



(51) International Patent Classification:

*B65B 25/00* (2006.01) *G05B 19/418* (2006.01)  
*B65G 61/00* (2006.01) *G06Q 10/08* (2012.01)

(21) International Application Number:

PCT/EP2013/075908

(22) International Filing Date:

9 December 2013 (09.12.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/735,589 11 December 2012 (11.12.2012) US

(71) Applicant: **NOVARTIS AG** [CH/CH]; Lichtstrasse 35,  
CH-4056 Basel (CH).

(72) Inventor: **GASBER, Dirk**; Untere Höhe 6, 63820 Elsen-  
feld (DE).

(74) Agent: **BOHEST AG**; Holbeinstrasse 36-38, CH-4051  
Basel (CH).

(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, BN, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,  
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, 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,  
KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

6 November 2014

(54) Title: METHOD AND PACKAGING PLANT FOR PLACING PRODUCT PACKAGES INTO SHIPMENT CONTAINERS

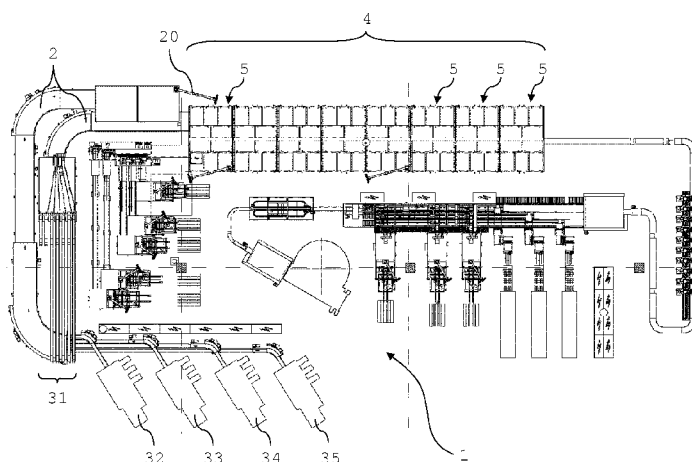


Fig. 1

(57) Abstract: A method and packaging plant for placing product packages into shipment containers (71,72) includes the steps of: • - selecting and marking a shipment container (71,72) of suitable size for a specific shipment order • - loading different product packages onto a conveyor system (2) • - assigning each one of the product packages a conveyance tracking clock information, • - forwarding the conveyance tracking clock information to a control system, • - conveying the product packages to a loading zone (4) comprising at least one loading station (5) having a pick-and-place robot, • - within the loading station (5) providing the shipment container (71, 72) in a loading position (7) in which the container is resting still, • - within the loading (5) station by means of the pick-and-place robot (51) picking the product packages from the conveyor system (2) and placing the product packages into the shipment container (71,72), and • - after completion of the shipment order removing the shipment container (71, 72) from the loading station (5).



## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2013/075908

## A. CLASSIFICATION OF SUBJECT MATTER

INV. B65B25/00 B65G61/00 G05B19/418 G06Q10/08  
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65G G05B G06Q B07C B65B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/092801 A1 (G. DOMINGUEZ) 18 July 2002 (2002-07-18)	1-5,11, 12
Y	paragraphs [0019] - [0035]; figures	6,7,9, 10,13-15
Y	----- US 5 934 413 A (H. KÖNIG) 10 August 1999 (1999-08-10) column 5, line 40 - column 7, line 60; figures	6,13,14
Y	----- EP 0 765 813 A2 (JOHNSON & JOHNSON VISION PRODUCTS) 2 April 1997 (1997-04-02) claims; figures	7
Y	----- US 2002/185358 A1 (D. ZEITLER) 12 December 2002 (2002-12-12) paragraphs [0025] - [0027]; figures ----- -/-	9,10,15



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

8 September 2014

Date of mailing of the international search report

23/09/2014

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040,  
Fax: (+31-70) 340-3016

Authorized officer

Jagusiak, Antony

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2013/075908

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009/299521 A1 (R. HANSL) 3 December 2009 (2009-12-03) claims; figures -----	1,11
A	US 2010/305754 A1 (K. BAN) 2 December 2010 (2010-12-02) paragraphs [0030] - [0033]; figures -----	1,11,15

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2013/075908

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002092801	A1	18-07-2002	AU 2002243514 A1 30-07-2002
			US 2002092801 A1 18-07-2002
			WO 02058308 A2 25-07-2002
US 5934413	A	10-08-1999	AT 898 U1 25-07-1996
			AT 197280 T 15-11-2000
			DE 59606087 D1 07-12-2000
			EP 0776308 A1 04-06-1997
			JP H10504270 A 28-04-1998
			US 5934413 A 10-08-1999
			WO 9700218 A1 03-01-1997
EP 765813	A2	02-04-1997	AT 197579 T 15-12-2000
			AT 237503 T 15-05-2003
			AU 712870 B2 18-11-1999
			AU 6555996 A 10-04-1997
			CA 2186722 A1 30-03-1997
			DE 69610965 D1 21-12-2000
			DE 69610965 T2 22-03-2001
			DE 69627548 D1 22-05-2003
			DE 69627548 T2 04-03-2004
			EP 0765813 A2 02-04-1997
			EP 1026080 A1 09-08-2000
			JP 3844546 B2 15-11-2006
			JP H09169321 A 30-06-1997
			SG 68593 A1 16-11-1999
			SG 76634 A1 21-11-2000
			SG 80650 A1 22-05-2001
US 2002185358	A1	12-12-2002	AU 2002345013 A1 16-12-2002
			CA 2449963 A1 12-12-2002
			EP 1395887 A2 10-03-2004
			MX PA03011877 A 03-06-2004
			US 2002185358 A1 12-12-2002
			US 2006000693 A1 05-01-2006
			US 2008017476 A1 24-01-2008
			WO 02099549 A2 12-12-2002
US 2009299521	A1	03-12-2009	AT 419199 T 15-01-2009
			AT 500946 A1 15-05-2006
			EP 1812321 A2 01-08-2007
			ES 2320474 T3 22-05-2009
			US 2009299521 A1 03-12-2009
			WO 2006042347 A2 27-04-2006
US 2010305754	A1	02-12-2010	DE 102010022357 A1 09-12-2010
			JP 4621789 B2 26-01-2011
			JP 2010280010 A 16-12-2010
			US 2010305754 A1 02-12-2010