**Europäisches Patentamt** 

**European Patent Office** 

Office européen des brevets



EP 0 979 794 A3

(12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: **02.11.2000 Bulletin 2000/44** 

(43) Date of publication A2: 16.02.2000 Bulletin 2000/07

(21) Application number: 99113720.9

(22) Date of filing: 13.07.1999

(51) Int. Cl.<sup>7</sup>: **B65H 63/00** 

(11)

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 11.08.1998 JP 22643598

(71) Applicant:

Murata Kikai Kabushiki Kaisha Minami-ku, Kyoto-shi, Kyoto 601 (JP) (72) Inventor: Kawarabashi, Tsukasa Kyoto-shi, Kyoto (JP)

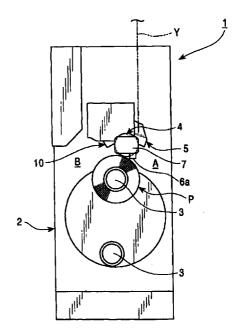
(74) Representative:

Liedl, Christine, Dipl.-Chem. et al Albert-Rosshaupter-Strasse 65 81369 München (DE)

## (54) Take-up winding device

To reliably detect yarn that is wound around a contact roller a take-up winding device for winding up a yarn Y that contacts a contact roller 4 onto a bobbin holder 3 is provided with a light projector 6a and a light receiver 6b that form part of an optical detecting device 6. A varn detection light beam L passes through the vicinity of the outer circumferential surface 4a of the contact roller 4. The light projector 6a and the light receiver 6b are provided on a side A, which constitutes an open area. The light projector 6a and the light receiver 6b are located in areas where accompanying air flow generated due to the rotation of the contact roller passes through. A lap feeler 10 comprising a detecting member 11 that arranges its tip 11a close to the contact roller's outer circumferential surface 4a is provided.

FIG. 1





## **EUROPEAN SEARCH REPORT**

Application Number EP 99 11 3720

3-4	Citation of document with in	dication, where appropriate,	Relevant	CLASSIFICATION OF THE
Category	of relevant pass		to claim	APPLICATION (Int.Cl.7)
X	EP 0 072 935 A (ERW OPTIK-ELEKTRONIK) 2 March 1983 (1983- * page 1, line 1 - * page 5, line 18 -	03-02) line 21 *	1,3	В65Н63/00
A	US 3 643 883 A (0. 22 February 1972 (1 * column 1, line 73		1,4	
				TECHNICAL FIELDS
				SEARCHED (Int.CI.7)
	The present search report has	been drawn up for all claims		
	Place of search	Date of completion of the search		1 Examiner
	THE HAGUE	11 September 2000	11 September 2000 Goo	
X : par Y : par doc A : tecl O : nor	CATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone ticularly relevant if combined with anotument of the same category hnological background written disclosure with document of the same category hnological background	T: theory or principle E: earlier patent doc after the filing dat her D: document cited in L: document cited fo  &: member of the sa document	ument, but public the application or other reasons	ished on, or

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

EP 99 11 3720

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.

11-09-2000

Patent documen cited in search rep		Publication date		Patent family member(s)	Publication date
EP 0072935	A	02-03-1983	DE JP US ZA	3133494 A 58047768 A 4549086 A 8206099 A	07-04-198 19-03-198 22-10-198 27-07-198
US 3643883	Α	22-02-1972	CH DE FR GB	494832 A 1940272 A 2015258 A 1275974 A	15-08-197 12-02-197 24-04-197 01-06-197
	<b>-</b>				

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82