Title: APPARATUS FOR ATTACHING HAIR STRAND

Abstract: Disclosed is a hair-strand attaching apparatus in which a plurality of sliced hair strands each consisting of a binder and artificial hairs attached to the binder are attached to user's hairs while a hair strand is sliced using ultrasonic waves, thereby obtaining the resulting user's hairs neatly arranged enough to comb them. The apparatus comprises an electric power supplying part (20), and an attachment part (30) connected to the electric power supplying part and emitting the ultrasonic waves by the electric power supplying part. A slicing part is located on an upper side of a terminal end of the attachment part and includes a plurality of first grooves each having a diameter similar to that of a bundle of several hairs. A handle (50) hinges on a main body (10). Furthermore, a flat press-plate (60) is attached to a portion of the handle corresponding to the first attachment part.
APPARATUS FOR ATTACHING HAIR STRAND

Technical Field

The present invention pertains to a hair-strand attaching apparatus, which attaches a hair strand to user’s hairs while the hair strand is sliced using ultrasonic waves. The hair strand comprises a binder, and artificial hairs attached to the binder at ends thereof while being spread.

Background Art

As well known to those skilled in the art, a conventional method of manufacturing a hair strand comprises the steps of attaching a bundle of artificial hairs to a connection part with the use of a gel-type adhesive, and rolling the connection part along a circumferential surface of a cylindrical member with an axial slit to form the resulting connection part with a certain radius of curvature.

Furthermore, a conventional hair-strand attaching apparatus for attaching the hair strand to user’s hairs is provided with a joint plate including grooves formed on thereof and having the same radius of curvature as the connection part, and the user’s hairs are inserted into the grooves of the joint plate while being embedded in the connection part, thereby the hair strand is attached to the user’s hairs while being heated by heat transferred through the joint plate.

However, even though the conventional hair-strand attaching apparatus contributes to securing various desired effects such as extending, partial dyeing, and densification effects of the user’s hairs, it is disadvantageous in that a long time is needed to attach the hair strand to the user’s hairs and the resulting user’s hairs are not arranged neatly.

Disclosure of the Invention
Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an object of the present invention is to provide a hair-strand attaching apparatus, which reduces a time needed to attach hair strand to user’s hairs by ninety percent or more in comparison with a conventional hair-strand attaching apparatus, allows an operator to feel comfortable because of no generation of heat, and in which the resulting user’s hairs are arranged neatly enough to be combed.

Based on the present invention, the above objects can be accomplished by providing a hair-strand attaching apparatus comprising an electric power supplying part, and an attachment part connected to the electric power supplying part and emitting heat by the electric power supplying part. A slicing part is located on an upper side of a terminal end of the attachment part and includes a plurality of first grooves each having a diameter similar to that of a bundle of several hairs. A handle is assembled with a main body including the slicing part in such a way that the handle hinges on the main body. Furthermore, a flat press-plate is attached to a portion of the handle corresponding to the attachment part.

At this time, the hair strand is preferably attached to the user’s hairs using ultrasonic waves emitted through the attachment part, and the attachment part may be disassembled with the main body and replaced with other shapes.

For example, the attachment part may comprise a cross-shaped attachment member assembled with an end thereof and consisting of two long wings and two short wings. The cross-shaped attachment member includes a plurality of second grooves formed on end surfaces of the two long wings.

Brief Description of the Drawings

The above and other objects, features and other advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:
FIG. 1 is a perspective view of a hair-strand attaching apparatus according to an embodiment of the present invention;

FIG. 2 is an enlarged view of a portion A of FIG. 1;

FIGs. 3a and 3b illustrate an attachment part of a hair-strand attaching apparatus according to another embodiment of the present invention, in which FIG. 3a is a perspective view of the attachment part and FIG. 3b is an enlarged view of a portion B of FIG. 3a; and

FIGs. 4a and 4b illustrate sectional side views of the hair-strand attaching apparatus of the present invention, in which FIG. 4a illustrates the hair-strand attaching apparatus with its press-plate and attachment part being separated with each other and FIG. 4b illustrates the hair-strand attaching apparatus with its press-plate and attachment part coming into contact to each other.

Best Mode for Carrying Out the Invention

Reference now should be made to the drawings, in which the same reference numerals are used throughout the different drawings to designate the same or similar components.

