

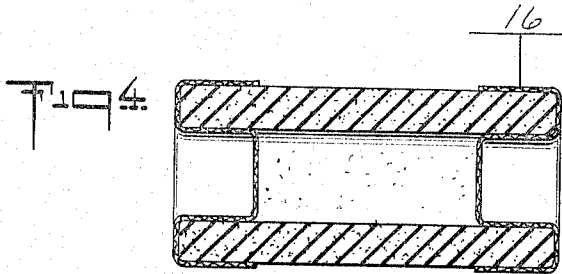
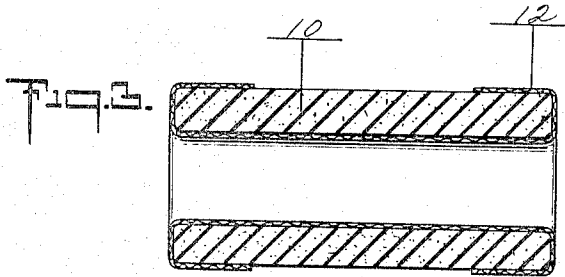
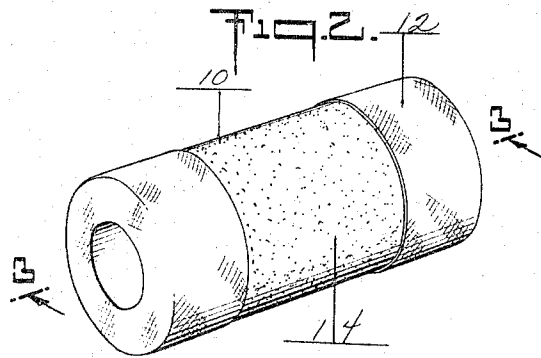
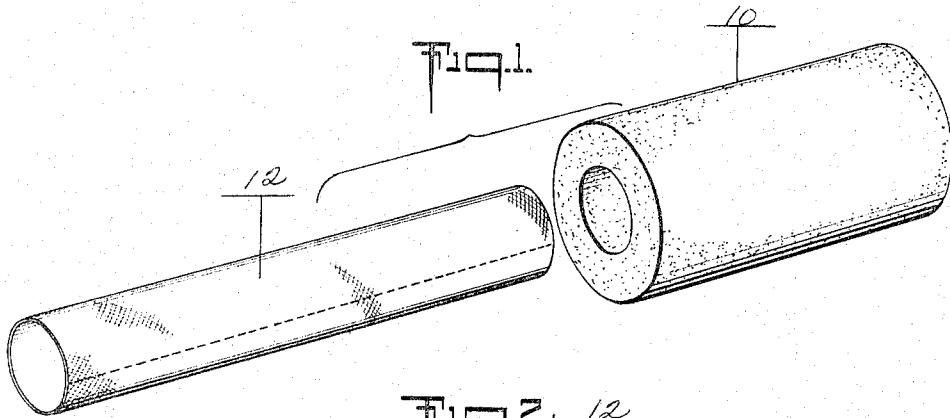
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HAIR CURLER WITH ENDS HAVING LOW FRICTION

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3,316,920
**HAIR CURLER WITH ENDS HAVING
 LOW FRICTION**

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The present invention relates to hair curlers, and more particularly to hair curlers made of a cylindrical body of elastically resilient foam material. The invention also pertains to a method for making the above referred to hair curlers.

Hair curlers made of elastically resilient foam material have found wide acceptance in the field because they are light in weight and soft and can therefore be worn at night while sleeping without the usual discomfort and annoyance caused by relatively heavy metal, or rigid plastic curlers, or wire rollers with/without brushes.

Although largely successful, the resilient foam hair curlers have not been characterized by a long service life.

The surface of the resilient foam curlers is one of relatively high friction and is particularly valuable for this purpose as it assists in retaining the hair. However, because of the high frictional surface of the foam body, difficulty is encountered when hair securing means, such as a bobby pin, is slid across the curler body. The bobby pin tends to stick and dig into the foam material thereby tearing and ripping the curlers body and making it unsuitable for further use or merely curtailing its useful life.

