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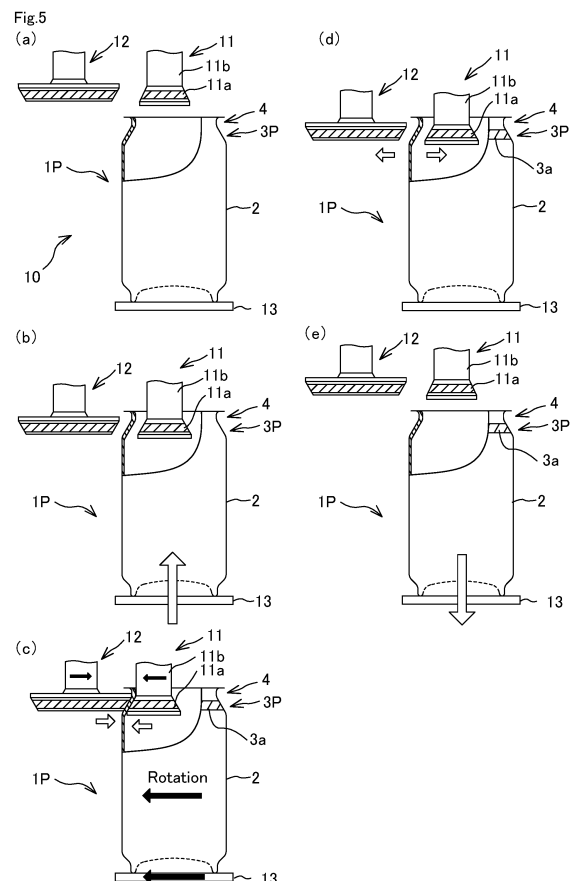
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(54) **CAN MANUFACTURING DEVICE, CAN, AND CAN MANUFACTURING TOOL SET**

(57) An apparatus forming a three-dimensionally shaped portion for applying decoration having at least one of a depressed concave portion and a raised convex portion on a shoulder (3) of a can (1) comprising:
an inner roll (1) having a receiver (11 a) for receiving the shoulder (3) from inside; and
an outer roll (12) for pressing the shoulder (3) from outside,





EUROPEAN SEARCH REPORT

Application Number

EP 22 16 1965

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 2 835 188 A1 (UNIVERSAL CAN CORP [JP]) 11 February 2015 (2015-02-11) * paragraph [0056] - paragraph [0070]; figure 14 *	1, 8	INV. B21D51/26 B21D17/04 B21D22/02 B21D22/08 B21D51/38 B65D8/04
X	US 5 727 411 A (SAKAKIBARA TETSUYA [JP] ET AL) 17 March 1998 (1998-03-17) * page 2, line 50 - page 3, line 21; figures 1-3 *	1, 8	
X	US 1 463 073 A (AKEN FELTEN ABRAM VAN) 24 July 1923 (1923-07-24) * page 2, line 15 - line 98 *	1, 8	
X	WO 98/20992 A1 (METAL BOX PLC [GB]; CARNAUDMETALBOX SA [FR] ET AL.) 22 May 1998 (1998-05-22) * page 5, line 12 - page 6, line 27; figures 3-6 *	2-7	
A	US 5 645 190 A (GOLDBERG NORTON ROBERT [US]) 8 July 1997 (1997-07-08) * column 4, line 64 - column 5, line 64; figure 5 *	2-7	TECHNICAL FIELDS SEARCHED (IPC) B21D B65D B44B
The present search report has been drawn up for all claims			

2

EPO FORM 1503 03.82 (P04C01)

Place of search Munich	Date of completion of the search 23 September 2022	Examiner Vesterholm, Mika
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		



Application Number

EP 22 16 1965

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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:

☐ 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

EP 22 16 1965

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, 8

How to manufacture a groove into a product. This problem is solved by the inner and outer rolls having convex and concave portions.

2. claims: 2-7

How to store a product. This problem is solved by the cylindrical body of the can.

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

EP 22 16 1965

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
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