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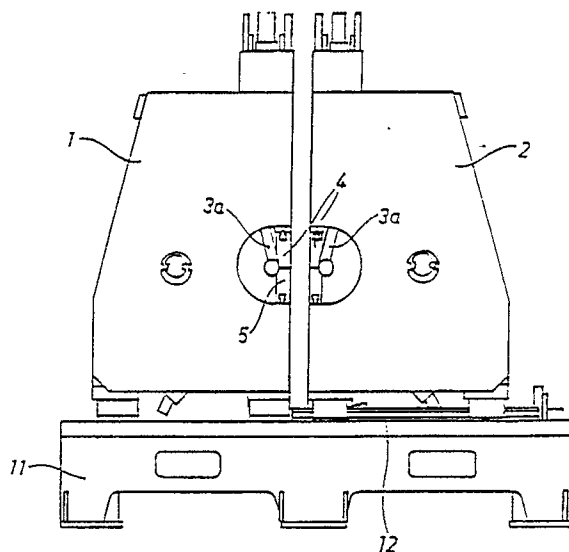
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SF-05880 Hyvinkää (FI)(74) Representative: **Martinet & Lapoux**
62, rue des Mathurins
F-75008 Paris (FR)(54) **Apparatus and method for bending of thin sheet metals.**

(57) This invention concerns bending apparatus for thin sheet materials, which apparatus comprises a frame (11) and at least two facingly arranged bending units (1, 2), which are attached to the frame, equipped with bending members connected to drive means and complemented with a top and bottom push clamp (4, 5). At least one bending unit (2) is arranged transferrable in respect to a second bending unit (1), placed essentially perpendicular to the

first unit, in order to align the sheet (10) to be bent to a desired bending position. Thereby the top and bottom push clamps (4, 5) act as sheet clamps serving to transfer the sheet during alignment and/or to determine the bending position of the sheet. Said transferrable bending unit (2) is mounted on guides (12) and the positioning of the unit is arranged controllable by digital means.

**Fig.1****EP 0 418 114 A3**



EP 90 40 2411

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)
X	EP-A-0 300 137 (BRUEDER NEUMEISTER GMBH) * figure 1; claims 1,2,6; column 4, lines 36-46 * ---	1,2,7	B 21 D 5/04
X	DD-A- 229 050 (VEB VORRICHTUNGSBAU HOHENSTEIN) * figure 2, position 10; claims 1,2; page 4, column 4 * ---	1,7	
X	US-A-3 786 666 (J.J. YORK) * figures 1,4; claims 1,4; column 3, line 35 * ---	1,7	
A	EP-A-0 039 322 (VOEST-ALPINE AG) * claim 1; figure 2, positions 2,3 * ---	1,3	
A	US-A-3 138 192 (S.M. DOLNEY) * figure 1, positions A,B,93,94 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 21 D
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 04-02-1991	Examiner SCHLAITZ J
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			