To all whom it may concern:

Be it known that I, JEAN SÉNÉGAS, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Hair-Curling Devices, of which the following is a specification.

My invention is designed to afford means whereby the hair may be conveniently and effectually curled, crimped or waved, and especially whereby the Marcel wave effect may be symmetrically attained with certainty.

The invention consists in the specific form and construction of the shaper around which the hair is wound, distinctive features being the making of such shaper of elliptical form in cross section, of hollow construction, and in curving the said hair shaper longitudinally for certain purposes, all as hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a view of one of the broad sides of the shaper; Fig. 2, an end view thereof; Fig. 3, a cross section thereof; Fig. 4, a view illustrating the use of the shaper in conjunction with heating tongs of special construction; Fig. 5, a view of said tongs taken at right angles to the position thereof shown in Fig. 4; Fig. 6, a section of the tong jaws taken upon plane of line 6—6 Fig. 5; Fig. 7, a section of the tong jaws taken upon plane of line 7—7 Fig. 4, and illustrating their use in conjunction with the elliptical shaper in heating and compressing a lock of hair wound thereon, the shaper and the lock of hair being shown in end elevation; Figs. 8 and 9 views showing the shaper curved longitudinally, and illustrating the purposes of such construction.

My improved hair shaper S is elliptical in cross section and may be made of any length desired. It is also preferably hollow, as shown in Fig. 3, the ends being closed but not necessarily hermetically sealed. It may be made of aluminum on account of the lightness of such material and its conductivity; or any other suitable metal may be substituted when the shaper S is to be heated, as when employed in conjunction with the special heating tongs T designed for the purpose and forming the subject-matter of my concurrent application Serial No. 783,388 filed herewith.

The elliptical form of the shaper S in cross section affords a continuous curved peripheral winding surface having practically two broad sides and two intermediate narrow sides or edges, but without angle or abruptness. This is of special importance in that when the hair is wound tightly around the shaper S, its broad sides prevent the slipping of the lock of hair upon the shaper, or inversely stated, the turning of the shaper S within the windlis thereby prevented. This feature renders my form of hair shaper particularly effective in attaining the Marcel wave effect, in which case the broad sides of the shaper are utilized for the broad waves and the narrower edges afford the intermediate reaches,—the lock or strand of hair being woven across and around the shaper S alternately from one side of the center of the strand (or end near the roots) to the other, reversing the direction at each wind, care being taken to avoid twisting the strand laterally during manipulation, and that the turns be made longitudinally "on the flat" only. The hair wind which should be tightly drawn, may be secured by twisting the end around the strand at, or near, the roots, or by the use of any convenient fastening device, such as a rubber band, a small hair pin, or other expedient as may be found convenient.

By making the shaper S of metal, I am enabled to apply heat to the hair wind internally by the use of the heating tongs T the jaws t, t, of which are formed with parallel bearing surfaces e, e, on the inner sides thereof. These opposed parallel bearing surfaces e, e, form between them an elliptical recess or socket s for the reception and retention of an end of the shaper S, as will be understood by reference particularly to Figs. 4 and 5. In other words, the jaws t, t, are adapted to contact with and hold an end of the shaper S in such manner as to transmit thereto heat previously acquired by said jaws. The heat thus imparted to the shaper S expands it and causes it to press still more tightly against the inner folds of the hair wind, also heating the same, and thereby tending to fix or set the wind. By making the shaper S hollow, as shown in Fig. 5, the device is not only made lighter, but is also more responsive to the heat imparted by the jaws t, t, of the tongs T, in that the confined hair will quickly distribute and equalize the temperature throughout the shaper S.
Heat is applied externally to the coil of hair on the shaper S, also by means of the tongs T, the jaws of which are formed with registering central concavities \( t', t'' \), which together form an ellipsoidal recess, \( s' \), the inner side walls of which are adapted to contact with and bear against the coil of hair in such manner as to cause it to conform more closely to the elliptical cross section of the shaper S, as shown more particularly in Fig. 7.

It will be noted that in Figs. 1 and 4 the shaper S is shown as straight longitudinally, and this straight form of shaper is adapted to the treatment of long hair at a distance removed from the roots thereof. Where it is to be used or worn very close to the roots of the hair to be treated, I curve the shaper S, longitudinally, as shown in Figs. 8 and 9. This enables me to apply the heated jaws \( t, t' \) of the tongs T to the end of the shaper S, with greater facility and with less danger of discomfort to the person whose hair is treated, as will be obvious by reference to Fig. 9. It also admits of the turning of the shaper S into conforming with the shape of the head as indicated in Fig. 8 where the shaper S is to be worn for some time, particularly when worn over night, as is frequently the case.

It is deemed important that the tube be hollow and sealed at the ends so as to confine the air which heats up instantly when the heated tongs are applied. The hermetic sealing of the ends causes the confined air to act as a conductor of heat, the tube expanding rapidly under heat and, hence, the hair being wound tightly around the tube and being also compressed externally by the jaws of the tongs, the expansion forms an important function in setting the hair, particularly the portions in contact with and immediately adjacent to the hollow tube.

What I claim as my invention and desire to secure by Letters Patent is,

1. The improved hair shaper herein described, the same being of elongated form, hollow, closed at the ends, elliptical in cross section and longitudinally curved, the same being of metallic and practically rigid construction to retain its shape under all conditions of use.

2. A device for the purpose described comprising an elongated hollow metallic member of elliptical cross section having its ends hermetically sealed.

3. A device for the purpose described comprising an elongated hollow metallic member having its ends hermetically sealed.

4. A hair curler in the form of an elongated hollow member of thin material with closed ends confining the air within the same and preventing escape of the air when heated.

JEAN SÉNÉGAS.

Witnesses:
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