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METHOD OF PERMANENTLY WAVING HAIR

Filed Dec. 13, 1937

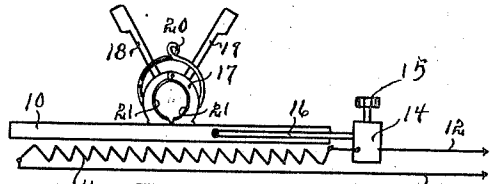


Fig. 1.

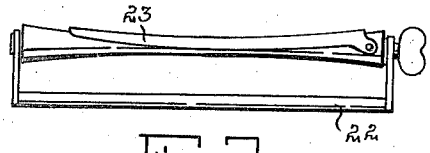


Fig. 2.

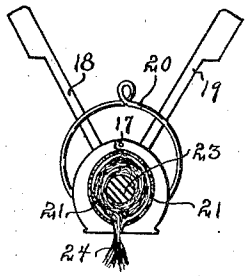


Fig. 3.

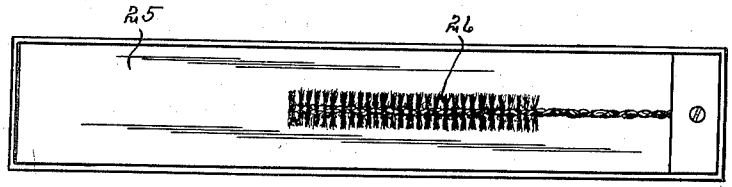


Fig. 4.

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METHOD OF PERMANENTLY WAVING HAIR

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5 Claims. (Cl. 132—36)

This invention relates to the permanent waving of hair and has for its principal object a successful process of waving hair without the usual employment of pads.

A further object of my invention is to provide a method of permanently waving hair that leaves the hair soft and of natural wave characteristics.

A still further object of this invention is to provide a process of permanently waving hair that is rapid and easily accomplished.

A still further object of my invention is to provide a method of permanently waving hair that is economical.

These and other objects will be apparent to those skilled in the art.

My invention consists in the method or process or means hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawing, in which:

Fig. 1 is an end view of one of my manually operated heaters resting on an adjustable automatic thermostatically controlled electrically heated plate.

Fig. 2 is a side view of an ordinary spacer and rod.

Fig. 3 is a cross sectional end view of a rod upon which is wrapped a length of hair to be permanently waved and which is surrounded by one of my heaters.

Fig. 4 is a top plan view of a liquid scrubbing and coating utensil for the heaters.

The permanent waving of hair is a well known art and is accomplished by winding the hair to be waved around a rod or like, the subjecting of the hair to a permanent hair waving solution, and then the subjecting of the hair and solution to heat. As is well known, the waving solution either weakens or conditions the hair into a state where the effect of the heat produces the permanent wave. There are now in general use two classes of machines for giving permanent waves, i. e., machines where the heaters are placed on the hair and then slowly heating them after they have been placed on the hair, and the so-called "preheat' machines where the heaters are first heated to a high temperature and then placed on the hair to be waved. In both of these methods a pad or sachet is placed between the heater and the hair. Such pads which are usually of suitable cloth with flexible metal or parchment backs are either placed on the hair in a dry state or are saturated with the hair curling solution. One of the purposes of these pads is to protect or shield the hair from direct contact with the metal heater. There are many textures of hair thereby requiring different heat temperatures and different treatment, and obviously if the heater is permitted to get too hot for a given head of hair, the hair will be damaged. This is especially true of the first class of permanent waving machines where the heaters are placed on the hair, the machine turned on to raise the temperature of these heaters, and the wave given by a rising temperature.

In such a method, it is obvious that the operator must guess the length of time the heaters are to remain on the hair and the wave is given at the end of the process where a few seconds in guessed time may make for either success or failure. The use of pads is obviously necessary in such a process to reduce the shock to the hair at such high heat at the end of the wave and to slightly prolong the critical moment when the heaters must be removed from the hair or the machine turned off. For the same reason pads are used on the pre-heat type of machine where the extremely hot heaters are placed on the hair at their maximum temperature. In both types of machines the pads permit slight errors in guess work and reduce or cushion the heat shock to the hair. All such machines for the permanent waving of hair require the manufacture and sale of these pads to the user after the user has purchased one of such machines. As it requires approximately thirty pads for each head of hair permanently waved, it is obvious that the user of a permanent wave machine has a substantial pad expense as long as he uses the permanent wave machine. I have overcome this pad expense by providing an apparatus and method for the permanent waving of hair that does not require the use of pads of any description.

Referring to the drawing, I have used the numeral 10 to designate a heating plate electrically heated by the resistance wires 11. The numerals 12 and 13 designate electric lead wires connected to the resistance wire 11 and designed to be in communication with a source of electrical energy. Imposed in the electric lead wire 12 is an ordinary automatic adjustable thermostat 14 having the adjusting handle 15 and control tube 16 in contact with the plate 10. The numeral 17 designates my manually operated double jawed handles 18 and 19. The two jaws of my heater are yieldingly held toward each other by a spring 20.

The specific construction of the handles 18 and 19, the springs 20, and the jaws of my heater are not important except that the jaws of the heater must be of sufficient thickness and suit-

able material to absorb and retain heat from the plate **10**. From my experience I recommend that the jaws of the heater be of metal such as an aluminum alloy. In order to prevent any metal of the jaws from directly engaging the hair to be waved, I have covered the inner side of each of the jaws with a protective insulation **21**. This insulation may be an enamel, a porcelain composition, glass composition, or other non-metallic material. The numeral **22** designates the ordinary hair spacer for clamping the individual strand of hair to be waved. Such spacers support the usual rod **23** upon which the hair is wound as shown in Fig. 3. I have used the numeral **24** to designate such a strand of hair.

