



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (51) International Patent Classification <sup>6</sup> :<br><b>B65D 33/16, 77/20</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>A2</b> | (11) International Publication Number: <b>WO 98/50279</b><br>(43) International Publication Date: 12 November 1998 (12.11.98)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>(21) International Application Number: PCT/US98/09216</p> <p>(22) International Filing Date: 6 May 1998 (06.05.98)</p> <p>(30) Priority Data:<br/>             08/853,773      9 May 1997 (09.05.97)      US<br/>             08/854,246      9 May 1997 (09.05.97)      US<br/>             08/854,247      9 May 1997 (09.05.97)      US</p> <p>(71) Applicant: THE PROCTER &amp; GAMBLE COMPANY<br/>[US/US]; One Procter &amp; Gamble Plaza, Cincinnati, OH 45202 (US).</p> <p>(72) Inventors: RANDALL, Catherine, Jean; 3105 York Lane, Cincinnati, OH 45215 (US). MEYER, Eric, Walter; 27 Worthington Avenue, Wilmington, OH 45215 (US).</p> <p>(74) Agents: REED, T., David et al.; The Procter &amp; Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).</p> |           | <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/> <i>Without international search report and to be republished upon receipt of that report.</i></p> |

(54) Title: FLEXIBLE, COLLAPSIBLE, SELF-SUPPORTING STORAGE BAGS AND CONTAINERS

## (57) Abstract

The present invention provides a flexible storage bag (10) comprising at least one sheet of flexible sheet material assembled to form a semi-enclosed container having an opening defined by a hinged peripheral flange (31). The hinged flange includes a closure means for sealing the opening to convert the semi-enclosed container to a closed container. When the bottom is placed on a horizontal surface the container is self-supporting and maintains the opening in an open condition. The present invention also provides a collapsible, stackable, self-restorable container (101) comprising a unitary continuous tubular side wall having a first open end and a second open end defining an axial direction extending through the first and second open ends. The tubular sidewall is collapsible in response to an externally-applied force exerted in its axial direction and is self-restorable when the force is removed. A lid (401) attached to the tubular side wall for selectively converting the semi-enclosed container to a closed container completes the storage container, and a closure means is provided for sealing the lid to the tubular sidewall.

