Nov. 7, 1944. R. T. PLATE 2,362,399

HAIR CURLER

Filed March 8, 1943

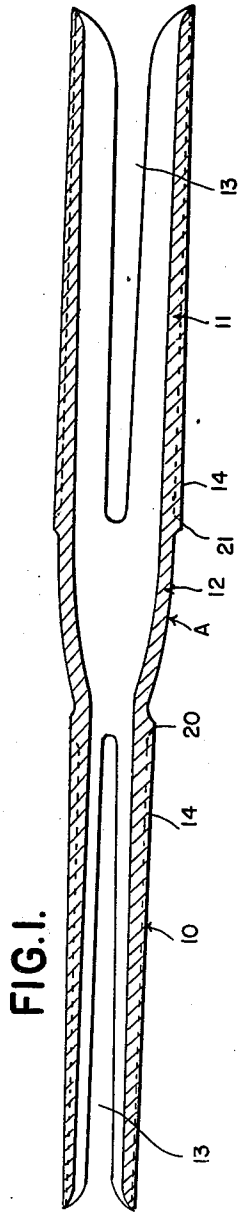

FIG. 1.

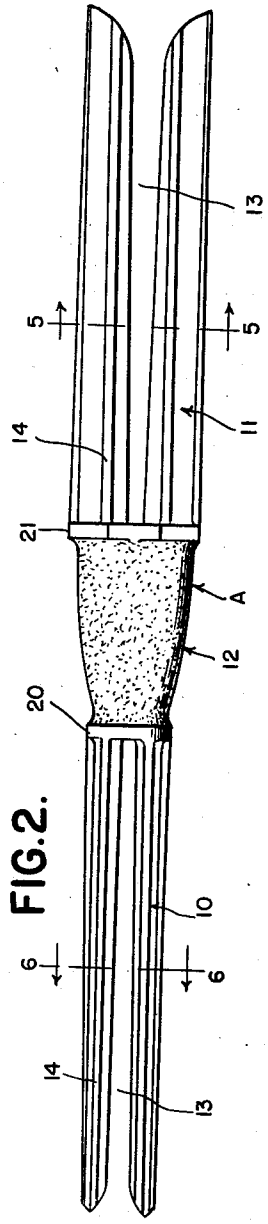

FIG. 2.

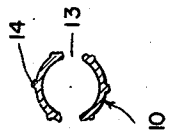

FIG. 6.

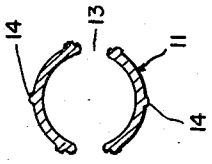

FIG. 5.

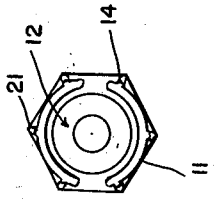

FIG. 4.

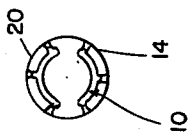

FIG. 3.

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HAIR CURLER

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Application March 8, 1943, Serial No. 478,413

1 Claim. (Cl. 132—33)

This invention relates generally to hair curlers and refers more particularly to those adapted to curl hair by a turning action without the aid of heat.

Heretofore, hair curlers of the type mentioned have been made of metal and have consisted of several parts, usually stampings, that have been assembled and held together by one or more couplings. Thus, several forming operations and assembly operations were required to produce the completed product.

In the present instance I have overcome the objections to the previous constructions by providing a one-piece hair curler that is preferably made from plastic material and has slotted cylinders of different cross sectional area at opposite ends thereof for producing different size curls.

The improved curler is also provided with longitudinally extending ribs that strengthen and reinforce the curler so that the cylinders at opposite ends thereof may have thinner walls for proper wedging engagement with the clamping ends of conventional metal bob pins when it is desired to transfer the curls made by the curler to said bob pins to be held in place. If the walls of the cylinders were too thick then too big a wedge would be provided for separating the clamping arms of the conventional metal bob pin, hence such arms are apt to be spread apart too far and lose their holding power upon the hair inserted therebetween. Preferably the free ends of the curler are tapered to facilitate the wedging action mentioned, and are rounded or curved to facilitate entry of the hair to be curled into the slots in the cylinders.

The ribs mentioned also provide a better grip for the operator when the curler is being turned to make curls in the hair. Such ribs also tend to check any tendency of the curler to roll upon a substantially flat surface such as the top of a dresser when placed thereon by the operator. Preferably the ribs taper from their inner to their outer ends so as to facilitate the removal of the curler from tightly wound hair.

Moreover, the one-piece curler mentioned is more sanitary than the built-up metal curlers and may be transparent or of any color desired so as to have an ornamental and neat appearance upon a dresser and the like.

