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(11) **EP 1 369 212 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
03.03.2004 Bulletin 2004/10

(51) Int Cl.7: **B26F 1/42**

(43) Date of publication A2:
10.12.2003 Bulletin 2003/50

(21) Application number: **03253543.7**

(22) Date of filing: **04.06.2003**

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

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(30) Priority: **06.06.2002 GB 0212928**

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(54) **A die cutting machine**

(57) A die cutting machine (10) for cutting and/or creasing blanks comprises a cutter die (18) having an operative surface provided with a pattern of cutting and/or creasing blades therein, a pair of juxtaposed impression rollers (23,24) defining a gap therebetween and

conveyor means (15) for conveying the cutter die (18) back and forth from one side of the impression rollers (23,24) to the other, through the gap defined therebetween. The conveyor means (15) extends continuously from one side of the impression rollers to the other and the cutter die (18) is fixedly mounted thereto.

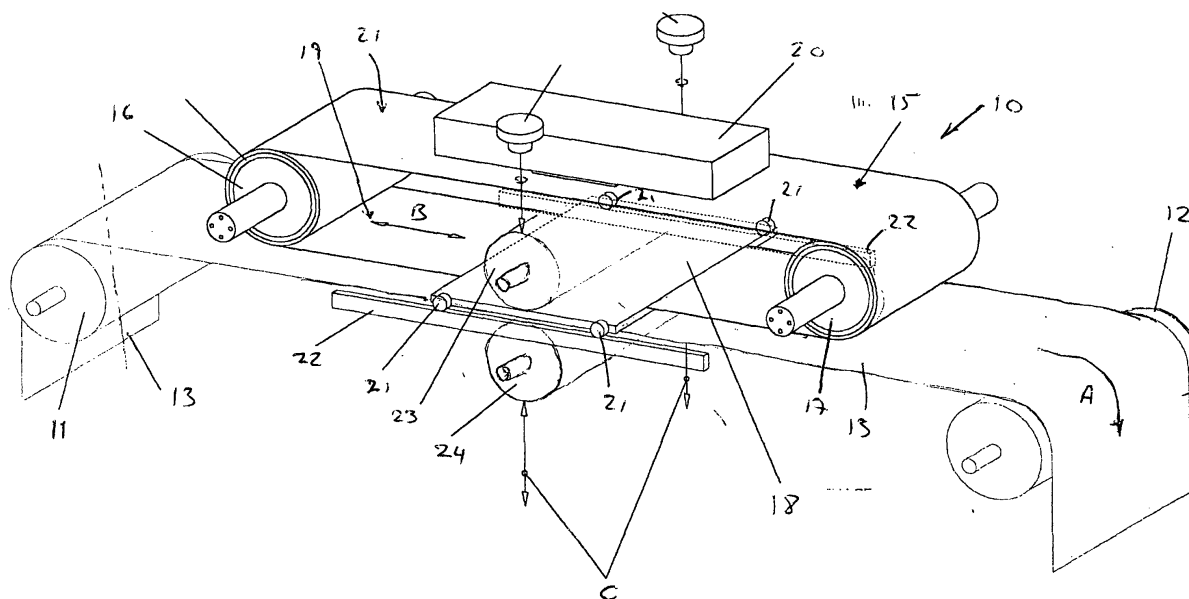


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 03 25 3543

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.7)
X	EP 0 595 243 A (ISEL CO LTD) 4 May 1994 (1994-05-04) * column 7, line 26 - column 10, line 13; figures * * column 16, line 15 - column 16, line 19 *	1-3	B26F1/42
A	---	14-20	
X	US 2 795 275 A (S.S.MINER) 11 June 1957 (1957-06-11) * column 3, line 10 - column 4, line 35; figures 1,3,4 *	1	
A	---	14-20	
A	FR 2 578 476 A (GILLET MICHEL) 12 September 1986 (1986-09-12) * figures 6-8 *	14-20	
A	---	14-20	
A	US 6 220 136 B1 (BENES DAVID ET AL) 24 April 2001 (2001-04-24) * column 7, line 51 - column 8, line 33; figures 5,6 *	14-20	
A	---	14-20	
A	US 3 213 737 A (WRIGHT DAVID C) 26 October 1965 (1965-10-26) * column 2, line 33 - column 2, line 69; figure 2 *	14-20	
A	---	14-20	
A	US 3 581 617 A (LYSOBEY JOHN W) 1 June 1971 (1971-06-01) * column 3, line 25 - column 3, line 30; figures 2,8,10 *	14-20	

The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 15 December 2003	Examiner Canelas, R.F.
<p>CATEGORY OF CITED DOCUMENTS</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 & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)



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Application Number

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
1-3, 14-20
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-3

(Group A) claims 2-3 specify the features of the die and solve the problem of defining the type of die to be used with the machine.

2. Claim : 4

(Group B) refers to sheet feeder and stacking means to solve the problem of input and output of the sheets.

3. Claims: 5-7

(Group C) refers to means to solve the problem of feeding a continuous web to the machine.

4. Claim : 8

(Group D) refers to means to solve the problem of making the return of the die possible.

5. Claims: 9-12

(Group E) refers to a general type of conveyor means of the type of belt, chain or cable, defining means to solve the problem of defining the conveyor means.

6. Claim : 13

(Group F) refers to means to solve the problem of the return of the die (without lowering one of the rollers)

7. Claims: 14-20

(Group G) refers to a particular type of die.

8. Claims: 21,22

(Group H) refers to an arrangement with several machines to solve the problem of performing successive operations.



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

9. Claim : 23

(Group H) refers to a method solving the problem of operating the machine.

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

EP 03 25 3543

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
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15-12-2003

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