# (11) **EP 1 849 894 A3**

(12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: **05.03.2008 Bulletin 2008/10** 

(51) Int Cl.: **D02G** 1/00 (2006.01)

(43) Date of publication A2: 31.10.2007 Bulletin 2007/44

(21) Application number: 07007132.9

(22) Date of filing: 04.04.2007

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

**Designated Extension States:** 

AL BA HR MK YU

(30) Priority: 06.04.2006 JP 2006104872

(71) Applicant: TMT Machinery, Inc.
Osaka-shi, Osaka 541-0041 (JP)

(72) Inventor: Nakagawa, Osamu Kyoto-shi Kyoto 612-8686 (JP)

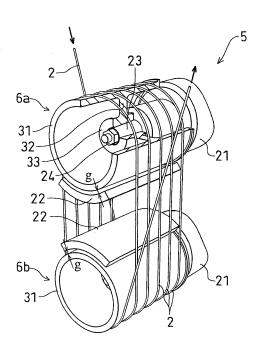
(74) Representative: Müller-Boré & Partner Patentanwälte
Grafinger Strasse 2
81671 München (DE)

#### (54) Yarn heating device

(57) An object of the present invention is to provide a structure of a yarn heating device suitable for a high-speed heat processing of a yam.

The yarn heating device (5) comprises rollers (6a and 6b) which a yarn (2) is wound around, induction heating coils (22 and 22) as a heating means, and electric motors (21 and 21) for driving to rotate the rollers (6a and 6b). Each of the rollers (6a and 6b) includes a cylindrical portion (31) which the yarn (2) is wound around and a flange portion (32) for connecting the cylindrical portion (31) with an output shaft (23) of the electric motor (21). The induction heating coil (22) is disposed outside each of the rollers (6a and 6b), and each of the rollers (6a and 6b) is heated by the induction heating coil (22) to heat the yarn (2).

FIG. 2



EP 1 849 894 A3



# **EUROPEAN SEARCH REPORT**

Application Number EP 07 00 7132

	Citation of document with ind			OLAPOIEIOATION OF THE
Category	Citation of document with indi of relevant passag		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Х	US 5 009 830 A (CHER 23 April 1991 (1991- * column 3, line 39 figures 1,2 *	04-23)	1-5	INV. D02G1/00
Х	DE 22 04 816 A1 (SIE 9 August 1973 (1973- * page 3, lines 25-3	08-09)	1-5	
X	JP 07 278989 A (MEID LTD) 24 October 1995 * abstract; figure 5	(1995-10-24)	CO 6	
				TECHNICAL FIELDS SEARCHED (IPC)
				D01D D02J H05B D01H B21B
	The present search report has be	en drawn up for all claims  Date of completion of the sear	sh	Examiner
	The Hague	7 December 20		BEURDEN, S
X : parti Y : parti docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anothe iment of the same category nological background written disclosure mediate document	T : theory or pr E : earlier pate after the filir D : document c L : document	Inciple underlying the int document, but publis g date ited in the application ited for other reasons	nvention shed on, or

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

EP 07 00 7132

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.

07-12-2007

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
US 5009830	A	23-04-1991	AU AU CA CN DE DE JP JP JP NZ RU	617638 5149190 2012190 1046200 69029756 69029756 0388878 2967098 3019912 232949 2002860	A1 A1 D1 T2 A2 B2 A	28-11-199 20-09-199 20-09-199 17-10-199 06-03-199 10-07-199 26-09-199 25-10-199 29-01-199 26-11-199
DE 2204816	A1	09-08-1973	JР	48084936	Α	10-11-197
JP 7278989	Α	24-10-1995	NONE			

FORM P0459

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