June 7, 1932. M. E. VAN SICKLE 1,861,669

HEAD COVERING

Filed April 1, 1931 2 Sheets-Sheet 1

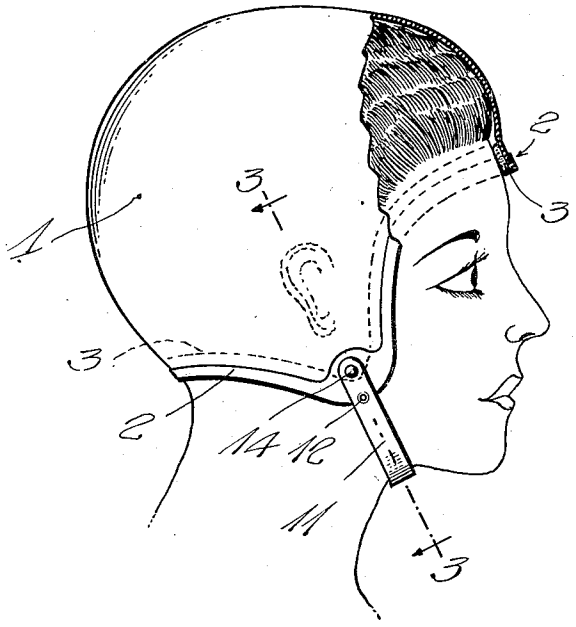


FIG. 1

FIG. 2

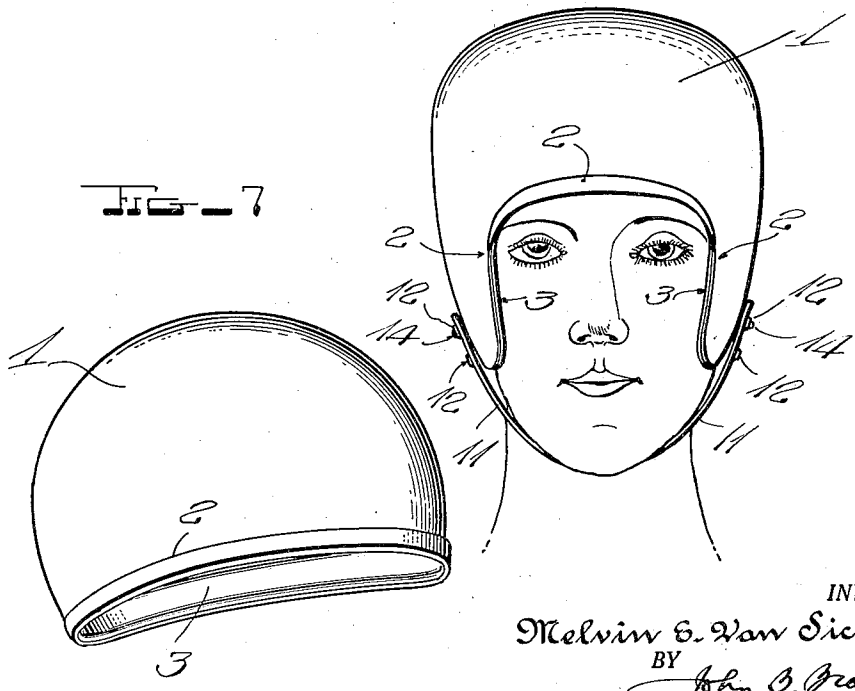


FIG. 7

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HEAD COVERING

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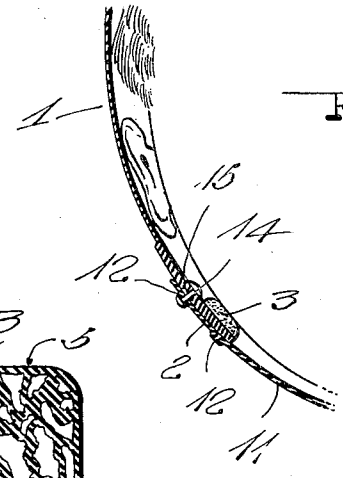


