Dec. 18, 1923. 1,477,873

H. JACOBS

HAIR WAVING DEVICE

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Fig. 1.

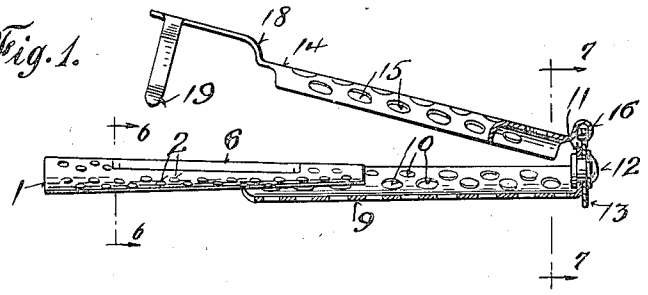


Fig. 2.

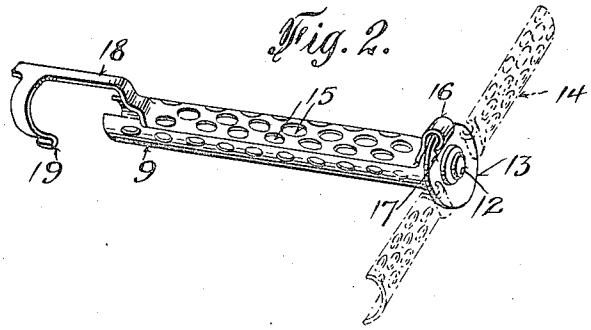
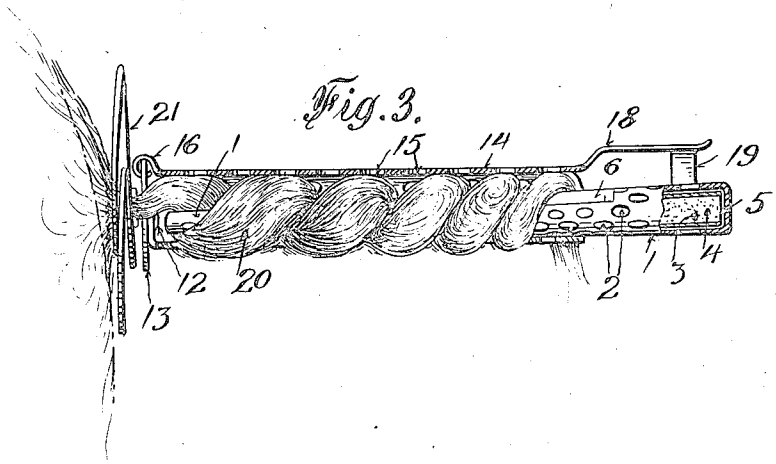


Fig. 3.



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Fig. 4.

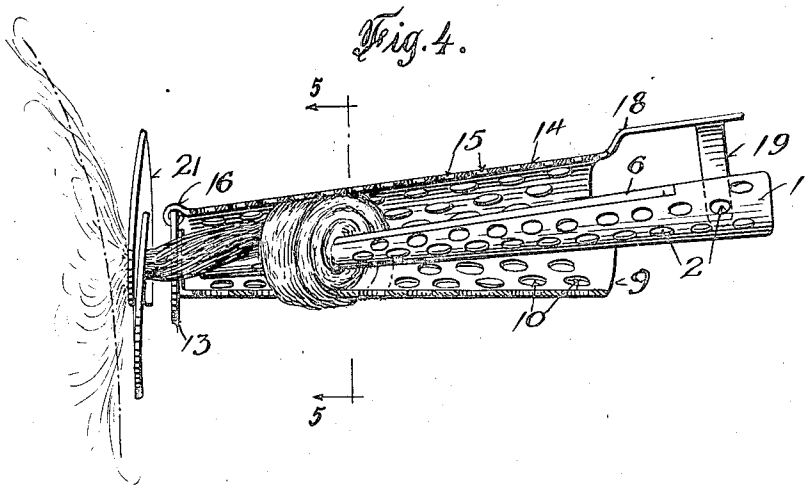


Fig. 5.

