July 12, 1966 S. F. LIMA ETAL 3,259,912

SWIMMING AND/OR BATHING CAP

Filed March 18, 1964



FIG. 1

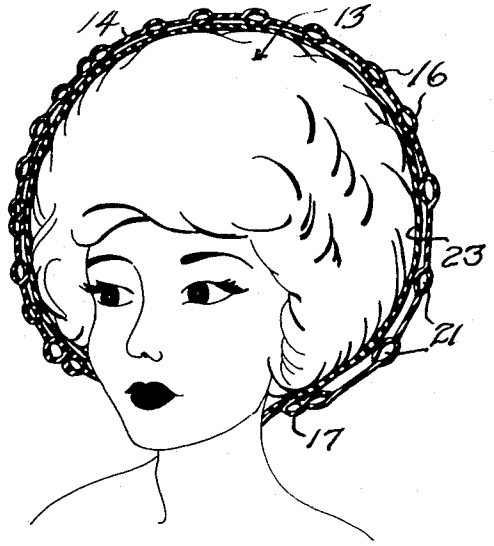


FIG. 2

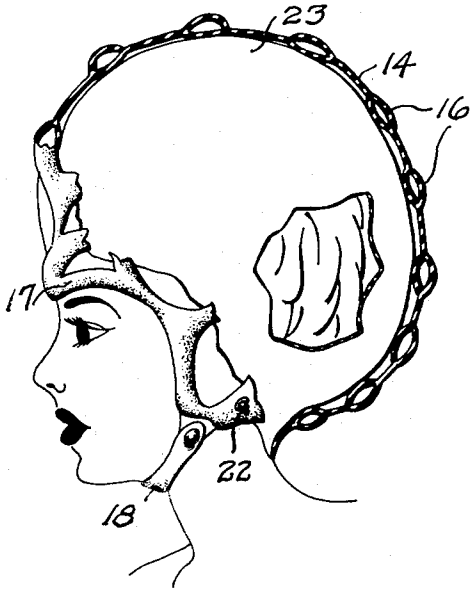


FIG. 4

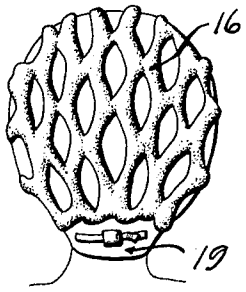


FIG. 3

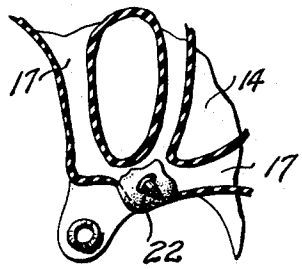


FIG. 5

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SWIMMING AND/OR BATHING CAP

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6 Claims. (Cl. 2—68)

The present invention relates to swimming, bathing, etc. caps in general, and is more particularly directed to a bathing cap which is arranged to keep the hair dry while maintaining the coiffure in place without crushing or mashing the curls or waves.

Present day hair styles are such that conventional bathing caps cannot be employed to cover the hair without mashing the coiffure, curls or waves. More particularly, with modern coiffures such as the "bouffant" hairstyle the hair is back combed to provide a puff or bubble which extends a substantial distance above the scalp. The puff is of course substantially loose and soft and is therefore quite susceptible to being crushed by a very small amount of pressure being exerted thereon. Consequently, conventional bathing caps having a relatively large resiliency in order to fit snugly upon the head and thereby prevent the penetration of water to the hair exert sufficient force to crush the puff and hence ruin the coiffure. Still other types of conventional caps which have a low resiliency and are therefore highly yieldable, and which utilize a draw string or equivalent means about the hair line to provide a seal against the entry of water, are likewise unsuitable. Such caps, while not in themselves exerting a crushing pressure upon the puff, are not sufficiently form retaining to protect the coiffure against various external pressures which are experienced during bathing. For example, the pressure exerted against the head as the body is propelled through the water during swimming is not absorbed by the cap, but rather is applied to the puff and thereby crushes same. Accordingly, heretofore women have bathed or showered only at the risk of spoiling a bouffant or other delicate hair styling.

