Dec. 12, 1933. J. V. SLAVICK 1,939,323

METHOD OF AND APPLIANCE FOR WAVING HAIR

Filed Dec. 17, 1932

Fig. 1.

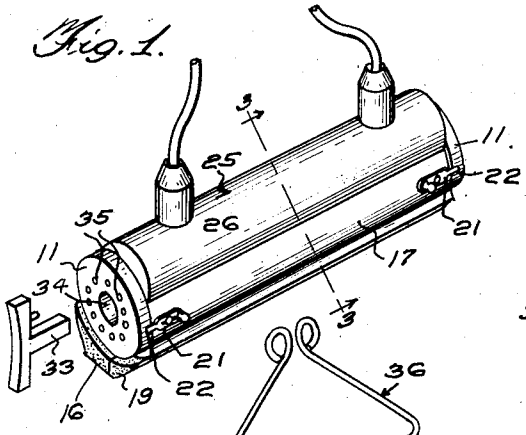


Fig. 2.

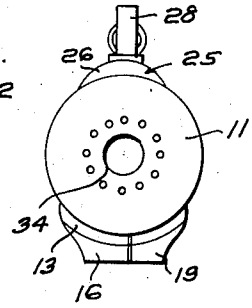


Fig. 3.

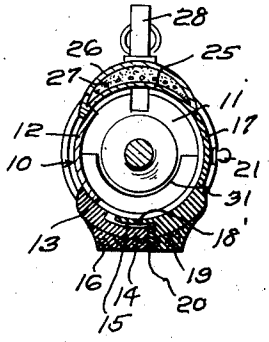


Fig. 8'.

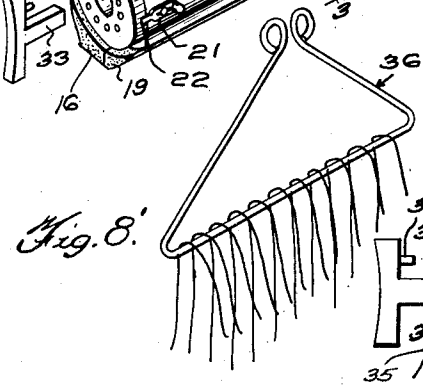


Fig. 5.

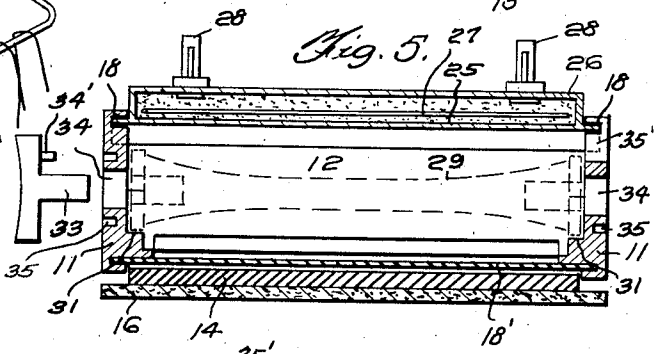


Fig. 4.

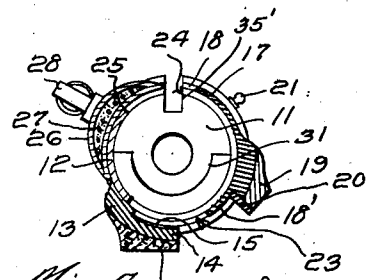


Fig. 6.

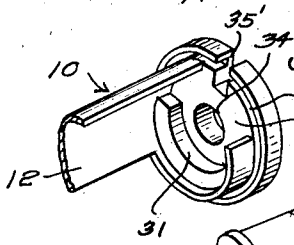
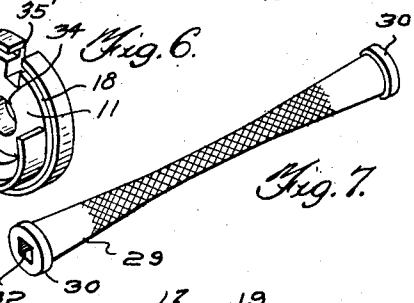


Fig. 7.



