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S. DAMSZ

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BATHING CAP HEAD BAND CONSTRUCTION

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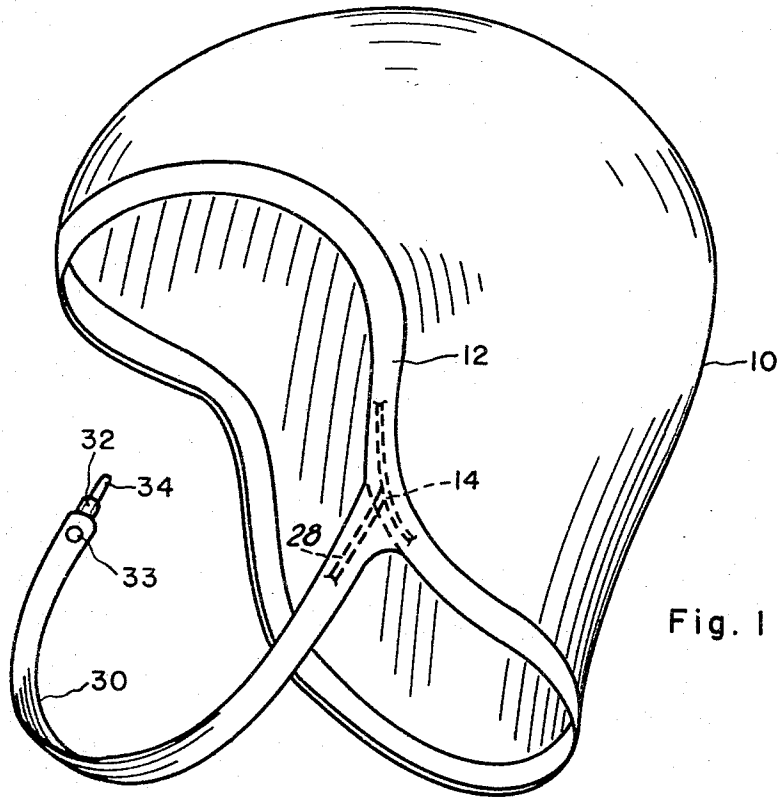


Fig. 1

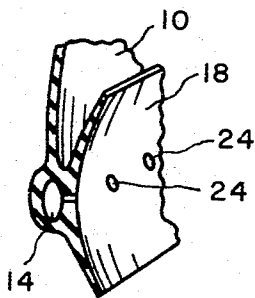


Fig. 2

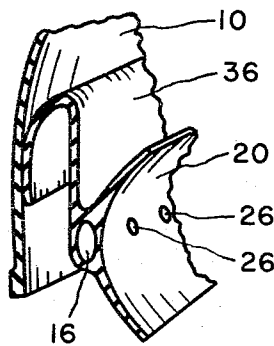


Fig. 3

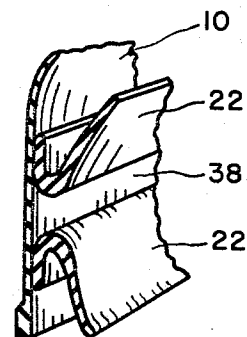


Fig. 4

INVENTOR
SOPHIE DAMSZ

BY *Alfred E. Miller*
ATTORNEY

United States Patent Office

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BATHING CAP HEAD BAND CONSTRUCTION
Sophie Damsz, 12 River Glen, Hastings on Hudson,
N.Y. 10706

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1 Claim. (Cl. 2—68)

This invention relates to a bathing cap and more particularly to a headband on the bathing cap which is designed to effectively exclude water from entering the inside of the cap.

An object of the present invention is to provide a bathing cap in which a vacuum is drawn on a marginal channel or tube in the cap about the head, face and neck of the user to thereby insure the collapsing of the edge portions of the bathing cap against said head, face and neck of the user and to precisely conform to the shape of the user's head, face and neck. Heretofore, the edge portions of bathing caps were provided with pneumatic tubes running entirely around the rim of the bathing cap but the inflating of this tube often did not successfully seal the edges of the cap against water seepage. In addition, the inflated tubes caused marks on the user's head, face and neck as well as in some cases cutting off the blood supply to the head thereby causing dizziness or an uncomfortable feeling due to pressure. On the other hand, applicant's invention contemplates the use of a vacuum or underpressure in the tubes or channels provided therefor together with sealing wings or flaps to effectively seal the interior of the cap against water penetration.