Thus, the primary object of the present invention is to provide a hair curler that is an improvement upon conventional curlers, especially upon metal curlers; that has numerous advantages including those specified above; is simple in construction; economical to manufacture; strong and durable; light in weight; easy to apply to the hair and efficient in operation.

Other objects, advantages and noval details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawing, wherein:

Figure 1 is a longitudinal sectional view through a hair curler embodying my invention;

Figure 2 is an elevational view of the hair curler illustrated in Figure 1;

Figure 3 is an end view of the smaller cylindrical portion of the hair curler;

Figure 4 is an end view of the larger cylindrical portion of the hair curler;

Figure 5 is a cross sectional view taken substantially on the line 5—5 of Figure 2;

Figure 6 is a cross sectional view taken substantially on the line 6—6 of Figure 2.

Referring now to the drawing, A is a one-piece hair curler embodying my invention.

As shown, the curler A is preferably made from plastic material and has cylindrical end portions 10 and 11 respectively, and an intermediate hollow elongated body portion 12. Preferably the cylindrical end portions 10 and 11 are alike in construction except that one is larger in diameter than the other to make larger size curls.

Both cylindrical end portions 10 and 11 are provided throughout their length at diametrically opposite sides thereof with longitudinally extending slots 13 for receiving the strands of hair to be curled, and are provided upon the outer sides thereof with circumferentially spaced longitudinally extending ribs 14 which preferably taper from their inner to their outer ends so as to facilitate the removal of the curler from tightly wound hair. Thus, the walls of the cylindrical portions 10 and 11 are materially reinforced and strengthened so that the outer free ends of said portions may be thinner than otherwise for proper wedging engagement with the clamping ends of conventional metal bob pins. Moreover, the ribs 14 upon the cylindrical portions 10 and 11 provide a better grip for the operator when turning the curler in the hair to produce curls, and tend to keep the curler from rolling when laid upon a dresser or the like.

By referring to Figures 1 and 2 it will be noted that the cylindrical portions 10 and 11 are provided at the inner ends of the slots 13 with circumferentially extending flanges 20 and 21 respectively, and that the outer free end of each half of said cylindrical portions is rounded or

curved to facilitate the entry of hair to be curled into the slots 13 and are tapered to facilitate wedging engagement with the clamping arms of bob pins and the like. The flanges 20 and 21 cooperate with the ribs 14 to strengthen the curler. Preferably the flange 21 is hexagonal in configuration to cooperate with the ribs 14 to resist rolling action of the curler on a flat surface.

The body portion 12 is in axial alignment with and is terminally connected to the flanged inner ends of the cylindrical portions 10 and 11. Preferably this body portion 12 is circular in cross section and tapers from the flange 21 of the larger cylindrical portion 11 to the flange 20 of the smaller cylindrical portion 10. To provide a non-slip grip for the operator the outer surface of the body portion 12 is roughened or serrated as illustrated in Figure 2.

In use, either cylindrical portion 10 or 11 of the curler may be used for curling hair depending upon the size of curl desired. Initially the strands of hair to be curled are received in the slot 13 in one cylindrical portion while the other cylindrical portion and body portion 12 collectively serve as a handle for the operator. Then the curler is turned by hand in the usual manner to produce the curl. When made, the curl is held by the curler while a hair clasp or bob pin is slipped endwise of the curler and curl thereon to prevent the curl from unwinding. The curler A may then be withdrawn from the curl and the clasp by being pulled lengthwise from the curl and may be again used elsewhere to make other curls in a similar manner.

In the process of construction, the curler A may be made in any suitable manner from any suitable plastic material and may be transparent or colored, as desired. Likewise, the curler or the cylindrical portions 10 and 11 thereof may be any size desired. However, regardless of size, each curler is a comparatively lightweight one-piece article and has the essential features and characteristics described above in connection with the construction illustrated in the drawing.

What I claim as my invention is:

A one piece hair curler comprising an elongated body portion provided with an exterior surface to be gripped by the fingers of an operator, said body portion being provided at its opposite ends with tubular endwise extensions, each tubular extension being provided throughout its length at substantially diametrically opposite sides thereof with relatively narrow longitudinally extending slots for the reception of hair to be curled, said slots opening outwardly through the free ends of said tubular extensions to facilitate insertion of hair into the slots, at least one of said tubular extensions being provided at its inner end adjacent the elongated body with a polygonal flange of greater cross sectional area than the body for non-rolling engagement with a supporting surface for the curler, the tubular extension aforesaid having the polygonal flange being provided upon its exterior from said flange to its outer free end with circumferentially spaced longitudinally extending ribs for non-slip engagement with the hand of the operator, said ribs being tapered from the flange to the outer free ends of the tubular extension to facilitate the removal of the curler from lightly wound hair thereon.

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