June 30, 1931. W. S. LEWIS 1,812,442

METHOD OF WAVING HAIR

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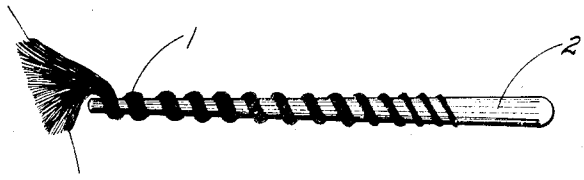


Fig. 1.

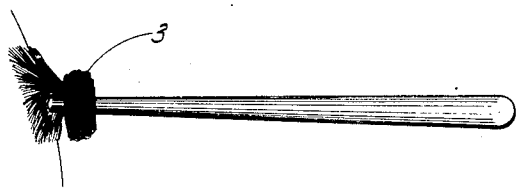


Fig. 2.

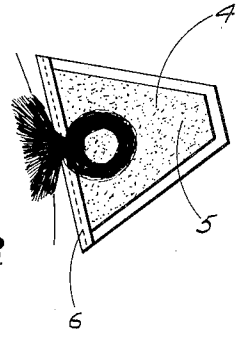


Fig. 3.

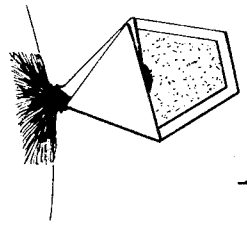


Fig. 4.

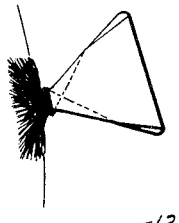


Fig. 5.

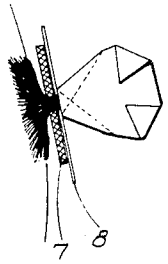


Fig. 6.

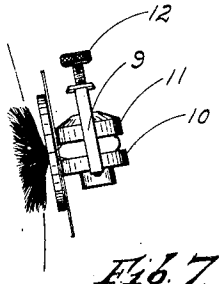


Fig. 7.

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METHOD OF WAVING HAIR

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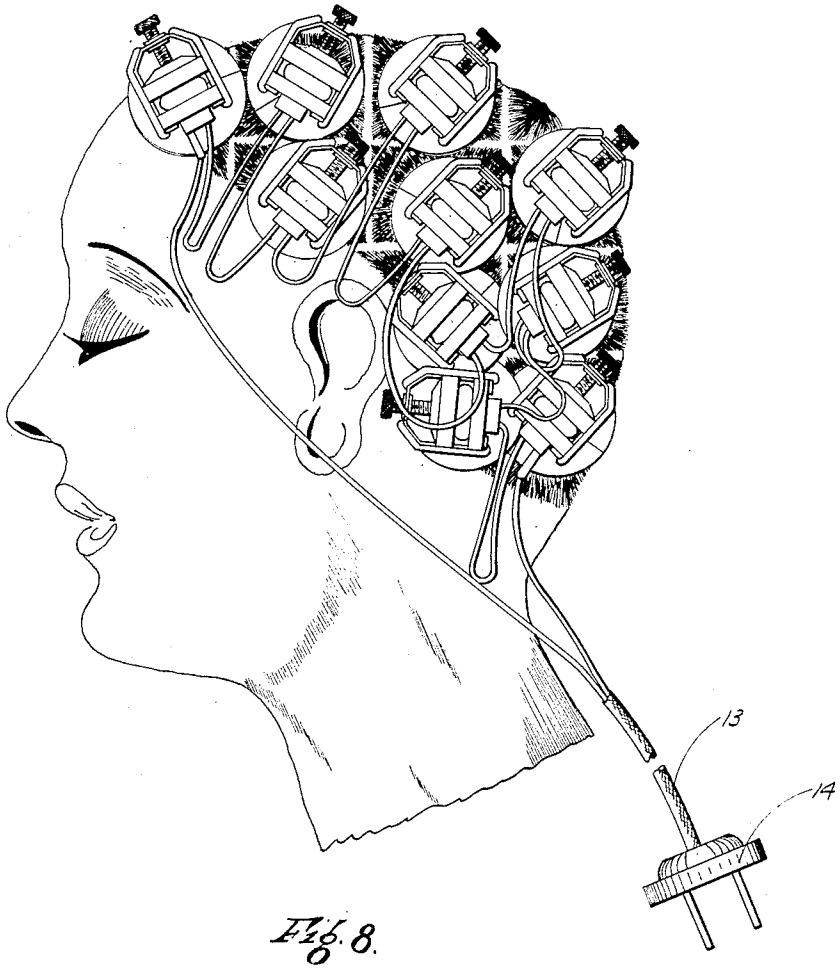


