April 3, 1951 M. I. BURGESS 2,547,810

APPLIANCE USEFUL IN PERMANENT WAVING OF HAIR

Filed Dec. 5, 1946

Fig. 1

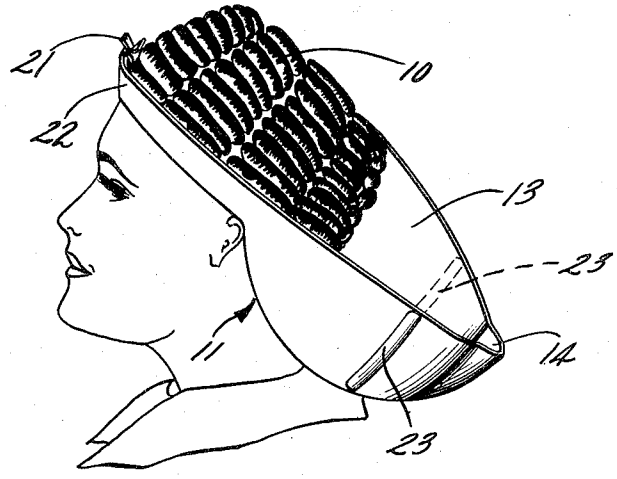


Fig. 2

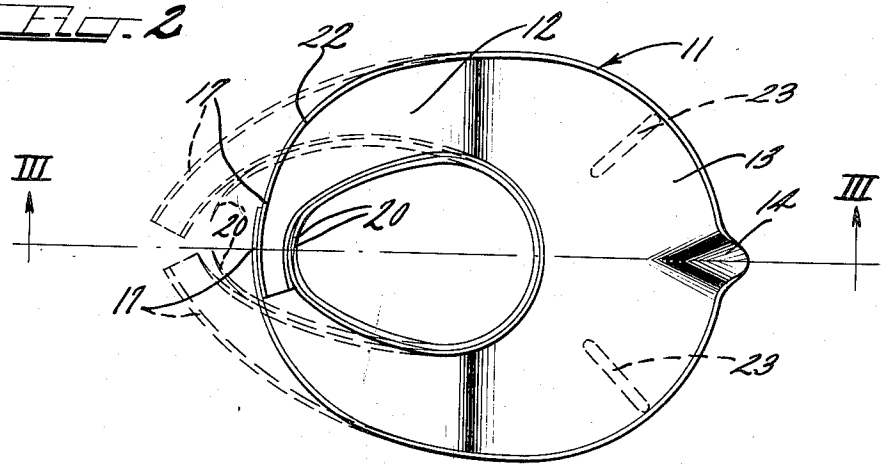


Fig. 3

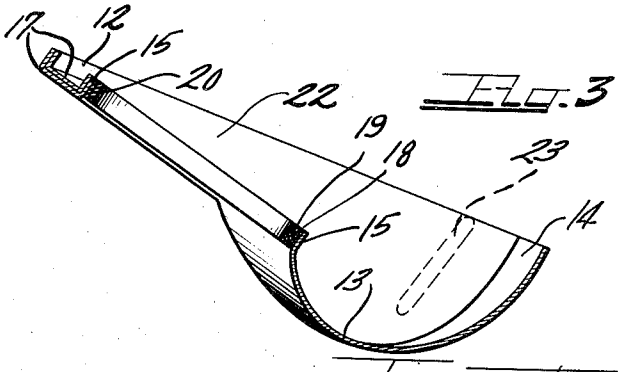
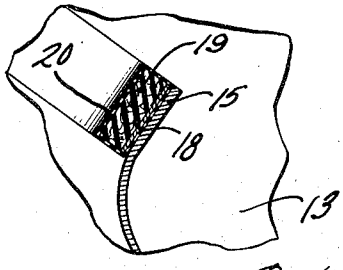


Fig. 4



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2,547,810

APPLIANCE USEFUL IN PERMANENT WAVING OF HAIR

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8 Claims. (Cl. 4—159)

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This invention relates to an appliance which is useful in the permanent waving of hair and more especially concerns a shield device adapted to be applied about the head of a person undergoing a permanent hair waving treatment in which certain solutions are applied to the hair, the shield being particularly adapted to collect surplus solution running from the hair and prevent the solution from running down the face or neck and onto the clothing of the person.

