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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 December 2007 (06.12.2007)

PCT

(10) International Publication Number
WO 2007/140216 A3

(51) International Patent Classification:
B65D 33/18 (2006.01)

(21) International Application Number:
PCT/US2007/069560

(22) International Filing Date: 23 May 2007 (23.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/441,517 26 May 2006 (26.05.2006) US

(71) Applicant: **EXCEL PACKAGING** [US/US]; 25 Jefferson Avenue SE, Grand Rapids, MI 49503 (US).

(72) Inventor: **ABEL, James**; 622 West Poplar Avenue, Suite 5, Collierville, TN 38017 (US).

(74) Agent: **BEISER, Robert S.**; Vedder Price Kaufman & Kammholz, 222 N. LaSalle Street, #2500, Chicago, IL 60601 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, 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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW.

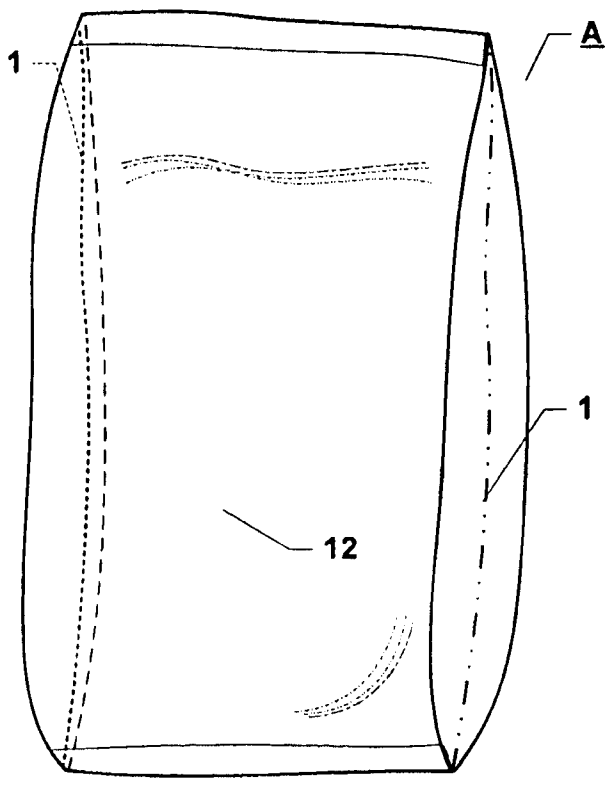
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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*
— *with amended claims*

(88) Date of publication of the international search report:
20 March 2008

Date of publication of the amended claims: 8 May 2008

(54) Title: METHOD FOR CLOSING AND SEALING A WOVEN POLYMERIC BAG



(57) Abstract: A method for sealing a bag which is formed from a tube of material and has front and rear sides, a pair of opposing, inward-tending gusset folds, each of these folds having front and rear vertical creases, comprising the steps of slitting each of the opposing front creases along their longitudinal axes, obtaining front and rear plies. A first rearward fold is formed by rearwardly folding the rear plies together with the rear vertical creases such that the inner surface of the rear ply is visible. A second rearward fold is formed by rearwardly folding the first fold until the inner surface of the rear ply lays against the rear side of the bag.

WO 2007/140216 A3

AMENDED CLAIMS
received by the International Bureau on
March 10, 2008 (10.03.08)

Re-write the claims as set forth below. This listing of claims will replace all prior versions and listings of the claims in the application.

Listing of the Claims:

1. A method for sealing a bag, said bag formed from a tube of polypropylene material and having a front side and a rear side, and a pair of opposing, inward-tending gusset folds, each of said folds having front and rear vertical creases, said method comprising the steps of:

a. slitting each of said front creases along longitudinal axes thereof, thereby obtaining front and rear plies;

b. forming a first rearward fold by rearwardly folding said rear plies together with said rear vertical creases such that an inner surface of said rear ply is visible; and

c. forming a second rearward fold by rearwardly folding said first fold wherein said inner surface of said rear ply lays against said rear side of said bag.

