

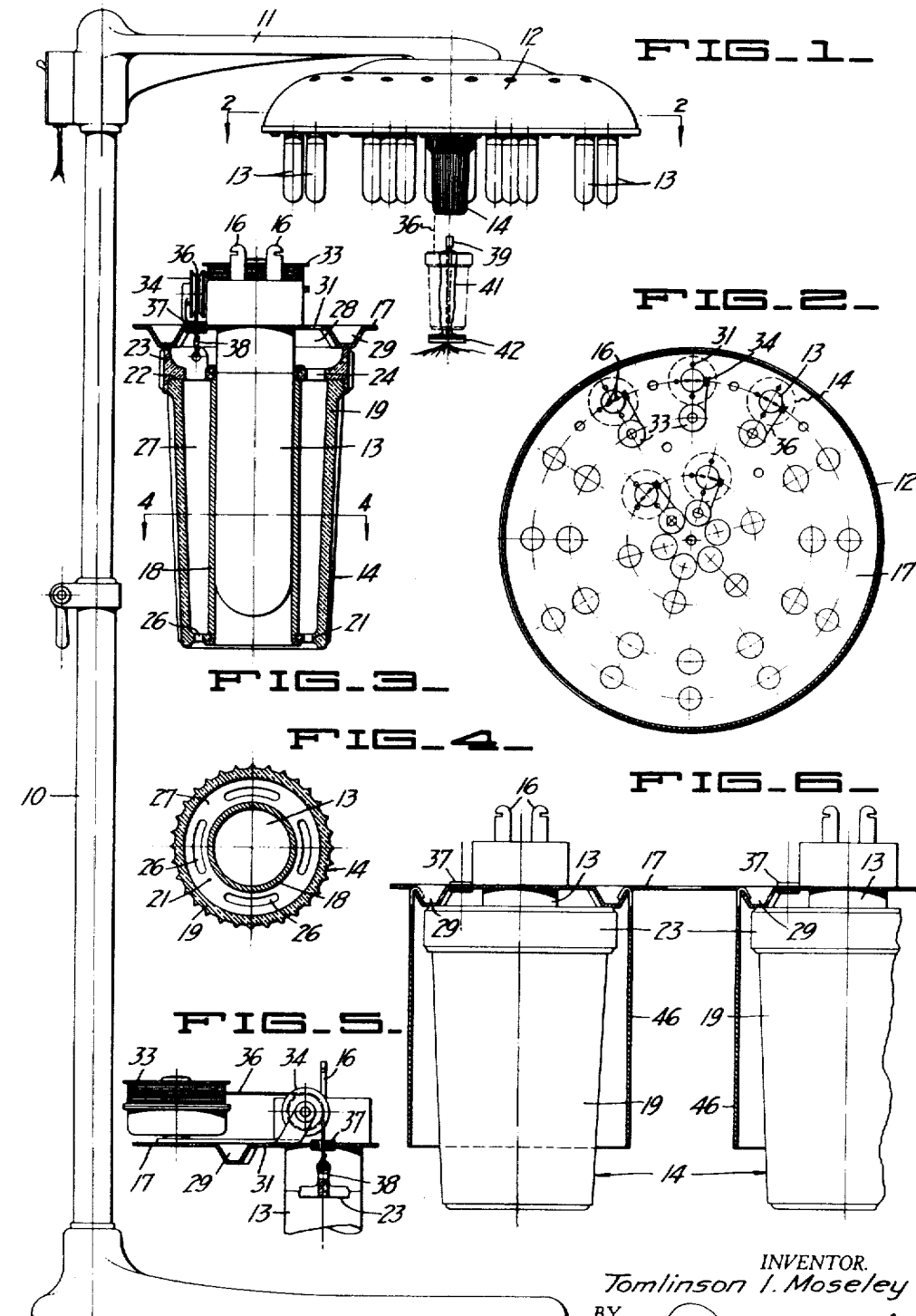
Jan. 9, 1934.

T. I. MOSELEY

1,942,972

HAIR WAVING APPARATUS

Filed Jan. 23, 1933



INVENTOR.
Tomlinson I. Moseley
BY
White, Hart, Fisher & Thompson
ATTORNEYS.

UNITED STATES PATENT OFFICE

1,942,972

HAIR WAVING APPARATUS

Tomlinson I. Moseley, San Francisco, Calif., assignor to United States Appliance Corporation, San Francisco, Calif., a corporation of California

Application January 23, 1933. Serial No. 652,991

6 Claims. (Cl. 132—36)

This invention relates generally to apparatus for the waving of human hair, where heat is employed to render the wave permanent or durable. It relates more particularly to apparatuses of the spiral type which are employed in beauty parlors by professional operators.

