# 

## (11) **EP 3 835 221 A3**

(12)

### **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 15.09.2021 Bulletin 2021/37

(51) Int Cl.: **B65B** 11/02<sup>(2006.01)</sup> **B65B** 57/00<sup>(2006.01)</sup>

B65B 57/16 (2006.01) B65B 57/12 (2006.01)

(43) Date of publication A2:

16.06.2021 Bulletin 2021/24

(21) Application number: 20212746.0

(22) Date of filing: **09.12.2020** 

(84) Designated Contracting States:

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 States:** 

**BA ME** 

Designated Validation States:

KH MA MD TN

(30) Priority: 13.12.2019 ES 201932048 U

(71) Applicant: Aranguren Comercial del Embalaje SL 46019 Valencia (ES)

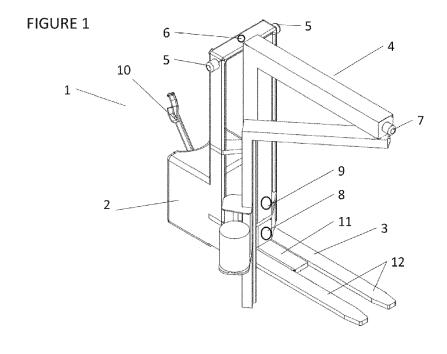
(72) Inventors:

- Rubio Casalta, Valentín 46019 Valencia (ES)
- Bereber Goiricelaya, Roberto 46410 Sueca (Valencia) (ES)
- (74) Representative: Soler Lerma, Santiago Vitoria de Lerma Asociados International Department C/Poeta Querol no 1 pta 10 46002 Valencia (ES)

#### (54) AUTONOMOUS WRAPPING MACHINE

(57) The invention consists of a wrapping machine with autonomy to both carry out its wrapping tasks and with autonomy of movement and navigation, comprising a loading element (3) which positions and supports a pallet, a wrapping element (4) which identifies the load

and the wrapping, consisting of a film carriage, a programme selector and a cutting and welding device, an impeller (2) which guides the assembly formed by the impeller, the loading element and the wrapping element, as well as a navigation device.





#### **EUROPEAN SEARCH REPORT**

**Application Number** EP 20 21 2746

5

**DOCUMENTS CONSIDERED TO BE RELEVANT** CLASSIFICATION OF THE APPLICATION (IPC) Citation of document with indication, where appropriate, Relevant Category of relevant passages 10 EP 2 979 982 A1 (RAYMOND CORP [US]) 3 February 2016 (2016-02-03) 1,2,5,6, INV. 8,9 B65B11/02 \* paragraph [0015] - paragraph [0033] \* γ B65B57/16 B65B57/00 Χ EP 3 434 423 A1 (LINDE MATERIAL HANDLING B65B57/12 1 GMBH [DE]) 30 January 2019 (2019-01-30) 15 \* paragraph [0031] - paragraph [0042] \* Χ WO 2010/103214 A1 (DEO WRAP SERVICE [FR]; 1 BONNEL PIERRE [FR]) 16 September 2010 (2010-09-16) 20 \* page 7, line 1 - page 13, line 33 \* γ EP 0 178 145 A1 (BRITISH OXYGEN CO LTD [GB]) 16 April 1986 (1986-04-16) \* page 5, line 14 - line 21 \* 25 TECHNICAL FIELDS SEARCHED (IPC) 30 B65B 35 40 45 The present search report has been drawn up for all claims 2 Place of search Date of completion of the search Examiner 50 Munich 28 April 2021 Yazici, Baris T: theory or principle underlying the invention
E: earlier patent document, but published on, or after the filing date
D: document cited in the application CATEGORY OF CITED DOCUMENTS 1503 03.82 X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category L: document cited for other reasons **EPO FORM** A : technological background
O : non-written disclosure
P : intermediate document 55 & : member of the same patent family, corresponding

document



5

Application Number

EP 20 21 2746

	CLAIMS INCURRING FEES				
	The present European patent application comprised at the time of filing claims for which payment was due.				
10	Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):				
15	No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.				
20	LACK OF UNITY OF INVENTION				
	The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:				
25					
	see sheet B				
30					
	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.				
35	As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.				
40	Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:				
45	None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention				
50	first mentioned in the claims, namely claims:  1, 2, 5-9				
55	The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).				



# LACK OF UNITY OF INVENTION SHEET B

**Application Number** 

EP 20 21 2746

5 The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely: 1. claims: 1, 2, 5-9 10 a load detection sensor, positioning sensor, proximity sensors, space sensor, communication means between the sensors and wrapping element and a navigation and guidance software. 15 2. claims: 3, 4 a wrapping program selector. 20 25 30 35 40 45 50 55

#### EP 3 835 221 A3

#### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 20 21 2746

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-04-2021

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
15	EP 2979982 A	. 03-02-2016	AU 2013270497 A1 CA 2836739 A1 CN 103896185 A EP 2749498 A1 EP 2979982 A1 HK 1199438 A1 HK 1219934 A1 US 2014174036 A1 US 2017197742 A1	17-07-2014 26-06-2014 02-07-2014 02-07-2014 03-02-2016 03-07-2015 21-04-2017 26-06-2014 13-07-2017
	EP 3434423 A	. 30-01-2019	DE 102017116914 A1 EP 3434423 A1	31-01-2019 30-01-2019
25	WO 2010103214 A	. 16-09-2010	FR 2942776 A1 WO 2010103214 A1	10-09-2010 16-09-2010
30	EP 0178145 A	. 16-04-1986	DK 459385 A EP 0178145 A1 ES 8609114 A1 GB 2169260 A JP S61178809 A	09-04-1986 16-04-1986 01-09-1986 09-07-1986 11-08-1986
35				
40				
45				
50				
55	FORM P0459			

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82