Fig. 8.

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Patented June 30, 1931

1,812,442

UNITED STATES PATENT OFFICE

WILBUR S. LEWIS, OF LAKEWOOD, OHIO, ASSIGNOR TO THE NESTLE-LE MUR COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO

METHOD OF WAVING HAIR

Application filed September 25, 1930. Serial No. 484,302.

This invention relates to hair waving or curling and more particularly to an improved method of permanently waving human hair.

The art of permanently waving hair is widely practiced and the general principles thereof are well understood. Primarily it has been considered that to permanently wave hair, it is necessary to subject it to heat and moisture while the hair is under stress. A large number of different types of apparatus have been devised for carrying out permanent waving processes and it is among the objects of the present invention to provide an improved process of permanently waving hair which is particularly adapted to utilize the apparatus fully described and claimed in my copending application, Serial Number 464,835, filed June 30, 1930.

Another object of my invention is the provision of a method of permanently waving hair by which the entire process may be quickly completed with a minimum of discomfort to the patron.

Another object of my invention is the provision of a method of waving hair in which the preparation of the hair for the actual heating operation is greatly simplified and the time required for this preparation greatly reduced.

The above and other objects of my invention will appear from the following description of my improved method, reference being had to the accompanying drawings, which illustrate the various steps in the process and also one form of apparatus which may be used for carrying out my method.

In the drawings:

Figs. 1 to 7 illustrate the successive steps in the preparation of the hair for the permanent waving treatment.

Fig. 8 illustrates the application of the heaters to the patron's head.

In the preparation of the hair for permanent waving in accordance with my improved method, the customer's hair is first divided into a number of strands in well-known manner. The number of strands into which the hair is divided depends upon the number of curls and kind of wave which it is desired to produce. In the following description reference will be made to the treatment of a single strand, and it will be understood by those skilled in the art that each of the strands of hair may be similarly prepared for the application of heating devices.

In Fig. 1, the strand of hair 1 has been wound on a rod or mandrel 2. This mandrel 2 is preferably tapered, to facilitate the removal of the hair therefrom. The second step of the process, as illustrated in Fig. 2, is to slip the hair off the mandrel 2 so that it forms a compact substantially flat coil as indicated at 3. The operator holds this coil of hair firmly between his fingers and encloses it in a pad 4 by folding it around the coil of hair. This pad 4 may be of any suitable shape and may be folded in any suitable and desirable manner. The pad which I have illustrated is of a generally triangular shape and may be folded around the hair as illustrated in Figs. 4, 5 and 6. The first step in the folding operation being to bend inwardly the lower corners as illustrated in Fig. 4; the next step being to fold down the outer portion of the pad to form the triangular shape shown in Fig. 5, and the last step being to turn over the projecting corners as illustrated in Fig. 6 to more firmly hold the coil of hair in its coiled position and form a neat and compact package.

The pad 4 preferably is made up of an outer layer of metallic foil, then a layer of substantially waterproof paper or other material and then a sheet of absorbent material 5. This sheet of absorbent material 5 is preferably slightly smaller than the outer metal foil layer and the entire pad is stitched together along one side as illustrated at 6. This pad may be generally similar, except as to its shape, to the pad described and claimed in the United States Patent to Wilbur S. Lewis and John C. Murray No. 1,619,798.

