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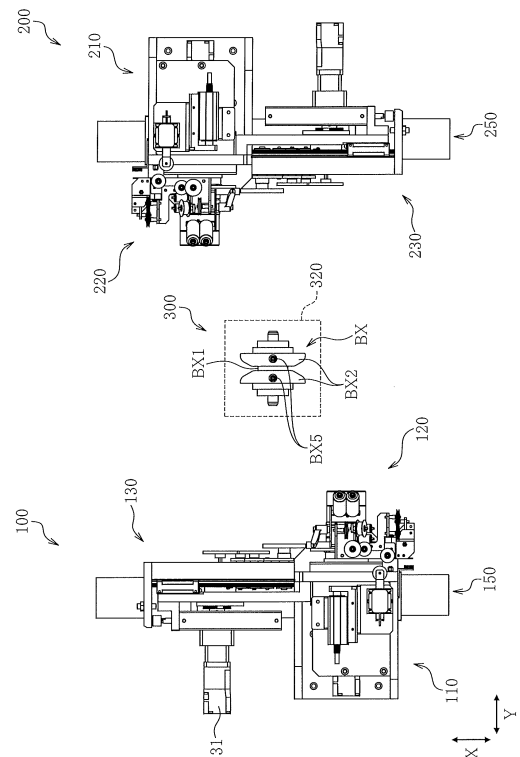
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(54) **OPTICAL FIBER WINDING MECHANISM AND METHOD FOR MANUFACTURING OPTICAL PATH FOR OPTICAL FIBER GYRO**

(57) An optical fiber winding mechanism 2 feeds an optical fiber FB from raw material bobbins B1 to B2 and winds the optical fiber FB around a winding bobbin, and includes a first raw material bobbin-side unit 100 to mount the first raw material bobbin B1 thereon, a second raw material bobbin-side unit 200 to mount the second raw material bobbin B2 thereon, a winding bobbin-side unit 300 to mount the winding bobbin BX thereon, and a controller 800 to control each of the units. The first raw material bobbin-side unit 100 includes a body device 110, a head 120 capable of rotating with respect to the body device 110, a rotation assist device 130 capable of engaging with the head 120, a rotation mechanism 140 capable of rotating the body device 110 around a Z direction, and a slide mechanism 150 capable of moving the rotation mechanism 140.

[fig.2]



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EUROPEAN SEARCH REPORT

Application Number
EP 19 21 1094

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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)
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A	----- CN 107 830 852 A (YANG XUEZHI; YANG HAOTIAN) 23 March 2018 (2018-03-23) * paragraph [0007] *	2	ADD. G01C19/72
A	----- EP 0 337 250 A1 (BOEING CO [US]) 18 October 1989 (1989-10-18) * column 5, lines 2-12 * * figures *	3	
A	----- US 6 669 128 B2 (KSARIA CORP [US]) 30 December 2003 (2003-12-30) * column 7, lines 7-22 * * figure 1 *	3	
A,D	----- JP H10 87165 A (CHUO ENG KK) 7 April 1998 (1998-04-07) * the whole document *	1	TECHNICAL FIELDS SEARCHED (IPC) G01C G02B
----- The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 May 2020	Examiner Kloppenburger, Martin
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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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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1-3(completely); 9(partially)

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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1. claims: 1-3(completely); 9(partially)

An optical fiber winding mechanism comprising a dancer mechanism and a tension measuring mechanism.

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2. claims: 4-8(completely); 9(partially)

An optical fiber winding mechanism having a first raw material bobbin-side unit comprising a support shaft, a bearing, a rotating cylinder, and associated driving mechanisms.

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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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13-05-2020

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