(12) **Oversettelse av europeisk patentskrift**

(11) **NO/EP 2790539 B1**

NORGE

(19) NO

(51) Int Cl.

A41G 5/00 (2006.01)

Patentstyret

(21)	Oversettelse publisert	2015.08.10
(80)	Dato for Den Europeiske Patentmyndighets publisering av det meddelte patentet	2015.04.01
(86)	Europeisk søknadsnr	12816429.0
(86)	Europeisk innleveringsdag	2012.12.07
(87)	Den europeiske søknadens Publiseringsdato	2014.10.22
(30)	Prioritet	2011.12.12, AT, 18152011
(84)	Utpekte stater	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
	Utpekte samarbeidende stater	BA ME
(73)	Innehaver	Hairdreams Haarhandels GmbH, Floraquellweg 9, 8051 Graz, AT-Østerrike
(72)	Oppfinner	OTT, Gerhard, GSK Stockmann25 International Business Park, 04-113German Centre, Singapore 609916, SG-Singapore
(74)	Fullmektig	Bryn Aarflot AS, Postboks 449 Sentrum, 0104 OSLO, Norge

(54) Benevnelse **REPLACEMENT HAIR STRAND HAVING A HAIR-JOINING ELEMENT**

(56) Anførte publikasjoner

WO-A1-2012/046188
AT-A4- 504 102
AT-B- 412 141

REPLACEMENT HAIR STRAND HAVING A HAIR-JOINING ELEMENT

The invention relates to a replacement hair strand having a hair-joining element consisting of a flat platelet with a replacement hair strand embedded in the end thereof.

An extremely large number of variants of replacement hair strands that are embedded at the end in a hair-joining element made of thermoplastic have been introduced into the market in recent years. The spectrum of shapes of the thermoplastic hair-joining elements extends from completely flat, through slightly roof-gutter shaped platelets having U-, V-, and C- shapes. In addition, U-shaped thermoplastic hair-joining elements are disclosed (e.g., in Austrian Patent AT 412 141), which also have longitudinal and/or transverse ribs. Recently a block-shaped hair-joining element, i.e., essentially consisting of a rectangular prismatic thermoplastic hair-joining element, has been patented (AT 504 102), which has profiling (waves, riffles) over a free surface, onto which the natural hair is placed in contact with the replacement hair strand and pressed with the application of heat into the body of the hair-joining element, which completes the joining of the hair.

In the case of all thermoplastic hair-joining elements it is necessary to have sufficient thermoplastic material to achieve a secure melted joint on the one hand, while using as little material as possible, on the other hand, so that the joining of the replacement hairs to the natural hairs is practically undetectable. It is also essential that manipulations during the application of the replacement hair strands to the natural hair be kept as simple as possible.

With respect to the abovementioned conditions, the block shaped hair-joining element according to AT 504 102 was then developed, which nonetheless has the drawback of relatively high material costs. The object of the present invention is to minimize the material costs without foregoing the security of the hair connection.

This objective is achieved with a replacement hair strand having a hair-joining element according to the prior art, in which at least one rib protrudes obliquely with respect to the strand direction from one of the two flat sides of the platelet

The advantageous improvement of the hair-joining element disclosed in AT 504 102 is that instead of a prismatic body, a familiar flat, thin platelet acts as the joining element, which in contrast to the conventional platelets has at least one rib that protrudes obliquely to the strand direction that es-

sentially supplies the material for joining the replacement hair strands to the natural hair strands. The replacement hair strands according to the invention can thus be attached more securely to the natural hair than was previously the case with conventional platelet-shaped joining elements. In contrast to the block-shaped hair-joining element of the prior art having single-sided profiling, the joining element according to the invention has the advantage of a smaller volume, but still has sufficient joining material due to the rib. The novel feature is that the hair-joining element no longer needs to be a thermoplastic, since there are materials with which two or more elements can be joined by embedding with one another, wherein the embedding and curing is not triggered by hot pressing, but rather through ultraviolet or laser light, for example. The object of the invention thus extends to any hair joining materials that assure the initial embedding of the replacement hair strands and the embedding of natural hair strands used in the course of hair lengthening or hair thickening.

