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(54) **DEVICE FOR WRAPPING OBJECTS**

(57) A device (1) for wrapping stacked objects (SO) which comprises a rotating base (2) designed to support and rotate the stacked objects (SO), a wrapping head (3) mounted vertically sliding and designed to receive and conveying a film for wrapping such stacked objects (SO) supported and driven in rotation by the rotating base (2) and an electronic control unit (5) designed to control the vertical movement as a function of the rotation speed of said rotating base (2). In particular, the device (1) is designed to apply a paper film (4) around the stacked objects (SO) on the rotating base (2) for wrapping the latter.

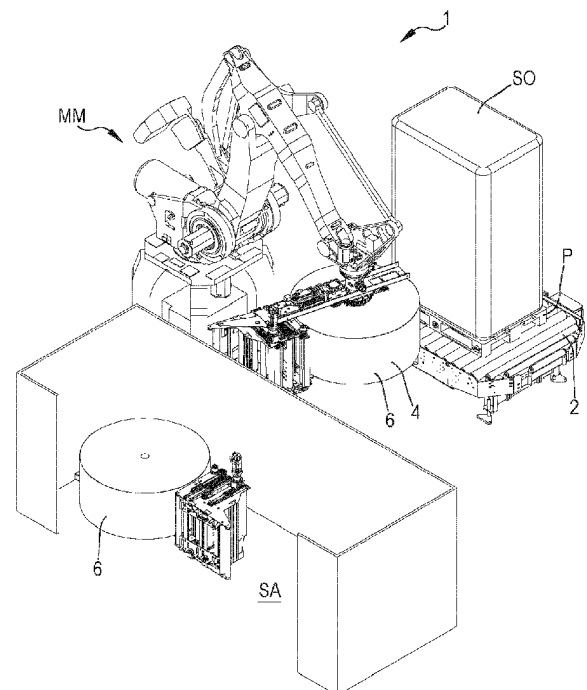


FIG.1



EUROPEAN SEARCH REPORT

Application Number

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EPO FORM 1503 03.82 (P04C01)

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Y	IT 2019 0001 7258 A1 (O B L S R L [IT]; BLUKART S R L [IT]) 25 March 2021 (2021-03-25) * figures 1-7 * * page 5 - page 7 * * page 10 - page 13 * * page 18 * -----	1, 2, 10-15, 18, 21-23, 28	
Y	KR 2017 0025841 A (CORNING INC [US]) 8 March 2017 (2017-03-08) * figures 1-5 * * paragraphs [0005], [0011], [0015], [0018], [0024], [0028], [0035], [0038] - [0041], [0048], [0059] * -----	1, 2, 18, 22, 23, 28	TECHNICAL FIELDS SEARCHED (IPC) B65B B65H
Y	WO 95/18762 A1 (WICHITA COMPANY LTD [GB]; JURY COLIN BERTRAM [GB] ET AL.) 13 July 1995 (1995-07-13) * figure 1 * * pages 3-4 * ----- -/--	1, 2, 10-14, 18, 21-23, 28	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 April 2023	Examiner Schmitt, Michel
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		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 L : document cited for other reasons & : member of the same patent family, corresponding document	



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DOCUMENTS CONSIDERED TO BE RELEVANT			
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Y	DE 10 17 523 B (VOITH GMBH J M) 10 October 1957 (1957-10-10) * figures 1, 2 * * paragraphs [0010], [0011] * -----	18, 28	
			TECHNICAL FIELDS SEARCHED (IPC)
<div> <div> <div>The present search report has been drawn up for all claims</div> </div> </div>			
Place of search		Date of completion of the search	Examiner
Munich		19 April 2023	Schmitt, Michel
CATEGORY OF CITED DOCUMENTS		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 L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ 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):

☐ 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.

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:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ 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:

1, 2, 10–15, 18, 21–23, 28

☐ 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 first mentioned in the claims, namely claims:

☐ 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

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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, 23

Device and method for wrapping a load with a paper film.

2. claims: 3, 24

Device and method for wrapping in paper film by taking in account the initial stability of the stacked objects.

3. claims: 4, 25

Device and method for wrapping in a paper film by adapting the wrapping to the dimensions of the stacked objects.

4. claims: 5-9, 26

Device and method for wrapping in a paper film with an enhanced automation.

5. claims: 10-15, 21, 22

Device for wrapping stacked objects in a paper film with a wrapping mode behaviour monitoring function.

6. claims: 16, 29

Device and method for wrapping in a paper film with a cutter for the paper film.

7. claims: 17, 31

Device and method for wrapping in a paper film with a paper film pressing component.

8. claims: 18, 28

Device and method for wrapping in a paper film with glue application means.

9. claims: 19, 27

Device and method for wrapping in a paper film with folding means.



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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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:

10. claims: 20, 30

Device and method for wrapping in a paper film with inkjet printing means.

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

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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.

19-04-2023

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