Dec. 15, 1964 X. V. MECCA 3,161,202

LOCKING HAIR CURLER

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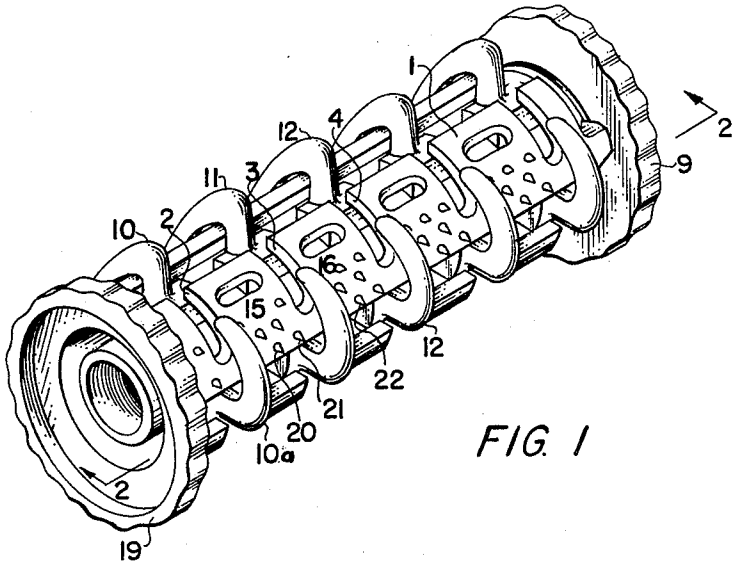


FIG. 1

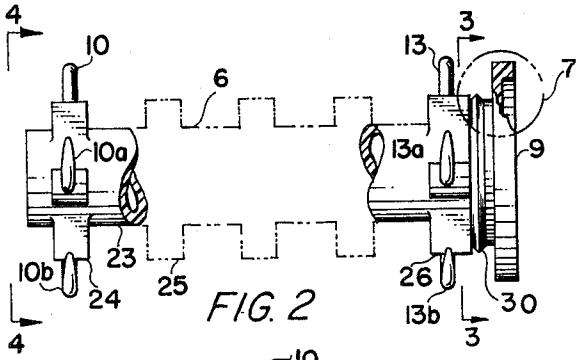


FIG. 2

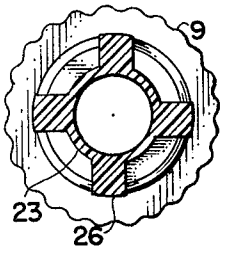


FIG. 3

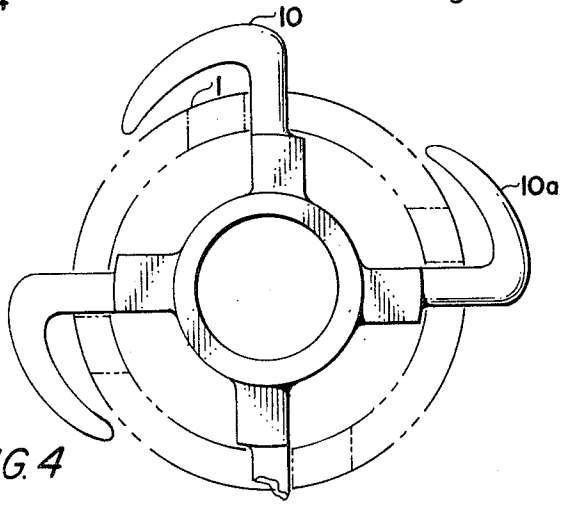


FIG. 4

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LOCKING HAIR CURLER

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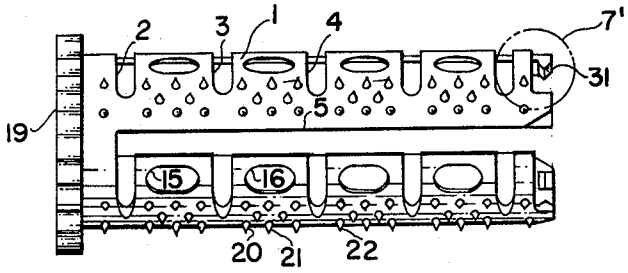