It is therefore desirable to prevent the hair retaining means such as the bobby pin from tearing the foam material when it is positioned to secure the hair wound around the curler body.

It is therefore an object of the present invention to provide an elastically resilient foam hair curler that is satisfactory for curling the hair and which overcomes the disadvantages and drawbacks associated with the prior known resilient foam hair curling devices.

It is a further object of the present invention to provide a hair curler made of elastically resilient foam material, which possesses all of the advantages of such hair curlers and which resists tearing when a hair retaining means is positioned to secure the hair.

It is a further object of this invention to provide a method for making elastically resilient foam hair curlers that resist tearing and allow the retaining means to be positioned without difficulty.

In achieving the above objects, one feature of the present invention resides in providing a hair curler of elastically resilient foam material having a portion of its peripheral surface of relatively low friction thereby enabling the hair retaining means to be readily positioned to secure the hair wound around said curler without sticking or tearing the foam material.

Another feature of the invention resides in a hair curler of elastically resilient foam material having peripheral bands of textile material adjacent to the lateral ends of the curler to provide a surface of relatively low friction, thereby enabling the hair retaining means to be positioned to secure the hair without tearing the foam material.

Still another feature of the present invention resides in the method of making the hair curlers whereby a tube of textile material, generally conforming to the shape of the tubular hair curler is inserted into the tube and the overlapping ends thereof are reversed and slipped back over to cover the ends of the said curler body to form peripheral bands of textile material adjacent to the lateral ends of the curler body.

Other objects, features and advantages of the present

invention will become apparent from the following detailed description thereof, taken in conjunction with the drawing wherein:

FIG. 1 shows an exploded view in perspective showing the hair curler of the present invention together with the tube of textile material,

FIG. 2 is a perspective view showing the hair curler of the present invention in assembled form,

FIG. 3 is a sectional view of the hair curler of the present invention, and

FIG. 4 is a sectional view of another embodiment of the present invention.

According to the invention, the hair curler is formed from a body of elastically resilient foam material, which by its nature tends to have a surface of relatively high friction thereby assisting in retaining the hair. At the same time the high frictional surface of the foam material makes it very difficult to slide the hair retaining means such as a bobby pin across the surface thereof. Not readily slidable over the surface of these foam curlers, the bobby pins tend to stick and dig into the foam body thereby tearing the ends and surfaces of foam hair curlers making them unsuitable for further use and drastically reducing their useful service life.

The disadvantages of the prior known hair curlers made of foam material are overcome and avoided by providing the hair curlers with a surface of relatively low friction adjacent to the lateral ends of the curler body in order to enable the user to readily and easily position the hair fastening means therein by sliding the bobby pin across the low friction surface in order to secure the hair that is wound around the body. By providing a surface of relatively low friction enabling the bobby pin to easily slide into position, the tendency for the bobby pin to dig into and tear the foam material is clearly avoided.

This above referred to surface of relatively low friction can most conveniently take the form and shape of peripheral bands of textile material adjacent to the ends of the curlers and covering a portion of the exterior circumferential surface. The textile material can not only cover the exterior surface in a band adjacent to the end but can also form a band of material on the interior surface of the cylindrical body of the curler so as to prevent the pin from tearing into the inside or interior surface of the curler body. Similarly, the lateral edges of the curler body may be covered with the same textile material for preventing the tearing of the ends.

More particularly, referring to the drawings, FIG. 1 shows the curler body made of an elastically resilient foam material 10. The foam can conveniently be rubber foam, natural and synthetic rubber, polyurethane foams of all types, and the like. Tubular textile material 12 is provided with overlapping ends and the textile fabric may be woven into the tubular shape or it may be sewn into the tubular shape. If desired, the textile tube can be woven so that its ends are of a diameter larger than the middle section so as to facilitate covering the ends of the curler body. The textile fabric material may be nylon, cotton, silk, linen, regenerated cellulose (rayon), plastic, or any other convenient material.

