Jan. 18, 1927. 1,614,758

C. G. NESSLER

HAIR WAVING DEVICE

Filed June 8, 1925

Fig. 1,

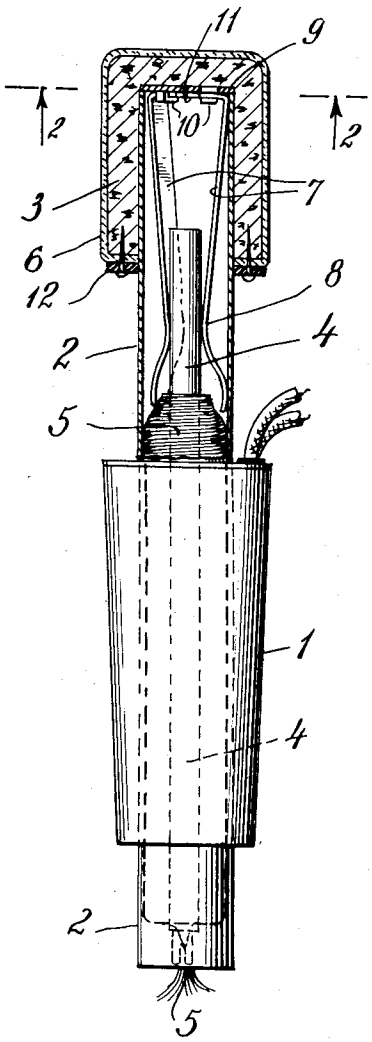


Fig. 2,

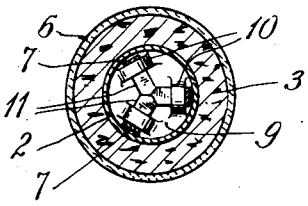
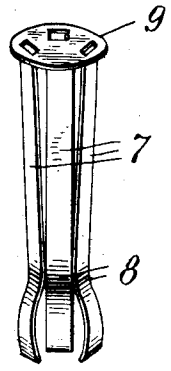


Fig. 3,



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UNITED STATES PATENT OFFICE.

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HAIR-WAVING DEVICE.

Application filed June 8, 1925. Serial No. 35,520.

My invention relates generally to devices used in the process of permanent waving of growing hair on the head and has more particular reference to the means for receiving and retaining the curler-rod with the wound hair thereon, in place in the tubular member in which it is inserted when the heat is to be applied to the wound tress of hair; to the means for supporting the curler-rod holding means, and means for closing or partially closing the outer end of said tubular member, and a heat insulating hand-grasp member located at the outer end of the tubular member and serving also to hold the said holding means of the curler-rod seated in its place. There are other features of the invention which will be hereinafter referred to, in describing the peculiar constructions and arrangements of the several different parts of my improvements.

I have illustrated a type of my invention in the accompanying drawings, wherein;

Fig. 1 shows a side elevation of an electric heating device provided with my improvements, with the hand-grasp and the outer portion of the tubular member in longitudinal section.

Fig. 2, is a horizontal sectional view of the device the plane of the section being taken on line 2—2, Fig. 1.

Fig. 3, is a perspective view of the curler-rod spring-retaining device, shown as detached.

Referring to the drawings, 1 indicates an ordinary electric heater having a tubular member 2, and 4 is a curler-rod on which the tress of hair 5 is wound and inserted in the tubular member for heat treatment.

A set of spring arms or jaws 7 have their ends bent at 11, and passed through loops or straps 10, formed in a plate 9, by slitting the material thereof. The free ends of the spring arms are bent inwardly at corresponding points 8 where they clamp and hold the curler-rod 4, which is slid endwise between the arms when the rod is inserted in the tubular member. This provides a friction coupling for the rod which is easily moved into and out of engagement with the same, by longitudinal movement of the rod.

The supporting plate 9 of the arms, is also designed to form a closure for the outer end of the tubular member against the outer edge of which said plate takes as an abutment, the marginal edge of the plate having a slight overhang with respect to the arms 7, in order to rest against said end of the tubular member.

The spring arms have their free ends formed outwardly flaring in order to engage with frictional contact the interior of the tubular member and serve to hold the device from slipping out of the open end of the tube 2. The attached ends of the arms 7, are also so arranged that they bear with a firm contact against the interior of the tube and thereby aid in retaining the device from moving outwardly. This unites the device with the tube quite firmly and enables the device to remain in place when the heater is not in use so that it is kept from being dislodged.