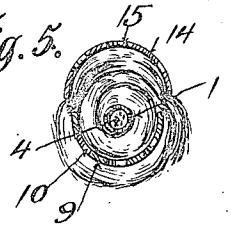


Fig. 6.

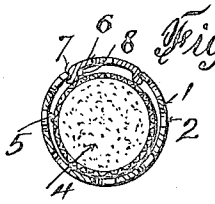
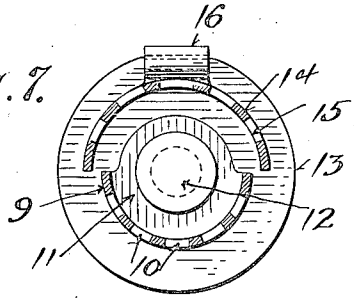


Fig. 7.



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UNITED STATES PATENT OFFICE.

HANNAH JACOBS, OF BROOKLYN, NEW YORK.

HAIR-WAVING DEVICE.

Application filed February 19, 1923. Serial No. 619,787.

To all whom it may concern:

Be it known that I, HANNAH JACOBS, a citizen of the United States, and a resident of the borough of Brooklyn, city and State of New York, have invented certain new and useful Improvements in Hair-Waving Devices, of which the following is a specification.

In the process of producing permanent waves in the human hair it is customary, as one step in the operation, to wind or twist a lock of hair around a member generally called a curler, after which a moistened pad of chemicals is applied to the hair and the latter is subjected to a heating or baking operation to set the wave or make it permanent. It has been customary in previous methods to tie the lock of hair on the curler sometimes at the commencement of the winding as well as at the free end; and as each lock of hair must be handled separately the time consumed in waving a whole head of hair is considerable, no small portion of which is consumed in tying the hair on the curler and in detaching it therefrom. In my U. S. Patent No. 1,360,644 I showed a curler which removed the necessity for tying the hair on the curler. The object of the present device is not only to avoid the necessity of tying the hair on the curler but also to facilitate the winding of the hair on the curler in order to speed up this operation and in order that the operation may be performed by less skilled or newly trained operators. Another object is to provide a device wherein the hair on the curler may be secured close up to the head in order to wave the hair close to the head; and another object is to clamp the hair to make the wave face in the desired direction.

Another object is to provide a device which will store up heat for treating the hair at a point close to the latter.

Another object is to provide a curler having the treating material or borax inside the curler, with means which permits the replacement of the borax so that the curler may be used repeatedly. Also to provide a curler with the above mentioned advantages, which can be thoroughly cleaned after each use in order to make it sanitary even where it is used repeatedly.

The present device is adapted for use in making the flat wave where the hair is wound in adjacent turns on the curler and also in making ringlets or curls where the hair is wound in overlapping coils upon itself, the latter method being followed in waving bobbed hair. Other advantages will appear in the following detailed description.

In the drawings forming part of this application,

Figure 1 is a side elevation of the curler, and the securing device being applied thereover, the hair being omitted,

Figure 2 is a perspective view of the securing device showing the manner in which one member swings around on its pivot,

Figure 3 is a longitudinal sectional view of the curler and securing device in actual use in forming a permanent wave of the flat variety,

Figure 4 is a similar view showing the device used in making the round curl or ringlet,

Figure 5 is a sectional view taken on the line 5—5 of Figure 4,

Figure 6 is a cross sectional view on an enlarged scale, taken on the line 6—6 of Figure 1, and

Figure 7 is an enlarged cross sectional view of the device taken on the line 7—7 of Figure 1.

