July 9, 1957 W. DIETZE 2,798,500

HAIR NET DEVICE

Filed Oct. 12, 1955

FIG. 1

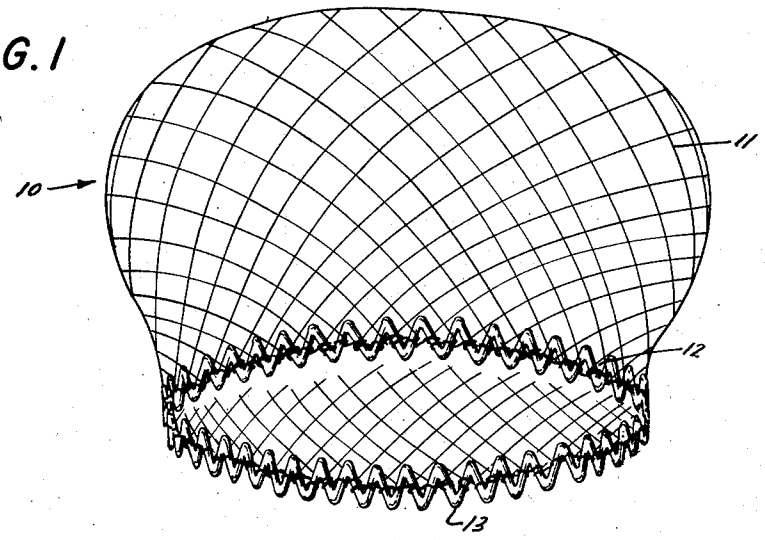


FIG. 2



FIG. 3

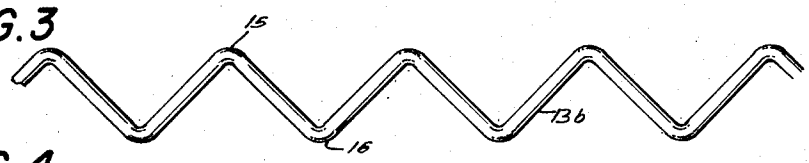


FIG. 4

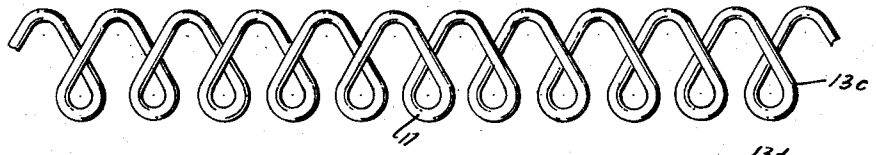
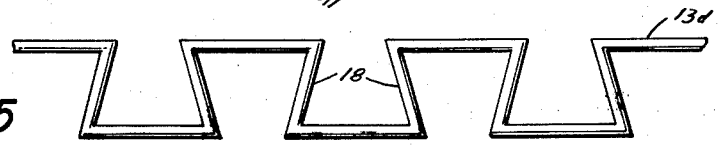


FIG. 5



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HAIR NET DEVICE

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8 Claims. (Cl. 132—49)

The present invention relates to hair net devices. More particularly, the present invention relates to a hair net device which is provided with a spring element for securing the hair net to a head of hair.

There exist hair nets which are provided with rubber retaining bands by means of which the hair net is secured to the head. It has been found, however, that the rubber band will resiliently engage the hair in such a manner as to leave indentations, so that when the hair, after the rubber band has been stretched and been placed about the head, is removed, the coiffure is left with a readily visible line showing the place at which the rubber band engaged the hair. The appearance of the coiffure is thus affected adversely.

Also, the rubber retaining bands of known hair net devices often require that a considerable stretching force be exerted before such hair nets can be placed about the head.

It is therefore an object of the present invention to provide a hair net device which overcomes the above disadvantages.

It is another object of the present invention to provide a hair net device which may be easily placed about the head and which will not leave a visible mark on or spoil the effect of the coiffure.

It is still another object of the present invention to provide a hair net device which comprises a minimum number of individual elements and which therefore may be mass-produced at very low cost.

With the above objects in view, the present invention mainly consists in a hair net having an edge, and an elongated spring element having consecutive undulations, corresponding portions of which are spaced farther apart from each other when the spring element is in stretched condition than when the spring element is in unstretched condition. The spring element is connected along its length to the edge of the hair net, so that when the spring element is in stretched condition and the hair net is placed upon a head of hair, the spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing the hair net to the head of hair.

The undulations of the spring element may have any suitable configuration, as, for example, zigzag-shaped, serrate, rounded serrate, dovetail-shaped, or the like. If desired, the spring element may be a coil spring.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which:

Fig. 1 is a perspective view of a hair net device according to the present invention; and

Figs. 2–5 are diagrammatic illustrations of four preferred embodiments of spring elements according to the present invention.