A single rib can protrude from the platelet, but a plurality of ribs can also be provided. The angle of the rib with respect to the strand direction can be 90°, i.e., the rib can be oriented perpendicular to the strand direction; but it can also be different, e.g., such that the rib extends approximately diagonally above the flat side of the platelet. The profile of the rib can likewise be varied. In the simplest case it can be rectangular, but a trapezoidal or dovetail profile is also possible, i.e., since the rib is either thicker or thinner where it attaches to the platelet than at its free end. The height of the rib can also be varied, i.e., it can be lower or higher than the longitudinal extent in the strand direction. However, it is always necessary that enough material be included for securely embedding the natural hair strands.

Based on experiments, it has proven to be optimal - both in forming the hair-joining element and the end embedding of the replacement hair strands, and in the application of the replacement hair strands to the natural hair - when the rib has about the same platelet thickness at its base and is tapered toward its free end. It is likewise favorable when the maximum height of the rib corresponds to the longitudinal size of the platelet in the strand direction.

The invention is explained in greater detail by a preferred exemplary embodiment shown in Fig. 1 and 2 as depicted in an oblique view.

The natural hair strand with the hair-joining element according to Fig. 1 has a flat platelet 1 in which the ends of a replacement hair strand 2 are embedded in the longitudinal direction. A single rib 3 protrudes perpendicular to the strand direction from one of the two flat sides of the platelet 1, preferentially around the middle of the longitudinal side of the platelet 1. Fig. 2 shows an embodiment having two ribs 3; more ribs can also be provided. The rib 3 has at its base approximately the thickness d of platelet 1; its height h is at most the length l of the platelet 1.

In the application of the replacement hair strand 2 to a natural hair strand 4, the latter is applied to the rib(s) 3, and is embedded in it, depending on the respective material of the hair-joining element consisting of platelet 1 with rib 3 (in the case of a thermoplastic hair-joining element, e.g., with hot forceps). The rib material thereby envelops the hairs of the natural hair strands, whereby a secure connection is made.

PATENTKRAV

1. Erstatningshårstrå med hårforbindelseselement, som består av en flat blodplate (1) i hvilken et erstatningshårstrå (2) er innlagt i med sin ende, k a r a k t e r i s e r t v e d a t i det minste en ribbe (3) stikker frem på skrå med hensyn til stråretningen fra en av de to flate sider av blodplaten (1).

2. Erstatningshårstrå med hårforbindelseselement ifølge krav 1, k a r a k t e r i s e r t v e d a t ribben (3) har ved sitt fundament omkring tykkelsen (d) av blodplaten (1) og er avsmalnet mot sin frie ende.

3. Erstatningshårstrå med hårforbindelseselement ifølge krav 1 eller 2, k a r a k t e r i s e r t v e d a t høyden (h) av ribben (3) svarer på det meste til den langsgående forlengelse (1) av blodplaten (1) i stråretningen.

