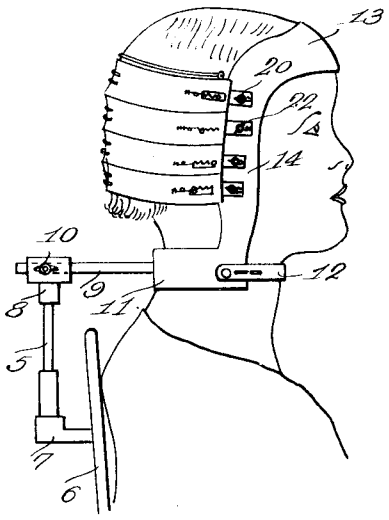
Feb. 2, 1943. L. I. FINK 2,309,638

HAIR WAVING APPARATUS

Filed March 17, 1942 2 Sheets-Sheet 1

Fig 1.



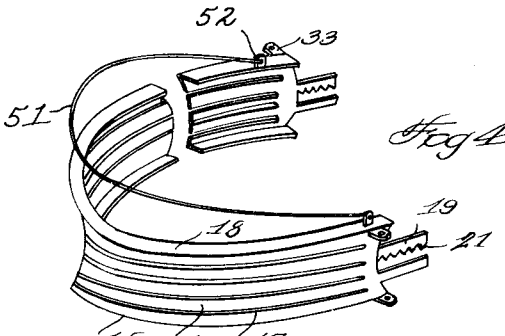


Fig 4.

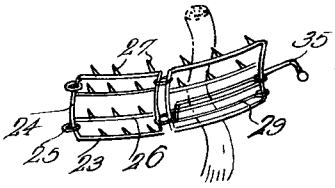


Fig. 5

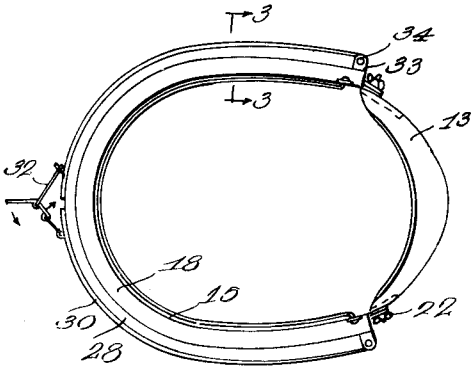


Fig 2.

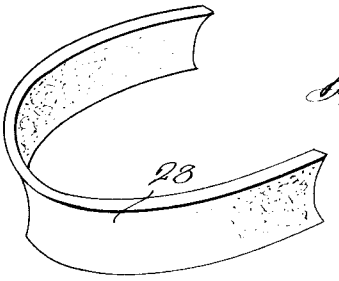


Fig. 6

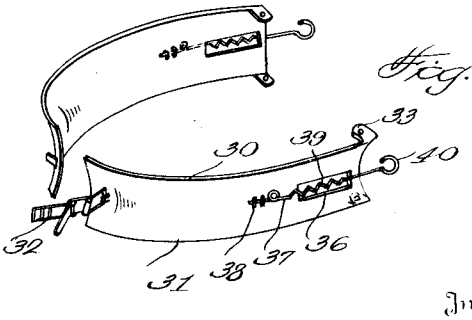
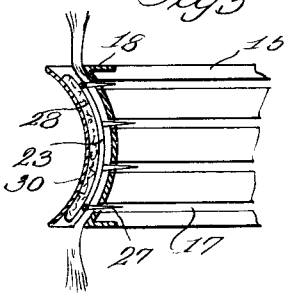


Fig. 7

Fig 3



Inventor

Lucynda I. Fink

By Ralph G Burch

Attorney

Feb. 2, 1943. L. I. FINK 2,309,638

HAIR WAVING APPARATUS

Filed March 17, 1942 2 Sheets-Sheet 2

Fig 8

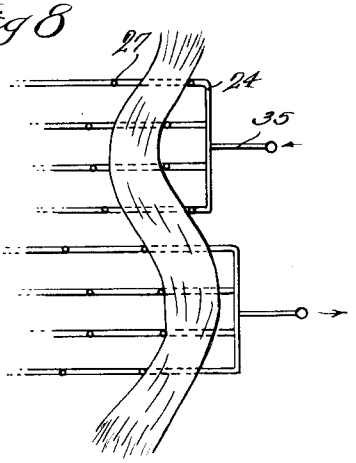
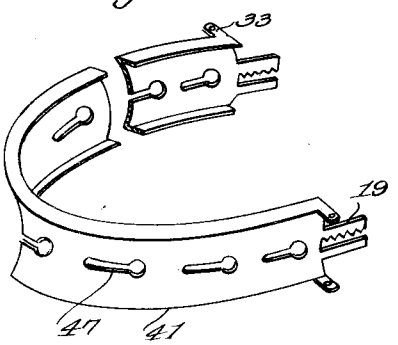


Fig. 11



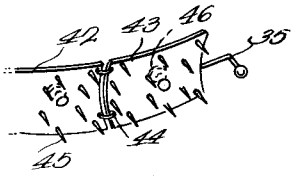


Fig. 12.