FIG. 5

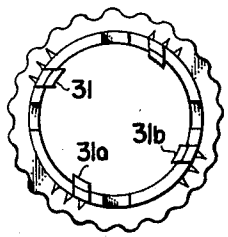


FIG. 6

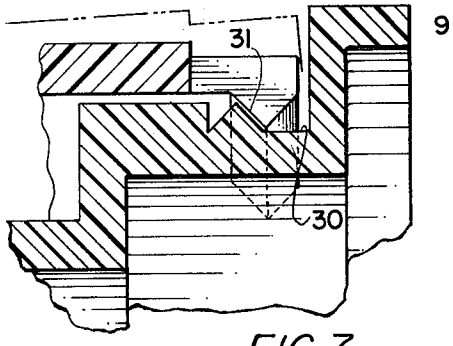


FIG. 7

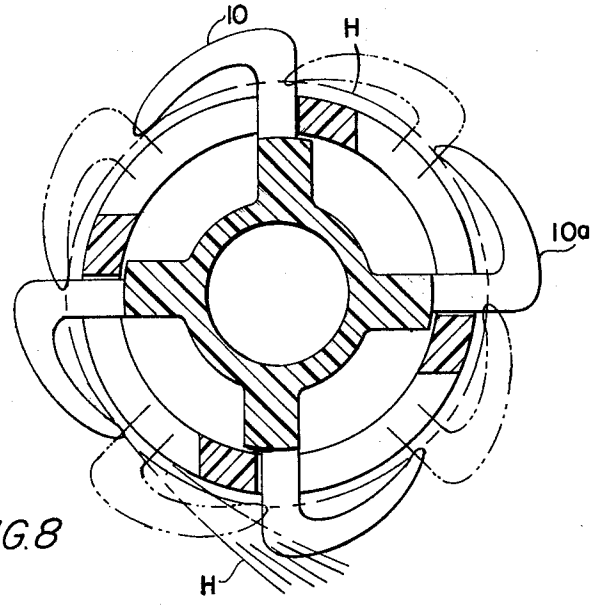


FIG. 8

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LOCKING HAIR CURLER

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1 Claim. (Cl. 132—40)

This invention relates to hair curlers and more particularly to such means having integral locking means.

More particularly the present invention provides a hair curling device having a quick and easy locking means.

Conventional hair curlers are generally locked in position by means of hair pins, bobby pins or locking levers or clips attached to the curler.

The present invention generally comprises a hollow tubular member having a plurality of slots in its surface and an inner member rotatably mounted inside the outer member. The inner member has a plurality of hooked teeth which extend through the slots and a knob which extends beyond the outer member.

The present curler is used in conventional manner by rolling up the hair on the curler. When the hair curler is in the proper position the knob on the inner toothed member is rotated for instance a quarter turn relative the outer member which will cause the teeth to lock the hair between the inner and the outer members, thereby securing the curler in position. This locking function may be performed very quickly and easily with a simple motion of the knob without applying any additional pins or locking devices.

Accordingly a principal object of the invention is to provide new and improved hair curler means.

Another object of the invention is to provide new and improved hair curler means having quick and easy locking means, and eliminate the use of end papers.

Another object of the invention is to provide new and improved hair curler means having integral locking means.

Another object of the invention is to provide new and improved locking hair curler means comprising an outer hollow tubular member having a plurality of parallel slots in a surface, an inner member rotatably mounted inside said outer member, said inner member having a plurality of hooked teeth mounted on the inner member and adapted to extend through said slots in locked relation to said outer member.

These and other objects of the invention will be apparent from the following specification and drawings, of which

FIG. 1 is a perspective view of an embodiment of the invention.

FIG. 2 is a side view of the inner member.

FIG. 3 is a sectional view taken along the line 3—3 of FIG. 2.

FIG. 4 is an end view of FIG. 2.

FIG. 5 is a side view of the outer member.

FIG. 6 is an end view of FIG. 5.

FIG. 7 is a detail view showing the snap-in connection means between the inner and the outer members.

FIG. 8 is an enlarged side view illustrating the operation of the invention.

