

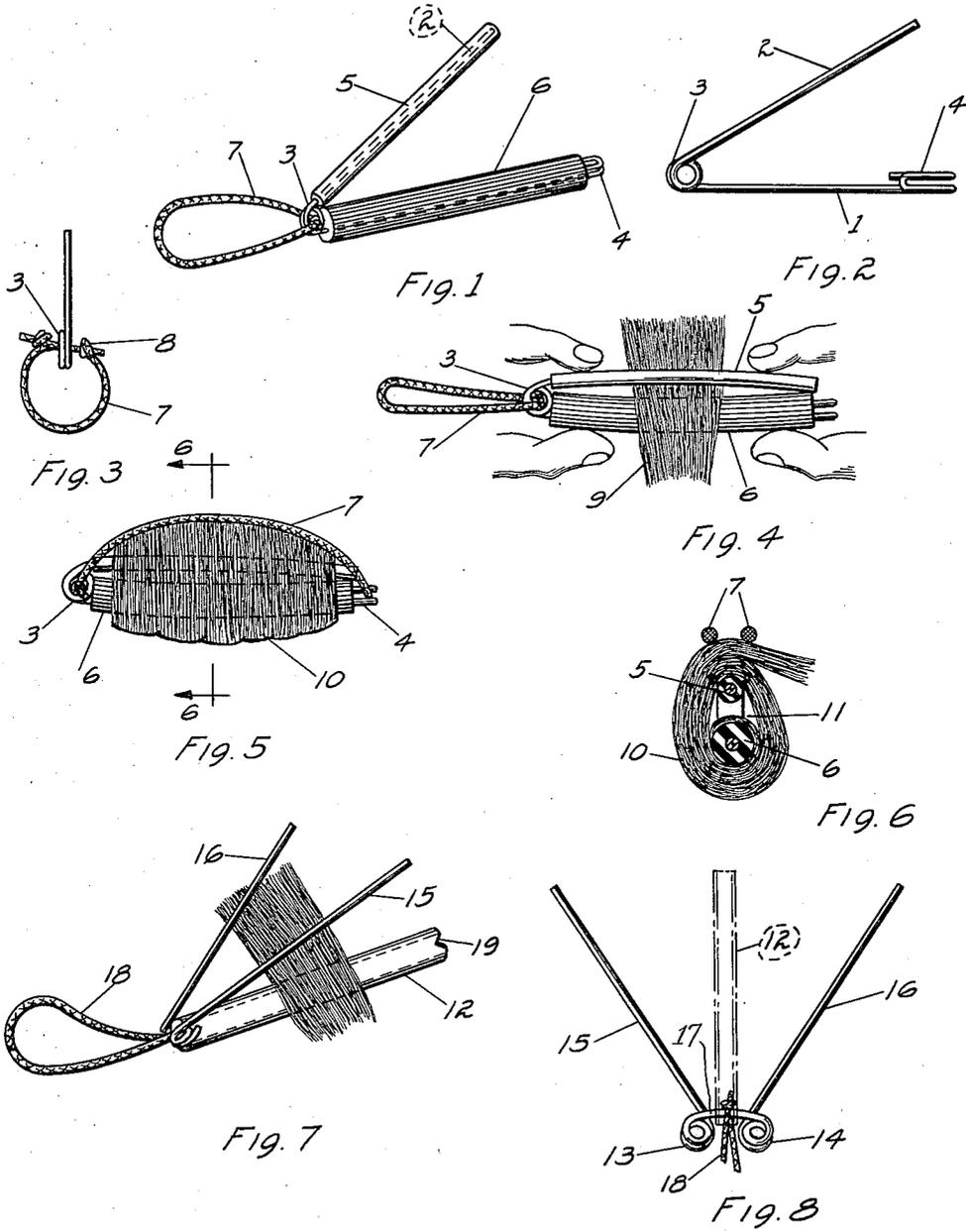
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J. VECCHIO

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HAIR CURLER

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INVENTOR.

Joseph Vecchio

BY Samuel Vecchio

ATTORNEY.

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HAIR CURLER

Joseph Vecchio, Detroit, Mich.

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The present invention pertains to a novel hair curler designed principally for home use so that the hair may be satisfactorily curled at home and at comparatively little cost and inconvenience. The principal object of the invention is to provide a simple and effective device of this character which forms a curl that lasts substantially as long as the one formed by an electric heating machine in a beauty parlor and which does not involve the heating processes and other inconveniences to which many women object.

