July 26, 1949. R. P. LOY 2,477,489

BATHING CAP ENSEMBLE

Filed May 21, 1946

FIG. 1.

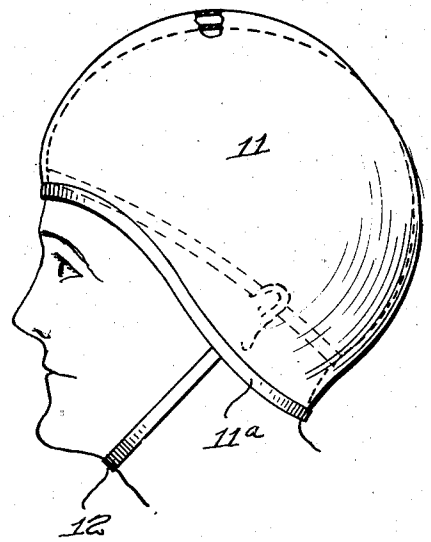


FIG. 2.

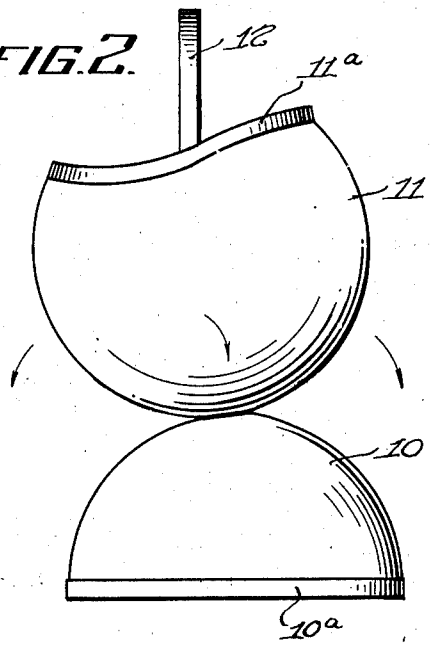
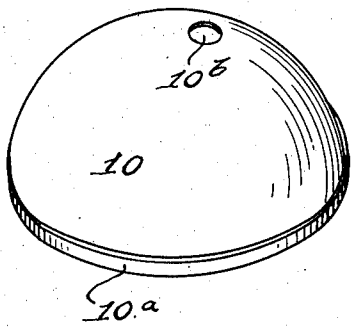


FIG. 3.



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BATHING CAP ENSEMBLE

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2 Claims. (Cl. 2—68)

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This invention relates to improvements in bathing cap ensembles and has particular relation to caps of this type which, in service, are of dual-ply characteristic.

Dual-ply caps generally have an inner cap member and an outer cap member an arrangement which permits the inner cap to closely fit the crown of the head of the user, while the outer cap is of looser fit. While it would be possible to provide such assembly by the use of separate caps, the fact that the caps could move relative to each other to a material extent while in service and thus disturb the desired appearance, etc., together with the fact that extra care must be taken to prevent loss or misplacement of one of the caps when not in service, has made such combination less desirable, although it has the advantage of offering greater protection due to the dual-ply characteristic.

The favorite mode of meeting these conditions has been to unit the two caps at their marginal edges—in many cases provision has been made to partially inflate the combined caps with a view to providing a cushion effect to aid in protecting the head from surges as by waves, etc., or excessive pressure in the shower. While the assembly carries these advantages, it requires that both caps be applied concurrently to the head thus making it difficult to properly adjust the inner cap, and where inflation is to be provided, it requires this aditional action to prepare the assembly for service, whether the inflation is made prior to or after the positioning; if inflation is prior, it can affect the shape of the inner cap to an undesirable extent, and if the inflation is after adjustment, the inflation becomes a somewhat awkward operation if attempted by the user especially in the absence of an attendant.

