

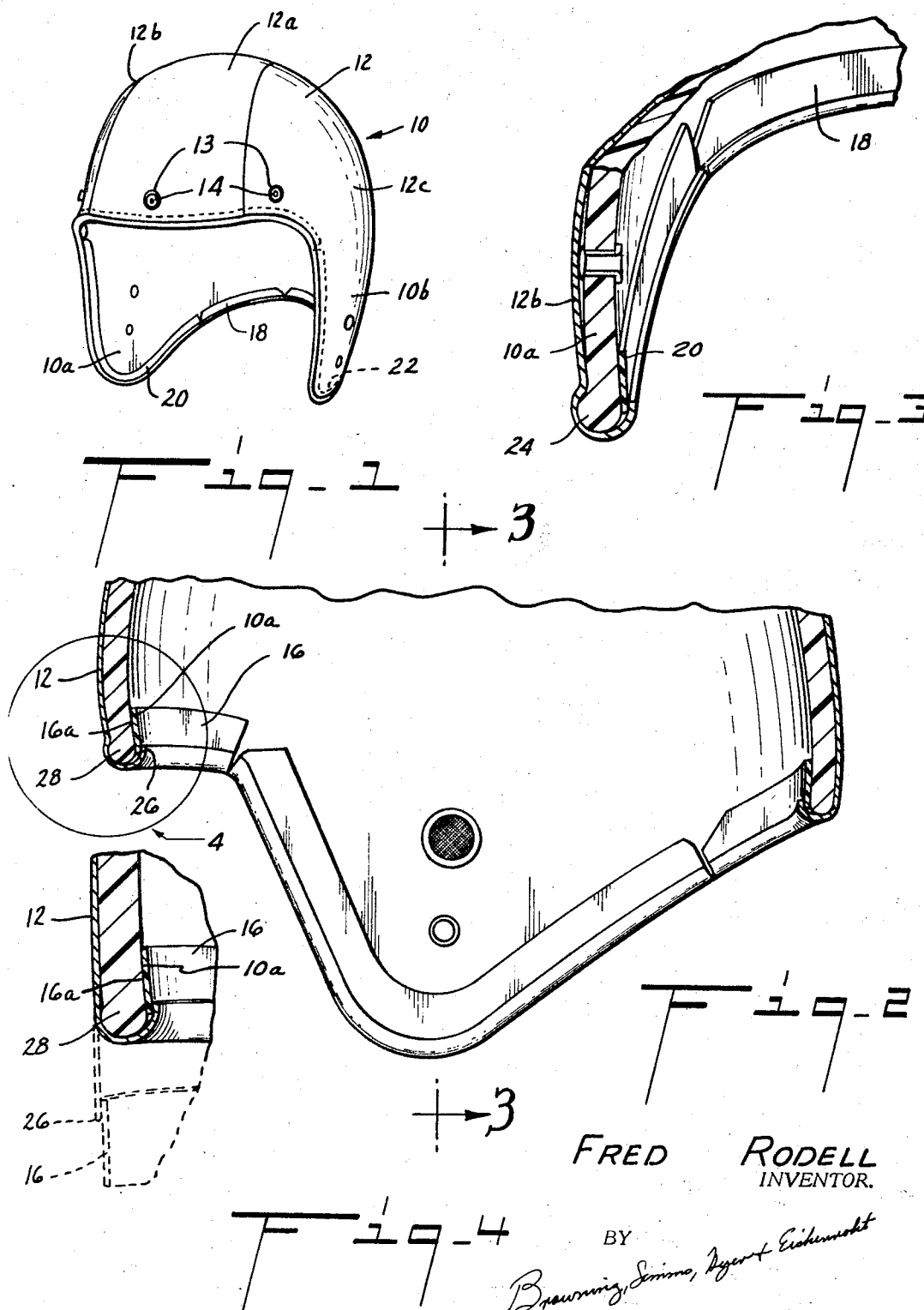
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DETACHABLE COVER FOR HELMETS AND THE LIKE

