(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 364 300 A3**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **89310545.2**

(22) Date of filing: **13.10.89**

(51) Int. Cl.5: **B26D 7/26**, //B26F1/38

(30) Priority: **14.10.88 US 257629**

(43) Date of publication of application:
18.04.90 Bulletin 90/16

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

(88) Date of deferred publication of the search report:
24.07.91 Bulletin 91/30

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(54) Rotary die cutter.

(57) A rotary die cutter (10) includes an anvil roll (18) and at least one die roll (20). One or more sheet metal dies (31) with raised cutting edges (31a) are carried on the die roll (20) to cut patterns in a web of material (W) passing between the die (31) and the anvil roll (18). The die cutter (10) has a pair of rigid side frames (14) spanned by a very rigid spreader (16). While the anvil roll (18) is end-mounted (20) between the side frames (14), the die roll is end mounted (22, 24) from the spreader (16). A drive shaft (26) rotatable in the side frames (14) and driven from a lineshaft (70) by a gear system (73, 72, 74, 75, 77) transmits rotation to the die roll (20), while allowing the die roll (20) freedom of movement for independent vertical, axial and circumferential adjustments. This mounting (22) and drive of the die roll (20) can accommodate a full width press web (W) using die rolls (20) having a small diameter, typically a single repeat roll (20), and one whose length is comparable to its circumference. A pair of mutually slidable wedges (36a, 36b) acting against a spring clamping force (54, 54b, 59, 58, 56a) adjusts the vertical position of bearing blocks (44) that rotatably mount the die roll (20). The mounting structure also preferably includes slide rails (48) that extend parallel to the die roll (20) and a threaded shaft (50) to adjust the axial position of the die roll (20). Adjustably rotating only the gear system, or a portion of the gear system directly asociated with the die roll (20), adjusts the circumferential position of the die roll (20).

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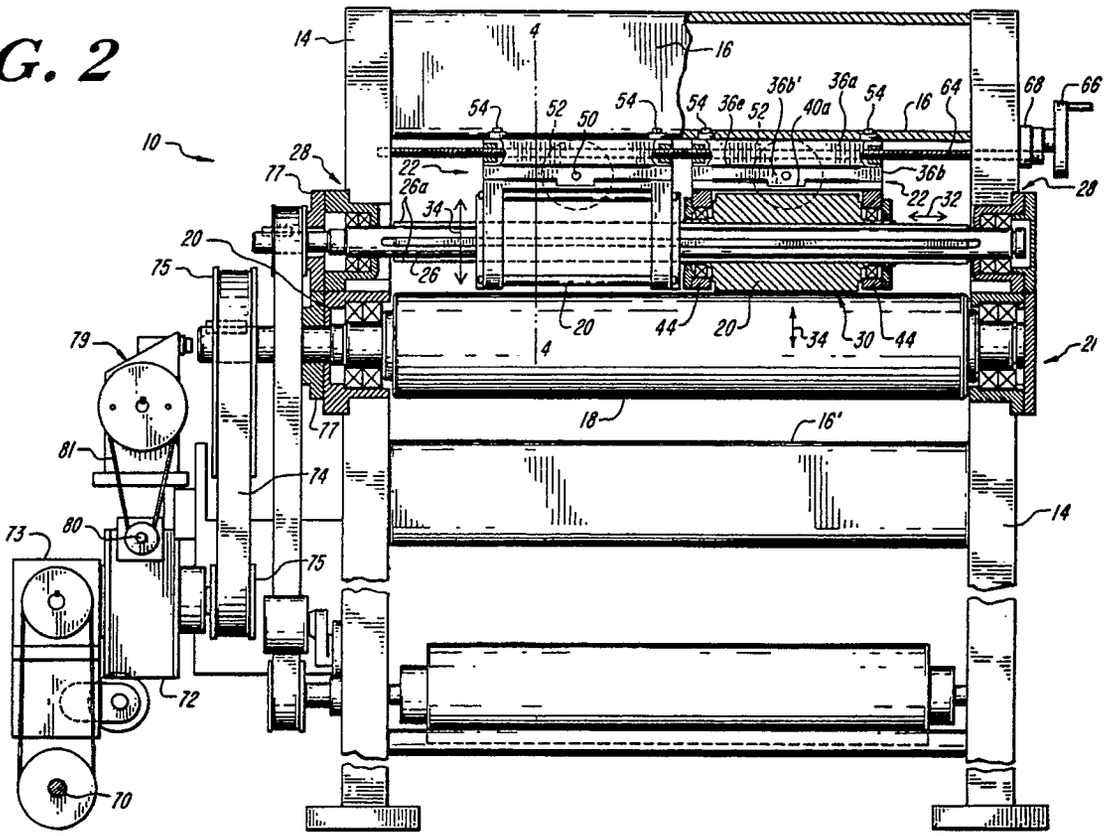
FIG. 2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36e
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36b'
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EUROPEAN SEARCH REPORT

Application Number

EP 89 31 0545

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,Y	GB-A-2 148 771 (WARDLEY) * the whole document *	1-3,5-7,9, 14,15, 21-23, 25-27,4, 10,11,	B 26 D 7/26 B 26 F 1/38
Y	GB-A-2 046 651 (MOLINS) * page 2, lines 44 - 62; figure 1 *	4	
Y	US-A-2 701 613 (BISHOP) * column 2, lines 20 - 53; figure 1 *	10,11	
Y,A	GB-A-2 035 876 (SARKA) * page 5, lines 21 - 55 * * page 5, line 103 - page 6, line 33; figures 6, 8 *	16,12,13, 24	
A	US-A-1 122 268 (FEELEY) * the whole document *	1,21	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

B 26 D
B 23 D
B 26 F

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	04 June 91	GARELLA M.G.C.D.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
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