Referring now to the drawing, and to Fig. 1 thereof in particular, there is shown a hair net device **10** having a preferably flexible or resilient main hair net portion **11**, the edge of which is indicated at **12**.

An elongated spring element **13** is connected along its length to the edge **12** in any suitable manner. The spring **13** has consecutive undulations, corresponding portions of which are spaced farther apart from each other when the spring is in stretched or tensioned condition than when it is in unstretched or untensioned condition. As a result, when the spring is in at least partly stretched condition and the hair net device is placed upon a head of hair, the spring will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent spring undulations. In this way, the hair net device is firmly secured to the head of hair, but the spring will not, after the hair net device has been removed, leave any unsightly line on the coiffure.

The spring **13** may be made of any suitable linearly substantially non-expansible material, such as plastic threads or filaments, and may, in unstretched condition, have any suitable undulant configuration, the terms "undulant" and "undulations" as used throughout the instant specification and the appended claims being deemed to include any undulate, convolute, sinuous, flexuous, tortuous, etc., configuration, particularly a configuration having consecutive crest and trough portions. The spring **13** may have its shape imparted to it by any one of several processes, as, for example, by suitable heat treatment or chemical treatment.

It will be seen from the above that the spring **13** is an elongated linearly substantially non-expansible retaining element of a certain actual length having, in untensioned condition, an undulant configuration and consequently an untensioned or steady state mean length smaller than the actual length. It will further be seen that the spring **13**, when tensioned, is capable of assuming a mean length which is greater than its steady state mean length but which does not exceed its actual length. When relieved of tension, the spring will reassume its undulant configuration and consequently its steady state mean length.

Fig. 2 is a diagrammatic illustration of one preferred embodiment of a spring element **13***a* according to the present invention which has a zigzag substantially serrate or saw-toothed configuration as shown at **14**.

Fig. 3 is a diagrammatic illustration of another preferred embodiment of a spring element **13***b* according to the present invention which has a configuration similar to that shown in Fig. 2, except that the serrate configuration is rounded at its crest portion **15** and trough portions **16**.

Fig. 4 is a diagrammatic illustration of yet another preferred embodiment of a spring element **13***c* according to the present invention. The element is constituted by a coil spring of any suitable spiral or helical configuration as shown at **17**.

Fig. 5 is a diagrammatic illustration of a still further preferred embodiment of a spring element **13***d* according to the present invention. As may readily be seen from the drawing, the element has a substantially dovetail-shaped configuration as shown at **18**.

It will be obvious that the spring element **13** may, in lieu of any one of the above-illustrated configurations, have any other suitable undulate form.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of hair net devices differing from the types described above.

While the invention has been illustrated and described

as embodiment in a spring-retained hair net device, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What is claimed as new and desired to be secured by Letters Patent is:

1. As an article of manufacture, a hair net having an edge; and an elongated spring element having consecutive undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

2. As an article of manufacture, a hair net having an edge; and an elongated spring element having consecutive zigzag-shaped undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

3. As an article of manufacture, a hair net having an edge; and an elongated spring element having consecutive serrate undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

4. As an article of manufacture, a hair net having an edge; and an elongated spring element having consecutive rounded serrate undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of haid between adjacent undulations, thereby securing said hair net to the head of hair.

5. As an article of manufacture, a hair net having an edge; and an elongated coil spring element having consecutive undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

6. As an article of manufacture, a hair net having an edge; and an elongated spring element having consecutive dovetail-shaped undulations corresponding portions of which are spaced farther apart from each other when said spring element is in stretched condition than when said spring element is in unstretched condition, said spring element being connected along its length to said edge of said hair net, whereby when said spring element is in stretched condition and said hair net is placed upon a head of hair, said spring element will, upon being permitted to return to its unstretched condition, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

7. As an article of manufacture, a hair net having an edge; and an elongated spring element having in untensioned condition an undulant configuration and being connected along its length to said edge of said hair net, whereby when said spring element is tensioned and said hair net is placed upon a head of hair, said spring element will, upon being released from tension, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

8. As an article of manufacture, a hair net having an edge; and an elongated linearly substantially non-expansible retaining element of predetermined actual length having, in untensioned condiiton, an undulant configuration and consequently a steady state mean length smaller than said actual length, said element when tensioned being capable of assuming a mean length greater than its steady state mean length but not exceeding its actual length and being adapted to reassume its undulant configuration and consequently its steady state mean length when relieved of tension, said element being connected along its length to said edge of said hair net, whereby when said element is tensioned so that its mean length is increased beyond its steady state mean length and said hair net is placed upon a head of hair, said element will, upon being released from tension, clamp strands of hair between adjacent undulations, thereby securing said hair net to the head of hair.

No references cited.