In the accomplishment of this object, the device comprises primarily a body member with an arm extending angularly from one end thereof, there being interposed between the body and the arm, means which normally hold them apart under spring tension. In construction the frame of the device consists merely of a wire bent at an angle and having a spring coil in the vertex, the sides of the angle thus formed being covered with material of such thickness as to form respectively a body and an arm. The hair to be curled is first laid over the body, and then the arm is brought manually into contact therewith by manual pressure opposing the spring coil, after which the whole device is rotated to wind the hair around both the body and the arm. Finally, an elastic tie cord, attached preferably to the coil, is fastened on the free end of the body to prevent unwinding.

Due to the original outward tension of the arm with respect to the body, there is set up in the curl an internal pressure which holds the curl in a tight condition and also tends to stretch the hair. This tightness, during application of the curler, obviously assists in setting the curl; and the recoil from stretching, on removal of the curler, further tends to hold the curl firmly and permanently.

The invention is fully disclosed by way of example in the following description and in the accompanying drawing in which

Figure 1 is a perspective view of the device;

Figure 2 is a perspective view of the wire frame;

Figure 3 is an end view;

Figure 4 is an elevation of the device, showing the initial operation in winding a curl;

Figure 5 is an elevation showing the curl fully wound on the device and bound thereon;

Figure 6 is a section on the line 6—6 of Figure 5;

Figure 7 is a perspective view of a modified form, and

Figure 8 is an elevation of one of the parts thereof.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The frame of the device consists of a wire member bent substantially into a V-shape to form two arms 1 and 2 with a spring coil 3 at the vertex. The free end of one of the arms is bent to form a fork 4 for a purpose which will presently appear. A rubber sleeve 5 is fitted on the arm 2 to cover the same entirely. A similar rubber sleeve 6 of greater thickness and corrugated lengthwise on the outer surface is fitted on the arm 1, leaving the fork 4 exposed, as may be seen in Figures 1, 2 and 3. An elastic cord 7 is mounted in the loop 3 by having both of its free ends passed through the coil 4 in opposite directions and knotted at 8 so that they cannot be pulled out of the coil. The cord is of such length that, with slight stretching, it may be inserted in the fork 4.

One of the important features of the invention is that the arms 1 and 2 are normally under outward tension with respect to each other by virtue of the spring coil 3. In other words, the coil normally holds the arms apart in the position shown in Figures 1 and 2.

In the use of the device, the lock of hair to be curled, indicated by the numeral 9, is laid over the sleeve 6 so that the ends of the hair project somewhat therefrom, as shown in Figure 4. The arm 2 is then brought into contact with the hair by manual pressure acting against the spring coil 3. The lock of hair is thus gripped so that it will curl about the arms when the device is turned on its axis. The corrugations on the body sleeve 6 prevent slipping of the hair during the winding operation. The curl thus formed is indicated by the numeral 10 in Figures 5 and 6. To prevent unwinding of the hair from the curler, the elastic 7 is looped into the fork 4 as also shown in Figure 5.

It has already been indicated that the arms 1 and 2 have a tendency to spread apart to the condition illustrated in Figures 1 and 2. Consequently, with the arms brought close together by the winding of the hair thereon, these arms exert a substantial outward pressure within the curl. The latter is thereby held firm and tight while setting. The internal pressure also causes a slight stretching of the hair within the limits of its elasticity.

It will be evident that the tightness of the hair, by reason of the internal pressure of the arms

1 and 2, results in a very tight and comparatively permanent curl when the curler is removed. Further, the stretching of the hair by the tensioned arms is relaxed on removal of the curler, permitting a contraction of the hair which also contributes to the formation of a tight and permanent curl. In fact it has been found that curls made by the device described herein compare favorably with those made by an electric heating machine. Ladies frequently object to the use of the electrical machine because it is uncomfortable and often harmful, and also because it requires a trip to the beauty parlor and is expensive.

The present invention, on the other hand, provides a means whereby an equally permanent curl may be made at home at a considerably smaller expense and without discomfort or inconvenience.

Another property of the invention is illustrated in Figure 6 which shows that, because of the outward tension of the arms 1 and 2 with respect to each other, an opening 11 is formed within the curled lock of hair. This opening permits circulation of air through the curl. It will be understood that the hair is moistened before being curled and that the drying of the hair is accompanied by the setting of the curl. The circulation of air through the opening hastens the drying and also the setting, thereby reducing the period of time that the curler must be worn on the head.

