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

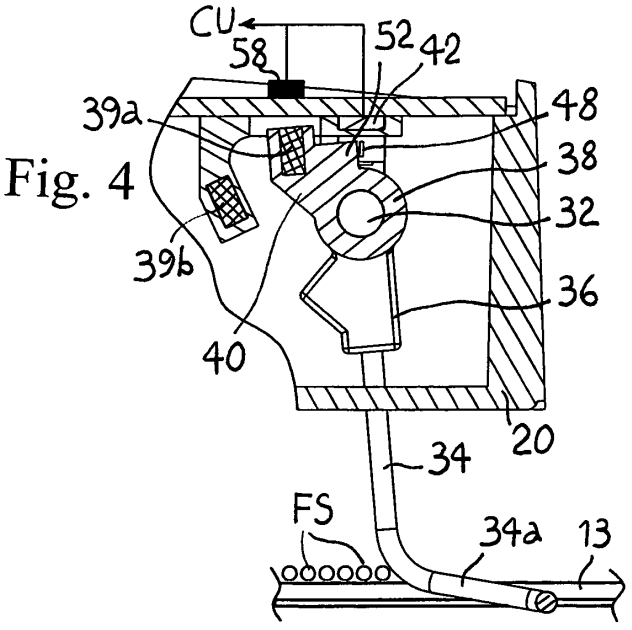
(72) Inventors:
- **Zenoni, Pietro**
  24026 Leffe (BG) (IT)
- **Castelli, Rosario**
  24024 Gandino (BG) (IT)

(74) Representative: **Spandonari, Carlo et al**
Spandonari & Modiano s.r.l.
corso Duca degli Abruzzi 16
10129 Torino (IT)

(54) Weft stock detector for weft feeders

(57) The detector is applied to weft feeders provided with a stationary drum (12) on which yam loops are wound to form a weft stock (RT). Three feeler arms (22, 24, 26) are hinged by side of the drum about respective axes (28, 30, 32) and are biased with their respective contact ends (34a) against the drum for swinging between an active lifted position and a lowered resting postion in relation to the presence/absence of loops on the drum. Photoelectric cells (42) arranged to detect the movements of the feeler arms each comprise an emitting diode (47) generating a stream of photons through an elongated narrow slot (48) extending radially, and a photodiode (50) in front of the slot (48). The feeler arm has a shield (52) insertable between the diode and the photodiod and delimited frontally by a rectilinear edge (54) aligned to the outer edge of the slot with the feeler arm in its resting position, in order to obscure the slot.

Fig. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 06 02 1600

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 99/30999 A (IRO PATENT AG [CH]; MAGNUSSON PATRIK JONAS [SE]) 24 June 1999 (1999-06-24) * page 9, paragraph 4 - page 10, paragraph 1; figures 2,4,5 *	1-4	INV. D03D47/36 D03D47/34
A	EP 0 965 552 A (LGL ELECTRONICS SPA [IT]) 22 December 1999 (1999-12-22) * figure 2 *		

TECHNICAL FIELDS SEARCHED (IPC)

D03D
D04B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	19 March 2009	Pussemier, Bart

CATEGORY OF CITED DOCUMENTS

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19-03-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9930999 A	24-06-1999	CN 1282303 A	31-01-2001
		CN 1282304 A	31-01-2001
		CN 1285803 A	28-02-2001
		DE 19756243 A1	24-06-1999
		WO 9930998 A1	24-06-1999
		WO 9931308 A2	24-06-1999
		EP 1040067 A1	04-10-2000
		EP 1040069 A1	04-10-2000
		EP 1047819 A2	02-11-2000
		US 6409114 B1	25-06-2002
EP 0965552 A	22-12-1999	DE 69909907 D1	04-09-2003
		DE 69909907 T2	03-06-2004
		IT TO980520 A1	16-12-1999
		US 6158480 A	12-12-2000

EPO FORM P0459

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