In the cold permanent waving of hair, the solutions which effect the actual waving of the hair must be neutralized to stop their action within relatively close predetermined time limits in order to obtain the desired results and avoid over-processing of the hair. Neutralizing is accomplished by the liberal application of a neutralizing solution to the hair. The same is true with certain so called machine waves where certain chemical solutions applied to the hair must be neutralized to terminate their action after a predetermined heating time interval.

Inasmuch as the chemicals employed in the waving process, and particularly the neutralizing chemicals, are highly disagreeable skin irritants to many persons, and furthermore are corrosive with respect to at least certain dress materials, elaborate precautions have been required. Most frequently these have comprised the liberal application of relatively heavy creams to the skin adjacent to the scalp of the person undergoing treatment, and the wearing of elaborate capes and clothing shields, and then the application of a neutralizer while the person undergoing treatment hangs his head over a wash basin or the like. These various expedients are time-consuming and a serious drain upon the service time demands made on busy beauticians who are generally required to attend to several persons at a time. Nevertheless, proper neutralizing is essential if the desired quality of the resulting permanent wave is to be attained.

It is an important object of the present invention to provide for a substantial simplification in the neutralizing of the permanent hair waving solutions, avoiding time consuming and often unduly elaborate, sometimes disagreeable safety expedients, of prior practices, and permitting neutralizing to be effected without discommoding either the beautician or the person being treated who may remain seated in the same chair in which the waving process was started.

Another object of the invention is to provide a new and improved appliance for use in the

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neutralizing step of the permanent hair waving process.

A further object is to provide an appliance providing an effective shield about a person's head and a receptacle for excess fluid running from the hair while undergoing permanent waving.

Still another object of the invention is to provide an appliance adapted to be applied about the head of a person undergoing permanent waving and which is readily self-adjustable to the person's head.

A still further object of the invention is to provide a hair waving appliance in the nature of a receptacle shield to be applied about the head of a person undergoing permanent waving and which is adapted to be made from non-corroding and resiliently pliable material.

Other objects, features and advantages of the present invention will be readily apparent from the following detailed description taken in conjunction with the accompanying one sheet of drawings in which:

Figure 1 is a perspective view of an appliance embodying the features of the present invention and showing more or less schematically how the same is applied to the head of a person undergoing permanent hair waving or the like.

Figure 2 is a top plan view of the appliance.

Figure 3 is longitudinal sectional view through the appliance taken substantially along the line III—III of Fig. 2; and

Figure 4 is an enlarged fragmentary detail sectional view taken on substantially the same plane as Fig. 3 and showing of one portion of the appliance.

In permanent waving, the hair of the person being treated is divided into individual tresses which are wound up into small rolls, usually upon individual small rods (not shown) and according to a preferred pattern over the person's head. Hair waving solution is applied to the hair rolls 10, and in the cold process the solution is left on the hair for a predetermined treating time interval until the hair has taken the desired curl. Then a neutralizer is applied to the hair to stop the action of the waving solution.

In a modified permanent waving process heat is applied by means of a machine in order to hasten the curling process.

In either event, the curling action of the waving solution must be stopped quite promptly at the end of the predetermined treating time interval or otherwise the hair will be "burned" or over-processed and the results will be unsatisfac-

tory. Hence, the neutralizing solution must be applied quickly and copiously and uniformly all over the head. In accomplishing this, a substantial excess of neutralizer runs off of the hair.

According to the present invention, the excess neutralizer is handled by applying to the head of the person undergoing treatment an appliance 11 in the nature of a shield and receptacle. This appliance is preferably in the form of a self-adjusting split ring to be fitted snugly about the head just under the hair line for effectively preventing the excess neutralizing solution from running down the face or neck of the person by collecting the solution in a trough 12 encircling the head. This trough is so formed that at the rear of the appliance it provides a liquid receptacle 13 of generous capacity. A discharge spout 14 may be provided at the rear of the receptacle 13 for convenience in pouring off accumulated liquid from the receptacle.

By preference, the appliance 11 is made from a pliable and preferably resilient material such as rubber or other suitable plastic material. Such materials lend themselves well to the molding or die pressing processes of manufacture.

