

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/065760 A3

- (51) International Patent Classification:
A45F 3/04 (2006.01) A45F 3/10 (2006.01)
A45F 3/08 (2006.01)
- (21) International Application Number:
PCT/US2005/044959
- (22) International Filing Date:
13 December 2005 (13.12.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/636,224 15 December 2004 (15.12.2004) US
11/285,953 23 November 2005 (23.11.2005) US
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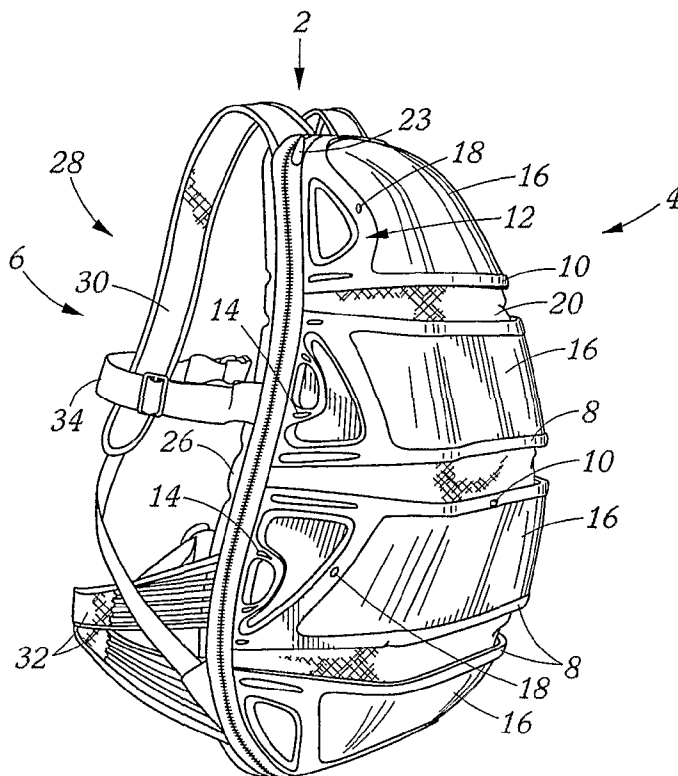
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

(88) Date of publication of the international search report:
24 May 2007

[Continued on next page]

(54) Title: BACKPACK WITH SEGMENTED CONSTRUCTION BODY PROTECTING FEATURES



(57) Abstract: Backpacks, even those for outdoors sports, generally comprise an envelope of relatively flaccid textile material attached to a structured back-engaging frame, board or pad. Extreme sports such as skiing, motorbike racing, snow boarding, hell-skiing and such would benefit from greater protection to the person's back, as well as to the contents of the backpack. The disclosed backpack (2) includes a segmented and shaped back board (40) which permits limited flexing in certain directions to help protect the user's back from overextension. The container or packing portion (24) of the backpack (2) has corresponding rigid segments (16) interconnected by flexible textile portions (20). The segmented packing portion (24) and the segmented safety board (40) work together to protect both the contents of the backpack (2) and the back of the user.

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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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/44959

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **A45F 3/04(2006.01),3/08(2006.01),3/10(2006.01)**

 USPC: 224/629,644
 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. : 224/629,644,628,630,631,634,633

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 --- Y	FR 2646998 A1 (PANHELLEUX et al.) 23 November 1990 (23.11.1990), see entire document	1-15, 19-26, 29-30, 34, 41 ----- 27-28, 31-33, 35-38, 40, 47-48
X	US 5,366,126 A (DAUSIEN) 22 November 1994 (22.11.1994), see entire document	7-10, 15-19, 39, 41
Y	US 5,573,166 A (LEJA) 12 November 1996 (12.11.1996), see entire document	27-28, 35-38, 40
Y	US 5,762,243 A (McMASTER et al.) 09 June 1998 (09.06.1998), see entire document	31-33
Y	US 3,902,640 A (GEIBEN) 02 September 1975 (02.09.1975), see entire document	47-48

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

* Special categories of cited documents:	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	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
"E" earlier application or patent published on or after the international filing date	"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
"I" 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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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 16 January 2007 (16.01.2007)	Date of filing of the international search report 20 FEB 2007
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner of Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <i>Nathan Newhouse</i> Telephone No. 571-272-4544

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/44959

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

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

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

2. Claim 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. Claim 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:
Please See Continuation Sheet

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.: 1-41,47 and 48

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

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-41, 47-48 the backboard being connected to the shell by straps

Group II: Claims 1-40, 42, 47-48 the backboard being connected to the shell by molded portions

Group III: Claims 1-40, 43, 47-48 the backboard being connected to the shell by mating frame portions

Group IV: Claims 1-40, 44, 47-48 the backboard being connected to the shell by tongue and groove mechanisms

Group V: Claims 1-40, 45-48 the backboard being connected to the shell by reinforced zippers

The inventions listed as Groups 1-5 *do not* relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the recitation to the connecting mechanisms is broad and encompassing. The patentability relies on the specificities of each of the mechanisms as set forth in the dependent claims 41-45.