



(12) **United States Patent**
Hilliard et al.

(10) **Patent No.:** **US 9,295,319 B1**
(45) **Date of Patent:** ***Mar. 29, 2016**

(54) **LOAD CARRIER SYSTEMS AND ASSOCIATED MANUFACTURING METHODS**

(71) Applicant: **Blue Force Gear, Inc.**, Pooler, GA (US)

(72) Inventors: **Stephen G. Hilliard**, Charleston, SC (US); **Ashley A. Burnsed, Jr.**, Port Wentworth, GA (US)

(73) Assignee: **BLUE FORCE GEAR, INC.**, Pooler, GA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/247,167**

(22) Filed: **Apr. 7, 2014**

Related U.S. Application Data

(63) Continuation of application No. 13/163,347, filed on Jun. 17, 2011, now Pat. No. 8,720,762.

(51) **Int. Cl.**
A45F 5/00 (2006.01)
A45F 5/02 (2006.01)

(52) **U.S. Cl.**
CPC *A45F 5/00* (2013.01); *A45F 5/02* (2013.01)

(58) **Field of Classification Search**
USPC 224/675, 674, 930
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,919,946 A 1/1960 Miener
3,460,207 A 8/1969 Stewart

4,796,790 A 1/1989 Hamilton
4,836,428 A 6/1989 Evans et al.
5,042,113 A 8/1991 Severson et al.
5,352,855 A 10/1994 Potter
5,630,536 A 5/1997 Bugnaski
5,724,707 A 3/1998 Kirk et al.
6,056,300 A 5/2000 Carpenter et al.
6,152,343 A 11/2000 Shin
6,158,642 A 12/2000 Herbage
6,209,769 B1 4/2001 Seals et al.
6,224,070 B1 5/2001 Carpenter et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CZ WO 2009052769 4/2009

OTHER PUBLICATIONS

Pals Connection Styles <<http://milspecmonkey.com/customize/info/71-pals-connection-styles>>, Jul. 8, 2009, 3 pages.

(Continued)

Primary Examiner — Justin Larson

(74) *Attorney, Agent, or Firm* — Langlotz Patent & Trademark Works, Inc.; Bennet K. Langlotz

(57) **ABSTRACT**

Embodiments of the invention relate to load carrier systems and associated manufacturing methods. In one embodiment, a load carrier system can include a unitary piece of material. The unitary piece of material can include a body portion comprising a first face side, an opposing face side, a first peripheral edge and an opposing second peripheral edge; and one or more straps comprising a respective extended end, wherein the straps are an integral part of the body portion; wherein the one or more straps are folded over onto the first face side adjacent to the first peripheral edge; and wherein at least one respective end of the one or more straps is fastened to the opposing second peripheral edge.

21 Claims, 23 Drawing Sheets

