

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 March 2002 (14.03.2002)

PCT

(10) International Publication Number
WO 02/20667 A2

(51) International Patent Classification⁷: C08L 97/02,
B27N 5/00, 7/00 // (C08L 97/02, 101:00) (C08L 97/02,
3:03, 101:00)

(74) Agent: TAN, JinHwee; Eunice & Lim ChooEng, P.O. Box
1381, Robinson Road, Singapore 902731 (SG).

(21) International Application Number: PCT/SG01/00180

(22) International Filing Date:
7 September 2001 (07.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0005117-7 9 September 2000 (09.09.2000) SG
00104759-6 8 August 2001 (08.08.2001) SG

(71) Applicant and

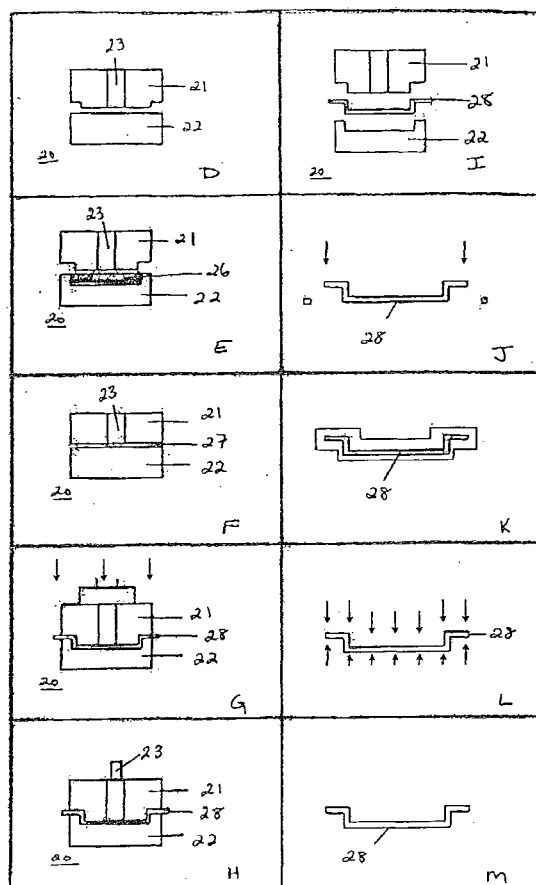
(72) Inventor: CHOO, Thiam, Huay, Gary [SG/SG]; 139
Namly Avenue, Singapore 267704 (SG).

(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, PH, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, 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, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG).

[Continued on next page]

(54) Title: MOULDED PRODUCT



(57) Abstract: The present invention relates to a moulded product. The moulded product may be manufactured by a process comprising the following steps: (a) preparing a moulding mixture by: (i) taking 40 to 60 wt.% plant fibre pieces and optionally combining added starch with the plant fibre pieces; and (ii) adding thereto 10 to 55 wt.% water and 3 to 10 wt.% one or more water-soluble binding agents or adhesives; (b) pouring the mixture into a mould the mould being a temperature of at least 60 °C; (c) subjecting the mixture in the mould to a temperature in the range of 15 to 60 °C and a pressure in the range from 1000 to 7000 PSI for a period of time such that a portion of the water in the mixture is converted to steam which causes the mixture to fill the mould while remaining in a mouldable state; (d) reducing the pressure so that steam continues to form within the mould without causing an explosion whilst maintaining the mixture in a mouldable state; (e) increasing the temperature and pressure to a temperature in the range from 100 to 200 °C and a pressure in the range of 500 to 1500 PSI; (f) removing the steam or allowing the steam to escape until the moulded product is substantially dry; (g) removing the substantially dried and moulded product from the mould; the amount of starch added in between 0 and 10 wt. preferably 0 to 2 wt.% or 2 to 10 wt.%.

WO 02/20667 A2

**Declarations under Rule 4.17:**

- *as to the identity of the inventor (Rule 4.17(i)) for all designations*
- *of inventorship (Rule 4.17(iv)) for US only*

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.

Published:

- *without international search report and to be republished upon receipt of that report*