



(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
06.11.2002 Bulletin 2002/45

(51) Int Cl.7: **B65H 51/22**

(43) Date of publication A2:
19.12.2001 Bulletin 2001/51

(21) Application number: **01111992.2**

(22) Date of filing: **22.05.2001**

(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

- **Pedrini, Giovanni**
24026 Leffe (Prov. of Bergamo) (IT)
- **Magoni, Ruggero**
24025 Gazzaniga (Prov. of Bergamo) (IT)
- **Castelli, Rosario**
24024 Gandino (Prov. of Bergamo) (IT)

(30) Priority: **02.06.2000 IT TO000514**

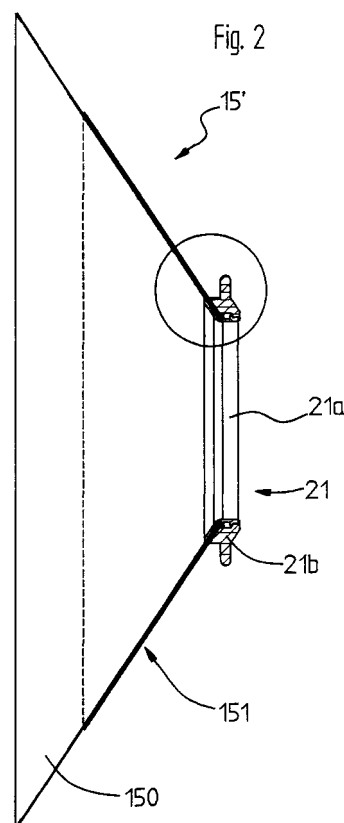
(71) Applicant: **L.G.L. Electronics S.p.A.**
24024 Gandino (Bergamo) (IT)

(74) Representative: **Modiano, Guido, Dr.-Ing. et al**
Spandonari & Modiano S.r.l.,
Corso Duca degli Abruzzi, 16
10129 Torino (IT)

(72) Inventors:
• **Zenoni, Pietro**
24026 Leffe (Prov. of Bergamo) (IT)

(54) **Braking means of self-adjusting thread braking devices for weft feeders**

(57) A braking means (15') for self-adjusting thread braking devices (14) of weft feeders which comprises a first frustum-shaped body (150), which is substantially flexible both radially and axially, and a second frustum-shaped body (151) which is fitted over the first one and is arranged axially only in the region downstream of the drum of the feeder, over a portion (T) having a suitable length, and is adapted to give the portion of the body of the braking means (15') the rigidity that is necessary and sufficient to transmit to the region of tangency of the body with the drum of the feeder the action applied by the elastic means which press on the braking means (15').





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 11 1992

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)
A	WO 98 38124 A (IRO AB ;OHLSON PER (SE); JACOBSSON KURT ARNE GUNNAR (SE)) 3 September 1998 (1998-09-03) * page 12, line 25 - page 13, line 6; figure 13 *	1, 2	B65H51/22
A	DE 297 21 718 U (IRO PATENT AG) 8 April 1999 (1999-04-08)		
A	WO 94 12420 A (MAINA BRUNO ;ROJ ELECTROTEX NUOVA SRL (IT)) 9 June 1994 (1994-06-09)		
A	US 5 673 729 A (MAINA BRUNO ET AL) 7 October 1997 (1997-10-07)		
			TECHNICAL FIELDS SEARCHED (Int.CI.7)
			B65H D03D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 September 2002	Examiner Van Gelder, P
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 92 (P04C01)

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

EP 01 11 1992

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.

16-09-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9838124	A	03-09-1998	CN 1251078 T	19-04-2000
			DE 59801860 D1	29-11-2001
			WO 9838124 A1	03-09-1998
			EP 0963335 A1	15-12-1999
			US 6322016 B1	27-11-2001
DE 29721718	U	08-04-1999	DE 29721718 U1	08-04-1999
			DE 59804608 D1	01-08-2002
			WO 9929608 A1	17-06-1999
			EP 1040068 A1	04-10-2000
WO 9412420	A	09-06-1994	IT 1256329 B	30-11-1995
			DE 69307923 D1	13-03-1997
			DE 69307923 T2	22-05-1997
			WO 9412420 A1	09-06-1994
			EP 0670810 A1	13-09-1995
			JP 8503682 T	23-04-1996
			US 5678779 A	21-10-1997
US 5673729	A	07-10-1997	IT 1263623 B	27-08-1996
			AU 6203794 A	26-09-1994
			BR 9405936 A	12-12-1995
			DE 69403636 D1	10-07-1997
			DE 69403636 T2	02-10-1997
			EP 0686128 A1	13-12-1995
			JP 8512271 T	24-12-1996
			CN 1118152 A ,B	06-03-1996
			CZ 9501950 A3	13-12-1995
			WO 9420402 A2	15-09-1994
			ES 2102846 T3	01-08-1997
			RU 2112821 C1	10-06-1998
			TR 27557 A	08-06-1995