FIG. 2 shows the curler body 10 having the peripheral surface adjacent to the lateral ends covered by bands of textile material 12 to form a hair curler having an exposed surface 14 of relatively high friction and being uncovered with the textile material, and the surface adjacent to the lateral ends covered with bands of textile material and forming surfaces of relatively low friction.

FIG. 3 shows a sectional view along section lines 3-3 of FIGURE 2 of the foam body 10 and the textile material 12 covering the end portions of the surfaces adjacent to the lateral ends of the body.

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FIG. 4 shows another embodiment of the present invention wherein the textile material 16 does not go through the entire length of body 10. To facilitate retention of textile material 16 on the surface of body 10 it may be desirable to employ an adhesive material to bond the textile material to the surface.

In operation, the hair curler of the present invention is used in the most convenient manner. The hair is wound around the curler body 10 as is desired. To retain the hair in position on the curler a bobby pin, hair pin, or other securing means can be used as is customary. The pin is opened and slid across the textile material onto the hair wound around the curler. Because of the presence of the textile material, the pin readily slides over the ends of the curler without digging and tearing into the foam body and thus prevents damage to the curler body.

In making the hair curler of the present invention, the textile material which can be in the shape of tube 12 is inserted into the cylindrical foam body. The length of the textile material exceeds that of the curler body to permit the ends of the textile material to be pulled back and cover the ends and exterior surface of the curler adjacent to the lateral ends of the body. Conveniently the textile material can be woven of one piece with the diameter dimensions greater than diameter of the curler body so as to enable the textile material to cover the ends of the curler. Alternatively the textile material can be elasticized so that it can be stretched around to cover the surfaces of the curler body. If desired the textile material can be sewn into a general tubular shape as shown by the dotted line in FIG. 1.

It is to be understood that the curler body although shown in the figures as a tubular structure can be multi-sided, oval, elliptical and the like. Similarly, the textile material can be woven in a general shape of the curler body so that it can easily be stretched around and cover the exterior surfaces of the curler body adjacent to the lateral ends thereof. If desired, instead of forming a tube of the textile material and inserting it into the curler body as shown in FIG. 1, the textile material can be adhered to the surface of the curler adjacent to the lateral ends in bands which do not cover the lateral ends.

Hair waving solution can be applied to the hair in the usual way after the hair has been wound on the hair curler of the present invention. The solution can also be impregnated into the foam material prior to winding the hair, and then applied to the hair after the hair

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is wound on the curler by squeezing or twisting the foam body to release the waving solution as desired.

It is to be understood that various other modifications can be made to the illustrated hair curler without departing from the scope of the present invention, and such modifications will be within the scope of one skilled in the art to which this invention pertains.

Having thus described my invention, I claim:

1. A curler for curling hair comprising a cylindrical body of elastically resilient foam material, said body having a centrally located exterior surface of relatively high friction, and having adjacent to the lateral ends thereof a peripheral band of textile material of relatively low friction, the hair being wound on the centrally located portion of said body having the surface of relatively high friction.
2. A curler for curling hair comprising a tubular body of elastically resilient foam material having adjacent to the lateral ends thereof a peripheral band of textile fabric in contact with and covering the exterior surface of the said foam body.
3. A curler as defined in claim 2 wherein the textile fabric is a cotton fabric.
4. A curler as defined in claim 2 wherein the textile fabric is a regenerated cellulose fabric.
5. A curler for curling hair comprising a tubular body of elastically resilient foam material having a peripheral band of textile fabric covering the exterior surfaces thereof adjacent to the lateral ends of said body and thereby providing a surface of relatively low friction, the centrally located exterior surface of said body being uncovered with textile fabric, and thereby providing a surface of relatively high friction upon which the hair is wound.
6. A curler for curling hair comprising a tubular body of elastically resilient foam material having the lateral ends thereof and the surfaces of said body adjacent to the lateral ends covered by a peripheral band of textile fabric, the centrally located exterior surface of said body being uncovered.

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