Commercial hair waving apparatus of the spiral type is characterized by the use of pencil-like waving forms, which extend outwardly from the head during the heating or steaming operation. In the past the strands wound upon such forms have been heated by small individual electrical heaters, applied directly to the hair.

The disadvantages inherent in the use of individual electrical heaters applied directly to the hair are as follows:—Unless the operator is highly skilled the heating may be prolonged to such an extent as to cause burning or undue baking of the hair. Likewise as long as the current is applied to the heating elements, a definite degree of heat is supplied, which is not conducive to best waving. Many persons also have a natural aversion to the application of electrical current in close proximity to the head. It is an object of the present invention to provide a hair waving apparatus of the spiral type which will make it impossible to unduly heat or bake the wound hair during a waving operation.

A further object of the invention is to provide a hair waving apparatus which will apply varying degrees of heat during a steaming operation in such a manner as to be conducive to the best possible waving effect.

A further object of the invention is to make possible spiral waving without application of electrical currents in close proximity to the head.

Further objects and features of the invention, relating for example to ease of manipulation and cheapness of manufacture, will appear from the following description in which the preferred embodiment of the invention has been set forth in detail in conjunction with the accompanying drawing. It will be understood that the appended claims are to be accorded a range of equivalents consistent with the state of the prior art.

Referring to the drawing:

Figure 1 is a side elevational view, illustrating apparatus incorporating the present invention.

Fig. 2 is a cross sectional detail taken along the line 2—2 of Fig. 1.

Fig. 3 is a side elevational detail, in cross section, illustrating one of the electrically heated rods, with the heat storage device applied thereto.

Fig. 4 is a cross sectional detail taken along the line 4—4 of Fig. 3, showing only the parts of the heat storage device.

Fig. 5 is a cross sectional detail, illustrating the construction of the cord reel and check pulley, and also showing the attachment of the cord to the heat storage device.

Fig. 6 is a side elevational detail, in cross section, showing application of baffles or shields to prevent one electrically heated rod from heating an adjacent heat storage device.

The apparatus as illustrated in the drawing consists of a suitable supporting standard 10 to the upper end of which is secured a bracket 11, which bracket carries a canopy 12. Depending from canopy 12 are a plurality of electrically heated rods 13, upon which a plurality of heat storage devices 14 can be disposed.

Fig. 3 illustrates a suitable construction for one of the electrically heated rods 13. Its internal construction need not be described in detail, except to point out that it contains suitable insulated electrical resistance conductors connected to the electrical terminal tabs 16. The upper end of the electrically heated rod 13 is suitably mounted upon the lower sheet metal wall 17 of the canopy. One of the heat storage devices 14 is also illustrated in Fig. 3, and consists of a tube 18 adapted to slidably fit upon rod 13, and made of suitable material such as aluminum. As a suitable housing serving to carry tube 18, there is shown a shell 19 generally conical shaped, and having its lower smaller end provided with an inner flange 21 which is locked to the lower end of tube 18. The upper end of shell 19 is locked within an annular recess 22, provided in the annular end piece 23. End piece 23 is likewise secured to or locked with respect to the upper end of tube 18. Shell 19 and end piece 23 are preferably made of suitable insulating material, which is a poor conductor of heat, as for example a molded material having a synthetic resin base. Upper and lower apertures 24 and 26 are provided, in order to permit free upward flow of convection currents of air thru the inner an-

nular air space 27 formed between shell 19 and tube 18. Such ventilation avoids undue heating of the shell 19, so that the outer surface of this shell can be grasped by the operator without burning.

In order to maintain an open gap 28 between the upper end of the heat storage device 14, and the lower wall 17 of the canopy, wall 17 is shown provided with depending indentations 29 against which the upper end of the heat storage device may engage. Apertures 31 are also provided to permit upward flow of heated currents of air thru the interior of the canopy.

In conjunction with the canopy described above, I preferably provide means for supporting the heat storage devices when they are removed from the electrically heated rods 13. For this purpose I have shown, in conjunction with each of the electrically heated rods 13, a cord reel 33 mounted within the canopy (Fig. 5). Each cord reel is journaled upon a vertical axis, and is provided with suitable spring means for rotating the same in a direction to wind up its associated cord. In conjunction with each cord reel 33, there is a pulley 34, which is journaled upon a horizontal axis, and which is provided with suitable clutching or ratcheting means so that it will rotate only in one direction, as for example clockwise as viewed in Fig. 5. A flexible cord 36 is wrapped upon reel 33, and as this cord extends from the reel, one convolution is wrapped upon pulley 34 to secure a snubbing effect. The free end of the cord is then extended thru an eyelet and provided with a suitable connection 38 to one of the heat storage devices 14. With such an arrangement the cord can be pulled downwardly, and will support the heat storage device in any desired position. Lifting of the heat storage device manually relieves the snubbing effect upon the pulley and permits the reel to wind up the cord.