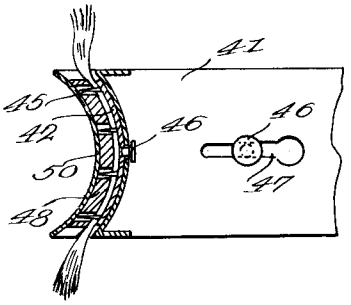


Fig. 9.

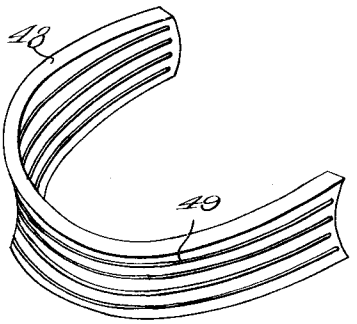


Fig. 10

Inventor
Lucynda I. Fink

By Ralph G. Burch
Attorney

Patented Feb. 2, 1943 2,309,638

UNITED STATES PATENT OFFICE

2,309,638

HAIR WAVING APPARATUS

Lucynda Irene Fink, Liscomb, Iowa

Application March 17, 1942, Serial No. 435,099

6 Claims. (Cl. 132—36)

This invention relates to hair-waving apparatuses for setting the hair into a natural wave.

It is an object of the invention to provide an apparatus of the above-mentioned character which includes a series of longitudinal curved waving elements adapted to embrace the head and arranged in superposed relation, the base member of each element having a grooved face to receive the strands of hair which are held therein by clamping means, and adjustable means intermediate the clamping means and base member for stretching the hair laterally into indulations which are then set by any of the electric, chemical, or heatless methods well known in the art, thus producing mechanically either a finger wave or a permanent wave of natural appearance.

A further object of the invention resides in providing an apparatus of the above-mentioned character which is simple and durable in construction, reliable and efficient in operation, and inexpensive to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

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

Fig. 1 is a side elevational view of the apparatus showing the parts in assembled relation when in use,

Fig. 2 is a top plan view of one of the hair-holding and wave-forming elements,

Fig. 3 is a cross section taken on line 3—3 of Fig. 2,

Fig. 4 is a perspective view of the base member of the hair-waver element,

Fig. 5 is a fragmentary perspective view of the hair-positioner member,

Fig. 6 is a perspective view of a chemical heating pad,

Fig. 7 is a perspective view of the clamping member,

Fig. 8 is a plan view showing the hair-positioners adjusted to form oppositely extending undulations in the strands of hair,

Fig. 9 is a cross sectional view of a modified form of hair-waving element,

Fig. 10 is a perspective view of the spacing member to be used with the modified form,

Fig. 11 is a perspective view of the base member of the modified form, and

Fig. 12 is a fragmentary perspective view of the hair-positioner of the modified form.

In the drawings, wherein for the purpose of illustration I have shown a preferred embodiment of my invention, the numeral 5 denotes a vertical post which is attached to the back of a chair 6 by a bracket 7. A T-union 8 is attached to the upper end of the post 5, and slidably mounted in the union is a horizontal rod 9 which is secured in its adjusted position by a wing screw 10. A semi-circular collar 11 is attached to the outer end of the rod 9 adapted to embrace the neck of the customer who is seated in the chair, and a strap 12 is adjusted around the front of the neck, the strap being attached to the collar. A head band 13 is designed to fit over the forehead of the person and has depending portions 14 extending down the sides of the head, which portions are connected with the collar 11. The foregoing construction serves to hold the head of the customer in proper position and also as a support for the hair-waving elements which are detachably connected to the portions 14 of the band 13, as clearly shown in Fig. 1.

