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(71) Applicant: **Bombyx Mori S.r.l.**
36100 Vicenza (IT)

(72) Inventor: **Ribezzo, Aldo**
25015 Desenzano (Brescia) (IT)

(74) Representative: **Crippa, Paolo Ernesto et al**
JACOBACCI & PARTNERS S.p.A.
Piazzale Arnaldo, 2
25121 Brescia (IT)

(54) **Composite tubular textile product**

(57) A composite tubular textile product comprising a yarn (20) and a chain (30) linked to said yarn (20) at discrete points (40). The product, when elastic, can be used for making bracelets, bands for watches, necklaces, belts, half belts and the like.

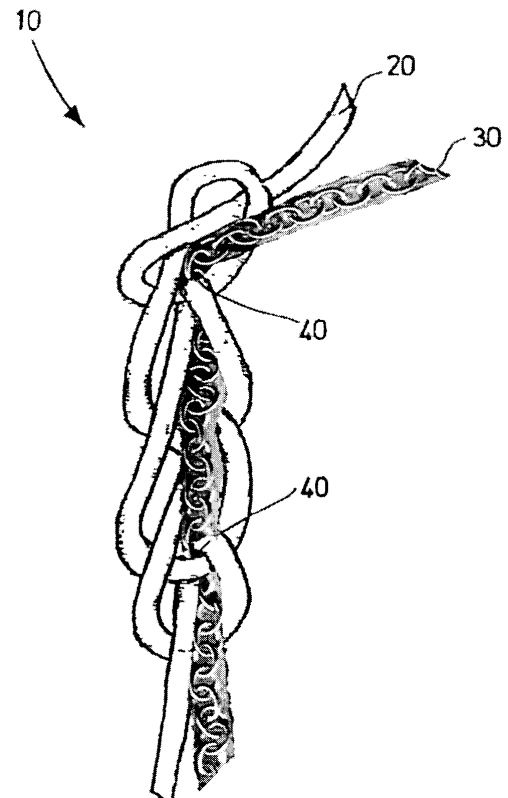


Fig. 1

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Description

[0001] The present finding relates to a composite tubular textile product.

[0002] In the textile industry and in particular, textile industry applied to the sector of accessories for leather goods, costume jewellery, jewellery and others, an increasing trend to use various materials differing from the traditional textile yarns has become widespread, optionally matched with the same traditional yarns.

[0003] The object of the present finding is to obtain a composite tubular textile product comprising yarns of various types and a metal chain, wherein the metal chain does not damage the yarns.

[0004] Another object of the present finding is to obtain a composite tubular textile product on a knitting machine.

[0005] Another object of the present finding is to obtain a composite tubular textile product especially simple and functional, at low cost.

[0006] These objects according to the present finding are achieved by producing a composite tubular textile product according to claim 1.

[0007] Further features of a composite tubular textile product are defined in the dependent claims.

[0008] The features and advantages of a composite tubular textile product according to the present finding will appear more clearly from the following description, made by way of a non-limiting example with reference to the annexed schematic drawings, wherein:

[0009] - figure 1 shows a schematic view of a composite tubular textile product, according to the present finding, wherein the yarn loops are depicted enlarged for greater clarity of representation.

[0010] With reference to the figure, there is shown a composite tubular textile product, globally indicated with reference numeral 10 comprising a yarn 20 and a chain 30, for example of metal.

[0011] Chain 30, schematically shown in the figure, can be of various types, of any thickness, diameters and mechanical construction, for example a sequence of loop links.

[0012] Moreover, chain 30 can be made of a precious metal material, that is, selected from the group of the precious metals, such as gold, silver, platinum and copper.

[0013] Yarn 20 is arranged about chain 30, that is, yarn 20 links chain 30 at discrete points 40 equally spaced from each other. The chain thus linked therefore remains exposed.

[0014] Yarn 20 can without distinction comprise a textile thread, multiple thin threads, a bundle of metal threads, as well as an India rubber thread.

[0015] Moreover, the linking yarn (20) may consist of a yarn tubular consisting of one or more threads.

[0016] Moreover, yarn 20 may be precious, that is, comprising a bundle of precious metal threads, that is, selected from the group comprising gold, silver, platinum, copper, optionally mixed with silk or cashmere.

