AU9522286

(12) PATENT ABRIDGMENT (11) Document No. AU-B-22286/95
(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 689576

(54) Title
TOP GRIPPING ARTICLE CARRIER

International Patent Classification(s)
(51)[6] **B66C 001/10** **B65D 075/00**

(21) Application No. : **22286/95** (22) Application Date : **22.03.95**

(87) PCT Publication Number : **WO95/25691**

(30) Priority Data

(31) Number	(32) Date	(33) Country
9405674	**22.03.94**	**GB UNITED KINGDOM**

(43) Publication Date : **09.10.95**

(44) Publication Date of Accepted Application : **02.04.98**

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(56) Prior Art Documents
US 3640563
US 5320216
US 4407212

(57) Claim

1. An article carrier for holding together a plurality of articles, said carrier comprising:

upper and lower opposed walls interconnected by a pair of spaced side walls so as to form a tubular structure, said lower wall including a pair of wall-forming panel portions foldably joined respectively to said side walls and disposed adjacent to each other to form said lower wall; and

an upstanding internal partition structure interposed between said side walls and connecting between said upper and lower walls, said partition structure being formed from material which in blank form is disposed and connects between said wall-forming panel portions,

wherein one of said wall-forming panel portions is provided with a foldable glue flap secured to an inside surface of one of said side walls whereby said carrier is held in a tubular form.

OPI DATE 09/10/95 APPLN. ID 22286/95
AOJP DATE 23/11/95 PCT NUMBER PCT/US95/03506

AU9522286

(51) International Patent Classification 6 :
B66C 1/10, B65D 75/00

A1

(11) International Publication Number: WO 95/25691

(43) International Publication Date: 28 September 1995 (28.09.95)

(21) International Application Number: PCT/US95/03506

(22) International Filing Date: 22 March 1995 (22.03.95)

(30) Priority Data:
9405674.4 22 March 1994 (22.03.94) GB

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(81) Designated States: AU, BR, CA, CN, CZ, FI, HU, JP, KR, MX, NO, NZ, PL, RU, SG, SK, UA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

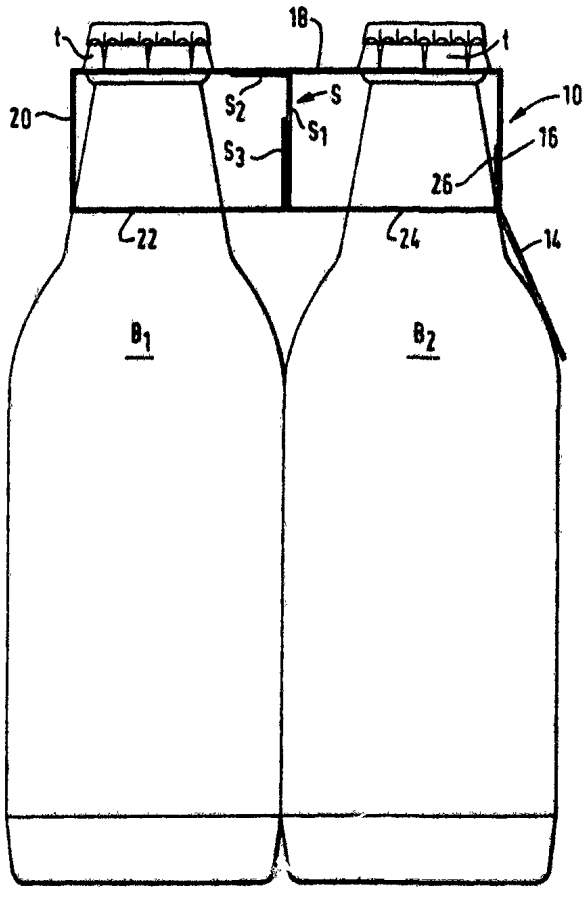
Published
With international search report.

689576

(54) Title: TOP GRIPPING ARTICLE CARRIER

(57) Abstract

An article carrier (10) for holding together a plurality of articles such as bottles (B1, B2). The carrier comprises opposed upper and lower walls (18, 22, 24) interconnected by spaced side walls (16, 20). Each of the upper and lower walls has a plurality of article receiving apertures (A). The apertures in the lower wall are in register with the apertures in the upper wall. The carrier has a billboard panel (14) depending from one of the side walls (16) and an internal partition structure(s) interconnecting the upper and lower walls. The partition structure is formed from material interposed between tow adjacent wall-forming portions (22, 24) of said lower wall. The partition structure comprises a pair of mutually hinged panel elements (S1, S3) disposed in face to face contacting relationship to provide an upstanding part of the partition structure when the carrier is in a set-up condition.