By substantially following the hair line, draining of the liquid to the receptacle 13 is assured, since while the person about whose head the appliance is fitted is sitting upright this will dispose the appliance in a rearwardly tilted position. Discharge of accumulated liquid from the receptacle 13 is then conveniently effected by having the person slightly tilt the head backward so as to depress the rear of the appliance and so that the liquid will pour from the spout 14. However, the receptacle is preferably of sufficient capacity so that unless it appears over full, it can be removed with the liquid therein at the termination of the neutralizing step in the hair waving process.

In order to facilitate fitting of the appliance about the person's head, it is preferably constructed as a resilient split ring having an inner upstanding flange or wall 15 adapted to encircle the head and dimensioned to an average head shape and an average or slightly smaller than average head size and being flexible to accommodate variations of head shapes. To this end, the trough 12 is formed to relatively narrow shallow dimensions at the front and to gradually increasing width toward the rear where it widens out and substantially deepens into the receptacle portion 13. Thereby the forward end portions of the trough 12 are rendered relatively more flexible and easily spread apart in enlarging the central opening and for adjusting the appliance to the head.

In order to afford an adjustable liquid-tight joint at the front of the trough 12, the split forward ends of the trough are formed as laterally resilient arms 17 which are proportioned and dimensioned to slidably and internestingly overlap at the front of the head.

The resiliency of the overlapping arms 17 may be increased by equipping the wall flange 15 with resilient tensioning means such as a spring band 18 which may be formed from metal or a suitable plastic. If the band 18 is formed from metal, it is of course desirable to have it encased in a suitable non-corroding sheath of material such as rubber or a synthetic plastic material.

Improved liquid sealing engagement of the appliance about the head is afforded by equipping the inner side of the head-encircling loop of the wall flange 15 with a suitable sealing gasket such as a sponge rubber strip 19 of appropriate thickness which may be disposed radially inwardly of the tensioning band 18. This sponge rubber sealing gasket strip 19 will, of course, be formed with or encased in a more or less non-porous skin 20 so as to avoid retention of the liquid and thus avoid contact of the liquid with the person's skin under the hair line.

Where the arms 17 overlap, the sealing gasket 19 may be formed as best seen in Fig. 2, with slidably overlapping feather-ended tabs 20. With these tabs it is convenient to adjust the appliance snugly to various head sizes and since the tabs slidably interleave and cooperate in fluid-tight relation when pressed against the forehead, a thorough fluid-tight seal is provided entirely about the head.

A spring clip 21 (Fig. 1) may be provided to engage the overlapping portion of upstanding outer wall flanges 22 on the arms 17 and thereby hold the arms snugly about the person's head.

Since it is desirable to construct the appliance 11 as lightly as possible so as to avoid any unnecessary burden upon the head of the person being treated, the material thereof may be relatively thin and reinforcing ribs 23 may be formed where required. As shown, the ribs 23 have been provided to reinforce the trough portion 13 of the appliance.

For the comfort of the wearer and to facilitate application and retention of the service position of the appliance 11, it is preferably shaped to clear the ears, as best seen in Fig. 1, engaging the forehead and above the ears and bulging down rather sharply behind the ears into the receptacle 13. The inner margin of the bulge is preferably dimensional to afford an abutment with the nape of the wearer's neck to assist in maintaining the preferred service position and avoid downward slipping of the appliance or imposition of weight on the ears.

From the foregoing it will be apparent that I have provided a novel method for accomplishing the neutralizing of permanent hair waving solution on a person's hair by applying about the person's head under the hair line a trough and receptacle and then applying neutralizer to the hair while the person remains comfortably seated. Thereby the neutralizing step in the hair waving process can be accomplished quickly and conveniently as required and without the elaborate precautions against running of the liquid down the person's face or neck or the protection of the skin below the hair line against irritation. A very substantial saving in time in setting up for the neutralizing step in the hair waving process is thus effected, in addition to assuring more accurate results because the beautician can work rapidly and move quickly from patron to patron even where neutralizing times come close together.

The novel appliance of my invention is simple and efficient in construction, is easily applied and readily adjustable to various head proportions. It also lends itself very readily to sterilization for repeated re-use.

