



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

(10) **Patent No.:** **US 8,328,042 B2**  
(45) **Date of Patent:** **Dec. 11, 2012**

(54) **VESSEL PORT CONFIGURED FOR USE WITH A GLOVE BAG**

(75) Inventors: **Thomas M. Canty**, Williamsville, NY (US); **Richard Marinelli**, Tonawanda, NY (US)

(73) Assignee: **J.M. Canty, Inc.**, Buffalo, NY (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 852 days.

(21) Appl. No.: **12/353,771**

(22) Filed: **Jan. 14, 2009**

(65) **Prior Publication Data**  
US 2010/0176132 A1 Jul. 15, 2010

(51) **Int. Cl.**  
**B65D 25/54** (2006.01)  
**B65D 43/26** (2006.01)  
**B65D 51/00** (2006.01)  
**H02G 3/14** (2006.01)

(52) **U.S. Cl.** ..... **220/663**; 220/242; 220/263; 220/377  
(58) **Field of Classification Search** ..... 312/1; 220/377, 220/336, 316, 263, 262, 242; 277/390, 392, 277/393

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,736,937	A *	3/1956	Knapp	.....	164/461
3,356,254	A *	12/1967	Becker	.....	312/1
3,907,389	A *	9/1975	Cox et al.	.....	312/1
4,089,571	A *	5/1978	Landy	.....	312/1

4,111,808	A *	9/1978	Fair	.....	210/197
4,746,178	A *	5/1988	Canty	.....	362/576
4,809,862	A *	3/1989	Canty	.....	220/663
5,141,125	A *	8/1992	Canty et al.	.....	220/820
5,672,168	A *	9/1997	de la Torre et al.	.....	606/1
6,359,742	B1 *	3/2002	Canty et al.	.....	359/894
6,485,467	B1 *	11/2002	Crook et al.	.....	604/174
6,782,184	B2 *	8/2004	Canty et al.	.....	385/138
2003/0103756	A1 *	6/2003	Canty et al.	.....	385/138
2004/0066509	A1 *	4/2004	Canty et al.	.....	356/246

\* cited by examiner

*Primary Examiner* — Mickey Yu

*Assistant Examiner* — Kaushikkumar Desai

(74) *Attorney, Agent, or Firm* — Leydig, Voit & Mayer, Ltd.

(57) **ABSTRACT**

A port and closure device for a vessel that is configured for use with a glove bag. The port comprising includes a first annular flange with an opening, a second annular flange disposed a predetermined distance from the first flange and also having an opening, and a seal ring disposed adjacent the first annular flange and having an additional opening. At least a portion of the openings are aligned so that a path is provided through the flanges and the seal ring. A slideable door is included in the port between the seal ring and the second annular flange. The slideable door has a first position that obstructs the path and a second position that is outside of the path. Springs are disposed between the first flange and the seal ring that urge the seal ring toward the slideable door. To reduce contamination sites, the springs may be sealed within an annular interface between the first annular flange and the seal ring. Alternatively, or in addition, a funnel pipe may be used with the port disposed in the openings of the first and second flange and the seal ring. The port may also include an adapter configured to hold a glove bag thereon.

**20 Claims, 8 Drawing Sheets**