FIG. 1 is a perspective view of a hair-strand attaching apparatus according to an embodiment of the present invention. The hair-strand attaching apparatus is structured such that an electric power supplying part 20 is set in a cylindrical main body 10 and connected to an electric line at an end thereof and an attachment part 30 at another end thereof. The attachment part 30 connected to the electric power supplying part 20 emits ultrasonic waves, and is detachably assembled with the cylindrical main body 10.

Furthermore, the attachment part 30 may have a plurality of first grooves 31 formed on an end thereof as shown in FIG. 2, and alternatively, may have a cross-shaped attachment member 30a assembled with an end thereof as shown in FIG. 3a according to another embodiment of the present invention.

The attachment member 30a forms a cross consisting of two long wings
and two short wings, and a plurality of second grooves 31 are formed on end surfaces of the two long wings.

Meanwhile, a handle 50 is assembled with the cylindrical main body 10 in such a way that it hinge on the cylindrical main body 10, and an end of the handle 50 which is to come into contact with the attachment part 30 is bent and attached by a press-plate 60 so as to desirably increase a pressing force between the end of the handle 50 and the attachment part 30. Reference character H denotes a binder for a hair strand.

Hereinafter, there will be given a detailed description of the operation of the hair-strand attaching apparatus in accordance with the present invention. As shown in FIG. 3a, when an electric power is applied to the main body 10, the electric power supplying part 20 emits the ultrasonic waves to the attachment part 30.

Ends of hairs and the binder (H) are then situated sequentially on the second grooves 31 of the attachment member 30a as shown in FIG. 3b, and the attachment part 30 and the press-plate 60 come into tight contact with each other by gripping the main body 10 and the handle 50 together.

As one end of the handle 50 is bent at an angle of predetermined degrees, the press-plate 60 positioned at the end of the handle 50 is strongly pressed against the attachment part 30 even though a user relatively weakly grips the handle 50 and the main body 10.

The pressing force between the attachment part 30 and the press-plate 60 and the ultrasonic waves function to slice and melt the binder (H) to combine the melted binder with the user's hairs, thereby contributing to attaching the hair strand to the user's hairs in such a way that the user's hairs extended by the hair strand are neatly arranged.

Furthermore, as shown in FIGs. 3a and 3b, the attachment part 30 is structured such that it is assembled with the cross-shaped attachment member including two long wings meeting at 180° angles with each other, thereby allowing an operator to easily use the hair-strand attaching apparatus.
As described above, the hair strand is attached to the user's hairs in such a way that the resulting user's hairs are neatly arranged, so allowing users to wash and comb their own resulting hairs, in addition to securing various desired effects such as extending and partial dyeing effects of the hairs.

**Industrial Applicability**

Therefore, a hair-strand attaching apparatus of the present invention is advantageous in that a plurality of sliced hair strands each consisting of a binder and artificial hairs attached to the binder while being spread are attached to user's hairs while a hair strand is sliced using ultrasonic waves, thereby obtaining the resulting user's hairs neatly arranged enough to comb them.

The present invention has been described in an illustrative manner, and it is to be understood that the terminology used is intended to be in the nature of description rather than of limitation. Many modifications and variations of the present invention are possible in light of the above teachings. Therefore, it is to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.
Claims

1. A hair-strand attaching apparatus, comprising:
   an electric power supplying part;
   a first attachment part connected to the electric power supplying part and emitting heat by the electric power supplying part;
   a slicing part located on an upper side of a terminal end of the first attachment part and including a plurality of first grooves each having a diameter similar to that of a bundle of several hairs;
   a handle assembled with a main body including the slicing part in such a way that the handle hinges on the main body; and
   a flat press-plate attached to a portion of the handle corresponding to the first attachment part,
   whereby a hair strand is melted and attached to user's hairs while the hair strand is sliced into pieces in the same number as the first grooves by pressing the flat press-plate on the first attachment part.

2. The hair-strand attaching apparatus as set forth in claim 1, wherein a second attachment part comprises a cross-shaped attachment member assembled with an end thereof and consisting of two long wings and two short wings, said cross-shaped attachment member including a plurality of second grooves formed on end surfaces of the two long wings.

3. The hair-strand attaching apparatus as set forth in claim 1, wherein the hair strand is attached to the user's hairs using ultrasonic waves.