Referring to the figures, the invention generally comprises a hollow tubular outer member 1 which has a plurality of slots 2, 3, 4 in its outer surface. The slots 2, 3 and 4 are generally perpendicular to the axis of the tubular outer member. Knob 19 is fixedly connected to the outer member 1. The outer member 1 is also shown in FIG. 5.

The outer member 1 also has a long slot 5 which runs parallel to its axis and which is open on one end. The purpose of this slot is to permit the insertion of the inner core member 6 which has a plurality of hooked teeth 10, 11, 12 which are adapted to extend through the slots 2, 3 and 4 in the outer member. The inner member has a knob 9 connected thereto which is adapted to extend beyond the outer member. The purpose of the knob 9 is to lock the device by rotating the inner member relative the outer member by taking the knob between the thumb and forefinger. The outer member also has a plurality of ventilation slots 15, 16, etc. to facilitate drying of the hair. The outer member, in addition, has a plurality of sharp points or projections 20, 21, 22, etc., which engage the hair and minimize slipping of the hair on the curler as the curler is rolled up, and also may be used to provide combing action to the hair.

Referring more specifically to FIG. 2, which shows a side view of the inner member, the inner member comprises a core 23 having a plurality of spaced projections 24, 25, 26 spaced along its axis. On these projections is mounted a plurality of teeth 10, 10*a*, 10*b* and 13, 13*a*, 13*b*. The teeth are equally spaced around the periphery of the core 23 and there are preferably at least four sets of teeth so spaced, with corresponding slots in the outer member.

Referring more specifically to FIG. 4, the teeth 10, 10*a* have a hooked configuration and are shaped so that the teeth extend through the slots in the outer member 1 to a predetermined point above the surface of the member 1. The tooth is then hook shaped in a direction along the surface of the member 1 but tapering inwardly towards the surface of the member 1.

The inner and outer members may be made of conventional plastic materials and may be molded. Connection channels are provided in the inner and outer members so that the inner member may be easily snapped into and out of the outer member. These connection channels or grooves are shown in detail in FIG. 7 which shows a detailed view of the areas enclosed in the circles 7 and 7′ of FIGS. 2 and 5. More specifically the inner member has a circular groove 30 and the outer member has a plurality of projections 31 which have a pointed configuration which is adapted to fit into the groove 30 of the inner member. The projections 31, 31*a*, 31*b* are equally spaced around the periphery of the outer member 31. The reason for the spaces between the projections 31 etc. is so that the projections may have sufficient elasticity to yield and snap into the groove 30 on the inner member. Other conventional snap-in connection means may be used if desired.

In operation, the ends of the hair H are placed against the surface of the curler, or the roller is placed at the middle of a strand and drawn to the hair ends with a combing action. The curler is then rolled up, thereby forming the hair into a roll in conventional manner. After the curler is in the desired position it is easily and quickly locked by rotating the knob 9 a sufficient distance to cause the teeth on the inner member to engage the hair H between the inner surface of the teeth and the outer surface of the member 1 as shown by the dotted position of the teeth in FIG. 8. The frictional grip thus obtained will securely hold the curler in place. If desired the slots in the outer member may be tapered so that there will be a frictional locking between the slots and the stems of the teeth. The direction of rotation is preferably the direction of the open ends of the teeth. The curling is done by rolling the knob 19 connected to the outer member, for instance with the left hand. After the curl has been properly positioned, the curler is locked to the hair by rotating the knob 9 on the inner member approximately ¼ of a turn to lock the hair between the teeth and the outer member 1.

Many modifications may be made by those who desire to practice the invention without departing from the scope thereof which is defined by the following claim.

I claim:

A locking hair curler comprising;

an outer tubular member having a plurality of parallel slots in its outer surface spaced substantially along the entire length of said tubular member,

said slots being generally perpendicular to the axis of said member,

means to lock hair to said outer member when curled around said outer member, comprising an inner member rotatably mounted inside said hollow outer member,

a plurality of hooked teeth mounted on said inner member and extending through the slots in locking relationship to said outer member, and a knob connected to said inner member,

said outer member having a long slot open at one end and parallel its axis to permit said toothed inner member to be inserted in said outer member in communication with said parallel slot, said outer and inner members having snap-in connection means.

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