The practical operation of my invention is as follows: A number of the heaters **17** are placed on the plate **10** and the thermostat **14** adjusted by the handle **15** to permit the plate **10** to reach a pre-determined temperature and maintain that temperature. By this arrangement the operator will select the degree of temperature necessary for a given head of hair and this given temperature will be maintained in the heat plate **10** automatically. This eliminates the guess work heretofore employed as to the time the heaters are left on the hair. In my process, the operator operated not in minutes but in degrees of heat and the heaters are placed on the hair and permitted to cool on the hair and the time the heaters are left on the hair is of no moment inasmuch as they gradually cool off until they reach room temperature. In my process, the wave is given the first minute or two that they are on the hair and they may be taken off at that time or left on the hair until the operator is ready to take them off.

In preparing the head of hair for the reception of my heaters, the hair is spaced and clamped with the spacers as usual, wound on the rods **23** and thoroughly saturated with the curling solution in the ordinary manner. The heaters are then placed around each wind of hair as shown in Fig. 3 for producing the permanent wave. It will be noted that no pads are used between the hair wind and the heaters. This is made possible by the maximum heat being applied to the hair at the time the hair has the maximum amount of wave solution. The high heat of the heater steams and evaporates the curling solution but as the curling solution in the hair evaporates, the cooling off of the heaters will be in ratio to it, resulting in no damage to the hair. By this method, by the time the curling solution has been evaporated, the heater will have cooled to such an extent that it will not parch or burn the hair. Obviously, if the heater was placed on the hair in a cold state and its temperature increased under the usual method of permanently waving hair, it would reach too high heat at the very end when most of the moisture had escaped from the hair. Under such circumstances, a pad would be a necessity with the usual type of heaters to prevent the burning and damaging of the hair. Furthermore, a machine of the pre-heat type not having an adjustable heat control thermostat would provide the possibility of being too severe on the hair, resulting parching, burning or damaging it. By lining the metal jaws of the heaters **17**, additional protection is afforded the hair and when this is done, the heaters may be successfully used with other types of machines, but for best results, I recommend the use of a machine having an adjustable automatic thermostat as shown in Fig. 1 even though the heaters are provided with the lining **21**. These linings **21** shield the hair from the metal jaw of the heaters and act to a certain extent as heat insulating members while at the same time permitting the conductivity of the stored up heat from the jaws to the hair wind.

To further aid in the successful use of my device and method under all conditions, I have provided a scrubber and coater utensil as shown in Fig. 4 of the drawing. This device consists of a receptacle **25** and a brush element **26**. In operation, place in this vessel a mixture of a disinfectant solution, a cleaning solution, and a saponified or non-saponified oil. Before being used, my heaters are run through the solution in this receptacle and engaged by the brush element **26**. Obviously, they will be disinfected and cleaned of any foreign matter and will also be coated with a protective film of oil and other ingredients of the solution. This protective coating of this solution besides the non-metallic covering **21** on the inside of the jaws of the heaters will also aid in reducing the heat shock to the hair and the elimination of pads which have heretofore been necessary.

After the heat from the heaters has permanently waved the hair with the aid of the hair solution, they are removed, the rods and spacers detached, and the hair then set in the usual manner. Upon dressing the hair it will be found that the wave given by my method and apparatus will be very soft and lustrous, and will not be parched or burned.

From the foregoing, it will readily be seen that I have provided a method of permanently waving hair that is very economical and eliminates the use of the usual pads. Besides saving the cost in pads, much labor and time is saved preparing them, putting them on and taking them off. Furthermore, with no pads over the hair, the hair is not masked from observation by the operator and the operator is therefore permitted complete scrutiny of the hair at the time the heaters are placed on the hair winds and removed from the hair winds. The hair wind can be quickly viewed even during the waving process by the mere removal of the heater.

I claim as my invention:

1. The method of permanently waving hair, consisting in the subjecting of the hair to a curling solution, the coiling of the hair around an elongated member, the pre-heating of an embracing member, the applying of said last mentioned member over and around said coil of hair and in direct contact with said hair, and then the removal of said embracing member and said elongated member.

2. The method of permanently waving hair, consisting in the subjecting of the hair to a curling solution, the coiling of the hair around an elongated member, the subjecting of the coiled hair to a heater with said heater in direct contact with said hair, and lastly, the removal of said heater and said elongated member.

3. A method of permanently waving hair, consisting in subjecting the hair to be curled to a hair curling solution, the coiling of the hair around the rod, subjecting of a permanent hair waving heater to a bath of oil, the placement of the heater in direct contact with and around the hair to be waved for transferring heat to said hair, and then the removal of said rod and said hair engaging member.

4. A method of permanently waving hair, consisting in subjecting the hair to be curled to a

hair curling solution, the coiling of the hair around the rod, subjecting of a permanent hair waving heater to a conditioning solution, the placement of the heater in direct contact with and around the hair to be waved for transferring heat to said hair, and then the removal of said rod and said hair engaging member.

5. A method of permanently waving hair comprising the subjecting of the hair to be curled to a curling solution, the coiling of the hair around a rod, the coating of a heater with a solution, the placement of the heater in direct contact with and around the hair on the rod, said heater designed to provide heat to said hair, and lastly the removal of said rod and said heater from said hair.

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