It will, of course, be understood that various details may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. In combination in a hair waving aid, a unitary split ring trough appliance formed from

resilient material and adapted to be applied entirely about the head of a person receiving a permanent wave, the forward portion of the appliance comprising a pair of flexibly spreadable arms overlapping at their terminals, the rear portion of the appliance integrally joining said arms and being substantially enlarged and deepened to afford a liquid receptacle into which the trough of the arms drains, the appliance having an upstanding inner wall flange, a liquid sealing gasket of sponge rubber or the like carried by said inner wall flange, and a tensioning band disposed between the flange and gasket to urge the flange and thereby the gasket into snug self-adjusting embrace about the head.

2. In combination in a generally ring-shaped trough member to be applied about the head of a person undergoing permanent hair waving or the like and having a pair of sealingly overlapping upwardly opening channel shaped, bodily relatively movable terminals adjustably cooperating to adjust the device circumferentially to various head sizes, the inner wall defining the device having a sealing gasket of relatively soft material, said gasket having terminal end portions at said terminal portions of the device, and said terminal end portions of the gasket being feathered and adapted for sealing overlapping cooperation in the applied condition of the device.

3. In a trough appliance to be applied about the head of a person undergoing a liquid treatment, a generally ring-shaped member of trough cross-section having an enlarged liquid receptacle portion at the rear and a reduced width and depth channel shaped front portion split to provide a pair of bodily separable cooperating arms, the terminal portions of the arms cooperating in slidably internested substantially liquid-tight relation throughout a substantial range of relative sliding endwise adjustment to accommodate various head sizes.

4. In a generally ring-shaped member of trough-shaped cross-section and adapted to be applied about the head of a wearer undergoing a liquid treatment of the hair, the device comprising a pair of separate overlappingly internested slidably adjustable upwardly opening channel shaped arms for accommodating the device to various head sizes, said arms being resilient and normally tending to conform the device to a relatively small head size so as to be automatically self-adjustable by relative sliding endwise movement to larger head sizes when applied to the head of a person.

5. In a device of generally ring shape and trough cross-section adapted to be applied about the head of a person undergoing a liquid treatment for collecting liquid running from the person's head, the device comprising a substantially deep and large capacity rear receptacle portion shaped to rest against the nape of the person about whose head the device is applied and having a pair of forwardly projecting trough arms of relatively shallow form adjustably cooperating about the person's forehead, said arms having the bottoms of the rear portions thereof at a substantially higher elevation than the receptacle portion and joining the receptacle portion at a point rearwardly and above the person's ears so as to clear the ears comfortably.

6. In a device of generally ring shape and trough cross-section adapted to be applied about the head of a person undergoing a liquid treatment for collecting liquid running from the person's head, the device comprising a substantially deep and large capacity rear receptacle portion shaped to rest against the nape of the person about whose head the device is applied and having a pair of forwardly projecting trough arms of relatively shallow form adjustably cooperating about the person's forehead and joining the receptacle portion at a point rearwardly of the person's ears so as to clear the ears comfortably, the rear extremity marginal area of the receptacle being of spout shape and for this purpose bowed rearwardly on a small radius projecting rearwardly from the normal margin of the receptacle and arranged for discharge at the rearmost portion of the rim of the receptacle.

7. In an appliance for use in permanent hair waving or the like, a generally ring-shaped liquid collecting member of trough-like cross-section dimensioned to be placed in encircling relation to a person's head, the member having separable upwardly opening generally channel-shaped flexible arms forming part of the ring trough and adapted to be relatively moved bodily toward and away from one another to increase or decrease the circumference of the member for convenience in applying the appliance snugly to the head, and said arms having generally channel-shaped terminal portions cooperatively related to overlap with one channel-shaped terminal portion internesting in substantailly liquid-tight relationship with the other channel-shaped terminal portion when the device is secured in place about the head.

8. In an appliance for use in permanent hair waving, a generally ring-shaped member of trough cross-section, the member having separable flexible arms adapted to be opened for convenience in applying the appliance to the head and with terminal portions adapted to overlap internestingly in liquid-tight relationship when the device is secured in place about the head, the inner walls of the terminal portions of the arms having adjustably interleaving sealing tabs feathered to avoid bulging at the juncture at the inner sides of the arms.

MARION IRVING BURGESS.

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