The present invention is designed to obtain the benefits of the dual-ply formation in service, but to permit application of the caps to the head of the user as individuals, while at the same time the two caps are permanently secured together to prevent loss or misplacement, the connection also serving as a means to prevent material relative movement of one cap relative to the other. While there is no inflating action contemplated, the application of the caps to the head tends to set up a slight air cushion effect between the two caps, effective at the points where most desirable, this being provided by the air which is trapped during the positioning of the outer cap.

To these and other ends, therefore, the nature of which will be more readily understood as the invention is hereinafter disclosed, said invention

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consists in the improved construction and combination of parts hereinafter more fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views—

Figure 1 is a side elevation showing the cap ensemble in service position on the head of a user,

Figure 2 is a side elevation of the ensemble showing the caps in their relationships preliminary to applying the ensemble to the head, and

Figure 3 is a perspective view of the inner cap.

The caps are generally formed of any of the usual material used in the formation of bathing caps, such for instance, as rubber, rubberized fabric, etc., the material being of a more or less flexible type.

The inner cap 10 is somewhat similar to a skull cap in shape being designed to fit over the crown of the head and therefore generally has the general shape of this portion of the head. The margin is preferably reinforced, as at 10a, the depth of the cap being such as to provide the desired fit with the reinforce between the helix of the ear and the crown, thus leaving the ear exposed.

The outer cap 11 is of larger dimensions, also reinforced at its margin as at 11a, but with the margin having a shape such as to provide a greater depth than that of cap 10, with the front designed to overlie the forehead of the user, and then extend downwardly, as by curvature, for instance, sufficient to overlie the ear and extend into the neck zone of the user. The outer cap thus encloses all but the face and the sides and front of the neck zone. The outer cap also carries a suitable retaining strap 12 having its ends secured to reinforce 11a and adapted to be brought under the chin of the user. As a result, cap 11 completely encloses cap 10 when the ensemble is in service, as indicated in Figure 1, thus providing a general dual-ply characteristic to the ensemble surmounting the crown of the head of the user.

The two caps are permanently secured together, as by vulcanization, within a central area of cap 10 of material dimensions, the remainder of the caps being free from such secured relationship. As a result, the outer cap may be inverted at will, as indicated in Figure 2. This is of positive advantage due to the fact that the ensemble, when the outer cap is thus inverted, permits the inner cap to be positioned on the head as though an

individual cap, permitting the user to adjust the cap 10 to the desired position; since the adjustment during such period is that of a single ply formation the user is better able to readily meet the conditions of her hair coiffure. After cap 10 is properly adjusted, cap 11 is drawn downward over the positioned cap and properly secured in position.

Since cap 10, when in position, generally has its axis inclined to the vertical—see the dotted line representation of Figure 1—the central area referred to will generally lie somewhat in rear of the top of the crown of the head, the zone of cap 11 which is secured to cap 10 being selected so that when cap 11 is shifted to its enclosing position, cap 11 will have the proper position not only with respect to cap 10, but also to the face, ears and neck of the user. Since, in shifting cap 11 from its inverted to its inclosing position, there will be a tendency to entrap air between the two caps—cap 11 having a loose fit characteristic—and since the connecting zone of the cap is not symmetrical to the top of the crown of the head, the trapped air can tend to cushion the effect of any sudden surges, as by waves when swimming, or excessive pressures in shower baths; and since the air is held only by the reinforced margin 11a, the air can leak past the margin in presence of highly excessive pressures, thus preventing shock to the head of the user.

While the connection between the two caps may be made between two complete caps, with the zone of material area, it is preferred to arrange the connection in the form of an annular zone, doing this by providing cap 10 with an opening 10b of material dimensions, as shown in Figure 3, the connecting zone surrounding such opening—in other words, a lip zone of the opening provides an annular securing zone. Since cap 11 is not provided with a similar opening, the opening 10b becomes closed by that portion of cap 11 lying inside of the securing zone, thus providing a one-ply cover for the area of the opening; if cap 11 be elastic in type, the one-ply covering for the opening would permit of slight expansion of air within cap 10 should service conditions so require.

