

Title (en)

Device and method for grouping and connecting items

Title (de)

Verfahren und Vorrichtung zum Gruppieren und Verbinden von Artikeln

Title (fr)

Procédé et dispositif destinés au groupement et à la liaison d'articles

Publication

**EP 2277780 A1 20110126 (DE)**

Application

**EP 10006237 A 20100616**

Priority

DE 102009026220 A 20090722

Abstract (en)

The method involves attaching a packaging material to articles (12) to form individual packaging units. The individual packaging units are connected together with an additional packaging material to form a bigger unit during a continuous conveying movement with or without a transposition of the packaging units. The continuous conveying movement is generated by a transport belt (18). Each of the articles, the packaging units and the bigger unit are moved continuously. The packaging units are transposed at an angle of 90 degrees with respect to the conveying movement. An independent claim is also included for a packaging machine for grouping and connecting two articles.

Abstract (de)

Die Erfindung betrifft ein Verfahren und eine Vorrichtung zum Gruppieren und Verbinden von mindestens zwei Artikeln (12) durch Aufbringen eines ersten Verpackungsmittels (20) zur Bildung einer Gebindeeinheit (22). Die einzelnen Gebindeeinheiten (22) werden im Verlauf einer kontinuierlichen Förderbewegung mit oder ohne Umsetzen der Gebindeeinheit (22) mit einem zusätzlichen zweiten Verpackungsmittel (40) zu einer größeren Einheit (26) verbunden.

IPC 8 full level

**B65B 5/06** (2006.01); **B65B 17/02** (2006.01); **B65B 21/06** (2006.01); **B65B 27/04** (2006.01); **B65B 35/44** (2006.01)

CPC (source: EP US)

**B65B 5/068** (2013.01 - EP US); **B65B 17/025** (2013.01 - EP US); **B65B 21/06** (2013.01 - EP US); **B65B 27/04** (2013.01 - EP US); **B65B 35/44** (2013.01 - EP US); **B65B 2220/16** (2013.01 - EP)

Citation (applicant)

- WO 0046102 A1 20000810 - NEAGLE CLAUDE ANDREW [US], et al
- DE 102007017646 A1 20081016 - IWK VERPACKUNGSTECHNIK GMBH [DE]
- DE 102006045292 A1 20080410 - EMIL PESTER GMBH [DE]
- US 5765336 A 19980616 - NEAGLE CLAUD ANDREW [US], et al

Citation (search report)

- [X1] WO 2007112415 A1 20071004 - MEADWESTVACO PACKAGING SYSTEMS [US], et al
- [XP] WO 2009097546 A1 20090806 - MEADWESTVACO PACKAGING SYSTEMS [US], et al
- [X] US 5765336 A 19980616 - NEAGLE CLAUD ANDREW [US], et al
- [I] US 5469687 A 19951128 - OLSON ALLEN L [US]
- [I] US 4949531 A 19900821 - LANGENBECK KEITH A [US], et al
- [X1] DE 2635682 A1 19780209 - KLUGAS BRUNO
- [X1] US 4953342 A 19900904 - HYNES CHARLES M [US]
- [X1] US 5241805 A 19930907 - JOHNSON LLOYD D [US]

Cited by

WO2020052889A1; WO2018127311A1; WO2023281053A1; FR3125025A1

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 SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

**EP 2277780 A1 20110126**; **EP 2277780 B1 20121017**; CN 101962087 A 20110202; CN 101962087 B 20150708; DE 102009026220 A1 20110127; DE 102009026220 B4 20231130; US 2011016831 A1 20110127; US 8448411 B2 20130528

DOCDB simple family (application)

**EP 10006237 A 20100616**; CN 201010235285 A 20100722; DE 102009026220 A 20090722; US 80437510 A 20100720