Jan. 21, 1930. H. BONAT 1,744,440

HAIR WAVING APPARATUS

Filed May 21, 1927

Fig. 1.

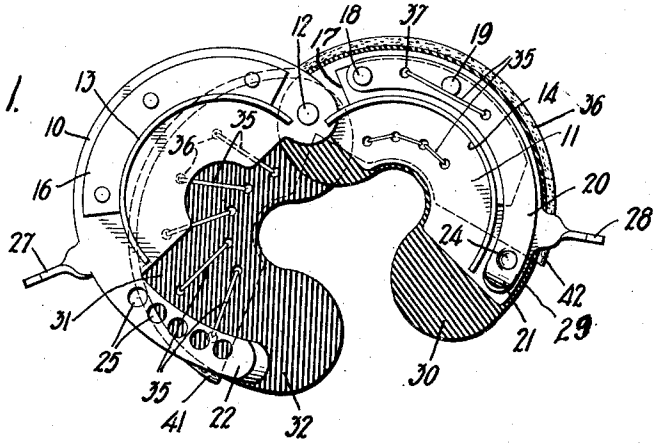


Fig. 2.

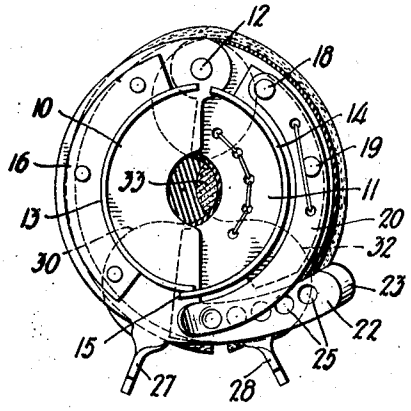


Fig. 4.

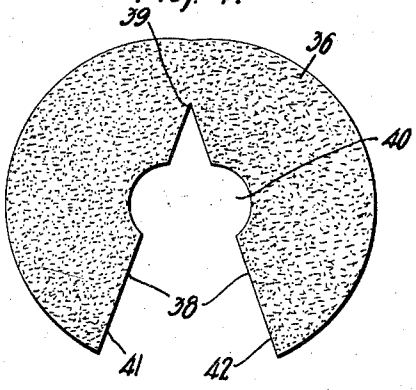
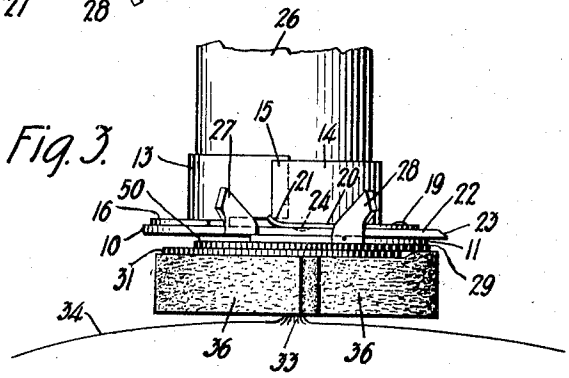


Fig. 3.



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UNITED STATES PATENT OFFICE

HARRY BONAT, OF NEW YORK, N. Y.

HAIR-WAVING APPARATUS

Application filed May 21, 1927. Serial No. 193,106.

The present invention relates to the hair-waving or curling art; having especial reference to the so-called permanent waving of hair upon the human head. More particularly, the invention relates to devices for protecting the scalp from burns or scalds during the steaming of a strand of hair on a curling rod, and for seating and holding, at the end thereof adjacent the head, the tube or wrapper in which the curling rod and strand are contained during the heating operation.

Heat insulating shields are usually set around the strand of hair at the scalp, and, since the heating tubes almost invariably contain moisture which, as a hot liquid, or as steam, might otherwise reach the scalp, it has been usual to have the heat-insulating shield in the form of a moisture or steam absorbing pad of felt or like material. The heat is often so intense, however, as to char or burn the tube or wrapper; and, as a safeguard against such intense or misapplied heat it has become customary to protect the scalp and the felt pad with a second shield of asbestos or refractory material. It is now a practice to provide a seat or socket for the end of the heating tube or wrapper adjacent the head in order that the tube or wrapper may the more surely be retained in its proper position with respect both to the subject and to the electric or other heater. For permanency and for fixity of structure it is convenient to have such seats or sockets of metal. In such case there may be three superposed elements between the tube or wrapper and the scalp, to-wit, the metal seat or socket, the refractory shield, and the heat-insulating and moisture absorbing shield.

