

Title (en)
An apparatus for inserting articles into boxes

Title (de)
Vorrichtung zum Einführen von Artikeln in Schachtel

Title (fr)
Appareil pour l'insertion d'articles à l'intérieur de boîtes

Publication
EP 2615038 A1 20130717 (EN)

Application
EP 12199418 A 20121227

Priority
IT BO20120016 A 20120116

Abstract (en)
An apparatus for inserting articles (3) internally of boxes (7), which apparatus (1): comprises a first thrust plate (9) for pushing at least an article internally of a box (7); comprises a first abutting blade (36) for at least partially entering the box (7) and providing an upper abutment for facilitating insertion of the article (3) in the box (7); a first straight guide (10) solidly constrained to the frame (8), which straight guide is parallel to the advancement direction; a first member (11) which can slide along the first straight guide (10) and which is provided with a second straight guide (12) that is vertical and perpendicular to the advancement direction; a first linear motor (13) which is borne by the first member (11); a first rod (14) which bears the first thrust plate (9) and which is moved by the first linear motor (13) in order to move the first thrust plate (9) in alternating motion in a horizontal and perpendicular direction to the advancement direction; a second member (15) which can slide along the second straight guide (12); a second linear motor (16) which is borne by the second member (15); a second rod (17) which bears the first abutting blade (34) and which is moved by the second linear motor (16) such as to move in alternating motion in a horizontal and perpendicular direction to the advancement direction; a third member (18) which is hinged to the frame (8); a fourth member (20) which is hinged to the third member (18) and to the second member (15); a fifth member (23) which is hinged to the frame (8); a sixth member (24) which is hinged to the fifth member (23) at a fourth hinge axis (25) and which is hinged to the first member (11); the third member (18) and the fifth member (23) being activatable in rotation such as to move the first member (11) and the second member (15) in synchrony with the first conveyor (2) and with the second conveyor (6) and in order to enable movement of the first thrust plate (9) and the first abutting blade (34) by action respectively of the first linear motor (13) and the second linear motor (16) in order to insert at least an article internally of a box (7).

IPC 8 full level
B65B 35/40 (2006.01)

CPC (source: EP)
B65B 35/405 (2013.01); **B65B 5/06** (2013.01); **B65B 65/02** (2013.01)

Citation (search report)
• [A] US 2010307107 A1 20101209 - BEHRINGER THOMAS [DE]
• [A] US 5079896 A 19920114 - LANGEN MARINUS J M [CA], et al

Cited by
CN103935552A; US11655060B2; WO2015193757A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2615038 A1 20130717; **EP 2615038 B1 20140402**; ES 2462218 T3 20140522; IT BO20120016 A1 20130717

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