In order to wave a head of hair with my apparatus, suitable pencil-like waving forms 39 (Fig. 1) are employed. A strand of hair is wound spirally about each form, beginning at the base of the strand, and winding spirally or helicoidally towards the upper end of the form. After the strand has been so wrapped, a suitable covering 41, as for example a flannel pad moistened with a suitable waving solution, is wrapped upon the wound hair. A suitable protecting means 42 can be interposed between the lower end of the waving form 39 and the scalp.

While the head of hair is being prepared, heat storage devices 14 are positioned upon the electrically heated rods 13. These rods are heated to a predetermined degree, as for example a temperature in the neighborhood of 480° F. Tubes 18 of the heat storage devices will therefore likewise be heated to a predetermined degree, and will therefore contain a predetermined amount of heat available for the waving operation. Assuming now that the operator wishes to heat or steam a wrap which has been completed, one of the heat storage devices 14 is grasped and pulled downwardly to remove it from its associated electrically heated rod 13. The heat storage device is then fitted over the wrapped hair to commence the steaming operation. When in position upon the wrapped hair, cord 36 serves as sufficient support to retain the heat storage device and the associated waving form 39, in its desired position with respect to the head.

If desired a complete head of hair can be prepared before the heat storage devices are applied.

In this event a sufficient number of heat storage devices must be provided to simultaneously heat the entire head. However it is also possible to apply the heat storage devices as the individual strands are prepared, and if this practice is followed, a fewer number of heat storage devices will be required. After the heating and steaming operation has been completed, the heat storage devices are removed from the hair, and lifted by the operator in position upon the electrically heated rods 13, to be heated for a subsequent waving operation.

It is apparent that my invention has many desirable characteristics as compared to present day electrical spiral waving equipment. Since the heat storage devices are heated to a predetermined degree, a predetermined amount of heat will be available for the waving operation. Thus a correct steaming is secured, and it is impossible for an operator to injure the hair by an undue amount of heat. Furthermore when the heat storage devices are applied to the wound hair, the temperature of the heater tubes 18 (which can be termed heat storage elements) is initially relatively high, but continuously decreases as the steaming operation proceeds. It has been found that heat regulated in this manner, is conducive to optimum waving effect.

In Fig. 6 a modification is illustrated, in which means is provided for preventing heat radiated from one electrically heated rod, to which a heat storage device is not applied, from unduly heating an adjacent heat storage device. In this case each electrically heated rod 13 is surrounded by a wall 46, to intercept laterally radiated heat. Such a wall not only prevents lateral radiation of heat upon the outer surface of an adjacent heat storage device, but also forms an upstanding flue for convection currents of air, so that air currents are drawn upwardly about the outer surfaces of the heat storage device, to maintain them relatively cool.

I claim:

1. In hair waving apparatus of the spiral type, an elevated canopy, and a plurality of electrically heated rods carried by the canopy and upon which heat storage devices can be removably disposed.

2. In hair waving apparatus of the spiral type, an elevated canopy, and a plurality of electrically heated rods depending from the canopy and upon which tubular heat storage devices can be removably disposed.

3. In hair waving apparatus, a plurality of tubular heat storage devices for steaming wound hair, a canopy, a plurality of electrically heated rods depending from the canopy and upon which the heat storage devices can be removably disposed, cord retaining means carried by the canopy, and cords carried by said retaining means and connected to said heat storage devices.

4. In hair waving apparatus, a plurality of tubular heat storage devices for steaming wound hair, an overhead canopy, a plurality of electrically heated rods depending from the canopy and upon which the heat storage devices can be removably disposed, cord retaining reels carried by the canopy, and flexible cords carried by said reels and connected to said heat storage devices, whereby said devices can be lowered to a steaming position over mandrels upon which hair strands are wound.

5. In hair waving apparatus, a canopy, a plurality of electrically heated rods depending from

the canopy, a plurality of heat storage devices for steaming wound hair, each of said devices including a tubular storage element adapted to be disposed upon said electrically heated rods, 5 and means carried by said canopy serving to support the weight of said heat storage devices when removed from said electrically heated rods. an elevated canopy, a plurality of electrically heated rods depending from the canopy and upon which tubular heat storage devices can be removably disposed, and heat intercepting walls disposed between said rods and spaced there- 80 from.

TOMLINSON I. MOSELEY.

6. In hair waving apparatus of the spiral type,

10	85
15	90
20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150