[0017] The precious yarns may be grouped into various diameters and multiplied according to the desired fineness.

[0018] The production of the composite tubular textile product object of the present finding is obtained for example with a circular knitting machine, for example using a single needle on the roller.

[0019] The metal chain is fed to the centre of the roller and a thread guide feeds the yarn.

[0020] The single needle, at each stitch turn, threads the yarn linking the metal chain at one point.

[0021] The yarn and the chain forming the composite tubular textile product object of the present finding are advantageously capable of bending.

[0022] Moreover, the metal chain does not cut the yarn during the production or during the subsequent use of the product.

[0023] The composite tubular textile product object of the present finding exhibits the advantage of obtaining a strong end product.

[0024] Another advantage of a composite tubular textile product according to the present finding is to produce pleasant chromatic effects as well as special brightness effects.

[0025] It should be noted that the product exhibits an elastic behaviour due to yarn 20, for example made of an elastic material, and to chain 30, when the length thereof is suitably in excess relative to the length of yarn 20 at rest.

[0026] In other words, when yarn 20 is of an elastic material and chain 30 has a length greater than yarn 20 at rest, the product can be elastically extended.

[0027] Advantageously, such characteristic of the product can be used for making a bracelet, for example with a single fastener for multiple sizes, that is, entirely consisting of the annular shaped product.

[0028] According to a further embodiment variation, the product can be used for making a bracelet having a traditional portion, for example stiff, and a portion consisting of product 10.

[0029] According to a further variation, product 10 can be used for making an elastic band for watches, suitably selecting the diameter of chain 30.

[0030] According to a further variation, product 10 can be used for making a necklace.

[0031] According to further variations, product 10 can be used for making belts, half belts, elastic embellishing rims for clothing, leather goods and footwear.

Claims

1. A composite tubular textile product **characterised in that** it comprises a yarn (20) and a chain (30), wherein said yarn (20) is arranged around said chain (30), said chain being linked to said yarn (20) at discrete points (40).

2. A product according to claim 2, **characterised in that** said linking points (40) are equally spaced from each other.
3. A product according to claim 1 or 2, **characterised in that** said yarn (20) comprises a textile thread. 5
4. A product according to claim 1 or 2, **characterised in that** said yarn (20) comprises a bundle of threads. 10
5. A product according to claim 3 or 4, **characterised in that** said threads are metal.
6. A product according to any one of claims 3 to 5, **characterised in that** said yarn (20) is made of an elastic material. 15
7. A product according to any one of the previous claims, **characterised in that** said yarn (2) comprises an India rubber thread. 20
8. A product according to claim 1, **characterised in that** said yarn (20) comprises a yarn tubular consisting of at least one thread. 25
9. A product according to claim 1, **characterised in that** said yarn (20) is made of a material selected from the group of precious metals, that is, gold, silver, platinum, copper. 30
10. A product according to claim 9, **characterised in that** said precious yarn comprises a bundle of precious metal threads.
11. A product according to claim 10, **characterised in that** said precious metal threads are mixed with silk or cashmere. 35
12. A product according to any one of the previous claims, **characterised in that** said chain (30) comprises loop links. 40
13. A product according to any one of the previous claims, **characterised in that** said chain (30) is made of a metal material. 45
14. A product according to claim 13, **characterised in that** said metal material is selected from the group of precious metals, that is, gold, silver, platinum, copper. 50
15. A product according to any one of the previous claims, wherein the chain (30), extended, exhibits a greater length than the yarn (20) at rest. 55
16. A bracelet comprising at least one portion consisting of a product according to claim 15.
17. A bracelet according to claim 16, comprising a further stiff portion.
18. A watch comprising a band, wherein said band comprises at least one portion consisting of a product (10) according to claim 15.
19. A necklace comprising at least one portion consisting of a product according to claim 15.
20. A belt comprising at least one portion consisting of a product according to claim 15.
21. A half belt comprising at least one portion consisting of a product according to claim 15.
22. An item of clothing having at least one elastic rim consisting of a product (10) according to claim 15.

