March 31, 1970 L. I. MARKS 3,503,076

SWIMMING CAP WITH RIGID DOME

Filed July 10, 1968

Fig. 1

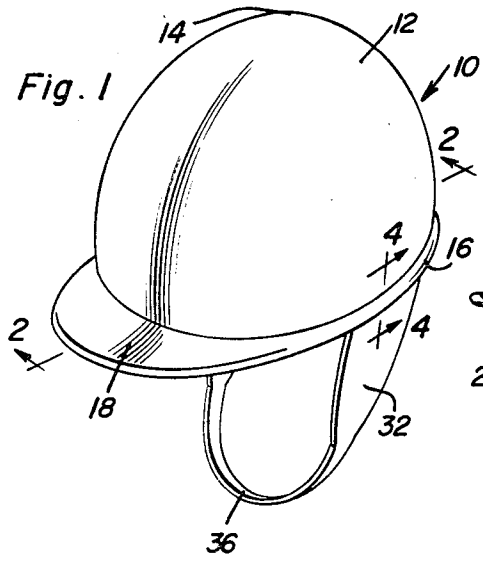


Fig. 2

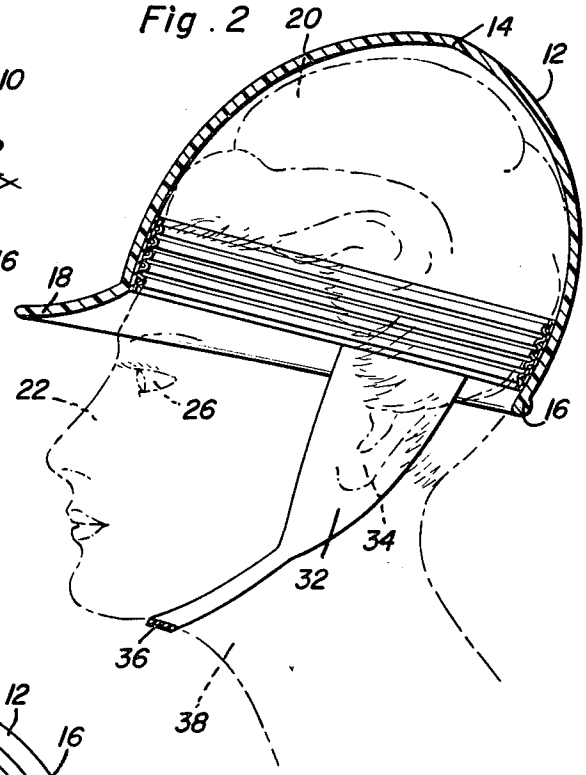


Fig. 3

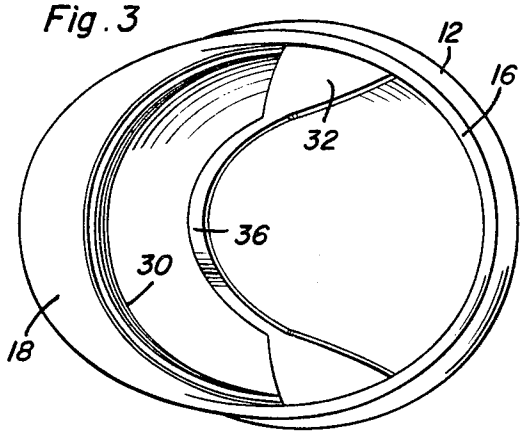


Fig. 4

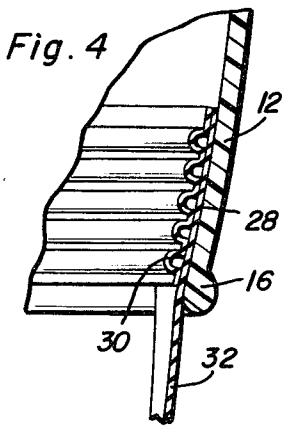


Fig. 5

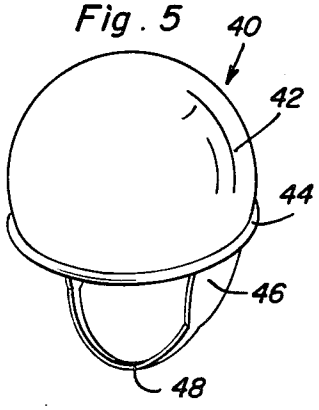
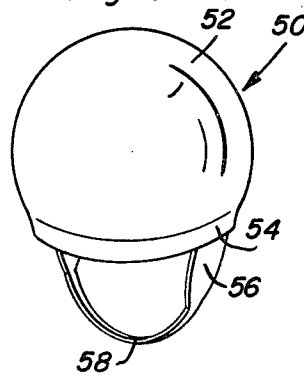


Fig. 6



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SWIMMING CAP WITH RIGID DOME

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U.S. Cl. 2—68 4 Claims

ABSTRACT OF THE DISCLOSURE

An article of headwear in the form of a swimming cap having a rigid dome to resist water pressure with a seal around the bottom periphery thereof engaging peripherally of the head of the wearer to protect the coiffure of the wearer from the damaging effect of water and also preventing damaging effects caused by crushing the coiffure which occurs when using conventional flexible swimming caps.