It is therefore an object of the present invention to provide a swimming cap which is effective to prevent the entry of water and which is sufficiently form retentive to protect the coiffure while yet exerting but a gentle distributed pressure insufficient to crush the curls or waves.

Another object of the invention is the provision of a cap for protecting bouffant and similar delicate puff type coiffures during swimming, showering, skiing, and the like.

Still another object of the invention is to provide a swimming cap which is inflatable to form a water tight seal about the hairline and to form a protective air cushion over the coiffure.

It is a further object of the invention to provide a cap of the class described which may be inflated in place to provide a substantially form retentive shroud substantially conformed to the contour of the particular hairstyle while exerting only a gentle pressure upon the hair.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

FIGURE 1 is a three quarter front view of a cap made in accordance with the invention as operably positioned upon the head of a wearer.

FIGURE 2 is a view similar to FIGURE 1 but illustrating the cap in cross section.

FIGURE 3 is a rear view of the cap.

FIGURE 4 is a side view of the cap with portions broken away and shown in section.

FIGURE 5 is a fragmentary view on an enlarged scale of a broken out portion of FIGURE 4, illustrating the communication of the air passages of the cap with the valve stem thereof.

Referring now to the drawing, there will be seen to be provided a cap **11** which is inflatable so as to not only provide a water tight seal about the hairline of a user **12**, but also to provide a substantially form retentive air cushioned shroud over the coiffure of the user without exerting sufficient pressure against the hair to crush the waves or curls. In particular, the cap **11** is arranged to protect a bouffant or similar delicate hair style involving a bubble or puff **13**, as best shown in FIGURE 2.

Considering now the cap **11** in greater detail as to preferred structure, it is to be noted that same includes an outer cap shaped jacket **14** having a network of double walled protruding tubular portions **16** formed therein over the entirety of the jacket. The jacket is formed of low resiliency, highly yieldable water impervious material such as very thin rubber. It should be further noted that the network of tubular portions **16** preferably resembles the strands of a typical hair net, although in alternative arrangements the tubular portions may be in right angular grid work or other lattice configurations. Irrespective of the particular configuration of the tubular portions, same includes a hairline tubular portion **17** about the margin of the jacket **14** which is adapted to generally conform to the hairline of the user, across the forehead and temples, beneath the ears and across the back of the neck. By virtue of the extreme yieldability of the jacket material, the jacket may be readily placed over the hair into position with the portion **17** adjacent the hairline, without disturbing or crushing the puff **13**. The jacket may be secured in such position as by means of a strap **18** secured to one side of the hairline portion **17** and adapted to pass under the chin of the user to be fastened to the other side of portion **17** in a generally conventional manner. In addition, some flexibility of adjustment to accommodate variations in the conformity of the user **12** is afforded as by means of a draw strap and buckle arrangement as generally indicated at **19** (FIGURE 4) across the back of the jacket adjacent the neck engaging section of tubular portion **17**. By cinching the strap and securing same with the buckle, the tubular portion **17** may be made to substantially snugly engage the user adjacent the hairline despite dimensional variations which may exist from user to user.

It will be appreciated from the foregoing that the jacket **14** is extremely yieldable and hence exerts but a minimal pressure against the puff **13**. However, by virtue of its yieldability the tubular portion **17** does not engage the user sufficiently tight to prevent the entry of water. Also the yieldability of the jacket material precludes the jacket from protecting the coiffure against external puff crushing pressures which may be encountered while swimming or the like. These difficulties are uniquely overcome in accordance with the present invention by providing for the inflation of the tubular portions **16, 17** with air. More particularly, the tubular portions **16, 17** define a network of air passages **21** in common communication with each other and with an inflation valve **22**, as best shown in FIGURE 5. With the jacket preferably positioned upon the head, a hand pump or the like may be operatively associated with the valve **22** as by means of a valve stem. Pressurized air may be thereby introduced to the network of passages **21** through the valve **22** to thus inflate the tubular portions **16, 17** of the jacket. The inflated tubular portion **17** exerts sufficient force against the portions of the user adjacent the hairline to thus provide a water-