FIG. 3

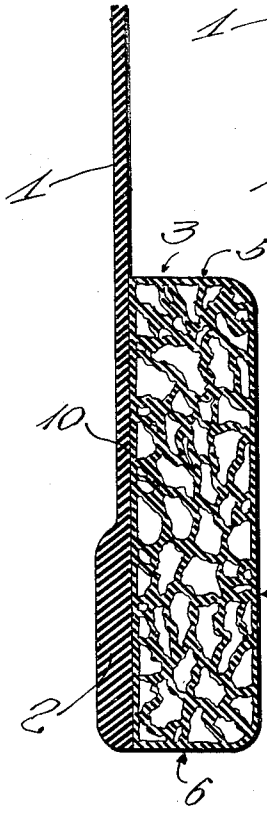


FIG. 5

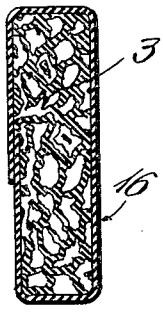


FIG. 8

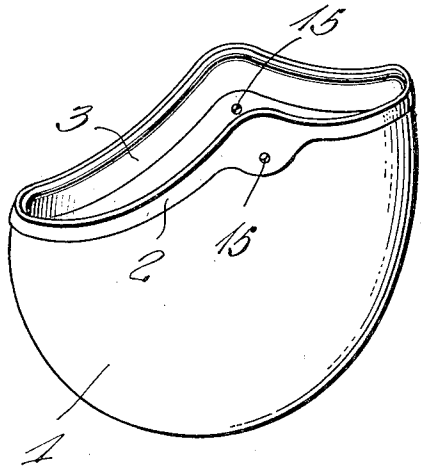


FIG. 4

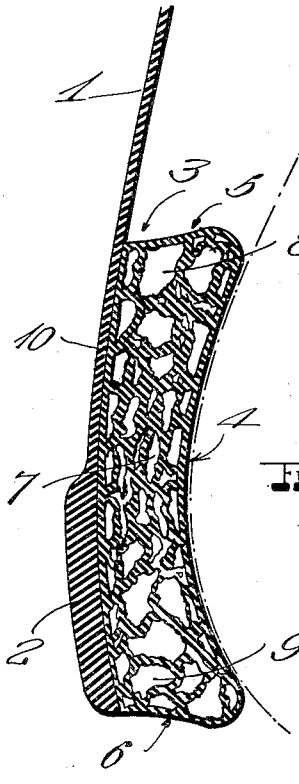


FIG. 6

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Patented June 7, 1932

1,861,669

UNITED STATES PATENT OFFICE

MELVIN E. VAN SICKLE, OF TORONTO, ONTARIO, CANADA

HEAD COVERING

Application filed April 1, 1931. Serial No. 526,931.

My invention relates broadly to head coverings and more particularly to means for rendering a head covering comfortable to the wearer at the same time that a snug fit of the head covering around the crown of the wearer is insured.

One of the objects of my invention is to provide a construction of bathing cap or helmet in which a band of soft and pliable sponge rubber is secured around the interior edge of the bathing cap for establishing tight fitting contact with the crown of the wearer for providing a seal.

Another object of my invention is to provide a construction of head covering having a flexible band of sponge rubber extending around the interior edge of the head covering and deformable out of shape to conform to the crown of the wearer for establishing a tight seal for preventing the entry of moisture or foreign matter and protecting the hair of the wearer.

A further object of my invention is to provide a construction of flexible rubber head covering having the sponge rubber beading secured to the interior peripheral edge thereof, the sponge rubber beading being encased in a flexible jacket and adapted to provide a seal with respect to the crown of the wearer for rendering the head covering moisture and dust tight for protecting the hair of the wearer.

Other and further objects of my invention reside in the construction of sponge rubber beading for establishing a seal between the peripheral edge of a flexible head covering and the crown of the wearer as will be more fully set forth in the specification hereinafter following by reference to the accompanying drawings, in which:

Figure 1 is a side elevation of a bathing cap embodying my invention, partially broken away and shown in cross-section; Fig. 2 is a front view of the bathing cap equipped with the sponge rubber beading in accordance with my invention; Fig. 3 illustrates a sectional view of a fragmentary portion of the bathing cap taken on line 3—3 of Fig. 1; Fig. 4 is a perspective view of the bathing cap shown in reverse position to illustrate the continuity of the flexible band around the interior edge of the bathing cap; Fig. 5 is an enlarged cross-sectional view showing the manner in which the sponge rubber beading is attached to the interior peripheral edge of the head covering; Fig. 6 shows the manner in which the portions of the sponge rubber beading are displaced when the head covering is positioned over the crown of the wearer for establishing a moisture and dust tight seal and preventing the entry of moisture, dust or foreign matter into the hair of the wearer; Fig. 7 shows the application of the flexible beading of my invention to a tam or beret type of head covering; and Fig. 8 is a cross-sectional view showing a modified form of sponge rubber padding encased in a moisture proof skin which it attached to the inside peripheral edge of the head covering.