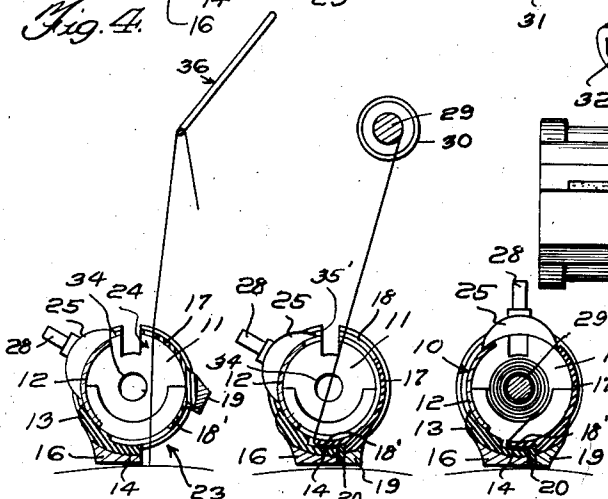


Fig. 9.

Fig. 10.

Fig. 11.

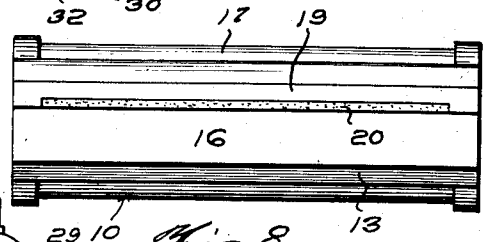


Fig. 8.

Inventor

JOSEPH V. SLAVICK,

B. M. Whitburne

Attorney

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METHOD OF AND APPLIANCE FOR WAVING HAIR

Joseph V. Slavick, Washington, D. C.

Application December 17, 1932
Serial No. 647,799

11 Claims. (Cl. 132—36)

My invention relates to a method of and apparatus for waving hair upon the human head.

It is well known in the prior art to wave hair upon the human head by winding a flat strand of the hair upon a rod or curler, enclosing this wound strand with moisture in a moisture retaining envelope, and then enclosing the strand and moisture retaining envelope within a heater. The heater has heretofore been in the form of a clamp, and the moisture retaining envelope not only served to retain the moisture in the hair, but also served to prevent the elements of the heater from directly contacting with the wound strand of hair. The moisture retaining envelope which has heretofore been used, in the old process, ordinarily embodies a section of flannel, covered by wax paper which, in turn, is covered by a layer of metal foil. As far as I am aware, wherever it has been proposed to wind a strand of hair upon a rod or curler, and place the same within a heater, the hair has been enclosed within this envelope, which serves two purposes, namely, to retain the moisture within the hair, and second, to prevent the hair from directly contacting with the elements of the heater. If this envelope is not used in the prior art devices, the hair would be burned by contacting with the elements of the heater. The process above described is shown in Reissue Patent No. 17,393, issued to Joseph Mayer, under date of August 6th, 1929.

In accordance with my invention, I entirely eliminate the use of the envelope surrounding the rod or curler. I also provide a casing or housing having means for affording inlet and outlet openings for the strand of hair which is first passed through the housing and then wound, preferably from its outer end inwardly, upon a rod, curler or spool, and when the winding action is nearly completed, this curler is placed within the casing, and the winding action completed therein. It is preferred that the bore of the casing be cylindrical, and means are provided whereby the curler or spool is supported in substantially spaced concentric relation with the inner wall of the casing. The heating element, which is disposed adjacent to the casing, is maintained permanently spaced from the curler or spool, and the heating element is preferably arranged exteriorly of the inner wall of the casing. When the heating element functions, the heat is transmitted to the interior of the casing and hence to the wound strand of hair, which strand is spaced from the heating element and hence has no contact therewith. Since there is no contact between the hair and heating element, the moisture retaining envelope heretofore employed, is dispensed with.

No attempt is made to prevent the escape of moisture from the wound strand of hair during the heat treatment, as this has been found to be unnecessary.

