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## EUROPEAN PATENT APPLICATION

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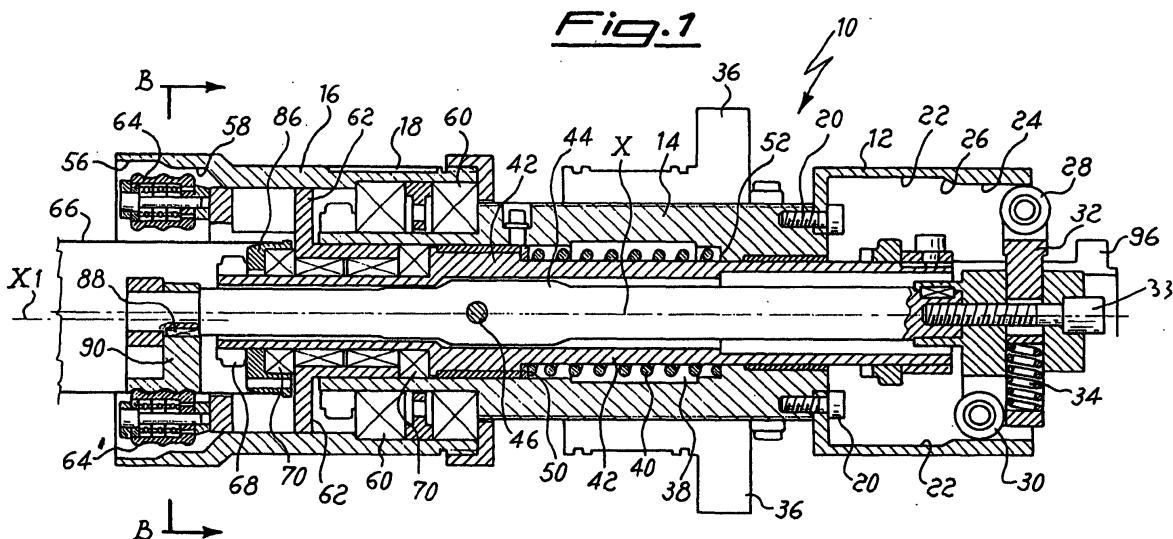
### (54) Device for straining extruded or drawn bodies

(57) A device (10-100) for the localized strain of extruded or drawn bodies, especially containers or bombs (66) provided with a mouth from aluminum or other suitable material, having a cylindrical form, painted and/or lithographed, fed on a grasping means or pliers of a tapering machine for tapering their upper part, comprising:

- a substantially cylindrical body, having differentiated diameters, wherein a lever (44-110, 110') is provided that bears a counter-mold (90 - 156,156') in touch with the internal lateral surface of containers

(66) starting from their mouth;

- at least a straining tool (64, 64'-150, 150') cooperating with the counter-mold (90-156,156') to obtain at least a raised and/or recessed impression on said containers;
- supporting (72, 72'-142, 142') and guide (80, 82 - 146,146') means for said at least one straining tool (64, 64'-150, 150'), suitable to lead said straining tool to cooperate with said counter-mold (90,156,156').





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## EUROPEAN SEARCH REPORT

Application Number  
EP 01 12 9573

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	US 3 490 404 A (MILLER RICHARD DALE ET AL) 20 January 1970 (1970-01-20) * figures 9,15,17,18 *	1-11	B21D17/04 B21D51/26
A	EP 0 507 380 A (THOMASSEN & DRIJVER) 7 October 1992 (1992-10-07) * claims 1-3; figures 1,2 *	1-11	
A	GB 366 424 A (VER STAHLWERKE AG) 4 February 1932 (1932-02-04) * figure 1 *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search		Date of completion of the search	Examiner
MUNICH		30 October 2003	Forciniti, M
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			

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

EP 01 12 9573

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.

30-10-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 3490404	A	20-01-1970	NONE		
EP 0507380	A	07-10-1992	AT AU AU CA CS DE DE DK EP ES GR JP NL PL SK RU US	129172 T 644728 B2 1399692 A 2063863 A1 9201018 A3 69205473 D1 69205473 T2 507380 T3 0507380 A1 2089361 T3 3018589 T3 6087045 A 9101493 A 294070 A1 279427 B6 2107198 C1 5372028 A	15-11-1995 16-12-1993 08-10-1992 04-10-1992 14-10-1992 23-11-1995 14-03-1996 27-11-1995 07-10-1992 01-10-1996 30-04-1996 29-03-1994 02-11-1992 08-03-1993 04-11-1998 20-03-1998 13-12-1994
GB 366424	A	04-02-1932	NONE		