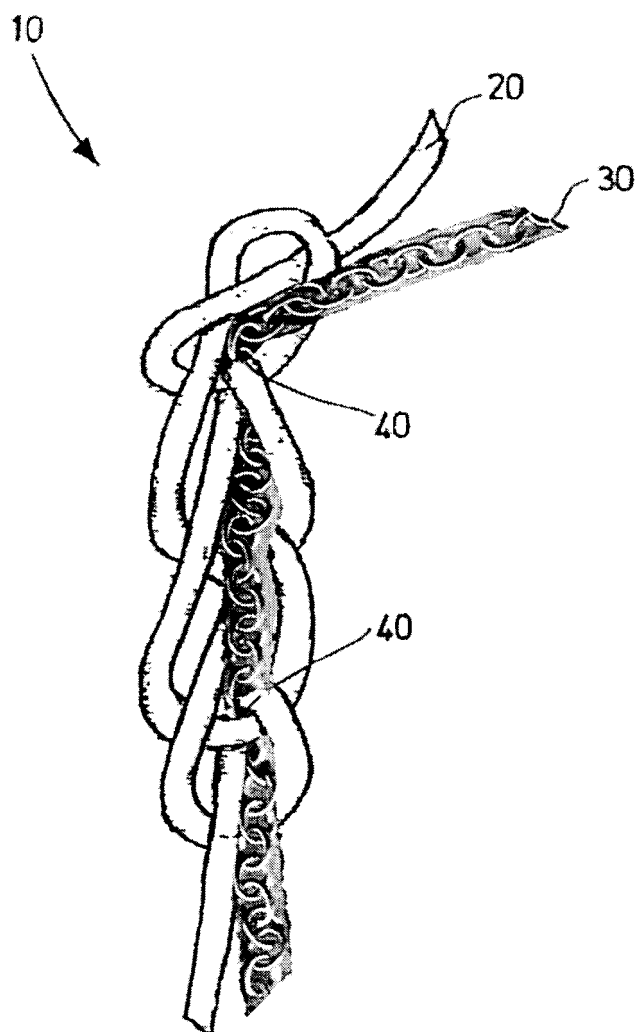


Fig. 1



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 06 11 7590

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	US 3 930 387 A (IMAMURA KOJI) 6 January 1976 (1976-01-06) * figures 2,3 * * column 2, lines 40-46 * * column 1, lines 55,56 * * column 2, lines 59-66 * -----	1-3,8, 12,13,15	INV. D04B21/14 D04D1/00 A44C5/00
X	US 413 894 A (LOUIS H. PRESS) 13 March 1979 (1979-03-13) * figure 14 * * column 2, lines 25-35 * * column 5, lines 45-61 * -----	1-5,12, 13,16, 19-22	
X	FR 2 426 102 A (FANNYFIL SPA [IT]) 14 December 1979 (1979-12-14) * figures 1-7 * * page 1, lines 1,2 * -----	1-3,8,12	
X	US 1 915 792 A (JACK KUGELMAN) 27 June 1933 (1933-06-27) * figures 1,3,4 * -----	1-3,8,12	TECHNICAL FIELDS SEARCHED (IPC)
X	GB 993 531 A (HERMANN HAEMMERLE) 26 May 1965 (1965-05-26) * figure 4 * * page 3, lines 18-30 * -----	1-3,8, 12,13	D04B D04D A44C
A	WO 95/29278 A (FIRSTER CO LTD [JP]; ORIMA HAJIME [JP]) 2 November 1995 (1995-11-02) * claim 1; figures 1,3 * -----	1-22	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 31 October 2006	Examiner Iamandi, Daniela
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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31-10-2006

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3930387	A	06-01-1976	DE 2351939 A1 02-05-1974
			FR 2203387 A5 10-05-1974
			GB 1452286 A 13-10-1976
			IT 995926 B 20-11-1975
			JP 49076067 U 02-07-1974
US 413894	A	NONE	
FR 2426102	A	14-12-1979	NONE
US 1915792	A	NONE	
GB 993531	A	26-05-1965	CH 393122 A 31-05-1965
			DK 115453 B 06-10-1969
			LU 41331 A1 07-05-1962
WO 9529278	A	02-11-1995	CN 1149324 A 07-05-1997
			DE 69506698 D1 28-01-1999
			DE 69506698 T2 20-05-1999
			EP 0756646 A1 05-02-1997
			KR 235894 B1 15-12-1999
			US 6015618 A 18-01-2000