TOP GRIPPING ARTICLE CARRIER

Background of the Invention

This invention relates to an article carrier of the so called top gripping type which is particularly, although not exclusively, suitable for holding together a plurality of bottles at the neck portions of the bottles in two or more rows.

Top gripping carriers for bottles are well known. For example, U.S. Patent No. 2,823,063 discloses a top engaging carrier having an internal double ply reinforcing partition. One of the partition-forming panels has a glue flap that extends from the bottom wall and is attached to the top wall of the carrier.

U.S. Patent No. 4,318,476 discloses a top-engaging carrier having a so called billboard panel depending from one of the side walls. The billboard panel is normally used for carrying sales information and/or for advertising. In blank form, the carrier has its billboard panel at one end of the blank.

U.S. Patent No. 5,135,104 discloses a top engaging carrier having a billboard panel and an upstanding reinforcing structure formed from a pair of mutually hinged panels. When the carrier is in blank form, the hinged panels are located between a pair of wall-forming panels.

Accordingly, so called billboard panels per se or partitions per se are known in the art as is shown in the above references. However, none of the references alone or in combination suggest forming a partition from a pair of hinged panels for the purpose of providing a top engaging carrier with a partition together with a billboard panel.

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Summary of the Invention

In a broad form the present invention provides an article carrier for holding together a plurality of articles, said carrier comprising:

upper and lower opposed walls interconnected by a pair of spaced side walls so as to form a tubular structure, said lower wall including a pair of wall-forming panel portions foldably joined respectively to said side walls and disposed adjacent to each other to form said lower wall; and

an upstanding internal partition structure interposed between said side walls and connecting between said upper and lower walls, said partition structure being formed from material which in blank form is disposed and connects between said wall-forming panel portions,

wherein one of said wall-forming panel portions is provided with a foldable glue flap secured to an inside surface of one of said side walls whereby said carrier is held in a tubular form.

According to a feature of this aspect of the invention, the partition structure may comprise a pair of first and second interconnected panel elements foldably joined respectively to the wall-forming panel portions. The panel elements may be disposed in flat face contacting relationship with each other and provide an upstanding part of the partition structure when carrier is in a set up condition. Preferably, the partition structure further comprises a third panel element foldably joined to the upper edge of one of the first and second panel elements. Such a third panel element is secured to the upper wall.

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According to another feature of this aspect of the invention, one of the wall-forming panel portions may have an outer side edge disposed along the one side wall to which the billboard panel is joined, and the one wall-forming panel may be provided with a glue flap foldably joined thereto along the outer side edge of the one wall-forming panel portion. The glue flap is secured to the one side wall and thereby the one wall-forming panel is connected to the one side wall.

Brief Description of the Drawings

A preferred form of the present invention will now be described by way of example with reference to the accompanying drawings, wherein:

Figure 1 is a plan view of a paper board blank from which an article carrier according to the invention is made; and

Figure 2 is a schematic vertical cross-section of the article carrier showing it applied to a plurality of bottles.

Detailed Description of the Preferred Embodiment

Referring to the drawings, an article carrier 10 of the top gripping type is formed from a blank 12 of paper board or similar foldable sheet material, the blank comprising a series of panels hinged one to the next along transverse fold lines. Thus, the blank comprises a billboard panel 14, a first side wall panel 16, a top wall panel 18, and a second side wall panel 20, a first wall-

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forming panel portion 22, a composite partition structure S which comprises panel elements S1, S2, and S3, a second wall-forming panel portion 24 and a glue flap 26 hinged one to the next along transverse fold lines 28, 30, 32, 34, 36, 38, 40, 42 and 44 respectively. This particular article carrier is intended to be applied to a group of four bottles arranged in two rows of two bottles each as depicted in figure 2 by references B1 and B2, respectively. Thus, the top wall panel 18 includes an array of so called sun-burst apertures A1-A4 in which the upper neck portions of the bottles are to be received. As is known, such sun-burst apertures each include an annular array of tabs "t" which engage beneath the rim of the crown cork or other top fastener of the bottle to secure the neck of the bottle in the carrier.