I provide a hand-grasp 3, of considerable size for telescoping engagement with the outer end of the tubular member over which it fits snugly. This member 3, is cup-shaped and is made of heat-insulating material, such for example, as ordinary cork and its exterior is covered with a fabric jacket 6, for protecting the cork and providing a good surface for the hand of the operator to grip in manipulating the heater. This cap 3, is pushed down over the end of the tube 2, after the curler-rod holding device is inserted in the end of the tube and forced inwardly until the plate thereof seats itself against the end of the tube. The cap thus serves to hold the device securely in place and at the same time serves as a handle.

In using the apparatus, the parts are assembled as shown in Fig. 1, and the curler-rod with the tress of hair wound thereon is inserted in the head-end of the tubular-member so that the rod is forced between the spring-arms and gripped thereby to hold the rod in place in the heater tube while the heat is being applied. After the heating process is finished, the curler-rod may be easily withdrawn with its wound hair by merely pulling upon the head-end of the rod and thereby uncoupling it from the spring jaws by a sliding movement. There are other ways in which the gripping jaws may be mounted within the outer end of the tube 2 so as to provide the spring-coupling, but I find the present way of having them mounted on a detachable plate is very efficient.

I wish to be understood as not limiting my invention to the particular structures herein shown as it is evident that modifications may be made in the same, without,

however, departing from the spirit of my invention.

In order to protect the cork material of the hand grasp cap 6, I secure to its edge a reinforce strip of suitable material such as fibre, as shown at 12, and secure it thereto by small nails.

An important advantage derived from my particular construction of the friction coupling of the curler-rod is that the curler may be readily detached and the wound hair thereon quickly removed from the tubular member, in any emergency, such as overheating or any accidental injurious condition arising when it is desirable to at once remove the tress of hair from the apparatus. This avoids a possible injury to the subject who may herself grasp the tubular member and remove it from its coupled relation with the heater so as to free the tress of hair which may be endangered as well as to safely remove the heater itself.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In hair waving apparatus, a curler rod on which the hair is wound, a tube in which said rod with the wound hair is inserted, means disposed within said tube for engaging said rod with sliding frictional contact when it is inserted therein and holding it within the tube in operative position.

2. In hair waving apparatus, a curler rod on which the hair is wound, a tube in which said rod with the wound hair is inserted, spring clamping means disposed within said tube for engaging said rod with spring tension and holding said rod when placed within the tube.

3. In apparatus for waving hair, a curler rod on which the hair is wound, a tube in which said rod with the wound hair is placed, a set of spring clamping jaws arranged within the tube and between which said rod is entered when inserted within the tube for yieldingly engaging and holding said rod and permitting easy endwise disengagement of said rod.

4. In apparatus for waving hair, a curler rod on which the hair is wound, a tube in which said rod with the wound hair is inserted, a closure for the outer end of said tube, said closure being provided with means extending within said tube and affording frictional engagement with said rod within said tube and adapted to receive and hold said rod when inserted in the tube.

5. In apparatus for waving hair, a curler rod on which the hair is wound, a tube within which said rod with the wound hair is inserted, a disk adapted to be placed across the outer end of said tube and provided with a group of spring clamping arms adapted to be inserted within the outer end of said tube and to receive and hold said rod when inserted in the tube.

6. In apparatus for waving hair, a curler rod on which the hair is wound, a tube in which said rod with the wound hair is inserted, a disk serving as a closure for the outer end of said tube and formed with slits therein so as to provide attaching straps for the spring clamping arms, and a set of spring clamping arms having their outer ends secured by the straps of said disk and projecting inwardly and adapted to be inserted within said tube to engage and hold said rod when inserted in the tube.

7. In apparatus for waving hair, a tubular member in which a curler with the wound hair thereon may be inserted, a closure for the outer end of said member provided with resilient arms adapted to be inserted within the said member and engage its walls with yielding frictional contact to retain said closure in place.

8. In apparatus for waving hair, a tubular member, a curler-rod on which the hair is wound for insertion in said member, means for frictionally engaging said curler-rod and said means being adapted to be inserted in said tubular-member and to frictionally engage under tension the interior walls thereof.

9. In apparatus for waving hair, a tubular-member in which a curler with the hair wound thereon may be inserted, and a cup-shaped member made of fibrous material and detachably fitting over the outer end of said tubular member and having its edge provided with a reinforcing strip and serving as a hand-grasp.

In testimony whereof, I have hereunto set my hand.

CHARLES G. NESSLER.