The device is shown on an enlarged scale throughout the drawings in order to bring out its details. The curler, or the member on which the hair is principally wound comprises a frustro conical body 1 of cylindrical cross section and having perforations 2 provided at intervals to permit the fumes of the borax to reach the hair. This curler contains a cartridge comprising a gauze container or sack 3 which is filled with the waving chemical or borax 4 and this cartridge is placed in the hollow chamber 5 in the curler. There is a removable cap 6 for closing the longitudinal opening 7 in the curler and it has lugs 8 on its edges which snap under the edge of the opening 7 of the curler to hold the cap in place. After the curler has been used, the cap 6 is removed and the sack 3 is removed through the opening 7 and the curler is readily cleaned both inside and outside. A new cartridge of borax may then be inserted in the curler and the cap 6 is replaced and the curler may thus be used repeatedly.

The curler here described is the one I prefer to use with the securing device but it will be apparent that so far as the latter is

concerned it may be used with other curlers, such as one formed of a plain solid rod. The curler will generally be made of metal.

The other member or device consists of the means for holding the hair on the curler without the use of a tie string. It comprises in part, a concavo-convex member 9, preferably made of metal and having perforations 10 distributed over it. One end of this member is bent up at 11 at right angles to the concavo-convex portion, and there is a pivot pin or rivet 12 extending through an aperture therein. There is a disk 13 which is secured by the pin 12 and this disk may revolve freely on the pin 12 as an axis.

The other main member of this device consists of a concavo-convex member 14 which is formed with a slightly larger arc of curvature than the member 9, as is shown in Figure 7. This member 14, which is preferably made of metal, also has perforations 15 distributed over its surface. It also has a strap 16, which is bent around and passed through a slot 17 in the disk 13 whereby a hinge connection is formed which permits the member 14 to swing in relation to the member 9 in a plane parallel with their axes.

The member 14 has an arm 18 extending outwardly and rearwardly and on its free end it carries a hook 19 which is adapted to be snapped under the curler.

Operation: I will first describe the use of the device in making the flat wave, as shown in Figure 3. The operator combs out or separates a lock of hair 20 and places an ordinary heat shield 21 around the lock of hair close to the head to protect the scalp from excessive heat. The curler 1, having chemical or borax cartridge therein is placed in the concavo-convex member 9 with the smaller end toward the disk 13, the member 14 being swung up or away from the member 9 until the hair has been wound. The operator then starts to wind the lock of hair around both the curler 1 and the member 9, starting at a point very close to the head and continuing until the whole lock has been wound around those members. As above described, for the flat wave each turn of hair will lie beside another as shown in Figure 3. When the lock of hair has been fully wound on the members 1, 9 the member 14 is swung down until it presses upon the wound lock of hair and the hook 19 is then engaged around the end of the curler 1 to hold the member 14 pressed on the hair. There is more or less resiliency in the member 18 so that the member 14 presses on the hair with a spring-like pressure. The member 14 serves to hold the wound lock of hair in place and it also presses along its edges on the hair and causes slight waves to form there, and in addition, it holds heat received from the heating unit (not shown) to be given off to the hair. Any of the usual forms of heaters may be placed over the device to heat or bake the hair and make the wave permanent. It will be understood that the material 4 in the curler is moistened before the heater is applied, or even before the hair is wound.

When, in the above described operations, the member 14 is about to be swung down on its hinge joint to press against the wound hair it may be revolved on the pin 12 as an axis, so that the member 14 may be pressed upon the hair at any position around the axis of the curler. The point at which the hair from the head presses upon the curler may determine the best position of the member 14 or this member may be positioned so that the curve or wave of the hair will face in the right direction relatively to the face of the person whose hair is under treatment.

