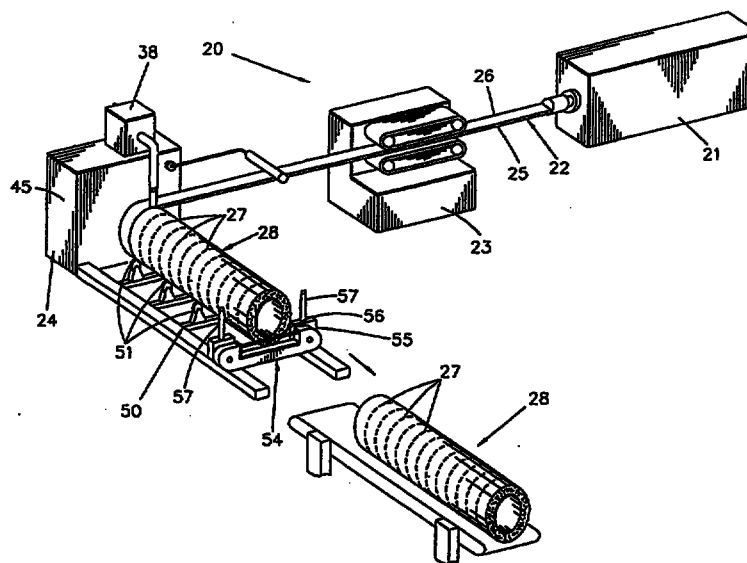




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B31C 1/00, 3/00, B65H 81/00, B32B 31/18, B29C 47/00	A1	(11) International Publication Number: WO 99/20457 (43) International Publication Date: 29 April 1999 (29.04.99)
(21) International Application Number: PCT/US98/21143 (22) International Filing Date: 7 October 1998 (07.10.98) (30) Priority Data: 60/061,985 16 October 1997 (16.10.97) US 09/153,508 15 September 1998 (15.09.98) US (71) Applicant: NOMACO, INC. [US/US]; 501 NMC Drive, Zebulon, NC 27597 (US). (72) Inventor: HENDERSON, Randal; 4065 Old Franklinton Road, Franklinton, NC 27525 (US). (74) Agent: STOLTZ, Melvin, I.; 51 Cherry Street, Milford, CT 06460 (US).		(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, HR, 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, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: SPIRAL FORMED PRODUCTS AND METHOD OF MANUFACTURE**(57) Abstract**

Hollow thermoplastic foam tubes of any desired diameter are easily achieved as well as large sheets or planks of thermoplastic foam material in any width and thickness desired by wrapping and fusing a thermoplastic foam profile (22) having a desired size and shape. By employing a thermoplastic foam extruder (21) to produce a profile (22) having a desired cross-sectional shape or configuration, and advancing the profile onto a rotating support member (30) for being wrapped peripherally surrounding the rotating support and continuously bonding the abutting edges of the profile (22) as it is spirally wound. By employing this unique spiral forming process, a hollow cylindrical thermoplastic foam tube (28) is formed on a continuous basis, with the length thereof being controlled by necessity. In addition, any desired diameter can be formed by employing a rotating support having the desired diameter, with the thickness of the tube being controlled by the thickness of the profile formed by extrusion equipment (21).