



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
08.01.2003 Bulletin 2003/02

(51) Int Cl.7: **B21D 22/30, B21D 22/24**

(43) Date of publication A2:
20.09.2000 Bulletin 2000/38

(21) Application number: **99113803.3**

(22) Date of filing: **14.07.1999**

(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

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(30) Priority: **09.03.1999 US 263550**

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(54) **Method and apparatus for forming a bottom-profiled cup**

(57) An apparatus and method for forming a cup (10) having a profiled bottom generally includes a draw die (20) disposed at a first level of a double acting press. The draw die (20) cooperates with a draw pad (22) and a cut edge (24) to form and hold a blank (28) formed from a sheet of material (M). A punch assembly (30) is configured to travel through the draw die (20), thereby drawing the blank (28) over the draw die (20) into a cup (60). The punch assembly (30) transports the cup (60) to a second level of the press where it bottoms out on a die core (50) and a ring pad (51). One element of the punch assembly (30) continues to move beyond the second level of the press, thereby drawing a portion of the cup (60) over the die core (50) and profiling the bottom of the cup (60). The profiled cup (10) is then returned to the second level of the press where it is removed from the punch assembly (30) and transferred. The bottom profile insures that the cup will retain its shape during the transfer operation.

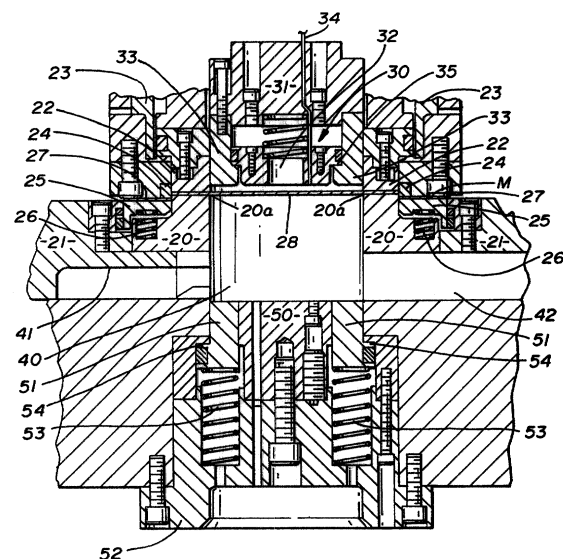


FIG. 2



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 11 3803

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B21D
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 13 November 2002	Examiner Meritano, L
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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