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DETACHABLE COVER FOR HELMETS AND THE LIKE

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5 Claims

ABSTRACT OF THE DISCLOSURE

A detachable cover for crash helmets and the like is described. It includes a cap of pliable material that fits over the outside surface of the helmet. The cap has panels made of an elastic fabric so that the cap may be stretched over the helmet. The cap is held on the helmet by a plurality of elongated, thin, flat sided strips of flexible plastic which can bend sideways but not edgewise. The longitudinal edges of the strips are attached to the cap along its edges for tucking under the edge of the helmet into position adjacent the inner surface of the helmet after the edges of the cap are stretched over the brim of the helmet. The strips will bend readily sideways into engagement with the concave inner surface of the helmet adjacent the edge or brim. Being stiff and relatively unbendable edgewise, the strips will resist being pulled out of engagement with the inside surface of the helmet by the pull of the elastic material of the cap.

This invention relates to detachable covers for helmets and the like.

Close fitting protective helmets are worn by motorcycle riders and race car drivers. They are used by participants in such sports as football, skiing, and ice skating. When new, these helmets usually have a very smooth clean finish. As they are used, however, the finish may become scarred, and discolored. Even though the helmet may still provide protection for the wearer, the lessening of its aesthetic appearance may result in its being discarded prematurely.

Further, it is prohibitively expensive to most people, to own enough helmets to have one to match the color of each different outfit with which the helmets are worn. This is a particular problem for the women.

Therefore, it is an object of this invention to provide a relatively inexpensive detachable cover for helmets that will hide surface blemishes on the helmet and which can be used to change the color of the helmet, as desired.

It is another object of this invention to provide such a helmet cover that is easily placed on and removed from the helmet.

It is yet another object of this invention to provide a helmet cover that will fit the outside surface of a helmet snugly and evenly and which can be securely attached to the helmet without having to modify the helmet.

Other objects, advantages, and features of this invention will become apparent during the course of the following description made with reference to the accompanying drawings in which:

FIGURE 1 is a front view, in elevation, of a helmet with the preferred embodiment of the helmet cover of this invention attached;

FIGURE 2 is a partial vertical cross section, on an enlarged scale, of the helmet of FIGURE 1;

FIGURE 3 is a section view taken along line 3-3 of FIGURE 2; and

FIGURE 4 is an enlargement of the portion of FIGURE 2 enclosed by circle 4.

Helmet 10 is of the type referred to generally as "crash helmets." They are usually made of a rigid plastic mate-

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rial having high impact resistance. Usually, they are provided with an inner lining that fits the head of the wearer and allows the helmet to be worn comfortably. The lining also provides a shock absorbing material between the wearer's head and the helmet. In the drawings, this inner lining is not shown in order to simplify the drawings and to make it easier to illustrate how the helmet cover of this invention is attached to the helmet.

In FIGURE 1, the helmet is shown with the cover installed. The cover comprises cap 12 of pliable material that is shaped to fit over the outside surface of the helmet. Preferably, at least a portion of the material of the cap is elastic and the cap is made smaller than the helmet so it will have to be stretched over the helmet. So made, it will tightly fit the outside surface of the helmet when installed.

Most helmets are provided with snaps 14 on their exterior surface to permit goggles to be attached to the helmet. Holes 13 are located in the cap to permit these snaps to extend through the cap to receive these goggles.

Means are provided for detachably securing the cap to the helmet. In accordance with this invention, these attaching means include a plurality of elongated attaching members attached to the edge of the cap for positioning adjacent the inside surface adjacent the brim of the helmet upon which the cover is placed. In order for these members to be so placed and to hold the cap securely on the helmet, when so placed, they should have certain characteristics. They should be readily bendable along their longitudinal axis in a sideways direction toward and away from the inside surface of the helmet, but not in an edgewise direction, which is the direction of the force exerted on the members by the cap.

