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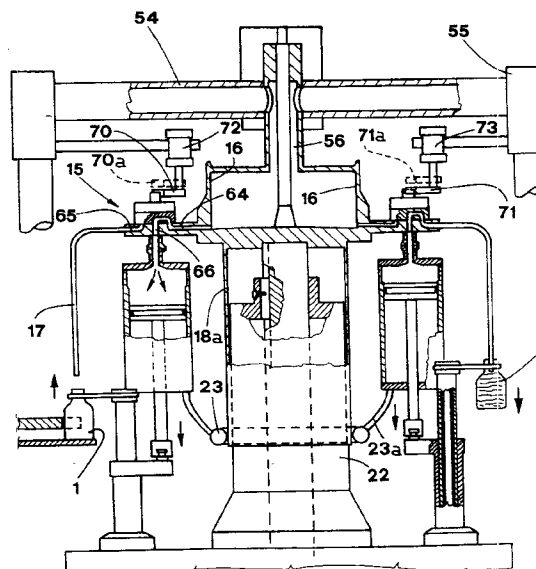
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(54) **Method and machine for filling containers with liquid products.**

(57) The method for the filling of containers with liquid products envisages that containers (1) to be filled are picked up by grippers (8) with jaws designed to grip the necks of said containers (1) and rotated by a carousel (3) which rotates about a vertical axis and which receives the containers (1) from feed units (2); the containers (1) are then raised vertically together with the grippers (8) in such a way that nozzles (17) of liquid dispensing units (9), carried by the carousel (3) over the grippers (8), are inserted into the mouths of the containers; the containers (1) are then gradually lowered while the liquid is being discharged into them by the nozzle (17); lastly the containers (1) are released when full and transferred to an outfeed system (10).



**FIG. 2a**



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# EUROPEAN SEARCH REPORT

Application Number

EP 91 83 0490

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-4 108 221 (FREIMUTH et al.) * Column 2, lines 26-56; figures 3,16 * ---	1	B 67 C 3/24 B 67 C 3/04
Y	US-A-4 363 649 (YAMATO et al.) ---	1	
A	EP-A-0 350 974 (SIMONAZZI A. & L. S.p.A.) * Column 2, line 12 - column 3, line 12; figures * ---	1	
A	DE-A-3 903 768 (SEITZ ENZINGER NOLL MASCHINENBAU AG) * Column 5, lines 15-65; figures 4,5 * ---	1	
A	FR-A-2 502 606 (SEITZ-WERKE GmbH) -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 67 C B 65 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14-02-1992	Examiner MARTINEZ NAVARRO A.
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>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</p> <p>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  &amp; : member of the same patent family, corresponding document</p>			

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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

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- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ 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 has 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: 1



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#### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

Taking into account the closest state of the art (document EP-A-0 350 974), basically the improvements disclosed in the present application are the following ones:

1. Claim 1 : The bottles are lowered gradually while the liquid is being discharged.
2. Claims 2-11: A plurality of ducts made in the platform of the carousel, a chamber mounted on that platform and a plurality of valves mounted circumferentially on the same platform.

Both improvements are independent and different from each other, and are disclosed in two independent claims. Therefore, there is neither common inventive concept, nor unity of invention.