Before the pad 4 is wrapped around the coil of hair 3, the absorbent portion 5 thereof is preferably moistened with a suitable hair treating liquid, and after the folding operations are completed, the inner end of the package is tightly crimped about the strand of hair at a point adjacent the patron's scalp. This crimping prevents the objectionable es-

cape of steam and vapor against the patron's head during the heating operation.

After the package is completely formed and the inner end crimped as shown in Fig. 6, a protecting washer 7 of felt or similar material and a fibre washer 8 are placed around the coiled strand of hair between the enclosing foil and the scalp. These washers 7 and 8 each have a central hole and are split from the central hole to their outer edge so that they can be slipped easily into place around the strand of hair.

As illustrated in Fig. 7, the next step of the process is the application of the heating clamp 9 to the package. This clamp unit 9 consists of two disc-shaped heating elements 10 and 11 which are adjustable relative to each other by means of the thumb screw 12. The screw 12 is first loosened to separate the discs 10 and 11 and the heating unit is then slipped in place over the foil enclosed coil of hair. When the screw 12 is tightened the package is clamped between the heating discs 10 and 11 and may thus be subjected to the desired degree of pressure. The discs 10 and 11 contain electric heating elements and are adapted to be connected to a source of supply of electric current whereby the elements may be heated thus heating the coil of hair and causing the liquid with which the absorbent pad 5 is saturated to vaporize. The combined action of heat and pressure in the presence of the vaporized liquid and the chemical agents which may be in solution in the liquid, produces a permanent wave in the coiled strand of hair.

At the completion of the heating operation, the screw 12 is loosened and the clamp 9 removed. The coil enclosing wrapping and the washers 7 and 8 are then also removed and there remains the permanently waved coil of hair ready for the usual further treatment as desired.

As illustrated in Fig. 8, a number of the heating and clamping units 9 are adapted to be connected in series to a source of supply of electric current so that the entire scalp may be permanently waved at one time. As the clamps 9 are relatively small and of light weight construction, it is not necessary to support them other than by the strand of hair to which they are attached. The fiber washer 8 and the felt washer 7 prevent the clamp from falling over and striking against the patron's head and, as the heaters are all connected to the electric supply line by a single cord 13, the patron is free to move about within the limits of the length of the connecting cord 13. This cord 13 carries a standard attachment plug 14 at its end, and in case of accident or when for any reason it is wished to stop the heating action of the clamps, it is only necessary to pull out the plug 14 from its connection to the electric circuit.

It will be seen by those skilled in the art, that my process of permanently waving hair and particularly the preliminary preparation of the hair for the heating operation is extremely simple and may be carried out by a skilled operator in a very short time.

Although I have described my process in connection with certain apparatus and in a certain definite sequence of steps, it will be understood by those skilled in the art that modifications, both as to the apparatus used to carry out the process, and as to the steps of the process, may be made without departing from the spirit of the invention, and I do not, therefore, limit myself to the specific procedure herein described, but claim as my invention all embodiments thereof coming within the scope of the appended claims.

I claim:

1. A method of permanently waving hair comprising winding a strand of hair on a rod, removing said hair from said rod in the form of a flat coil, folding a pad about said coil to hold it in coiled position and to substantially enclose the coil and applying heat and pressure to the coil.

2. The method of permanently waving hair which includes the steps of winding a strand of hair on a rod, slipping the hair off the rod to form a flat coil, folding a pad about said coil to form a flat package, applying pressure on the flat sides of said package and simultaneously heating said package.

3. The method of permanently waving hair which includes the steps of winding a strand of hair on a rod, slipping the hair off the rod to form a flat coil, folding a moistened pad about said coil to form a flat package, applying pressure on the flat sides of said package and simultaneously heating said package.

4. The method of curling hair which includes the steps forming a flat curl by winding a strand of hair on a rod and slipping the wound hair off the rod in the form of a flat curl, folding a moistened pad having an impervious outer surface about said coil to form a flat package, and simultaneously applying heat and pressure on the flat sides of said package.

In testimony whereof I hereunto affix my signature this 9th day of September, 1930.

WILBUR S. LEWIS.