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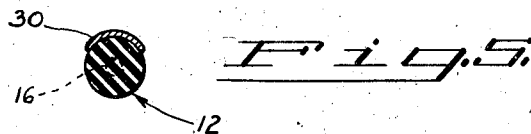
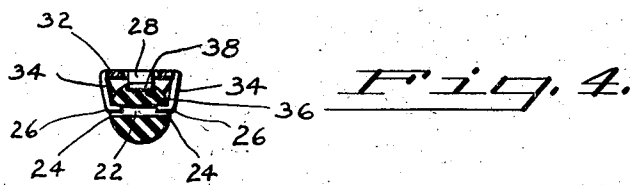
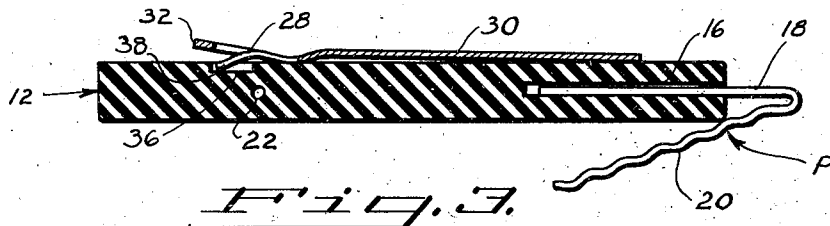
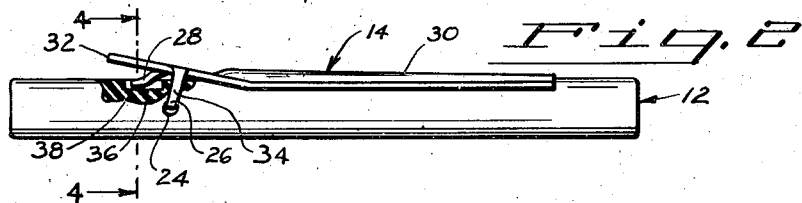
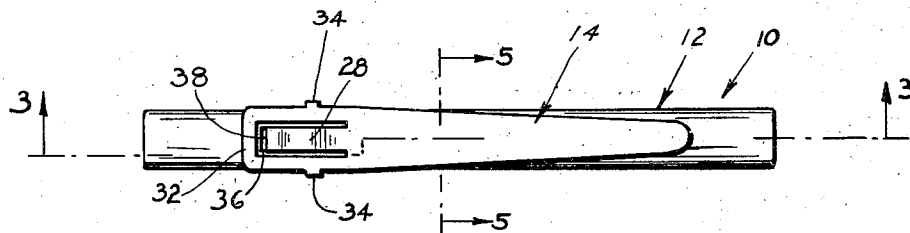
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2,415,331

HAIR CURLER

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Fig. 1.



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HAIR CURLER

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1 Claim. (Cl. 132—33)

1

This invention relates to hair curlers of the type wherein a strand of hair is formed into a winding or coil and then transferred to a bobby pin or other holding device.

The primary object of the present invention is to provide a hair curling device of simplified construction so that it can be produced at reduced cost. More specifically, the hair curler provided in accordance with the present invention and pursuant to the primary object thereof is of such simplified construction that it can be made of but two separate parts, one of said parts being the mandrel on which the strand of hair is wound and held temporarily, preliminary to the transfer of the coil of hair to the bobby pin or other holding device, and the other part being the clamping member which is pivotally mounted on the mandrel for releasably holding the end of the strand of hair on the mandrel during the winding of said strand into the coil.

The above and other objects, features and advantages of the invention will be more fully understood from the following description, reference being had to the accompanying illustrative drawing.

In the drawing:

Fig. 1 is a top view of the hair curler;

Fig. 2 is a side view, taken at right angles to the view of Fig. 1, a part of the mandrel being shown in section for the purpose of illustration;

Fig. 3 is a longitudinal sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2;

Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 1.

Referring now to the drawing in detail, the hair curler 10 embodying the present invention comprises a mandrel or cylindrical rod 12 and a clamping member 14 pivotally mounted on said mandrel and extending longitudinally thereof.

The mandrel 12 is preferably made of a plastic, but can be made of wood or any other suitable material and is provided with a longitudinally extending bore or cylindrical recess 16 which is open at one end of the mandrel to receive one of the legs 18 of a curl-holding device, here shown as a bobby pin P of well known construction (Fig. 3). The diameter of the mandrel is such that when the leg 18 of the bobby pin P is inserted within the cylindrical bore 16, as illustrated in Fig. 3, the other leg 20 of the bobby pin is bent away from the companion leg 18 to provide a space between leg 20 and the outer surface of the mandrel to receive the coil of hair

2

when the latter is slipped off the mandrel in the usual way. The mandrel is also provided with a transverse bore 22 (Fig. 4) which is open at the opposite sides of the mandrel as indicated at 24 to form bearing openings for the pivotal bearing portions 26 of the clamping member 14 which will now be more particularly described.