tight seal to prevent the entry of water to the hair. The network of inflated tubular portions **16** cause the jacket to be substantially form retentive in the manner of a balloon, at least to the extent of absorbing external forces and preventing same from being exerted upon the hair. Yet the outward pressure due to inflation of the portions **16** is of relatively low order and represents but a gentle pressure against the puff **13**. This is particularly so by virtue of the substantial maze of the portions **16** which thus serve to evenly distribute the inflation air pressure over the hair. An even greater uniformity of pressure distribution is obtained where the cap includes a relatively form retentive cap shaped liner **23** interposed between the jacket and hair. The liner serves to distribute the inflation pressure of the tubular portions **16** over an increased contact area with the hair and thus minimizes the pressure applied to any given area thereof. In either case, whether the cap includes the liner **23** or merely the jacket **14**, it is again emphasized that the gentle pressure due to inflation of the tubular portions **16, 17** is insufficient to crush the puff **13** while yet being sufficient overall to render the cap substantially form retentive. It is to be further noted that the cap need not be inflated in place upon the head as pre-inflation of the cap has also proven satisfactory to the accomplishment of the objects of the invention.

What is claimed is:

1. A swimming, bathing, cap comprising a cap shaped jacket of a size adapted to be generally greater than the head of a user and having inflatable tubular air passages extending over the entire surface of said jacket forming a lattice work of tubular passages including a marginal passage adapted to substantially conform to the hair line of a user, said jacket formed of low resiliency highly yieldable water impervious material, a cap shaped liner disposed adjacent the interior surface of said jacket, said liner formed of relatively form retentive material compared to that of said jacket and attached to said jacket adjacent said marginal passage, and means for admitting pressurized air to said passages to inflate said passages and thereby provide a form retentive shroud for fitting spaced about the head of a user.

2. A swimming, bathing, cap comprising a cap shaped jacket of a size adapted to be generally greater than the head of a user and having an integral lattice work of double walled protruding tubular portions extending over the entire surface of said jacket and including a marginal tubular portion about the opening of the jacket, said tubular portions defining a plurality of air passages in communication with each other, said jacket formed of highly yieldable water impervious material, a cap shaped liner disposed adjacent the interior surface of said jacket, said liner formed of relatively form retentive material compared to that of said jacket and attached to said jacket adjacent said marginal portion, and valve means communicating with said air passages for admitting pressurrized air thereto to inflate said tubular portions and thereby provide a form retentive shroud for fitting spaced about the head of a user.

3. A cap according to claim **2**, further defined by said lattice work of tubular portions being in the configuration of a net.

4. A cap according to claim **2**, further defined by a strap secured to one side of said marginal tubular portion and adapted for fastening to the other side thereof, and cinch means at the back of said jacket adjacent said opening thereof.

5. A cap comprising a cap shaped jacket of a size adapted to be generally greater than the head of a user and being of a highly yieldable water impervious material, said jacket having an integral lattice work of double walled protruding tubular portions extending over the entire surface thereof and including a margin tubular portion about the opening of the jacket adapted to substantially conform to the hairline of a user, said tubular portion defining a plurality of communicating air passages, valve means communicating with said air passages for admitting pressurized air thereto, a strap secured to one side of said jacket adjacent said opening and adapted to be selectively fastened to the other side thereof, cinch strap and buckle means secured to the back of said jacket adjacent said opening, and a cap shaped liner of relatively form retentive material compared to that of said jacket disposed adjacent the interior surface thereof and attached to said jacket adjacent said marginal passage.

6. A swimming, bathing, cap comprising a cap shaped jacket formed of low resiliency highly yieldable water impervious material and having an inflatable tubular air passage adjacent the margin thereof adapted to generally conform to the hairline of a user and adapted to sealingly engage with the head of a user when inflated, the remainder of said jacket being a size adapted to be generally greater than the head of the user and having inflatable tubular air passages extending over the entire surface thereof forming a lattice work of tubular passages which when inflated maintains said remainder of said jacket for spacing outwardly away from the head of a user, and means for admitting pressurized air to said passages.

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