2. The method of Claim 1, further comprising the step of depositing an adhesive upon said inner surface of said rear ply.

3. The method of Claim 2, further comprising the step of depositing said adhesive upon the rear side of said bag where said inner surface lays against it.

4. The method of Claim 1, wherein said material is woven polypropylene.

5. (Canceled)

6. The method of Claim 5, further comprising the step of depositing an adhesive upon said inner surface of said rear ply.

7. The method of Claim 6, further comprising the step of depositing said adhesive upon the rear side of said bag where said inner surface lays against it.

8. A flexible bag formed from a tube of polypropylene material and having a front side and a rear side, and a pair of opposing, inward-tending gusset folds, each of said folds having front and rear vertical creases, said bag having at least one sealed closure formed by a method comprising the steps of:

a. slitting each of said front creases along longitudinal axes thereof, thereby obtaining front and rear plies;

b. forming a first rearward fold by rearwardly folding said rear plies together with said rear vertical creases such that an inner surface of said rear ply is visible; and

c. forming a second rearward fold by rearwardly folding said first fold wherein said inner surface of said rear ply lays against said rear side of said bag.

9. The bag of Claim 8, wherein said method further comprises the step of depositing an adhesive upon said inner surface of said rear ply.

10. The bag of Claim 9, wherein said method further comprises the step of depositing said adhesive upon the rear side of said bag wherein said inner surface lays against it.

11. The bag of Claim 8, wherein said material woven polypropylene.

12. (Canceled)

13. The bag of Claim 12, wherein said method further comprises the step of depositing an adhesive upon said inner surface of said rear ply.

14. The bag of Claim 13, wherein said method further comprises the step of depositing said adhesive upon the rear side of said bag where said inner surface lays against it.

15. A method of sealing a bag, said bag formed from a tube of polypropylene material and having a front side and a rear side, and a pair of lateral, opposing, inward-tending gusset folds, each of said

folds having front and rear vertical creases, said method comprising the steps of:

a. parting said material longitudinally along said front crease;

b. rolling a rear ply resulting from said step of parting along with rear portion of said bag proximal to said rear ply such that a surface of said rear ply opposes the rear side of said bag; and

c. applying an adhesive element to said surface, said adhesive being for the bonding of said surface with said rear side.

16. The method of Claim 15, wherein said step of applying adhesive further comprises applying adhesive to said rear side in the area contacted by said rear ply.

17. The method of Claim 15, wherein said material is woven polypropylene.

18. A bag sealed by the method of Claim 15.

19. The bag of Claim 18, wherein said step of applying adhesive further comprises applying adhesive to said rear side in the area contacted by said rear ply.

20. (Canceled)

21. A flexible bag comprising:

a tube of polypropylene material comprising:

a front side;

a rear side;

a pair of opposing, inward-tending gusset folds, each of said folds having front and rear vertical creases and each of said folds between said front side and said rear side;

at least one sealed closure comprising:

a front ply and a rear ply, said front ply and said rear ply being separated by a pair of slits along said front creases along longitudinal axes thereof, and said rear ply having an outer and inner surface;

a first rearward fold causing said outer surface of said rear ply to oppose a first portion of the rear side of the bag; and

a second rearward fold causing said inner surface of said rear ply to oppose a second portion of the rear side of the bag.

22. The flexible bag of claim 21 further comprising an adhesive upon said inner surface of said rear ply.

23. The flexible bag of claim 22 further comprising the adhesive upon the rear side of said flexible bag where said inner surface lays against it.

24. The flexible bag of claim 21, wherein said tube of material is woven polypropylene.

25. (Canceled)

26. The flexible bag of claim 25, further comprising an adhesive upon said inner surface of said rear ply.

27. The flexible bag of claim 26 further comprising the adhesive upon the rear side of said flexible bag where said inner surface lays against it.