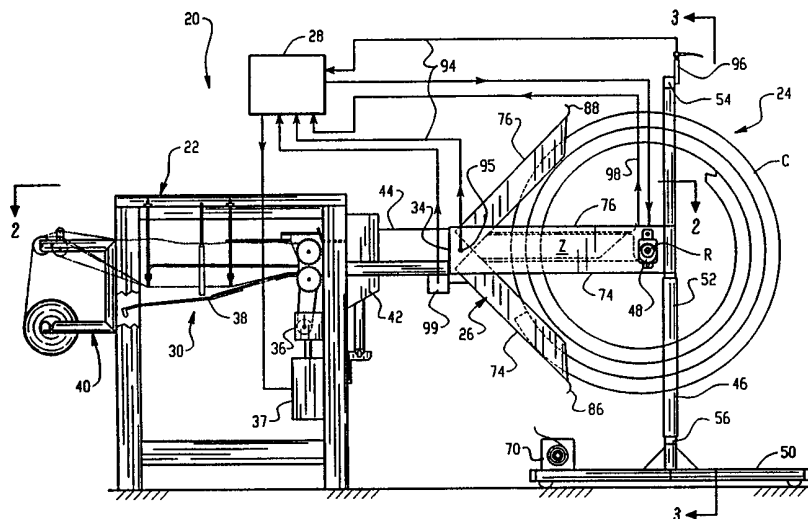




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(22) International Filing Date: 27 October 1998 (27.10.98)		Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
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(71) Applicant (for all designated States except US): RANPAK CORP. [US/US]; 7990 Auburn Road, Concord Township, OH 44077 (US).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): RATZEL, Richard, O. [US/US]; 1751 Taylor's Mill Turn, Westlake, OH 44145 (US). SIMMONS, James, A., Jr. [US/US]; 340 Fanwood Drive, Painesville Township, OH 44077 (US). HARDING, Joseph, J. [US/US]; 7817 Ruthland Drive, Mentor, OH 44060 (US). LINTALA, Edward, W. [US/US]; 7165 Kory Court, Concord, OH 44077 (US). MANLEY, Thomas, E. [US/US]; 7105 Hayes Boulevard, Mentor, OH 44060 (US).		(88) Date of publication of the international search report: 12 August 1999 (12.08.99)	
(74) Agent: BULSON, Don, W.; Renner, Otto, Boisselle & Sklar, 19th floor, 1621 Euclid Avenue, Cleveland, OH 44115 (US).			

(54) Title: CUSHIONING CONVERSION SYSTEM AND METHOD FOR MAKING A COIL OF CUSHIONING PRODUCT



(57) Abstract

A cushioning conversion system (20; 120; 320) and method for making a coil of cushioning product, including a cushioning conversion machine (22; 122; 322) and a coiler (24; 124; 224; 324). As a strip of cushioning product (S) is emitted from the cushioning conversion machine (22; 122; 322), the coiler (24; 124; 224; 324) rolls the strip of cushioning product (S) into a coiled configuration to form a coil of cushioning product (C). The coiler (24; 124; 224; 324) is adapted to allow the coil of cushioning product (C) to be removed in its coiled configuration. The cushioning conversion system may also include a guide device (26; 326), which guides the strip of cushioning product from the cushioning conversion machine's outlet (34) to the coiler (24; 124; 324), and/or a controller (28; 328), which controls the coiler (24; 124; 224; 324) based on the production of the cushioning conversion machine (22; 122; 322).

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/22726

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B31D5/00 B65H18/08 B65H18/10

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 6 B31D B65H

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.
Y	US 4 237 776 A (OTTAVIANO GARY W) 9 December 1980 cited in the application see column 7, line 3 - line 23; figure 1 ---	1-3,85, 86
Y	US 4 161 298 A (DAVIS DARYL) 17 July 1979 see abstract ---	1,2,85
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A	US 5 533 689 A (CHALFANT MICHAEL G) 9 July 1996 ---	1,85
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

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- *Z* document member of the same patent family

Date of the actual completion of the international search

27 January 1999

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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

ROBERTS, P

INTERNATIONAL SEARCH REPORT

International Application No

PC1, JS 98/22726

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BE 1 003 899 A (BOCK ANTOON DE) 7 July 1992	1,85
A	EP 0 143 452 A (DEERE & CO) 5 June 1985	1,85

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/ 22726

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. Claims 1-56,85,86 Cushioning conversion system for making a coil of dunnage and controlling the system
 2. Claims 57-84,87 Cushioning conversion system and guide mechanism for coiling the product
-
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.:

1-56, 85,86

Remark on Protest

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

INTERNATIONAL SEARCH REPORT

In relation on patent family members

International Application No

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