Presently available swimming caps are constructed of resilient flexible material with a peripheral seal at the bottom edge of the crown covering portion to exclude water. However, the flexible resilient crown or dome portion does not provide protection from the damaging effect of water pressure which pressures the coiffure of the wearer. This is especially objectionable when the wearer has a bouffant hairstyle or is wearing a hairpiece, wiglet or the like.

Accordingly, the present invention has for one of its important objects, the provision of a swim hat constructed with a rigid dome of adequate configuration, shape and size to accommodate a bouffant hair-do, hairpiece, wiglet or the like so that the hairstyle of the wearer will not be disturbed by the crushing effect of the water engaging the exterior of the swim hat. Combined with the rigid dome structure is a peripheral seal at the lower edge thereof for sealing the head area of the wearer to prevent entry of water between the swim hat and the head of the wearer.

Another important object of the present invention is to provide a swim hat constructed of rigid material with a chin strap and ear covering flap connected therewith to effectively retain the swim hat in position.

Still another very important object of the present invention is to provide a swim hat constructed of rigid material such as molded foam plastic or the like which will incorporate a bouyancy safety factor which is especially important when employed by children. In addition, the rigid construction of the dome provides a further safety factor against injury occurring when the head accidentally comes into contact with underwater obstructions or the like which sometimes occurs when diving, swimming under water or when swimming in water which may have unknown obstacles, debris or the like.

Yet another feature of the present invention is to provide a swim hat which is easily adjusted to the head, is simple in construction, easy to apply and remove and quite attractive in appearance.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the swim hat of the present invention;

FIGURE 2 is a vertical sectional view, on an enlarged scale, taken substantially upon a plane passing along section line 2—2 of FIGURE 1;

FIGURE 3 is a bottom plan view of the swim hat illustrating the chin strap and ear flap construction;

FIGURE 4 is a fragmental enlarged sectional view illustrating the peripheral seal structure at the lower edge of the dome;

FIGURE 5 is a perspective view of another embodiment of the swim hat; and

FIGURE 6 is a perspective view of another embodiment of the swim hat.

Referring now specifically to the drawings, the swim hat of the present invention is generally designated by the numeral **10** and includes a rigid dome **12** which is constructed of a relatively hard, lightweight plastic such as "Styrofoam" molded into a configuration approximating a derby and provided with a peak or apex **14** and a peripheral rib **16** at the lower edge thereof which merges forwardly into a brim or visor **18** which extends downwardly and outwardly in a flared manner to approximate the shape and configuration of a derby such as worn by jockeys with the visors serving to protect the eyes from glare or the like and also serves as further protection for the head. As illustrated, the dome **12** is disposed in slightly spaced relationship to the hairdo **20** on the head **22** of the wearer, with the visor being disposed above the eyes **26**. The rigid construction of the dome **12** protects the hairdo, such as a bouffant hairstyle, hairpiece, wiglet or the like from the crushing effect of the water thus allowing the hairdo to remain undisturbed.

The lower inner edge surface of the dome **12** is provided with a peripheral strip of material **28** having a plurality of longitudinally extending ribs or ridges **30** thereon which may be hollow or of any suitable configuration for effectively sealing the dome **12** to the head **22** of the wearer to preclude entry of water into the interior of the dome **12** thus protecting the hairdo **20** from the damaging effect of water coming into contact therewith. Thus, the hairdo **20** is retained dry and retained free of any crushing effect of the water when swimming under water, diving or otherwise engaged in various swimming activities.

Also integral with the strip **28** is a pair of depending ear covering flaps **32** which are disposed in overlying relation to the ears **34** of the wearer to prevent enery of water into the ears. The ear flaps **32** are interconnected by a chin strap **36** of relatively narrow construction which extends under the chin **38** of the wearer for retaining the swim hat **10** in position on the head of the wearer. As illustrated, the chin strap **36** and ear flaps **32** are of integral resilient construction and the ear flaps **32** are integral with the peripheral strip **28** which may be bonded to the interior surface of the dome **12** in any suitable manner. If desired, an adjustment buckle may be provided in the chin strap **36** and the chin strap may be constructed with detachable connectors interconnecting free ends thereof such as a snap button assembly to enable the chin strap to be disconnected if desired. However, by constructing the device of unitary construction, and of resilient construction the device may be easily placed on the head and the chin strap **36** stretched and placed in position without requiring the manipulation of fastener devices such as buckles, snap fastener elements and the like.

The inner band or headband **28** may be cemented or otherwise bonded to the plastic helmet or dome **12** and may be constructed of rubber or plastic material. The ear flaps may be attached to or integral with the forehead band **28** and may also be constructed of rubber or plastic material with the chin strap **36** being an integral part of the ear flaps and constructed of rubber or resilient material and provided with a buckle or snap fastener element or be of continuous one-piece construction as illustrated. Thus, this device not only provides watertight protection for the hairdo but also protects buoffant hairstyles, hairpieces, wiglets or the like and will also provide buoyancy for the head area of the swimmer in view of the lightweight con-

struction of the dome **12** which also, of course, is watertight and forms a buoyant float-type member.