In the embodiment shown in Figure 7, the body of the device consists of a tube 12 made of a light and strong material such as aluminum. A wire is passed transversely through the tube near one of its ends and is coiled at 13 and 14 immediately outside the tube to form a pair of diverging arms 15 and 16 which are under outward tension with respect to the tube 12 and to each other. The short piece 17 between the coils 13 and 14 is the part that passes transversely through the tube 12. An elastic tie cord 18 is knotted across the piece 17 and is adapted for insertion in notches 19 cut in the free end of the tube 12.

This device is used in substantially the same manner as that previously described. The arms make equal angles with the tube so that when the lock of hair is laid over the tube as illustrated, it also lies beneath both spring arms. The latter are then brought manually into contact with the hair, and the whole device is rolled to form the curl which is held by the elastic when inserted in the notch.

An additional feature of this device is that, because of the two spring arms, it makes a three-point contact with the inner surface of the curl while expanding the curl, thereby holding the curl in a more nearly cylindrical condition and avoiding a flat or oval condition.

Although specific embodiments of the invention have been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention, as indicated by the appended claims.

What I claim is:

1. A hair curler comprising a body member, an arm extending angularly from one end thereof, spring means normally holding said arm spaced from said body member, said arm being movable towards said body by pressure opposing said means, to grip a lock of hair between said body and arm, the free ends of said body and arm being detached from each other when in

gripping position, whereby said spring means and arm produce an internal expanding pressure within the lock of hair, and a tie cord extending from end to end of said body.

2. A hair curler comprising a body member, an arm extending angularly from one end thereof, spring means normally holding said arm spaced from said body member, said arm being movable towards said body by pressure opposing said means, to grip a lock of hair between said body and arm, the free ends of said body and arm being detached from each other when in gripping position, whereby said spring means and arm produce an internal expanding pressure within the lock of hair, and a tie cord extending from end to end of said body, said arm and body being covered with rubber.

3. A hair curler comprising a body member, an arm extending angularly from one end thereof, spring means normally holding said arm spaced from said body member, said arm being movable towards said body by pressure opposing said means, to grip a lock of hair between said body and arm, the free ends of said body and arm being detached from each other when in gripping position, whereby said spring means and arm produce an internal expanding pressure within the lock of hair, and a tie cord extending from end to end of said body, said body being corrugated lengthwise on its outer surface.

4. A hair curler comprising a wire bent to form an angle with a spring coil in the vertex thereof, said coil being disposed to hold the sides of said angle normally apart under spring tension, a sleeve fitted over one of said sides, the free ends of said sides being detached from each other in all adjustments, whereby said spring coil produces an internal expanding pressure within the lock of hair, and a tie cord attached to said coil and attachable to the free end of said side.

5. A hair curler comprising a wire bent to form an angle with a spring coil in the vertex thereof, said coil being disposed to hold the sides of said angle normally apart under spring tension, a sleeve fitted over one of said sides, the free ends of said sides being detached from each other in all adjustments, whereby said spring coil produces an internal expanding pressure within the lock of hair, a tie cord attached to said coil, and a hook formed on the other end of said side for receiving the said cord.

6. A hair curler comprising a body member, a pair of arms extending angularly outward from one end thereof, means normally holding said arms spaced from said body, said arms being movable towards said body by pressure opposing said means, to grip a lock of hair between said body and arms, whereby said spring means and arms produce an internal expanding pressure in three directions within said lock of hair, and a tie cord extending from end to end of said body.

7. A hair curler comprising a body member, a pair of arms extending angularly outward from one end thereof, each arm being formed with a spring coil normally holding said arms spaced from said body, said arms being movable towards said body by pressure opposing said means, to grip a lock of hair between said body and arms, whereby said spring means and arms produce an internal expanding pressure in three directions within said lock of hair, and a tie cord extending from end to end of said body.

8. A hair curler comprising a body member, a pair of arms extending angularly outward from

one end thereof, a wire passed transversely through one end of said body member and bent to form a pair of arms extending angularly outward from said member, a spring coil formed in each arm at said ends, said coils normally holding said arms spaced from said body, said arms being movable towards said body by pressure op-

posing said means, to grip a lock of hair between said body and arms, whereby said coil and arms produce an internal expanding pressure in three directions within said lock of hair, and a tie cord extending from end to end of said body. 5

JOSEPH VECCHIO.