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(72) Inventors:
• **Itou, Naoyuki**
Kanazawa-shi, Ishikawa-ken, 921-8650 (JP)
• **Kakutani, Kazuto**
Kanazawa-shi, Ishikawa-ken, 921-8650 (JP)
• **Ataka, Takeshi**
Kanazawa-shi, Ishikawa-ken, 921-8650 (JP)

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(71) Applicant: **TSUDAKOMA KOGYO KABUSHIKI KAISHA**
Kanazawa-shi,
Ishikawa-ken 921-8650 (JP)

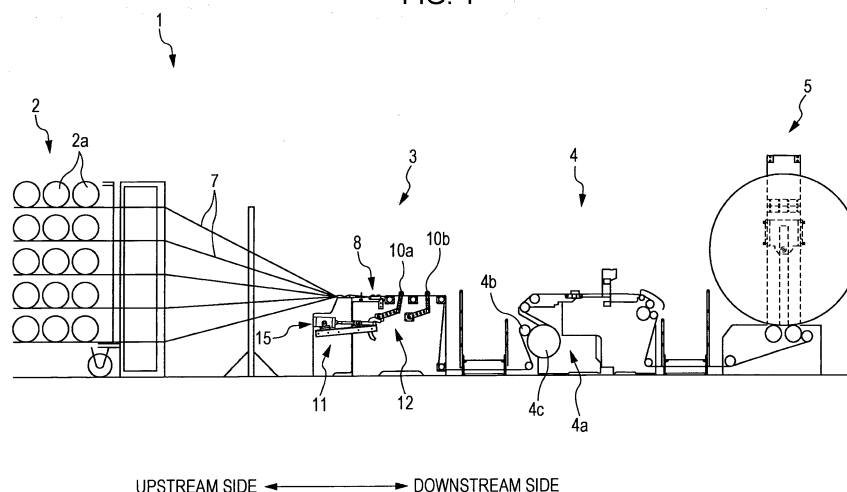
(74) Representative: **Samson & Partner Patentanwälte mbB**
Widenmayerstraße 6
80538 München (DE)

(54) **Method for urging warp yarns in warp tension adjusting device of tire chord weaving apparatus and warp tension adjusting device**

(57) A tire chord weaving apparatus (1) includes a warp tension adjusting device (3) and a loom (4). The warp tension adjusting device (3) includes a dancer roller (10a, 10b) for equalizing tensions of warp yarns drawn from the creel device (2) and a dropper device (8) disposed upstream of the dancer roller (10a, 10b). The loom (4) weaves a tire chord fabric from the warp yarns supplied via the warp tension adjusting device (3). In the tire chord weaving apparatus (1), by using an urging roller (10a) that moves up and down and that is disposed above

the warp yarns so as to extend in a direction perpendicular to a direction in which the warp yarns are fed and an urging device (11) including a fluid-pressure cylinder (15) for applying an urging force (F) to the urging roller (10a) in such a direction that the urging roller (10a) is lowered, the urging force (F) is applied to the urging roller (10a) over a period from a first time after a time at which the loom (4) is stopped to a time at which the loom (4) is restarted.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
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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)
X,D	US 6 016 850 A (ZIMMERMANN EWALD [DE] ET AL) 25 January 2000 (2000-01-25)	1-3	INV. D03D35/00 D03D49/16 D03D51/00
A	* abstract * * column 4, line 59 - column 5, line 60; figures 1,2 *	4-7	
A	----- DE 197 03 002 A1 (LIBA MASCHF [DE]) 30 July 1998 (1998-07-30) * column 3, line 38 - column 4, line 60; figures 1-3 * -----	1-7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			D03D D02H
Place of search		Date of completion of the search	Examiner
Munich		12 September 2016	Louter, Petrus
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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EPO FORM 1503 03.82 (P04C01)



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CLAIMS INCURRING FEES

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

☐ 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):

☐ 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.

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:

see sheet B

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

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

☐ 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:

☐ 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:

☐ 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:

1. claims: 1-7

Urging device

1.1. claims: 1-3

Timing of an urging device

1.2. claims: 4-7

Link mechanism of an urging device

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

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

EP 13 00 2405

5 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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12-09-2016

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