Each of the base panels 22 and 24 include a pair of apertures A5; A6 and A7; A8, respectively which, when the carrier is put into its set up condition as shown in figure 2, are brought into register with respective pairs of the apertures in the top wall panel 18. In order to facilitate carrying the loaded carrier the top wall panel 18 includes a finger hole H and the panel element S1 also includes a finger hole H1.

In order to form the carrier from the blank shown in Figure 1, the glue flap 26 is adhered to the lower portion of side wall panel 16 adjacent the billboard panel 14 and the partition structure S is set up so that the panel element S1 is upstanding parallel to the glue flap 26, the side wall 16 and the panel element S3. The panel element S2 is foldably joined to the uppermost edge 38 of the panel element S1 and is folded through approximately 90 about fold line 38 and secured to the underside of the top panel 18. The panel element S3, which is foldably joined along interrupted fold line 40 to the panel element S1 on either side of the panel element S2 is folded downwardly through approximately 180 into face to face contacting relationship with the lower portion of the panel element

S1. Hence when the panel elements of the partition structure are set up, the two wall-forming panel portions 22 and 24 shown in Figure 1 of the drawings, are brought together whereby the internal partition structure S is disposed between them.

When the carrier is in its set up condition as shown in Figure 2, the billboard panel 14 is able to depend downwardly against the shoulders of one pair of bottles to provide a panel on which sales and/or advertising material can be displayed to view. The internal partition structure, which is of multi-ply form, is thus formed from material disposed intermediately between the ends of the blank but is strong enough to brace the carrier for use.

The carrier is able to fold into a flat collapsed condition for transport and supply in a direction to the left of the observer as viewed in Figure 2 of the drawings.

The claims defining the invention are as follows:

1. An article carrier for holding together a plurality of articles, said carrier comprising:

upper and lower opposed walls interconnected by a pair of spaced side walls so as to form a tubular structure, said lower wall including a pair of wall-forming panel portions foldably joined respectively to said side walls and disposed adjacent to each other to form said lower wall; and

an upstanding internal partition structure interposed between said side walls and connecting between said upper and lower walls, said partition structure being formed from material which in blank form is disposed and connects between said wall-forming panel portions,

wherein one of said wall-forming panel portions is provided with a foldable glue flap secured to an inside surface of one of said side walls whereby said carrier is held in a tubular form.

2. An article carrier according to claim 1, wherein said partition structure comprises a pair of first and second panel elements foldably joined respectively to said wall-forming panel portions, said panel elements being foldably connected together along a common fold line and being disposed in flat face contacting relationship with each other to provide an upstanding part of said partition structure when said carrier is in a set up condition.

3. An article carrier according to claim 2, wherein said partition structure further comprises a third panel element foldably joined to an upper edge of one of said first and second panel elements, said third panel element being secured to said upper wall.

4. An article carrier according to claim 1, further comprising a billboard panel depending from one of said side walls, said billboard panel being joined to a lower edge of said one side wall.

5. An article carrier according to claim 1, wherein each of said upper and lower walls has a plurality of article-receiving apertures, said apertures in said upper wall being disposed in register respectively with said apertures in said lower wall.

6. An article carrier for holding together a plurality of articles, substantially as hereinbefore described with reference to the accompanying drawings.

Dated 6 January, 1998
The Mead Corporation
Patent Attorneys for the Applicant/Nominated Person
SPRUSON & FERGUSON