In the embodiment shown, attaching member 16 attaches the cover to the front portion of the helmet. Attaching member 18 attaches the cap to the back of the helmet, and V shaped members 20 and 22 attach the cap to ears 10a and 10b of the helmet. In the preferred embodiment, the attaching members are cut from a flat, relatively thin sheet of material. Preferably, the material is sufficiently flexible to bend sideways but is stiff enough to resist bending edgewise. This result can be obtained with many materials where the strips are relatively wide as compared to their thickness. Also, preferably, the material has some resiliency so it will return to its original shape after being bent. One satisfactory material for this purpose is nylon.

Members 16 and 18 are relatively straight, whereas members 20 and 22 are generally V shaped. They are sewn along the edges of the cap, as shown, to position themselves inside the helmet with one flat side adjacent the inside surface of the helmet, as shown in the drawings, when the cover is installed.

For example, member 16 is attached to cap 12, as shown in FIGURE 5, so that surface 16a will contact substantially all of adjacent inside surface 10a of the helmet, when edge 26 of the cap is stretched over brim 28 of the helmet and the member is tucked inside the helmet. In this position, member 16 must bend sideways to conform itself to the concave inner surface of the helmet. Since, as explained above, it can readily bend sideways it can conform to the curvature of surface 10a. The need for this flexibility is apparent from FIGURE 4. Member 16 is shown in dotted lines in the position it takes before being moved into engagement with the inside surface of the helmet. In this position, it is bent sideways in the opposite direction from what it is when inside the helmet.

After the member is installed the cap portion of the cover will pull on member 16 with the force of the stretched elastic material of the cap. Since the member is under flexing stress and resists bending in an edgewise

direction, which results because of the material's resistance to compression it will resist being pulled downwardly out of engagement with the inside of the helmet. In fact, to remove the cover, it is necessary to pull the center of strip 16 outwardly to flex the strip sideways away from the inside surface of the helmet until it is about straight before it can be returned to the dotted line position of FIGURE 4.

All that has been said with regard to member 16 is also true of member 18. It is shaped the same substantially and holds the rear of the cap in place over the back portion of the brim of the helmet.

Members 20 and 22 anchor the cap over the ears of the helmet. They are sewn to the cap in holding position since their shape prevents them from turning downwardly as could members 16 and 18. Therefore, these members are hooked over ear brim portion 24 as shown in FIGURE 3, by stretching downwardly the elastic material of sections 12b and 12c of the cap. If the cap did not have at least some stretchable material in it, these holding members would need to be split adjacent the apex of the V to allow them to be moved into and out of holding position in the same manner as members 16 and 18.

From the foregoing, it will be seen that this invention is one well adapted to attain all of the ends and objects hereinabove set forth, together with other advantages which are obvious and which are inherent to the apparatus and structure.

It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

As many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

The invention having been described, what is claimed is:

1. A detachable helmet cover comprising a cap of pliable material shaped to fit over the outside surface of a helmet and means for detachably securing the cap to the helmet including a plurality of elongated individual

attaching strips attached along one edge of each strip to the brim edge of the cap for positioning adjacent the curved inside surface adjacent the brim of the helmet upon which the cover is placed, said attaching strips being readily bendable in a sidewise direction to permit the strips to curve as required to engage a substantial portion of the curved inside surface of the helmet when the cap is placed on a helmet and its edges are tucked under the edges of the helmet, said strips being relatively stiff and unbendable in an edgewise direction to thereby resist bending in the direction of the pull of the cap, said strips conforming to the interior curved surface of the helmet, said strips being under flexing stress due to the pull of the cap on the tucked under strips and thereby resist movement of said strips away from the interior surface of said helmet.

2. The detachable cover of claim 1 in which the attaching strips are of flat sided material.

3. The detachable cover of claim 2 in which the strips are sufficiently resilient to bend sideways into engagement with a substantial portion of the inside surface of a helmet which they are adjacent without being permanently deformed.

4. The detachable cover of claim 1 which at least a portion of the cap is made of elastic material which must be stretched for the cap to fit the helmet.

5. The detachable cover of claim 1 in which the attaching strips include two that are V-shaped to be positioned adjacent the inside surface of the ear flaps of a helmet.

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