In Figures 4 and 5 I have shown the use of the device for making a permanent curl or ringlet. In this case the winding starts at the free end of the lock of hair, away from the head. The free end of the lock of hair is first laid against the curler 1 and then the member 9 is placed on the curler and presses the end of the hair against the curler during the winding. The curler and the clamping device (the member 14 being swung up out of the way) are then turned around so that the hair is wound around the curler 1 and the member 9 and the successive turns of hair are wound one upon the other as shown in Figure 4. When the whole lock of hair has been wound on the device, the member 14 is swung down against the coil of hair and the hook 19 is engaged over the curler 1. The member 14 then holds the hair on the curler and the heater is applied over the device the same as for the flat wave. Thus, at the commencement of the winding operation the free end of the hair is held between the curler and the member 9 and this facilitates the winding operation. Before swinging the member 14 down on the hair it may be turned around with the disk 13 on the axis 12 to make the member 14 press against the hair at any location around the circle.

From the above it will be apparent that it is unnecessary to tie the hair on the curler with string at either end but the hair is nevertheless securely held during the heating operation. In releasing the device it is only necessary to release the hook 19 from the curler and withdraw the device endwise from the hair, leaving the curl or wave undisturbed.

Having described my invention what I claim is:—

1. A curler for permanent hair waving comprising a hollow, tubular body, a chem-

ical filler for treating the hair, adapted to be inserted in the curler, and a cap for the curler adapted to permit the insertion and removal of the chemical filler in said curler.

2. A curler for permanent hair waving comprising a hollow tubular body having perforations distributed thereover, a chemical filler for treating the hair, adapted to be inserted in the curler, and a cap for the curler adapted to permit the insertion and removal of the chemical filler in said curler.

3. A device for waving the hair comprising a hollow-perforate curler having a chemical filler for treating the hair, and a concavo-convex, perforate member adapted to be placed against the curler whereby the hair may be wound around the curler and said concavo-convex member.

4. A device for waving hair comprising a curler, a separable member cooperating with the curler whereby the hair may be wound upon the curler and said separable member, and a member hingedly secured to said separable member, adapted to be clamped upon the hair after it has been wound upon said curler and said separable member, and means for securing said last member to the curler.

5. A device for waving hair comprising a curler, a separable, concavo-convex member cooperating with the curler whereby the hair may be wound upon the curler and said separable member, a second concavo-convex member hingedly connected with said separable member, adapted to be clamped upon the hair after it has been wound upon said curler and said separable member, and means for securing said last member to the curler.

6. A device for waving hair comprising a curler, a separable, concavo-convex member cooperating with the curler whereby the hair may be wound upon the curler and said separable member, a second concavo-convex member having a larger arc of curvature than said first concavo-convex member, hingedly connected with the latter, said second concavo-convex member being adapted to be clamped upon the hair after it is wound upon the curler and said first concavo-convex member, and means for securing said second concavo-convex member.

7. A device for waving the hair comprising a hollow perforate curler having a chemical filler therein for treating the hair, a concavo-convex member cooperating with the curler whereby the hair may be wound upon the curler and said separable member, a second concavo-convex perforate member hingedly connected with said first concavo-convex member and adapted to be clamped upon the hair after it has been wound upon the curler and said first concavo-convex member.

8. A device for waving hair comprising a curler, a member cooperating therewith whereby the hair may be wound upon said curler and said member, and a member associated with said second member and revolvable concentrically about the axis of the same and adapted to be clamped upon the hair after it has been wound on said curler and said second member.

9. A device for waving hair comprising a curler, a member cooperating therewith whereby the hair may be wound upon said curler and said cooperating member, and a member associated with said cooperating member and revolvable about the same and adapted to swing in relation thereto, and adapted to be clamped upon the hair after it has been wound upon said curler and said cooperating member.

10. A device for waving hair comprising a curler, a concavo-convex member cooperating therewith whereby the hair may be wound upon said curler and said concavo-convex member, and a second concavo-convex member connected with said first concavo-convex member whereby it may revolve about it and whereby it may swing toward and from it, said second concavo-convex member being adapted to be clamped upon the hair after it has been wound on said curler and said first concavo-convex member.

Signed at the city, county and State of New York, this 13th day of February, 1923.

HANNAH JACOBS.