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FIG. 1

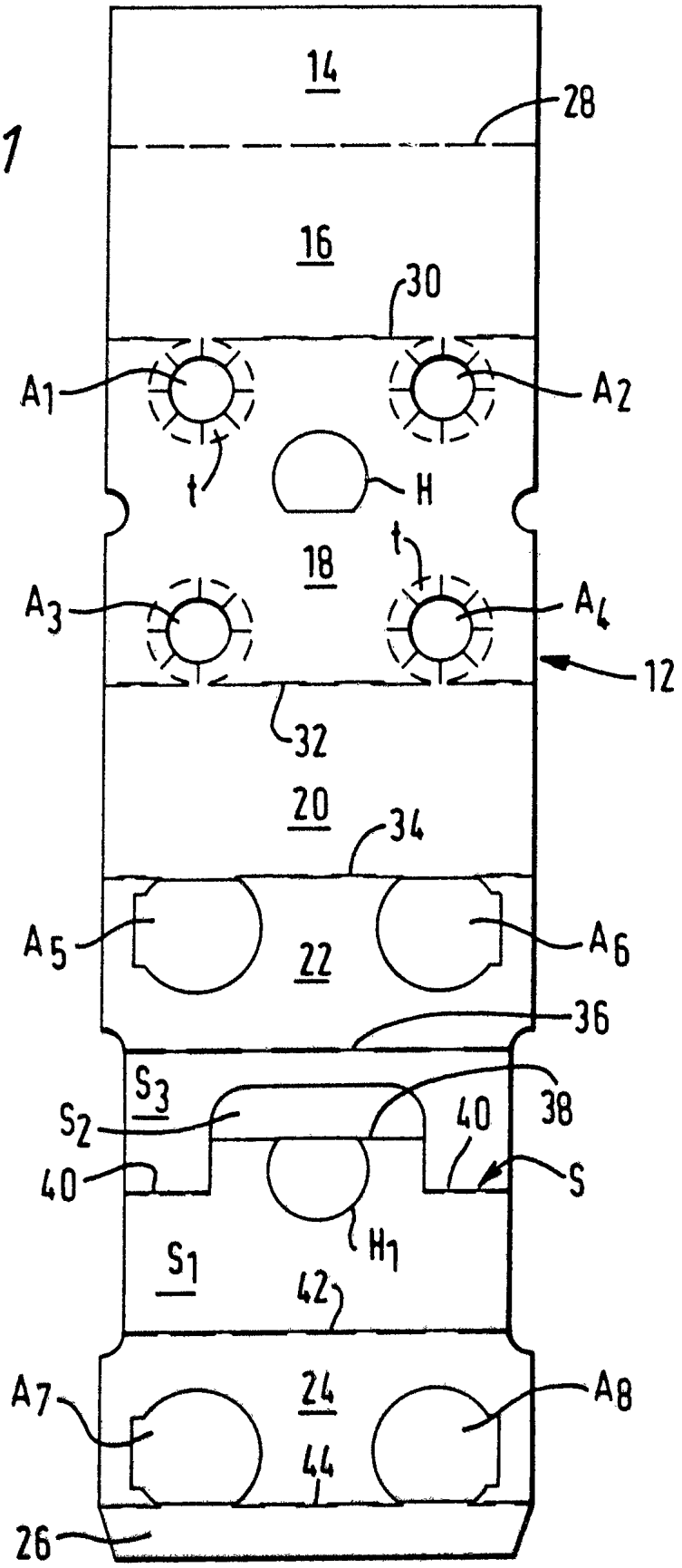
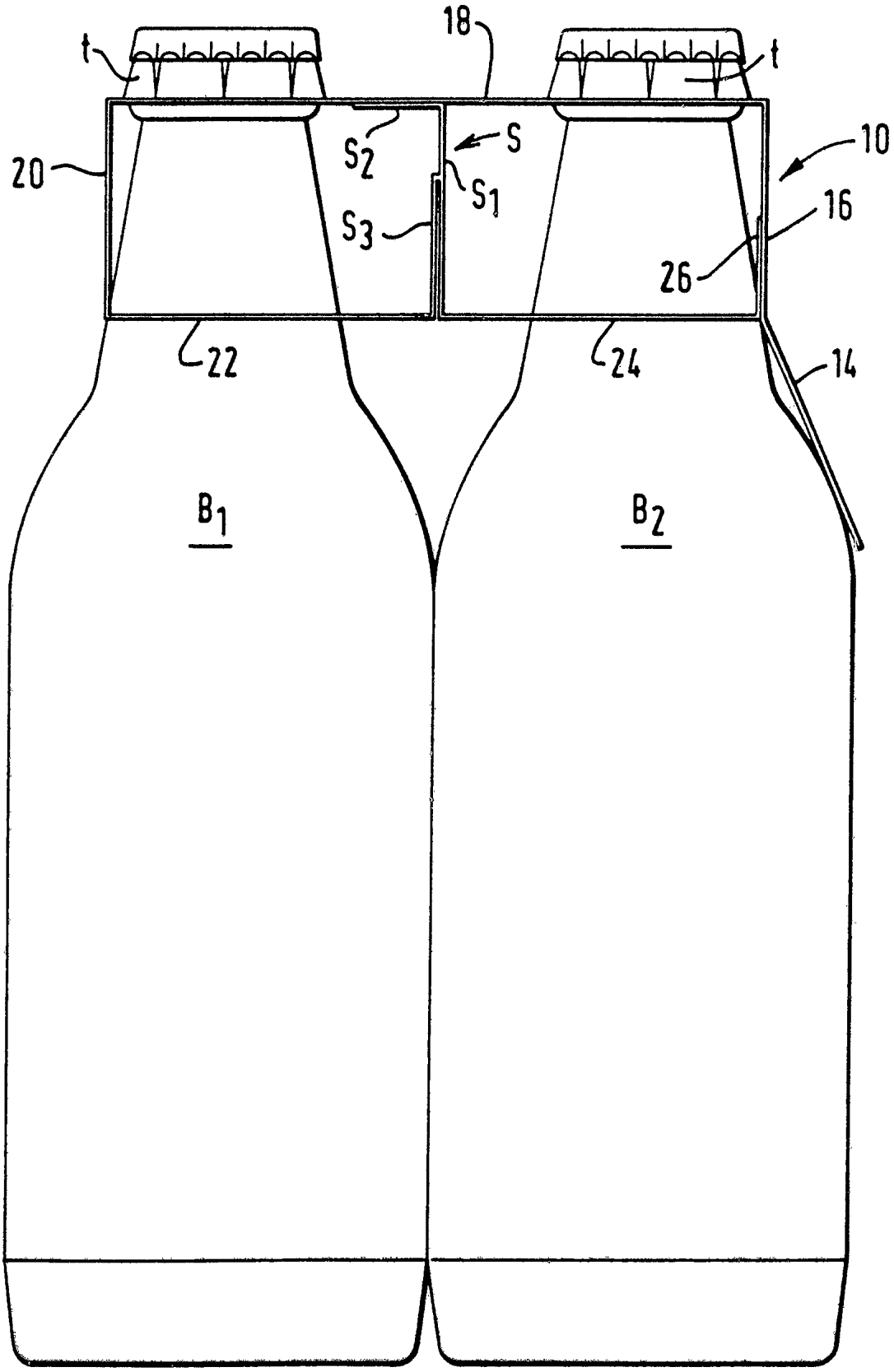