In the accompanying drawing, forming a part of this specification, in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of a hair waving appliance embodying my invention,

Figure 2 is an end elevation of the same,

Figure 3 is a transverse section through the appliance, taken on line 3—3 of Figure 1,

Figure 4 is a similar view showing the casing open,

Figure 5 is a central longitudinal section through the appliance,

Figure 6 is a fragmentary perspective view of the casing, showing the inner side of one end thereof,

Figure 7 is a perspective view of the curler or spool,

Figure 8 is a bottom plan view of the appliance,

Figure 8' is a perspective view of a strand threading element,

Figure 9 is a transverse section, showing one step in the winding operation,

Figure 10 is a similar view, showing a further step in the winding operation, and,

Figure 11 is a similar view showing the completed winding operation.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention, I provide a casing 10, which preferably, has a cylindrical chamber or bore. This casing includes ends 11, preferably cylindrical, which may be formed of any suitable material, such as metal or bakelite. These ends are rigidly connected by a relatively stationary casing section 12, shown as circularly curved in cross-section. This casing section 12 is preferably formed of metal, so that it will have the desired heat conductivity. The relatively stationary casing section 12 has an extension 13 engaging the outer surface of the casing section 12, near its lower edge and rigidly secured thereto. This extension 13, with the casing section 12, constitutes a casing section of increased circumference. The casing section extension 13 embodies a longitudinal lip 14, which is offset radially outwardly, affording an inner recess 15, as shown. A heat insulating pad 16 is secured to the outer surface of the

casing section extension 13, and preferably has its outer face flat.

The numeral 17 designates a relatively movable companion casing 17, disposed in opposed relation to the casing section 12. This casing section 17 may be formed of bakelite, or any other suitable material. The casing 17 is preferably circularly curved in cross-section, as shown. The casing 17 has its ends slidably mounted within annular grooves 18, formed in the ends 11, whereby this casing section 17 may be shifted circumferentially with relation to the stationary section 12. The casing section 17 is provided with a laterally extending lip 18', adapted to be moved into the recess 15, inwardly of the lip 14, these lips then having an overlapping relation. The casing section 17 is provided upon its outer surface with a heat insulating pad 19, preferably having a flat bottom, as shown.

The numeral 20 designates a compressible strip formed of rubber, or the like, carried at the inner edge of the insulating pad 19, and arranged within a groove formed therein. This compressible strip is adapted to aid in forming a steam tight joint between the meeting edge of the heat insulating pads 16 and 19. The casing section 17 may be locked in the closed position by any suitable means, and for this purpose, I have shown sliding bolts 21, carried thereby, for insertion within notches 22, formed in the ends 11, as shown.

When the casing section 17 is in the open position, remote from the casing section 12, there is afforded at the bottom of the casing a large opening or passage 23, extending throughout the major portion of the length of the casing, and this opening or passage is generally oppositely disposed with respect to an opening or passage 24, at the top of the casing. The opening or passage 24 is adapted to be covered and uncovered by means of a movable cover 25, which is circularly curved in cross-section. This cover has its ends slidable within the annular grooves 18, as shown. The cover is shown in the closed position, in Figure 3, and in the open position, in Figure 4. When in the closed position, Figure 3, the rear edge of the cover preferably overlaps the casing section 12, for a short distance, and contacts therewith. The casing section 12 and casing section 17 are concentric, but casing section 12 is disposed radially inwardly of the casing section 17, for a short distance, and the cover 25 is concentric with these casing sections, but disposed outwardly of the casing section 12, and at the same radial position with respect to the casing 17, whereby the edge of the cover 25 is adapted to contact with the edge of the casing section 17, as shown. It is preferred to mount the heating device upon the cover 25, although the invention is not necessarily restricted to this arrangement. When this is done, a housing 26 is formed upon the cover 25, and this housing receives the resistance element or elements 27, insulated therefrom, and this resistance element or elements are connnected with terminals 28, for suitable connection with lead wires. Since the cover 25 contacts with the side 12, heat will be readily transmitted to this casing section 12. I also contemplate omitting the heating device from the cover, and may enclose the entire casing within a separate heating device.