Clamping member 14 is formed preferably in one piece as here shown of sheet metal tempered to a suitable degree whereby said clamping member can be provided with an integral resilient or spring part 28. Said clamping member comprises the longitudinally extending part 30 which is curved transversely to correspond to the cylindrical curvature of the mandrel. Said clamping member is formed with a finger piece 32 in bent relation laterally of part 30 so that when the latter is in clamping relation to the mandrel, said finger piece 32 is spaced from the mandrel, as illustrated in Figs. 2 and 3, to allow the pivotal movement of the clamping member to its retracted position for the insertion of the end of the strand of hair between the clamping member and the mandrel. The pivotal bearing portions 26 are formed as inturned ends of the bent ears 34 which are integral with the finger piece 32 at the opposite side edges thereof and which straddle the mandrel as illustrated in Fig. 4. The spring 28 is formed as a struck-out part of the finger-piece 32. Said spring 28 bears on the mandrel 12 and constitutes means for releasably holding the clamping member 14 resiliently in clamping relation with the mandrel 12 and to resiliently oppose the movement of the clamping part 30 to its retracted position. Preferably, as shown, the mandrel 12 is provided with a groove 36 in which the free end portion 38 of the spring part 28 slidably engages the mandrel, the opposite side edges of said groove engaging the adjacent opposite side edge portions, respectively, of the end portion 38 of the spring 28, whereby to limit and substantially prevent movement of the clamping member transversely of the longitudinal axis of the mandrel.

It will be understood that in using the hair curler of the present invention, an end portion of a strand of hair is placed between the mandrel and the clamping part 30 of the clamping member 14, in the retracted position of the latter, the finger piece 32 having been pressed toward the mandrel 12 against the resilient action of the spring 28. Then the finger piece 32 is released so that spring 28 moves the hair clamping part 30 to clamping relation with the mandrel, whereby to clamp the end of the strand of hair onto the

3

mandrel. Then the hair is wound into a coil formed of convolutions co-axial with the longitudinal axis of the mandrel and extending around the latter and the part 30 of the clamping member 14. It will be understood further that the bobby pin P or other holding device is mounted on the mandrel as illustrated in Fig. 3 before the hair is wound thereon, so that upon the completion of the winding operation, the bobby pin is in position to receive the coil of hair between the opposite legs 18 and 20 thereof in the usual way, when said coil of hair is moved longitudinally of the mandrel for transferring the coil of hair to the bobby pin and for disengaging the hair curler from said coil of hair and from bobby pin, and thereafter holds the coil of hair in proper position on the individual's hair. It will be noted that as explained above when the bobby pin is inserted into the opening 16 of the mandrel, the opposite sides or legs of the pin are resiliently spread apart and that the leg 20 is in relative rotary engagement with the adjacent end of the mandrel, so that the bobby pin can be held against turning movement during all or any part of the rotation of the mandrel, whereby to wind the strand of hair close to the head without engagement of the side or leg 20 of the bobby pin with the head, so that the strand of hair can be wound into a coil for substantially the full length thereof from the free end of the strand to the scalp. As the outer surface of the portion of the mandrel which is engaged by the bobby pin is of circular contour, rotation of the mandrel about its longitudinal axis for winding the hair while the bobby pin is held against turning movement is not interfered with by maintaining said bobby pin stationary while the mandrel is turned around the leg 18 of the bobby pin.

While I have shown and described the preferred embodiment of my invention, it will be understood that the latter may be embodied otherwise than as herein illustrated or described, and that in the illustrated embodiment certain

4

changes in the details of construction and in the arrangement of parts may be made without departing from the underlying idea of the invention within the scope of the appended claim.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

A hair curler comprising a mandrel having bearing openings at opposite sides of the mandrel, a clamping member having a longitudinally extending hair-clamping part and a finger piece integral therewith, means in fixed relation to said clamping member and projecting transversely therefrom at opposite side edges thereof and having inturned end portions disposed at opposite sides, respectively, of the mandrel, engaging said mandrel in said bearing openings, respectively, for pivotally mounting said clamping member on said mandrel, said mandrel having a recess, and spring means integral with said clamping member adjacent said finger piece and bearing on said mandrel in slidable relation longitudinally thereof in said recess for resiliently opposing the movement of said clamping member to its retracted position when said finger piece is pressed toward said mandrel, said spring means being struck out from said finger piece.

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