The latter shield has commonly been in the form of a unitary, but radially—slit, disk or ring; the yielding character of its material permitting of its expansion to allow the strand of hair to be passed to the centre thereof through the slit. The refractory shield, if of such material as bakelite, has on the other hand been in two sections or leaves, hinged together at one side of the shield, and at the other side being provided with means for locking the leaves together, with an adjustment according to the size of the strand. The metal seat or socket for the tube or wrapper has ordinarily been non-adjustable as to size, notwithstanding the variation in size of tubes and the variation in size of steam pads or wrappers, which variations is in turn due to an appreciable extent, to variation in size of the strands upon the curling rods, and notwithstanding the fact that unless the socket snugly fits the tube or wrapper there will be undesirable play or looseness thereof.

An object of the invention is the production in a single structure of a device having two, and in its preferred form all three, of the shield and socket elements above mentioned; to the end that the time heretofore lost in the successive positioning of several separate elements may be saved, and to the end that a neat, simple and durable device having an assured proper relative setting of the parts may be had.

A further object of the invention is a collar, socket or seat for a heating tube, or steam pad or wrapper, which may be adjustable to the size of the tube, strand of hair, or steam pad or wrapper wound upon the strand of hair; so as to snugly fit and grip the same, and to hold the same in correctly centered, and in correct angular position with respect to the head. In this connection a feature of the invention is a structure in which such an adjustable seat or socket is unitary with a shield for protecting the scalp from burns or scalds.

Another object of the invention is a means for adjustably setting and locking a shield, or a combined shield and tube or wrapper socket, to a strand of hair, so that the same may be released for removal by the simple pushing apart or spreading of two pivotally or otherwise connected elements comprising such device.

The above and other features of the invention will more fully appear in connection with the accompanying drawings, in which:

Fig. 1 is a top plan view of the assembled device in opened position of the parts.

Fig. 2 is a top plan view showing the device as closed around a strand of hair.

Fig. 3 is a view in side elevation showing

the device in position on the head, and closed around a strand of hair, and around a heating tube.

Fig. 4 is a plan view of the felt insulating shield.

Referring to the drawings, the seat and socket piece is shown as comprising two metal leaves 10 and 11 hinged together at 12. The leaves 10 and 11 have arcuate and substantially semi-circular, flange or cup-elements 13 and 14, respectively, soldered to and projecting upward therefrom; these elements being so positioned and shaped that when the device is closed, as in Fig. 2, their ends may pass and overlap each other as at 15. Flanges 16 and 17 offset at right angles from the arcuate parts 13 and 14 serve as seats for the latter upon the leaves 10 and 11. Pinned at 18 and 19 to the upper surface of the flange 17 on the leaf 11 is an arcuate leaf-spring 20, the free end 21 of which is turned up. Projecting as a curved continuation of the leaf 10 is a finger 22, having a bevelled end 23, which, as the device is closed, passes between the spring 20 and the leaf 11. A rounded detent 24 on the spring 20 is adapted successively to register with holes 25 in the finger 22; and, when in such registration with any one of the holes 25, to hold the device locked against accidental opening. The particular hole 25 which thus serves as a lock will be determined by the size of the tube 26 or steam pad, around the strand of hair on the curling rod, (not shown); or rather, upon the snugness with which the arcuate members 13 and 14 are set to the tube or steam pad as the device is closed. The detent 24 is rounded so that a simple pull in opposite direction upon the leaves 10 and 11 serves to unlock and open the device. Finger pieces 27 and 28 on the leaves 10 and 11, respectively, serve for closing and opening the device.

