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(71) Applicant : **AMADA COMPANY LIMITED**  
**200 Ishida Isehara-shi**  
**Kanagawa 259-11 (JP)**

(71) Applicant : **AMADA MANUFACTURING**  
**AMERICA Inc.**  
**14646, Northam Street**  
**La Mirada, California 90638 (US)**

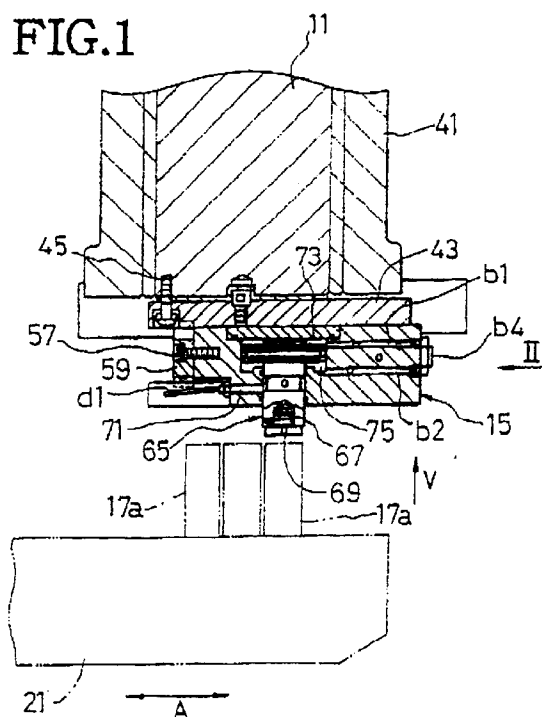
(72) Inventor : **Hayashi, Tetsuji**  
**14646 Northam Street**  
**La Mirada, CA 90638 (US)**

(74) Representative : **Hasenrader, Hubert et al**  
**Cabinet Beau de Loménie 158, rue de**  
**l'Université**  
**F-75340 Paris Cédex 07 (FR)**

(54) **Turret punch press.**

(57) A turret punch press (1) wherein the upper and lower turrets (21,27) are rotated, and the upper die (17,19) positioned in the processing position is struck by a piston rod (13) (striker element) of a striker device (15) mounted on the lower end of a ram (11) when the ram is lowered by means of a crank shaft (10) (mechanical vertically moving means). The piston rod can be freely moved vertically by a hydraulic cylinder (65) so that the amount of the stroke of the striker element with respect to the upper die is the sum of the amount of the stroke of the ram and the amount of the stroke of the piston rod in the hydraulic cylinder itself. Accordingly, the upper die and the lower die (23,25) come into contact and the processing occurs only when the ram and the piston rod are both at bottom dead center.

**FIG.1**





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# EUROPEAN SEARCH REPORT

Application Number

EP 92 40 3431

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 A	WO-A-9 005 601 (AMADA) * the whole document * ---	1 3-6, 10	B21D28/12
Y	US-A-3 005 404 (TUCKER AND SONS) * the whole document * ---	1 4-8, 10	
A	US-A-4 615 204 (NISSAN) * abstract; figures * ---	4, 5, 10	
A	US-A-3 685 380 (AMADA) ---		
A	US-A-2 581 435 (NOWAK) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B21D B30B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 04 OCTOBER 1993	Examiner RIS M.
<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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