



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
10.04.2002 Bulletin 2002/15

(51) Int Cl.7: **B65B 39/00**

(43) Date of publication A2:
19.07.2000 Bulletin 2000/29

(21) Application number: **00100548.7**

(22) Date of filing: **12.01.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Delmonte, Alessandro**
42027 Montecchio Emilia, (Reggio Emilia) (IT)

(74) Representative: **Lecce, Giovanni**
Dott. Giovanni Lecce & C. S.r.l.
Via G. Negri 10
20123 Milano (IT)

(30) Priority: **18.01.1999 IT RE990004**

(71) Applicant: **UNI-MAC S.r.l.**
42027 Montecchio Emilia, (Reggio Emilia) (IT)

(54) **Automatic gravity filling plant with a total scraping cleaning system**

(57) The injection heads (1) of a filling machine are mounted in alignment with the horizontal delivery unit (5), intersecting it horizontally. The delivery unit (5) connects with the fixed line (11) by means of an articulated tubular duct (12) with tight rotary joints (13) that allows it to shift in the space, keeping a horizontal orientation.

The unit (5), the duct (12) and the line (11) have a constant diameter and can be internally traveled by at least a scraping pad (15) that passes through and cleans also heads (1). Injectors (7) of heads (1) discharge from the residues and clean either by gravity or by means of additional independent scrapers (37).

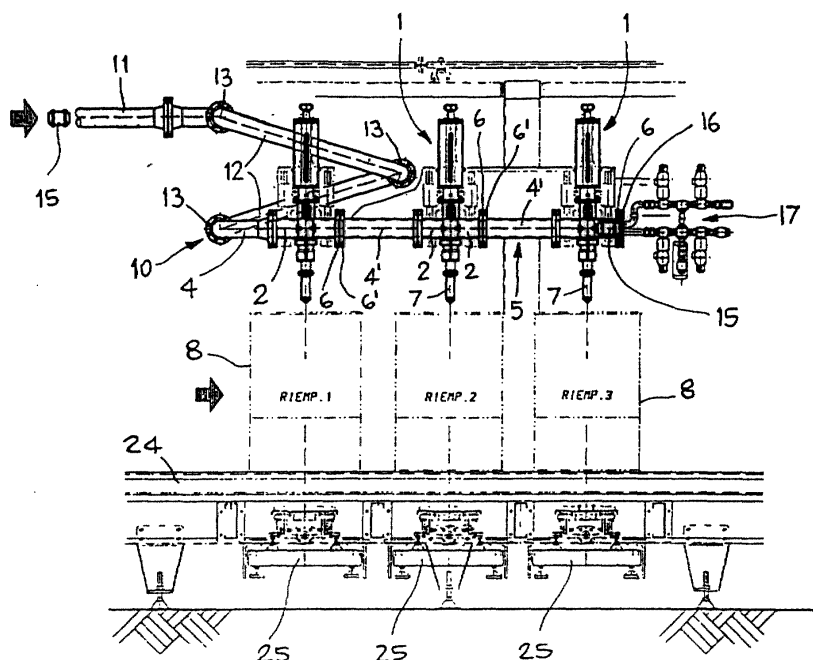


FIG. 4



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 0548

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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7) B65B B67C
Place of search THE HAGUE		Date of completion of the search 13 February 2002	Examiner Claeys, H
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			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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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
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