The hair-waving elements include a base member 15, as shown in Fig. 4, which is longitudinally curved to conform to the shape of the head. The base member is also transversely curved to form a concave groove 16, and extending throughout the length of the base member are spaced parallel slots 17. The upper and lower edges of the base member are provided with inwardly directed flanges 18 forming seats for supporting the base of the next succeeding waving element, there being a plurality of waving elements arranged in superposed relation. The ends of the base member have slotted tabs 19 adapted to slidably engage bolts 20 extending from the portion 14, one edge of the slot of the tabs having teeth 21 to grip the bolts which have wing nuts 22 for clamping the tabs in adjusted position. A hair-stretching or hair-positioning element 23 is disposed within the groove 16 of the base member and consists of a plurality of sections 24 flexibly connected together by links 25. Each section consists of a wire frame having cross bars 26, the frame being transversely curved to conform to the contour of the groove of the base member. The side members and cross bars of the frame have spaced teeth 27 projecting from the convex side of the section, the teeth being arranged in vertically curved rows, as shown in Fig. 8. It will be observed that each succeeding waving element has the teeth of the hair-positioner arranged in vertical rows curved in opposite directions, so that the positioner of one waving element is adjustable to form an undulation in the hair in one direc-

tion, while the positioner of the next succeeding waving element is adjustable to form an undulation in the opposite direction. After the hair-positioner is disposed in the groove of the base member, a chemical heating pad **28** is disposed over the positioner, being held in place by spring clamps **29** carried by the end sections as shown in Fig. 5. A cover **30** composed of hingedly mounted sections **31** is adapted to fit over the heating pad, the sections being drawn and held in clamping engagement with the pad by a lever-fastener **32** of conventional type. The sections of the cover are hingedly connected to the ends of the base member, the sections and base member having co-acting apertured lugs **33** to receive hinge pins **34**. The end sections of the hair-positioner **23** are provide with outwardly projecting arms **35** adapted to extend through longitudinal slots **36** in the cover sections, and mounted in overlying relation to the slots are spring rods **37** attached at one end to the cover, as at **38**. The rods are bent to form serrations **39** to engage the arms **35** of the hair-positioner to secure it in its adjusted position, and the free ends of the rods extend beyond the ends of the cover to provide handles **40** whereby the rods may be lifted to release the arms **35**.

A modified form of the invention is shown in Figs. 9, 10, 11, and 12, which form includes a base member **41** curved transversely to provide a groove to receive a hair-positioner member **42**. The hair positioner member consists of a plurality of plates **43** flexibly connected together by links **44**, each of the plates being transversely curved and having a series of vertical curved rows of teeth **45** projecting outwardly from the concave sides of the plates. A headed rivet **46** extends from the center of the convex side of each plate and engages in a keyhole slot **47** formed in the base member which permits longitudinal adjustment of the positioner with respect to the base member. A spacer element **48** which is curved transversely is disposed over the positioner and has longitudinal spaced slots **49** to receive the teeth **45** and the spacer is held in position by a cover **50** which is of the same construction as the cover **30**. The spacer element may have an electric heating unit embedded therein which when connected with a source of electric current will supply the heat for setting the hair. The base member of this form of the invention is connected to the portions **14** of the head band **13** in the same manner as the base member in the other form, and the positioner is adjusted longitudinally of the base member in the same manner as in the other form of my invention.

In operation, the base member of the hair-waving element is positioned around the top of the head, after parting the hair horizontally, and is attached to the portions **14** of the head band **13**. The hair is then combed over the uppermost base member and is initially held in position by a wire rod **51** hingedly attached at its ends to the base member, as at **52**, until the positioner **23** is placed in the groove with the teeth **27** passing through the hair into the slots of the base member. The chemical heating pad is attached to the hair-positioner and, owing to the open construction of the sections of the positioner, the heat readily passes through the sections into contact with the hair. When the cover **30** is applied and secured by the fastener **32**, the positioner **23** is then moved by the arms **35** to either the right or to the left to form a wave in the hair secured within the device. After the hair is positioned in the first hair-waving element it is then combed over the next succeeding waving element and positioned therein in the same manner as in the first, except that after the hair is placed in the waving element, the positioner **23** is moved in a direction opposite to the direction in which the positioner in the first waving element was moved so as to form a wave in the hair extending in the opposite direction to that of the wave in the first element. If in using the waving apparatus it is desired to form mechanically a finger wave, the hair is simply moistened with water or a setting lotion in the usual manner before being placed in the waving element, but if the hair is to receive a permanent wave, it must be moistened with one of a number of permanenting solutions well known in the art of hair-waving. While I have shown a chemical heat pad for drying the hair, it is obvious that other suitable heating means may be employed such as an electric heating element, or, if preferred, the heatless method may be used.