The numeral 29 designates a curler or spool, preferably tapering inwardly from its opposite ends, and provided at its ends with heads or annular flanges 30. The curler or spool 29 is adapted to be inserted downwardly through the opening or passage 24, and the heads or annular flanges 30 are supported by circularly curved tracks or guides 31, Figure 5. The curler or spool is rotatably supported within the casing, and the same is provided at its ends with openings 32, formed polygonal in cross-section, for receiving the shank 33 of the key, which shank is also polygonal. The shank is adapted to be passed through openings 34, formed in the ends 11, and these openings are suitably large to permit of the turning movement of the shank. The key may be locked in a selected position by inserting the lug 34 thereof into a selected notch or recess 35, as shown.

The numeral 36 designates a strand threading implement, which is passed through the openings 23 and 24, with the strand of hair, as will be explained.

In the practice of my method, in connection with the appliance, the strand of hair to be waved is first treated with a softening solution, which is suitable for the type of hair being treated. A flat strand of hair thus treated has its outer portion folded over the threading implement 36, and this threaded implement is passed upwardly through openings or passages 23 and 24, as more clearly shown in Figure 9. The pad 16 is now in contact with the scalp, and the casing section 17 is now shifted to the closed position, Figure 10. When the casing section 17 is shifted to the closed position, the tongue 18' is projected into the recess 15, and overlaps tongue 14. There is sufficient clearance between tongues 18' and 14 to accommodate the flat strand of hair, this clearance usually being about one sixty-fourth of an inch.

As clearly shown in Figure 10, the strand of hair is bent laterally by these tongues, adjacent to the scalp, thereby starting the waving closer to the scalp than has heretofore been obtained. Further, by employing the overlapping tongues, the hair is held or clamped in a tortuous manner, which prevents the escape of steam to the scalp. The casing being thus clamped at its bottom to the flat strand, the outer end of the flat strand is placed upon the curler or spool 29, which is now rotated by hand to wind the strand thereon, this winding continuing until the curler or spool has been brought inwardly of and adjacent to the opening 24. After this, the curler or spool is passed downwardly through the opening 24 into the casing 10, and the ends or flanges rest upon the guide flanges 31. The shank 33 of the key is now inserted through the opening 24 in either end 11, and the curler or spool is now turned by means of this key to complete the winding operation of the hair. When this is effected, the lug 34 is inserted within a selected notch 35, thereby locking the curler or spool against unwinding action. The pull upon the hair retains the curler or spool in substantially concentric relation within the casing, with its flanges 30 contacting with the flanges 31.

The invention is not restricted to any particular manner of winding the hair upon the curler or spool 29. When a long strand is being wound, after a proper amount has been wound upon the central portion of the curler or spool 29, which is obtained when the wound portion is substantially flush with the surfaces of the curler, near its outer ends, the remaining outer portions of this long strand are passed outwardly from the casing through the notch 35' in the end 11. If desired, the outer portion of the hair may be first spirally wound upon the curler or spool 29

and then the curler or spool turned to wind the inner portion of the strand thereon.

When the winding operation is completed, the cover 25 is shifted to the closed position. Particular attention is called to the fact that there is a considerable space between this cover and the wound strand of hair, so that in no instance does the strand come in contact with the cover. When the current is turned on, and the heater operated, the interior of the casing will be heated, by radiation of heat from the cover, and also by radiation of heat from the casing section 12, in contact with the cover. I have found that satisfactory results are obtained by heating the wound hair to a temperature of 250° F. to 300° F. and this heat treatment is continued from 4 to 7 minutes. At the end of this time, the casing section 17 is moved to the open position, thus releasing the clamping engagement between the casing and hair, and the key is also removed, thus rendering the curler or spool free to turn. The casing may now be lifted upwardly from the head and the curler or spool will freely rotate, thus permitting of the unwinding of the hair from the curler or spool, and the complete withdrawal of the hair from the casing.

It is to be understood that the forms of my invention, herewith shown and described, are to be taken as preferred examples of the same, and that various changes may be made in the order of the steps of the method and that changes may be made in the shape, size and arrangement of parts of the appliance, without departing from the spirit of my invention, or the scope of the subjoined claims.

Having fully described my invention, what I claim as new, is:

1. A hair waving appliance comprising a casing provided upon one side with a passage and upon the remote side with a second passage, clamping means carried by the casing and adapted to cover one passage, a cover element for the other passage, a curler for arrangement within the casing, and heating means associated with the casing.

