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(21) International Application Number: PCT/NZ99/00006 (22) International Filing Date: 21 January 1999 (21.01.99) (30) Priority Data: 329614 21 January 1998 (21.01.98) NZ (71) Applicant (for all designated States except US): FISHER & PAYKEL LIMITED [NZ/NZ]; 78 Springs Road, East Tamaki, Auckland (NZ). (72) Inventors; and (75) Inventors/Applicants (for US only): VAUGHAN, Stewart [NZ/NZ]; 21 Hoheria Street, One Tree Hill, Auckland (NZ). HILL, Christopher, Jason [NZ/NZ]; 2/46 Owens Road, Epsom, Auckland (NZ). (74) Agents: CALHOUN, Douglas, C. et al.; A. J. Park & Son, Huddart Parker Building, 6th floor, Post Office Square, P.O. Box 949, Wellington 6015 (NZ).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, 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> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: APPARATUS AND METHODS FOR TWIN SHEET THERMOFORMING		
(57) Abstract A method of twin sheet thermoforming is provided in which the seam (1) between sheets (7, 8) is trimmed from the finished part by a shearing action between cooperating edges of the mould halves (3, 4). In the preferred form of the invention one mould half (4) is provided with a moveable pinch-off region (13) which retracts under pressure from the other mould half (3) to leave an edge of the mould half (4) adjacent the mould cavity which cooperates with an edge of the mould cavity of the other mould half (3) to provide the shearing action. The moveable pinch-off region may be a pinch-off member (13) supported in an annular channel (14) by a pre-compressed spring (15). The invention allows significant plastic displacement of the material in the seam region for weld reinforcement along with trimming of the seam from the formed part within the mould in a one step process.		