The form of my invention shown in Figs. 9, 10, 11 and 12 is employed in the same manner as the form previously described, but differs in that the hair is placed over the positioner member **42** rather than between the positioner and the base member. In this form, a spacer element **47** is placed over the hair, and the teeth **45** which project from the concave side of the positioner pass through the hair and enter the slots **49** of the spacer element. If desired, an electric heating unit may be constructed in the spacer element for supplying heat to dry the hair. Thus, it is seen that in both forms of the invention the hair is placed within the succeeding waving elements and then by adjusting the hair positioners the hair is stretched to form a natural wave which is set by natural drying or electrical or chemical means.

This new method of waving the hair has many advantages over the common method now employed. Whereas in the common method the operator begins at the end of the hair and progresses towards the scalp which makes it impossible to permanent the hair at the base, my new method permits the wave to be started at the scalp so that the wave is set in the hair throughout its entire length. With my apparatus the hair is formed into a natural wave when placed in the waving elements, so that the wave is formed with greater accuracy, thus improving its finished appearance. Since the hair is placed in the waving elements in a thin layer, instead of a thick roll, a lesser degree of heat is required, and as the heating means is spaced from the scalp, the heat causes no discomfort to the customer which is one of the main objections to the present methods.

It is to be understood that the forms of my invention herein shown and described are preferred examples of the same, and that certain changes in the shape, size, and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A hair-waving device of the character described comprising a base member adapted to embrace the head and having a longitudinal transversely curved groove to receive the strands of hair, a hair-positioner member including a series of flexibly connected sections disposed

within the groove of said base member, said sections having vertical transversely curved rows of teeth adapted to penetrate the hair and engage in longitudinal slots formed in said base member, a heating member covering said positioner member, and a cover disposed over said heating member.

2. A hair-waving device comprising a base member adapted to embrace the head and having a longitudinal transversely curved groove to receive the strands of hair, a flexible positioner member transversely curved to fit in the groove of the base member and adjustably connected thereto, said positioner having teeth projecting from its concave side, a spacer member disposed over said positioner member having longitudinal grooves to receive said teeth, and a cover disposed over said spacer member.

3. A hair waving device of the character described comprising a base member having a longitudinal transversely curved groove provided with spaced longitudinal slots therein, a hair positioner comprising a plurality of sections flexibly joined together, each section having a transverse contour corresponding to the contour of the groove of said base member in which they are adapted to fit, spaced vertical transversely curved rows of teeth projecting from the sections of said hair positioner adapted to enter and travel in the slots formed in the groove of said base member, means for adjusting said hair positioner longitudinally of the base member, and a cover fitted over the hair positioner.

4. A hair waving device comprising a base member adapted to embrace the head and having a longitudinal transversely curved groove to receive the strands of hair, the groove being provided with a series of spaced longitudinal slots therein, a hair positioner member disposed within the groove of said base member and having a transverse contour corresponding to the contour of the groove, vertical rows of teeth projecting from said hair positioner member adapted to penetrate the strands of hair and enter the slots of the base member, said positioner member being adjustable longitudinally of the base member, and means for holding said positioner member in its adjusted position.

5. A hair waving device comprising a base member adapted to embrace the head and having a longitudinal transversely curved groove to receive the strands of hair, a hair positioner member disposed within the groove of said base member and having a transverse contour corresponding to the contour of the groove, vertical rows of teeth projecting from said positioner member adapted to penetrate the strands of hair, a cover member fitted over the positioner member having slots adjacent each end, arms extending from the positioner member through the slots of said cover for adjusting said positioner member longitudinally with respect to the base member for stretching the strands of hair laterally, and means carried by said cover adapted to engage said arms to secure the hair positioner member in its adjusted position.

6. A hair waving device of the character described comprising a longitudinally curved base member having a transversely curved groove in its outer face provided with a series of spaced longitudinal slots therein, a hair positioner composed of a longitudinal series of sections flexibly connected together adapted to fit in the groove of said base member and conforming to the shape thereof, a series of spaced vertical transversely curved rows of teeth projecting from the sections of said hair positioner adapted to enter and travel in the slots of the groove of said base member, a cover member fitted over said hair positioner having slots adjacent each end, arms projecting from the ends of said hair positioner through the slots of the cover for adjusting said hair positioner longitudinally of said base member, and means carried by said cover for engaging said arms to hold the hair positioner in its adjusted position.

LUCYNDA IRENE FINK.