My invention employs a band of sponge rubber secured around the interior peripheral edge of the head covering. The sponge rubber is either integrally united with a solid skin surface or is enclosed in a flexible, smooth, glazed skin for the purpose of turning water or prohibiting the water from being absorbed by the sponge rubber. The beading of sponge rubber is secured to the interior peripheral edge of the head covering by vulcanzing or cementing, or by other improved methods of attachments in such position that the sponge rubber is displaced out of its normal shape as the head covering is drawn over the crown. The sponge rubber by reason of its qualities of deformation, closely conforms with the variations in the shape of the crown and establishes a tight seal for preventing the entry of moisture or dust beneath the surface of the head covering. In this way the hair of the wearer may be protected.

My invention is applicable for a variety of purposes such as a utility cap; a bathing cap of either the divers helmet type or skull, beret or tam types; a dust cap; a hair protector, a sanitary cap or a head covering for a nurse or a physician.

Referring to the drawings in detail, reference character 1 designates a rubber bath-

ing cap shown in position upon a wearer, the bathing cap having an enlarged peripheral edging molded integrally therewith shown at 2. The peripheral edging 2 provides a reinforcement for the edge of the bathing cap 1 and provides a substantial backing against which the sponge rubber beading, represented generally at 3 is secured. The sponge rubber beading 3 is attached to the bathing cap 1 by vulcanizing, cementing or by other approved methods. The characteristics of the beading 3 will be understood from the cross-sectional views in Figs. 5 and 6, which illustrate the cellular construction of the beading. The sponge rubber is shown in normal position in Fig. 5, presenting a flat glazed surface 4 inwardly toward the crown of the wearer and edge surfaces 5 and 6 at opposite ends thereof. These surfaces are glazed and are rendered moisture proof for the purpose of turning water so that absorption of water by the sponge rubber is prevented. In Fig. 6 the manner in which the sponge rubber is deformed out of position as the head covering is drawn over the crown of the wearer, has been illustrated. It will be observed that the cellular construction of the sponge rubber 3 is compressed at the central zone 7 while remaining expanded at the zones 8 and 9. This permits the sponge rubber to serve as a pad conforming to the shape of the crown and establishing a sealing zone around the crown and preventing seepage of foreign matter, moisture, or dust into the hair. The surface is impervious to moisture. The surface 4 is glazed and smoothed and serves to turn water which may tend to seep beneath the head covering into the hair. The sponge rubber mass retains its flexible homogeneous characteristics and tends to spring into the irregularities of the crown forming a tight sealing zone. The sponge rubber band which encircles the interior peripheral edge of the hood portion 1 has its rear surface 10 connected to the lower interior surface of the flexible hood 1 by vulcanizing, cementing, or by other methods. A tight connection is established between the sponge rubber band and the flexible wall of the hood 1 immediately behind the exterior reenforced edging 2.

In order to secure the hood over the crown of the wearer, I provide a strap member represented at 11 having a plurality of apertures 12 adjacent each end thereof adapted to be slipped over the heads of button members 14 in each side of the diver's helmet type of flexible rubber bathing cap shown in Figs. 1 and 2. The buttons 14 are secured through apertures 15 in the reenforced edging 2 of the flexible head covering 1 in the position shown more clearly in Fig. 4. The band 11 may therefore be adjusted for securing the head covering over the crown with desired tension for conforming to the crown as represented more clearly in Fig. 3.

In lieu of the sponge rubber having a glazed smooth surface directly formed thereon as shown in Figs. 5 and 6, I may employ a flexible rubber envelope as shown at 16 in Fig. 8 which encloses a flexible band of sponge rubber 3. The envelope 16 is sealed to the inner peripheral edge of the flexible hood and provides the same deformable band as has been heretofore described in connection with Figs. 5 and 6. As heretofore noted the sealing means of my invention is also adapted to the conventional skull type of bathing cap shown in Fig. 7 and may be readily modified to provide a sealing zone around the peripheral edge of the beret and tam types of bathing caps. The sealing means of my invention is particularly adaptable to bathing or other types of caps where a tight sealing zone is required and yet where a loose fit of the caps is necessary for covering a large quantity of hair to be protected.

I have found the head covering of my invention very practical in its construction, manufacture, and use, and while I have described my invention in certain of its preferred embodiments, I desire that it be understood that modifications may be made and that no limitations upon my invention are intended other than are imposed by the scope of the appended claim.

What I claim as new and desire to secure by Letters Patent of the United States is as follows:

A head covering comprising a hood of flexible rubber having its margins externally thickened to form a reinforcing bead, and a strip of sponge rubber extending about marginal portions of said hood and firmly secured in close watertight engagement with the inner face thereof, said strip being of greater width than thickness and extending from the margin of the hood to a point well above the upper edge of said bead and being rectangular in cross section and having its edge faces and exposed side face glazed to provide a smooth imperforate waterproof surface.

In testimony whereof I affix my signature.

MELVIN E. VAN SICKLE.