A further object of the present invention is to provide a sealing rim on a bathing cap which is inexpensive to manufacture and reliably effective for the purposes intended.

The above and other features, objects and advantages of the present invention will be fully understood from the following description considered in connection with the accompanying illustrative drawings.

FIG. 1 is a perspective view of a bathing cap embodying the sealing rim constructed in accordance with the teachings of the present invention.

FIG. 2 is one form of said sealing rim employing a vacuum.

FIG. 3 is another form of said sealing rim and,

FIG. 4 is still another form of said sealing rim.

Referring to the drawing and especially to FIG. 1, a bathing cap 10 of rubber or other suitable waterproof material which is used for swimming, bathing, showering or the like to keep the hair dry is provided with an inside sealing rim, band or edge 12. The inside sealing rim is preferably located around the entire edge of the cap 10 but it is within the scope of the present invention to exclude the sealing rim about the user's forehead if the conventional sealing methods are sufficient to exclude water leakage into the interior of the cap at that area. The inside rim or band 12 incorporates a channel 14 or 16 of small cross-section and sealing flaps 18, 20 and 22. Channel 14 is provided with spaced openings 24 while channel 16 is provided with spaced openings 26. Said openings communicate with the respective channels 14 and 16. It should be noted that if a vacuum is drawn on the channels 14 and 16 their respective sealing flaps are drawn tightly against the skin of the wearer due to the pressure difference between the subatmospheric pressure in the channels and atmospheric pressure exerted on the exterior surfaces of the cap. The vacuum channel in FIG. 1 is connected to vacuum tube 28 located on or included in the underchin strap 30. A check valve 32 is incorporated in the mouthpiece end 34 of the vacuum tube 28. The chin strap 30 is also provided with a fastening means 33.

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In operation, the wearer places the cap on her head and inserts the end 34 of the vacuum tube 28 in her mouth to draw a vacuum in the channel forming a band or rim around the edge of cap 10. This causes the sealing flaps to adhere strongly to the skin without creating excess marking thereof. The check valve 32 will maintain the vacuum in the band.

In FIG. 2, the sealing band or rim is molded directly on the swimming cap edge. The channel 14 of FIG. 2 is provided with spaced openings 24 for maintaining the sealing flap 18 in the proper sealing position on the head. The openings 24 are approximately $\frac{1}{16}$ " in diameter and are spaced approximately 1" apart. This arrangement causes the vacuum to be distributed evenly along the whole edge of the sealing cap. FIG. 3 in addition is provided with a flexible apron 36. The use of apron 36 permits the wearer to accommodate the sealing band or edge deeper on the neck to thereby avoid the upper part of the neck which might be covered with hair. It is obvious that hair may interfere with the proper sealing of the cap band. FIG. 4 discloses two preformed sealing flaps 22 which are vulcanized directly to the cap 10. This arrangement permits the fabrication of the sealing flaps of soft, very elastic rubber and the remainder of the cap 10 from rubber normally used in swimming cap manufacture. Channel 38 is the vacuum channel in FIG. 4.

It should also be noted that it is within the scope of the present invention to provide a check valve 32 directly on the cap 10 in the event there is no underchin strap 30 provided on the cap.

While I have shown and described the preferred embodiment of my invention, it will be understood that the latter may be embodied otherwise than as herein specifically illustrated or described and that in the illustrated embodiment certain changes in the details of construction and in the arrangement of parts may be made without departing from the underlying idea or principle of the invention within the scope of the appended claim.

What I claim is:

A bathing cap provided with a chin strap comprising a sealing rim having a closed channel extending entirely around the periphery thereof and adjacent said chin strap, a vacuum tube in said chin strap connected to said channel wherein a subatmospheric pressure prevails, a check valve in said vacuum tube, sealing flaps connected to said sealing rim, each of said sealing flaps being flexible and having a plurality of spaced openings adapted to face the wearer's skin and located in a row approximately equidistant between the ends of said sealing flaps, said spaced openings communicating with said closed channel, said subatmospheric pressure being drawn on said channel by sucking on said vacuum tube, said check valve maintaining said subatmospheric pressure in said channel to thereby draw said sealing flap into intimate contact with the wearer's skin and prevent water entry into the space between said bathing cap and the wearer's head.

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70 PATRICK D. LAWSON, *Primary Examiner.*

H. H. HUNTER, *Assistant Examiner.*