Both caps are pre-shaped with the shapes such as to provide for the ready connection of the two within the central area referred to, as by vulcanization; if essential, the outer cap can be given a special formation within the securing zone. Since the vulcanization provides a permanent uniting of the caps within such zone, it is possible to provide a special fullness to the shape of the outer cap about and relative to such securing zone to increase the cushioning effect.

As will be understood from Figure 1 that, in service, the opening 10b is itself located wholly rearward of a plane corresponding to the longitudinal axis of the body of the wearer, as is the marginal vulcanized zone which surrounds the opening, this effect being produced through the location of the opening in the apical zone of the inner or skull cap 10—since the opening is comparatively small in area, the arrangement locates the vulcanized zone in rear of such plane. This permits the larger outer cap to be completely inverted outside of the vulcanized connecting zone, as shown in Figure 2, with the opposing faces of the caps gradually diverging outwardly from the annular vulcanized securing zone, thus enabling the outer cap to be inverted without placing any material strain on the cap or on the vulcanized connection.

As will be understood, the fact that the outer cap completely overlies the inner cap, the caps are positionable only by first inverting the outer cap to the position of Figure 2, thus completely exposing the marginal zone and the major body portion of the inner or skull cap, enabling the latter to be easily and properly adjusted about the head of the wearer in overlying relation to the hair—as would be the case if the skull cap alone were being adjusted. The larger cap is then easily drawn downward into its overlying position and secured in place; since the vulcanized zone is in the special zones of both caps, the distance between such zone and the margin of the outer cap is comparatively large, enabling the cap body to have the fullness which enables the formation of the cushion effect shown in Figure 1, through the presence of the air that is trapped between the caps during the reversion of the outer cap to its service position, and at the same time permit such reversion to take place without placing any strain on the material of the cap or on the vulcanized connection.

While I have herein shown and described a preferred form of the invention it will be readily understood that changes or modifications therein may be found desirable or essential in meeting the exigencies of use and the desires of users, and I reserve the right to make any and all such changes or modifications as may be deemed desirable or essential insofar as the same may fall within the spirit and scope of the invention as expressed in the accompanying claims, when broadly construed.

What is claimed as new is:

1. A bathing cap ensemble comprising a pair of pre-shaped bathing caps permanently secured together remote from the service edge zones of the caps to thereby provide a dual-ply characteristic of the ensemble during service, the inner cap ply being of skull-cap type dimensioned to expose the ears of the wearer and having an opening in the apical central zone of the cap, said opening being of small area and positioned to be located on the crown of the head of the wearer and rearwardly of the longitudinal axis of the body of the wearer, the outer cap ply being a complete cap formation and vulcanized to the inner cap ply within an annular zone forming the marginal zone of said opening with the outer cap overlying the opening, said outer cap being dimensioned to completely overlie the inner cap ply and to extend over the ears of the wearer, both caps being marginally reinforced and free from connection other than by such central annular vulcanized zone, whereby the ensemble is positionable on the wearer solely by initial inversion of the outer cap to expose the complete marginal zone of the inner cap to permit positioning of such inner cap and then restoring the outer cap to its overlying status by reversion after the inner cap has been positioned, said caps in the inverted position of the outer cap presenting the opposing cap faces as gradually diverging outwardly from the annular vulcanized securing zone.

2. An ensemble as in claim 1 characterized in that the dimensions of the outer cap are sufficiently greater than those of the inner cap as to provide a loose fit relationship between the caps outwardly of the securing zone of the caps to thereby permit trapping of air between the caps by the movement of the outer cap to its service position, the position of the opening of the inner cap being such that in the service position of the caps the opening will be positioned wholly in

rearward relation to the center of the crown of the head of the user to thereby permit the trapped air outward of the annular secured zone to present a cushioning effect to surging pressures applied to the outer cap within such crown zone during service of the ensemble.

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