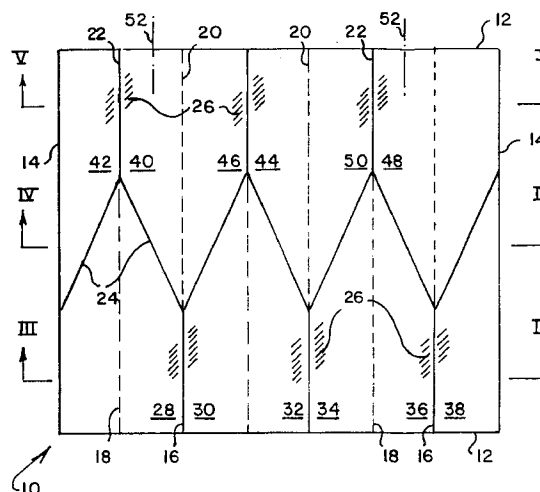


FIG. 1



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# EUROPEAN SEARCH REPORT

Application Number

EP 92 31 0619

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.5)
X A Y	FR-A-1 521 839 (EMBALLAGE INDUSTRIEL) * figures * ---	1,3,4,7 6 2,5	B 65 D 5/48
Y	FR-A-1 253 303 (CASSARD) * figures * ---	2	
Y A	DE-U-9 106 244 (MEURER) * page 1, line 1 - page 1, line 7; claim 1; figures * ---	5 6	
A	DE-A-2 818 888 (LAFARGE-EMBALLAGE) * page 11, line 19 - page 12, line 30; claim 1; figures * ---	8	
A	FR-A-1 539 148 (BROUSSE) * figures * -----	8	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 01-03-1993	Examiner NEWELL P G
<p><b>CATEGORY OF CITED DOCUMENTS</b></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</p> <p>&amp; : member of the same patent family, corresponding document</p>			

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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

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- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,

namely claims: 1-8



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**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-8 : A box divider folded from a planar blank
2. Claims 9-11: Variously dimensioned sleeve to protect a bottle