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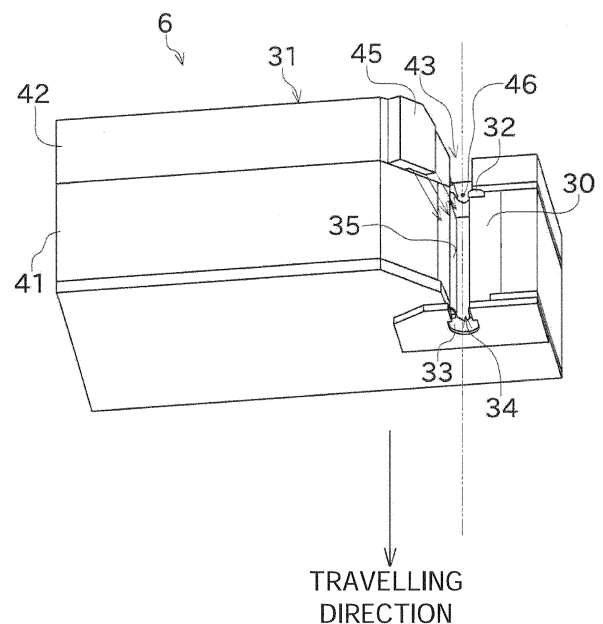
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(54) **Yarn monitoring device and yarn winding machine including the same**

(57) A yarn monitoring device (6) includes a holder (30), a detecting section, and a blowing section (45). The holder (30) is provided with a first yarn passage (34) for enabling passage of a spun yarn travelling along a predetermined yarn path. The detecting section is adapted to detect at least at a portion of a side wall surface (35) of the first yarn passage (34), status of the spun yarn. The blowing section (45) is adapted to blow compressed air in a predetermined blowing direction to the side wall surface (35) of the first yarn passage (34), and configured such that when viewed in a direction orthogonal to the yarn path and parallel to the side wall surface (35), the blowing direction is set diagonal to the side wall surface (35).

FIG. 3



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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	JP 2001 261233 A (MURATA MACHINERY LTD) 26 September 2001 (2001-09-26) * paragraphs [0028], [0029]; figures 5,6 *	1-9	INV. D01H13/14 B65H54/70 B65H63/06
A,D	JP 2005 232650 A (MURATA MACHINERY LTD) 2 September 2005 (2005-09-02) * paragraph [0031]; figures *	1-9	
A	JP H10 305967 A (MURATA MACHINERY LTD) 17 November 1998 (1998-11-17) * paragraphs [0010], [0018], [0019]; figures *	1-9	
A	CH 535 711 A (LOEPFE AG GEB [CH]) 15 April 1973 (1973-04-15) * column 2, lines 32-38 * * column 3, lines 5-6; figures *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			D01H B65H G01N
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 July 2017	Examiner Lemmen, René
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			

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

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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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14-07-2017

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2001261233 A	26-09-2001	NONE	
JP 2005232650 A	02-09-2005	NONE	
JP H10305967 A	17-11-1998	NONE	
CH 535711 A	15-04-1973	CH 535711 A DE 2145732 A1	15-04-1973 15-03-1973

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