14
28
16
30
A1
A2
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H
t
18
A3
A4
12
32
20
34
A5
22
A6
36
S3
S2
40
38
40
S
H1
S1
42
24
A7
A8
44
26

FIG. 2



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/03506

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :B66C 1/10; B65D 75/00
US CL :294/87.2; 206/158
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)

U.S. : Please See Extra Sheet.

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 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	US, A, 3,640,563 (WOOD) 08 February 1972, Figure 2 and col. 1, lines 44-73.	7, 8
Y, P	US, A, 5,320,216 (PANGBORN) 14 June 1994, Figures 6 and 7, col. 3, line 64 through col. 5, line 25.	1-3, 5
Y	US, A, 2,330,699 (FLAMM) 28 September 1943, col. 2, line 34 through col. 3, line 69.	1, 2, 5, 6
Y	US, A, 4,401,212 (FISCHER) 30 August 1983, col. 3, lines 6-12.	1-6

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

*	Special categories of cited documents:	"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
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier document published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search	Date of mailing of the international search report
21 MAY 1995	02 JUN 1995
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer BRYON GEHMAN Telephone No. (703) 308-3866

Form PCT/ISA/210 (second sheet)(July 1992)*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/03506

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US, A, 3,528,697 (WOOD) 15 September 1970, col. 2, lines 8-16.	4
A	US, A, 3,834,750 (GAUNTLETT) 10 September 1974.	
A	FR, A, 2,098,585 (TAILLEUR) 10 March 1972.	

B. FIELDS SEARCHED
Minimum documentation searched
Classification System: U.S.

294/87.2; 206/147-149, 151-153, 158, 161