2. A hair waving appliance comprising a casing having a stationary clamp attached thereto, a companion clamp permanently connected with the casing and shiftable toward and from the stationary clamp, a curler for arrangement within the casing, and heating means associated with the casing.

3. A hair waving appliance comprising a casing having a stationary clamping element provided with a lip, a companion clamping element secured to the casing and movable toward and from the stationary clamping element and having a lip adapted to overlap the first-named lip so that waving may be commenced close to the scalp, a curler within the casing, and heating means associated with the casing.

4. A hair waving appliance comprising a support, a clamp connected with the support and embodying overlapping parts so that waving may be commenced close to the scalp, a curler carried by the support, and heating means associated with the support.

5. A hair waving appliance comprising an elongated casing provided with means for affording passages in its side portions, said casing also having an opening in its end for the passage of hair, a curler within the casing, and means to heat the casing.

6. A hair waving appliance comprising a unitary casing adapted to be substantially completely closed, a hair clamping device carried by the casing to engage the hair near the scalp and including clamping elements, one clamping element being movable with relation to the casing, a curler removably mounted within the unitary casing and freely rotatable therein in either direction, and releasable means to lock the curler with the casing against rotation, the arrangement being such that when the curler is released for rotation the hair may be quickly unwound from the curler by bodily moving the unitary casing from the scalp.

7. A hair waving appliance comprising a unitary casing having generally opposed passages, a clamping device carried by the unitary casing to engage with the hair near the scalp and embodying clamping elements, one clamping element being movable with relation to the casing, the clamping device serving to substantially cover one passage, a movable cover element to substantially close the other passage, a curler removably mounted within the unitary casing and free to rotate therein in either direction and means operable from the exterior of the casing to turn the curler for placing the hair under tension and for locking the curler with the casing against rotation, said means being adapted to release the curler so that it is free to rotate, the arrangement being such that when the clamp releases the hair and the curler is free to rotate, the hair may be readily removed from within the casing by bodily moving the casing from the scalp.

8. A hair waving appliance comprising a unitary casing, a hair clamping device carried by the casing and embodying relatively movable clamping members, said clamping members affording a passage into the casing when they are in the relative open position, a movable cover element permanently secured to the casing and adapted to afford a second passage for the casing, a curler adapted to be inserted into the casing through the second passage, means engaging the curler within the casing and holding the same so that it is free to rotate in either direction, a key arranged upon the outer side of the casing and having detachable locking engagement with the casing and having a shank extending into the casing for detachable locking engagement with the curler, said key being adapted to be separated from both the casing and curler, and heating means associated with the casing.

9. A hair waving appliance comprising a casing, a clamping device carried by one side of the casing and adapted to afford a passage leading into the casing, a movable cover element to afford a second passage leading into the casing at the side thereof and generally opposite the first-named passage, the curler adapted to be passed through the second-named passage into the casing, supporting elements arranged within the casing for rotatably receiving portions of the curler and having their open sides arranged next to the second-named passage, a key arranged exteriorly of and near one end of the casing and having detachable locking engagement with such end and the curler, and heating means associated with the casing.

10. A hair waving appliance comprising a casing having means to afford generally oppositely arranged passages leading into the same, a hair threading element adapted to be moved through the passages and casing, a curler for insertion within the casing, and means to turn the curler within the casing and to hold the same against turning movement and to release the same.

11. A method of waving hair, comprising applying a softening solution to a lock of the hair, passing such lock through a casing with the free portion of the lock extending outwardly beyond the casing, effecting a clamping engagement with the lock near the scalp, winding that portion of the lock disposed outwardly of the casing and remote from the scalp upon the curler while moving the curler toward the casing, passing the curler with the lock wound thereon into the casing, completing the winding action by turning the curler within the casing for obtaining the desired tension upon the lock, holding the curler against turning movement for maintaining the desired tension, applying heat to the lock while under tension, releasing the clamping engagement with the lock, releasing the curler so that it is free to turn, and bodily shifting the casing from the scalp to thereby rotate the curler and remove the curled lock from the casing and curler.

JOSEPH V. SLAVICK.