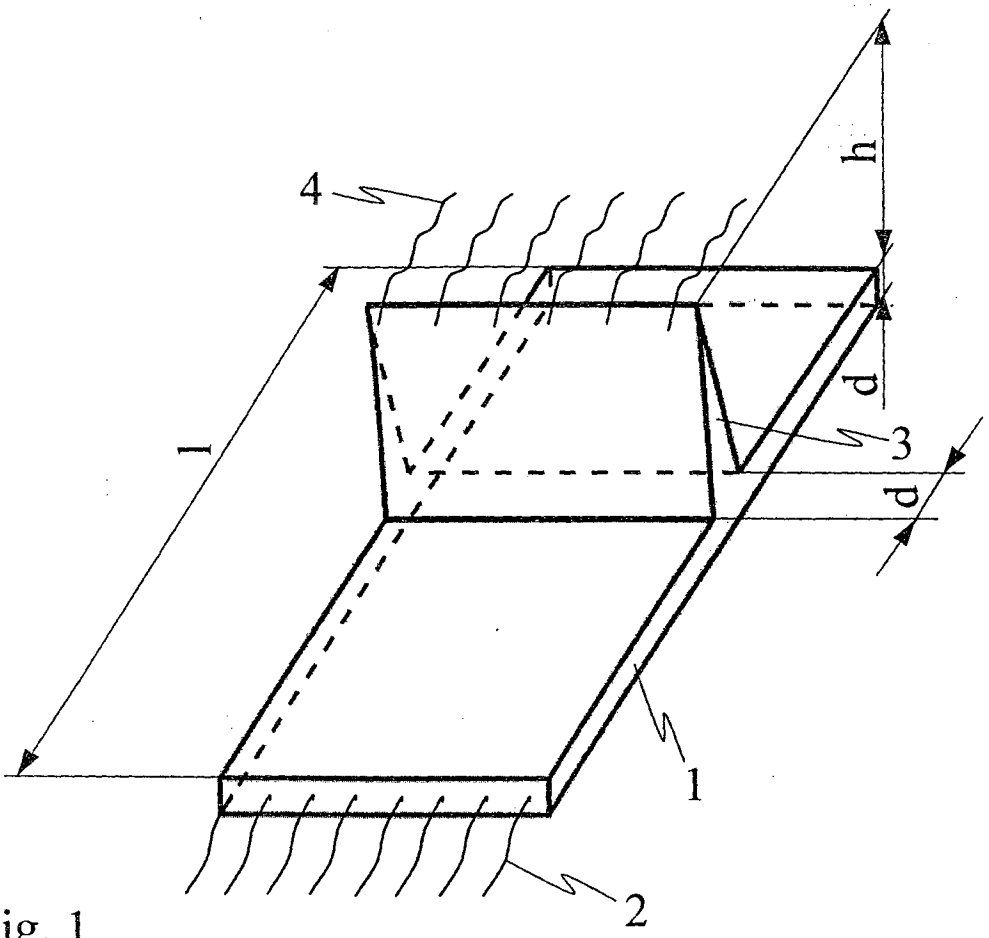

Fig. 1

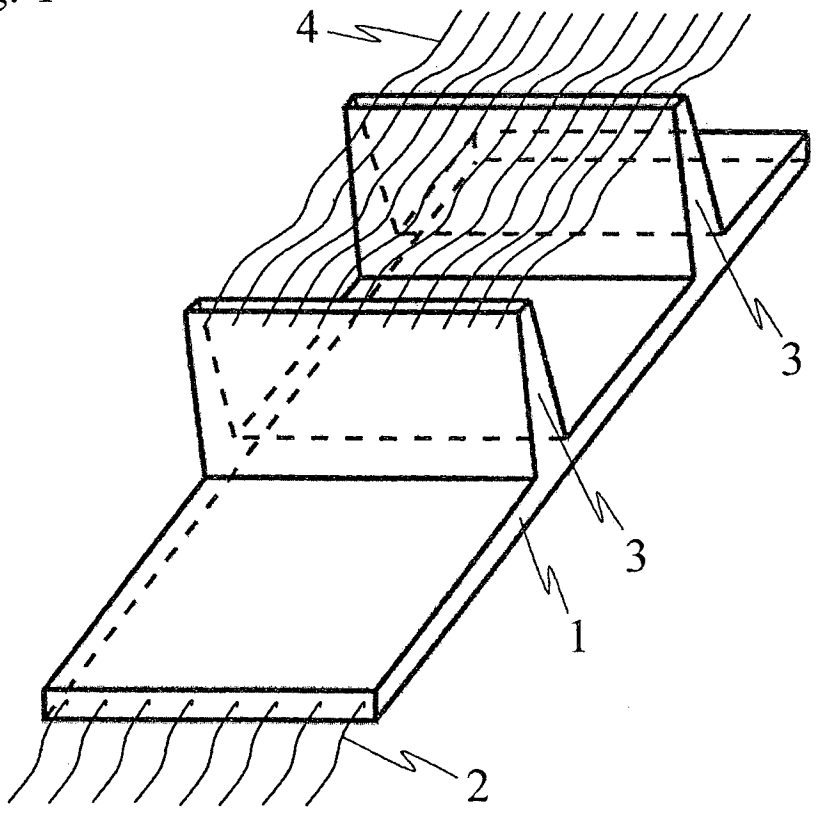

Fig. 2