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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 June 2012 (14.06.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/076479 A1

(51) International Patent Classification:
A61M 15/00 (2006.01)

(21) International Application Number:
PCT/EP2011/071775

(22) International Filing Date:
5 December 2011 (05.12.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1020638.1 6 December 2010 (06.12.2010) GB

(71) Applicant *(for all designated States except US)*: **LABORATORIOS LICONSA, S.A.** [ES/ES]; Gran Via Carlos III, 98, 7th Floor, E-08028 Barcelona (ES).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ANDRADE, Laura** [ES/ES]; Laboratorios Liconsa, Poligono Industrial Miralcampo Avda., Miralcampo, 7 Azuqueca de Henares, E-19200 Guadalajara (ES). **RUIZ, Jose Ramon** [ES/ES]; Laboratorios Liconsa, S.A., Poligono Industrial Miralcampo Avda., Miralcampo, 7 Azuqueca de Henares, E-19200 Guadalajara (ES). **RONCHI, Celestino** [IT/ES]; Laboratorios Liconsa, S.A., Poligono Industrial Miralcampo Avda., Miralcampo, 7 Azuqueca de Henares, E-19200 Guadalajara (ES). **CASTELLUCCI, Alessandro** [IT/ES]; Laboratorios Liconsa, S.A., Poligono Industrial Miralcampo Avda., Miralcampo, 7 Azuqueca de Henares, E-19200 Guadalajara (ES).

(74) Agents: **ZBM PATENTS - ZEA BARLOCCI & MARKVARDSEN** et al.; Pl. Catalunya, 1, E-08002 Barcelona (ES).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

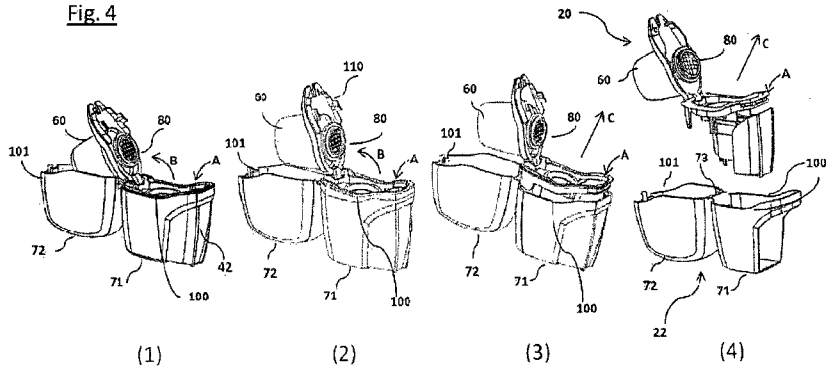
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

(54) **Title**: INHALATOR

Fig. 4



(57) **Abstract**: An inhalator for the inhalation of powdered drug preparations from capsules which contain the powdered preparations. The inhalator has a mouthpiece (60) or nosepiece and an assembly (a) comprising: a capsule holder comprising a capsule chamber, the capsule chamber having an air inlet opening and an air outlet opening; a capsule opening device for opening a capsule; a finger-operable actuator. The inhalator further comprises a rigid outer shell comprising a lower shell part (71) hinged to an upper shell part (72) so that the shell is openable and closable, the shell serving to cover and protect the assembly and the mouthpiece or nosepiece. The assembly and the mouthpiece or nosepiece are removable as a hinged unit from the open shell as a hinged unit without dismantling either unit, or the shell is arranged so that the contours of the rim of each shell part match the contours of the rim of the other around each shell part when the shell is in the closed condition, or the assembly is retained in the lower shell part and is not moveable in normal use with respect to the lower shell part.

WO 2012/076479 A1