

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 December 2003 (11.12.2003)

PCT

(10) International Publication Number
WO 2003/102972 A1

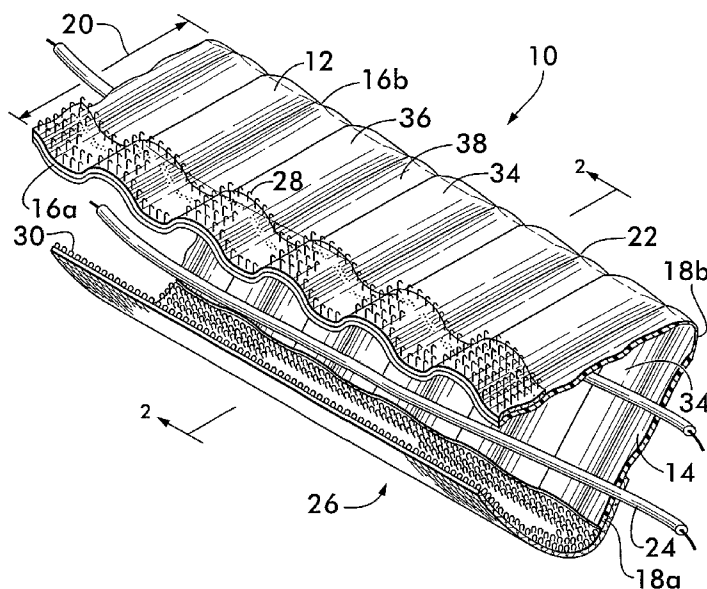
- (51) International Patent Classification⁷: **H01B 7/08**, H02G 15/02, 15/08
- (21) International Application Number: PCT/US2003/005761
- (22) International Filing Date: 25 February 2003 (25.02.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10/160,496 31 May 2002 (31.05.2002) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

[Continued on next page]

(54) Title: LOW-PROFILE PROTECTIVE SHEATH WITH CORRUGATIONS



(57) **Abstract:** A low-profile sheath (10) for protecting elongated items (24) is disclosed having a pair of substrates (12, 14) formed from flexible thermoset sheet material with opposite edges paired together to position the substrates in overlapping alignment. One pair of edges is flexibly attached together by a hinge (22) allowing the substrates to pivot between an open and a closed position for receiving and capturing the items. The substrates are corrugated. The hinge is formed from a plurality of thinned sheet regions which alternate between being oriented in the plane of the sheet and perpendicular to it. The alternating orientation reduces the imbalance of shear stiffness between the hinge connected edges and the free edges of the substrates. An apparatus for forming the sheath having intermeshing gears with beveled teeth and facing edge surfaces is also disclosed.



CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

— with international search report
— with amended claims

Date of publication of the amended claims: 12 February 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

AMENDED CLAIMS

[received by the International Bureau on 17 November 2003 (17.11.03);
new claims 23-29 added; remaining claims unchanged]

21. A method according to Claim 20, wherein said sheet comprises a material which is formable into a predetermined shape when heated to a predetermined temperature and which holds said shape upon cooling.

22. A method according to Claim 21 further including the steps of heating said sheet material to said predetermined temperature before said forming steps, and cooling said sheet material to fix said first and said second regions of reduced thickness and said right angle bends in said sheet material.

23. A sheath for receiving and protecting elongated items, said sheath comprising:

first and second elongated substrates integrally formed from a single planar sheet of material, each said substrate having opposite edges defining a width thereof, the edges of one substrate being paired with the edges of the other substrate, said first and second substrates having corrugations extending transversely of said sheath between said opposite edges of said substrates; and

a hinge flexibly joining one of said pairs of edges lengthwise of said substrates, said substrates being pivotally movable about said hinge between an open position wherein said first and second substrates are angularly oriented with respect to one another, and a closed position wherein said first and second substrates are overlying one another in substantially parallel relationship, said hinge comprising a portion of said planar sheet of material positioned between said substrates and having a thickness less than that of said substrates.

24. A sheath according to Claim 23 further comprising means for securing said first and second substrates in said closed position mounted along said other pair of edges, the elongated items being receivable between said substrates when in