FIGURE 5 illustrates another embodiment of the invention in which the swim hat is generally designated by numeral **40** and includes a rigid lightweight dome **42** having a peripheral rib **44** continuously about the lower edge thereof. This construction also is somewhat in the nature of a derby except that the brim **18** illustrated in FIGURES 1–4 has been omitted and the rib **44** is continuous peripherally of the lower edge of the dome **42**. The same watertight seal is provided at the lower edge of the dome and ear flaps **46** and a chin strap **48** are provided in the same manner as the embodiment illustrated in FIGURES 1–4. This will provide protection for the bouffant hairstyle from crushing and from water entry and also serves a buoyant safety member for increased buoyancy of the head area of the wearer. This construction enables increased vision in view of the absence of the visor **18** but does not afford protection to the eye and nose area of the wearer. This type of construction is preferable where the wearer desires upward vision, such as when executing dives and the like while at the same time providing protection for the hairdo, hairpiece, wiglet or the like.

FIGURE 6 illustrates another embodiment of the invention generally designated by the numeral **50** which also includes a rigid dome or helmet **52** of hard, lightweight molded plastic such as "Styrofoam" having a downwardly extending flange or edge portion **54** at the lower edge thereof which receives the forehead band and seal strip that is provided with the peripheral sealing ribs on the inner surface. This construction also includes the ear flaps **56** and chin strap **58** attached thereto for use in the same manner as in the other embodiments of the invention. This construction also provides for protection for the hairdo from crushing and entry of water and also provides buoyancy for the head area of the swimmer and serves as a safety device in the event of contact with underwater obstruction or the like and also enables increased vision for the wearer inasmuch as the wearer may look upwardly in relation to the swim hat without obstruction.

Each embodiment of the invention includes a rigid dome constructed of hard, molded, lightweight plastic such as monocellular foam plastic. "Styrofoam" has been employed for the construction of the dome with the shape and configuration thereof to receive the hairdo, hairpiece, wiglet or the like without crushing thereof and without disarray. The sealing band and the serrated ribs thereon serve to provide a multiple ring seal with the periphery of the head below the hairline in the front and below the major portion of the hairdo especially when a bouffant hairstyle is employed. The ear flaps and chin strap provide retention for the dome and protection for the ears thus retaining the swim hat in position. The material from which the dome is constructed is buoyant and will provide additional buoyancy to the head area of the wearer which is especially useful when the swim hat is worn by children or swimmers that may encounter difficulty thus enabling them to more safely engage in swimming or related water sports. Also, the dome constructed of rigid material provides an added safety factor against possible injury due to engagement with underwater objects, obstructions or the like. This is especially desirable when engaged in water sports such as waterskiing, surfing or the like when injuries sometimes are caused by engagement with underwater obstructions, debris or the like therein at relatively high speed.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to.

What is claimed as new is as follows:

1. A swim hat comprising a dome of generally semispherical configuration and having a substantially straight lower edge disposed in a generally horizontal plane around the head of a wearer thus defining an entrance receiving the hairdo of a wearer with the dome in spaced relation thereto for accommodating a bouffant hairstyle or the like, means at the lower peripheral inner edge of the dome for sealing engagement with the periphery of a head of a wearer along the forehead, above the ears and above the nape of the neck to prevent entry of water into the space between the dome and the head of the wearer, and means disposed solely at opposite sides of the lower edge of the dome and extending over the ears and under the chin for retaining it in position on the head of a wearer, said dome being of rigid construction to prevent disarray of the hairdo by crushing such as normally occurs when wearing a flexible resilient swimming cap, said dome being constructed of lightweight plastic material having a buoyancy factor to increase the buoyancy area of the head of the wearer with the rigid construction of the dome protecting the head from injury when engaging underwater obstructions and the like, said means retaining the dome in place on the head of a wearer including a pair of ear flap panels extending downwardly from side portions only of the dome, and a chin strap extending from the ear flaps for engaging under the chin of a wearer, said seal means including a peripheral band mounted on the interior surface of the dome in watertight relation thereto, said band including a plurality of peripheral ribs on the inner surface thereof for engaging the peripheral surfaces of the head at a plurality of continuous lines to provide a multiple seal to exclude water from the area between the head of the wearer and the interior of the dome.

2. The structure as defined in claim **1** wherein the lower edge of the dome is provided with a peripheral rib projecting outwardly continuously peripherally thereof.

3. The structure as defined in claim **1** wherein said dome includes a depending flange at the lower edge thereof depending continuously peripherally therefrom.

4. The structure as defined in claim **1** wherein the lower edge of said dome includes a forwardly and downwardly inclined visor integral with the forward edge portion thereof to provide protection for the eye and nose area of the wearer.

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