Riveted to the underside of the leaf 11, to act as a unit therewith, is a leaf 29 of bakelite or other refractory material. This leaf 29 covers the entire area of the leaf 11, and has a portion 30 extending beyond the free end of the leaf 11. Freely pivoted at 12 is a second leaf of bakelite 31. This leaf 31 underlies the leaves 10, 11 and 29, as shown in Fig. 3. It is on the side of the device with the leaf 10, but has free movement angularly with respect to the leaf 10. It is of a size and shape to completely underlie the leaf 10, and to project at 32 a distance beyond the free end of the leaf 10. When the device is closed, the ends 30 and 32 of the bakelite leaves 29 and 31 overlap with the opposed ends of the metal leaves 10 and 11. Since, however, the leaf 31 may be moved angularly with respect to the overlying leaf 10, it is not necessarily arrested with the latter upon engagement of the arcuate members 13 and 14 with the tube 26, but may have its angular closing movement continued, after the leaf 10 has been arrested, and until (as shown in Fig. 2), it and the opposing leaf 29 close on the strand of hair 33 below the seat or socket for the tube or steam pad. Thus any opening in the seat or socket member 10 and 11, below the tube or steam pad, (for failure of the members 10 and 11 to close upon the strand 33, because of the size of the tube or steam pad), is closed below the members 10 and 11 by the bakelite leaves 29 and 31; so that the scalp 34 is shut off from the tube or steam pad. The friction of the free leaf 31 on the leaf 29 may be relied upon to hold the leaf 31 in closed position.

Secured by stitchings 35 to the bakelite leaves 29 and 31 is a pad 36 of felt or similar material. The stitchings 35 pass through holes 36 in the free leaf 31, and through holes 37 in the leaves 11 and 29. As shown in Fig. 4 the felt pad 36 is slit radially as at 38 from a point of its circumference to a point 39 somewhat beyond a cut-away central portion 40, so that, by virtue of the yielding nature of its material, it may be expanded when the device is opened, to permit the strand of hair 33 to be passed to the center thereof. If the strand of hair 33 is so thin that, with a felt pad 36 of normal size, a proper closing of the bakelite leaves 29 and 31 on the strand is interfered with by abutment of the ends 41 and 42 of the felt pad, then these ends may be clipped with scissors. Ordinarily the felt pad may be compressed and perhaps slightly buckled for a thin strand of hair, so that such clipping will not be necessary. It will be noted that the stitching 35 is discontinued toward the free ends of the felt pad, to provide more yield for the pad, and so that the end 32 of the bakelite leaf 31 may pass between the opposed leaf 29 and the end 42 of the pad thereon, and so that the clipping, when desired, may be more easily effected.

What I claim is:

1. In a device for use in the waving of hair, a shield adapted to be set around a strand of hair adjacent the scalp, and comprised of a metal plate and a plate of refractory material, such as bakelite or its equivalent, set face to face and connected together, and a pad of heat insulating or a moisture absorbing material such for instance as felt, affixed to the face of the heat refractory material.

2. In a device for use in the waving of hair, a shield adapted to be set around a strand of hair adjacent the scalp, and comprised of a metal plate and a plate of refractory material, such as bakelite or its equivalent, set face to face and connected together, said duplex plate structure being in two pivotally connected sections.

3. In a device for use in the waving of hair, a shield adapted to be set around a strand of hair adjacent the scalp, and comprised of a metal plate and a plate of refractory

material, such as bakelite or its equivalent, set face to face and connected together, said duplex plate structure being in two pivotally connected sections, and having a pad of heat insulating or moisture absorbing material, such for instance as felt, affixed thereto.

4. In a device for use in the waving of hair, a shield adapted to be set around a strand of hair adjacent the scalp, and comprised of a metal plate and a plate of refractory material, such as bakelite or its equivalent, set face to face and connected together, said duplex plate structure being in two pivotally connected sections, and means for adjustably securing together the free ends of said connected sections.

5. In a device for use in the waving of hair, a shield in the form of two metal leaves pivoted together at one end to be set around a strand of hair adjacent the scalp, one leaf having on the under side thereof a facing plate of refractory material, such for instance as bakelite, and the other metal leaf having thereunder a similar refractory plate movable relatively to such other metal leaf.

6. In a device for use in the waving of hair, a shield in the form of two metal leaves pivoted together at one end to be set around a strand of hair adjacent the scalp, one leaf having on the under side thereof a facing plate of refractory material, such for instance as bakelite, and the other metal leaf having thereunder a similar refractory plate, and means at the free ends of said leaves for adjustably locking the same together.

Signed at New York, in the county of New York, and State of New York, this 21st day of April, 1927.

HARRY BONAT.