

(12) **United States Patent**
Carse

(10) **Patent No.:** **US 9,409,696 B2**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **MULTI-CHAMBER CONTAINER**
(71) Applicant: **COLGATE-PALMOLIVE COMPANY**, New York, NY (US)
(72) Inventor: **Paul Donald Carse**, Milford, NJ (US)
(73) Assignee: **Colgate-Palmolive Company**, New York, NY (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.

(21) Appl. No.: **14/443,601**
(22) PCT Filed: **Nov. 19, 2012**
(86) PCT No.: **PCT/US2012/065750**
§ 371 (c)(1),
(2) Date: **May 18, 2015**
(87) PCT Pub. No.: **WO2014/077844**
PCT Pub. Date: **May 22, 2014**

(65) **Prior Publication Data**
US 2015/0274399 A1 Oct. 1, 2015

(51) **Int. Cl.**
B65D 25/08 (2006.01)
B65D 81/32 (2006.01)
(Continued)
(52) **U.S. Cl.**
CPC **B65D 81/3288** (2013.01); **B65D 35/22** (2013.01); **B65D 35/242** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC B65D 25/08; B65D 5/24; B65D 35/22;
B65D 35/242; B65D 81/3283; B65D 81/3288
USPC 206/219-222, 568; 215/6, DIG. 8;
222/129, 145.5, 145.6, 153.14, 207
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
1,848,846 A 3/1932 Schell
2,876,935 A * 3/1959 Lindberg F41H 9/10
222/145.5

(Continued)
FOREIGN PATENT DOCUMENTS
GB 1 180 427 2/1970
JP S6197139 6/1986
(Continued)

OTHER PUBLICATIONS
International Search Report and the Written Opinion of the International Searching Authority issued in International Application PCT/US2012/065750 mailed Jul. 29, 2013.

Primary Examiner — Luan K Bui

(57) **ABSTRACT**
Provided is a multi-chamber container for dispensing flowable substances, comprising: a body having: a first storage chamber for storing a first flowable substance, a second storage chamber for storing a second flowable substance, a mixing chamber, a first inlet that fluidly connects the first storage chamber with a first portion of the mixing chamber, and a second inlet that fluidly connects the second storage chamber with a second portion of the mixing chamber; and a closure having a divider, wherein the closure is movable relative to the body between: (a) a first position, at which the divider isolates the first portion of the mixing chamber from the second portion of the mixing chamber and the closure is spaced from the first and second inlets, and (b) a second position, at which the first portion of the mixing chamber is in fluid communication with the second portion of the mixing chamber.

24 Claims, 7 Drawing Sheets

