



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 162 009 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
21.05.2003 Bulletin 2003/21

(51) Int Cl.7: **B21D 37/14, B21D 37/04**

(43) Date of publication A2:
12.12.2001 Bulletin 2001/50

(21) Application number: **01202014.5**

(22) Date of filing: **28.05.2001**

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

(72) Inventor: **Rimoldi, Fernando**
21050 Marnate (Varese) (IT)

(74) Representative:
Raimondi, Alfredo, Dott. Ing. Prof. et al
Dott. Ing. Prof. Alfredo Raimondi S.r.l.,
Piazza le Cadorna 15
20123 Milano (IT)

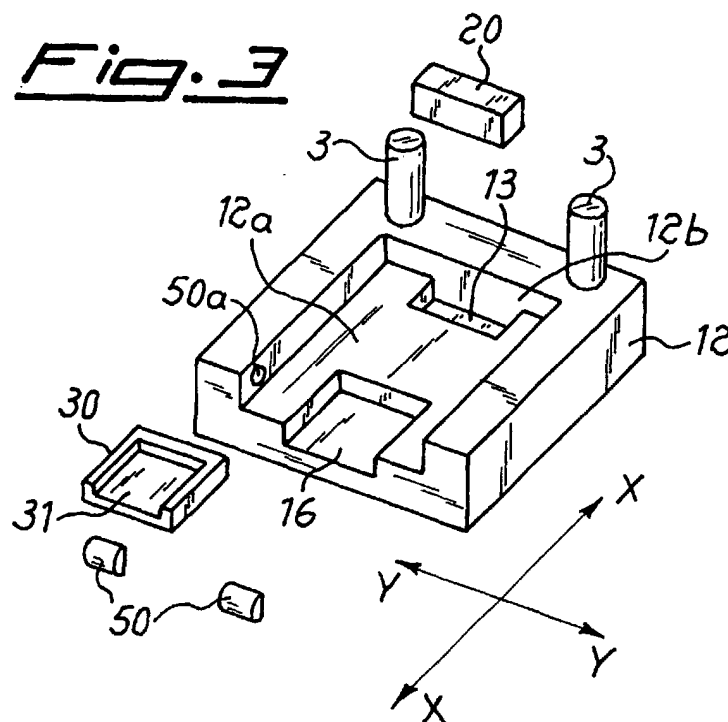
(30) Priority: **09.06.2000 IT MI001305**

(71) Applicant: **Pietro Rimoldi & C. S.r.l.**
Castellanza (Varese) (IT)

(54) **Die-holder/tray assembly with anti-rotation means for die-forming machines**

(57) Die-holder (10,11,12)/tray (40) assembly for the die-forming of materials such as steel and the like, comprising first means (20,43;220,43;320,43;420,43) for relative positioning and locking of the tray (40) with

respect to the die-holder (10,11,12) and second means (30,42;230,42;330,42;430,42) for constraining the relative rotation/rotary translation of the tray (40) with respect to the die-holder.



EP 1 162 009 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 20 2014

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X	US 5 042 352 A (LUX ARTHUR J) 27 August 1991 (1991-08-27) * column 2, line 23 - column 3 *	1,2,6,7	B21D37/14 B21D37/04
Y	---	3,4	
Y	GB 1 433 225 A (DAYTON PROGRESS CORP) 22 April 1976 (1976-04-22) * page 5; figures 9,10 *	3,4	
X	US 5 269 739 A (MAYNARD SCOTT D ET AL) 14 December 1993 (1993-12-14) * column 6, paragraphs 1,2 *	1,2,6,7	
X	DE 199 11 486 A (AMADA MFG AMERICA) 11 November 1999 (1999-11-11) * column 9 *	1,2,6	
			TECHNICAL FIELDS SEARCHED (Int.CI.7)
			B21D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28 March 2003	Examiner Gerard, O
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
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 20 2014

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.

28-03-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5042352	A	27-08-1991	NONE
GB 1433225	A	22-04-1976	US 3848494 A 19-11-1974
		AU 5541673 A 14-11-1974	
		CA 983325 A1 10-02-1976	
		DE 2323208 A1 29-11-1973	
		ES 414490 A1 01-06-1976	
		FR 2183939 A1 21-12-1973	
		JP 49041991 A 19-04-1974	
		IT 1057866 B 30-03-1982	
		US 3908500 A 30-09-1975	
US 5269739	A	14-12-1993	US 5215513 A 01-06-1993
		DE 4218656 A1 14-01-1993	
		FR 2677287 A1 11-12-1992	
		GB 2257082 A ,B 06-01-1993	
		GB 2279283 A ,B 04-01-1995	
		IT 1260541 B 09-04-1996	
		JP 7171639 A 11-07-1995	
DE 19911486	A	11-11-1999	US 6109159 A 29-08-2000
		DE 19911486 A1 11-11-1999	
		JP 11319988 A 24-11-1999	