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2,632,173

PLASTIC HELMET

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Fig. 1.

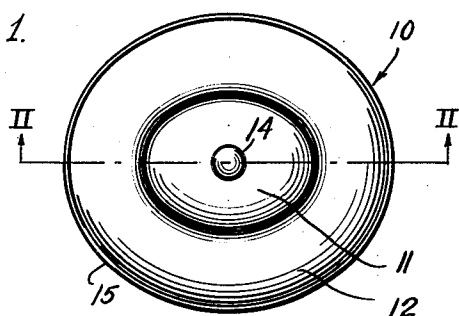


Fig. 2.

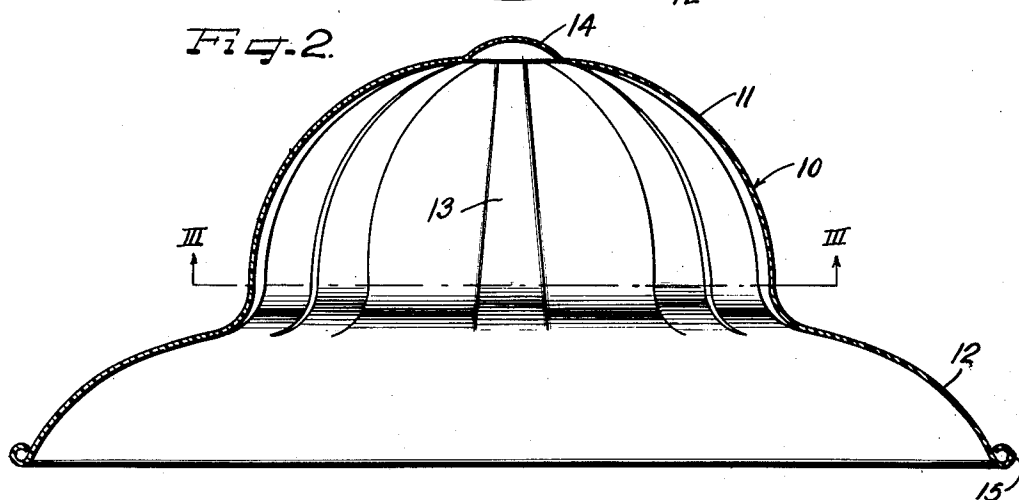


Fig. 3.

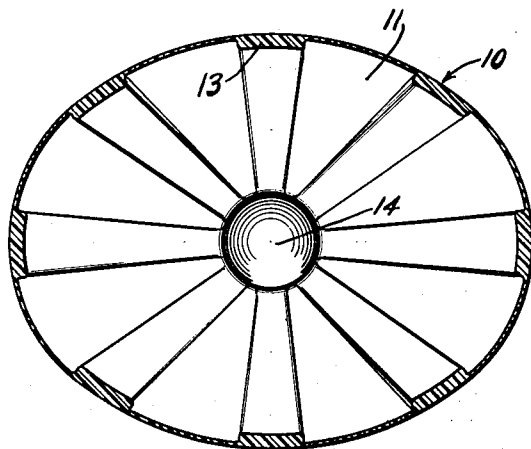
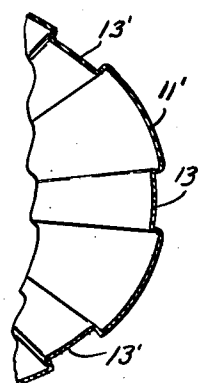


Fig. 4.



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PLASTIC HELMET

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5 Claims. (Cl. 2—176)

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This invention relates to head gear and more particularly to a plastic helmet especially adapted for use in summer and tropical weather.

An object of this invention is to provide a plastic head gear which lends itself to economical production and which will more effectively fit the head of the wearer.

Another object of this invention is to provide a simple head gear which can be economically molded or pressed from synthetic thermoplastic material and which, by reason of its construction, will be cooler to wear than a conventional helmet.

Yet another object of this invention is to provide a helmet with reinforcing ribs, either in solid or hollow form, which flex relative to each other so as to enable the crown of the hat to fit better the head of the wearer.

In accordance with the general features of this invention there is provided a head gear including a crown and a brim, the crown being formed of plastic material having spaced ribs radiating from the peak of the crown and resiliently flexible relative to each other.

In accordance with the features of one embodiment of the invention the ribs are made solid whereas in another they may be made hollow.

Other objects and features of this invention will more fully appear from the following detailed description taken in connection with the accompanying drawing which illustrates several embodiments thereof and in which

Figure 1 is a plan view of my novel head gear or helmet;

Figure 2 is an enlarged cross-sectional view taken substantially along the line II—II of Figure 1 looking upwardly;

Figure 3 is a sectional view taken on line III—III of Figure 2 looking upwardly; and

Figure 4 is a fragmentary sectional view corresponding to Figure 3 but showing a modified form of the invention in which the ribs are formed hollow rather than solid as in Figure 3.

As shown on the drawings:

The reference character 10 designates generally a head gear of my novel construction and which includes a crown portion 11 and a brim 12. Both portions are formed integral and are of convex-concave cross-sectional shape. In fact the component portions 11 and 12 of my head gear are integral parts of a single plastic fabrication. The form of invention shown in Figures 1 to 3 may be molded from a suitable plastic material whereas the form shown in Figure 4 may be either molded or pressed from plastic sheet material. While any suitable plastic material may be em-

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ployed, good results may be obtained by making my helmet from a synthetic thermoplastic material such, for example, as ethyl cellulose, vinyl resins, etc.

In the first form of the invention, Figures 1, 2, and 3, the crown portion 11 has formed in it a plurality of thickened ribs 13 radiating from the peak of the cap toward the brim 12. The upper extremities of the ribs 13 terminate in an upwardly depressed button 14 which is at the axis of the ribs.

It will also be noted from Figure 3 that the other extremities of the ribs terminate substantially at the juncture of the crown and brim.

The outermost edge of the brim 12 is located radially beyond the ribs and is formed into a bead-like hollow edge 15 for reinforcing the brim.

In Figure 4 a slight modification is shown in that the crown 11' instead of having thickened or solid ribs is provided with hollow ribs 13'. With this exception this form is identical to the one shown in Figures 1 to 3.

Now the ribs not only serve to rigidify the crown portion of the hat but in addition can flex relative to each other in the fitting of the hat to the head of the wearer. In other words the portions between the spoke-like ribs can yield upon pressure being applied against any particular rib in the conforming of the shape of the crown to the head of the wearer. This enables a better fit of the hat on the wearer's head.

In addition the ribs serve to provide channels between them through which air can circulate and thereby assist in the cooling of the user's head.

I find that by making the head gear of a white plastic material the same is enabled to assist in preventing absorption of the sun's heat rays thereby assisting in providing a cooler head gear.

It will be noted that in both forms the construction is such that head gear may be very easily and simply made from plastic material by simple molding or shaping operations. The bead 15 may be easily provided by rolling and turning the edge of the material when heated. If it is so desired, the bead 15 may be made solid instead of hollow as illustrated.

Also the ribs in both forms increase progressively in width from the peak of the crown to the brim so as to conform with the progressive increasing area of the crown from the peak to the brim.

For structure disclosed herein but not claimed reference is made to my copending application 110,094, filed August 13, 1949.

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I claim as my invention:

1. As an article of manufacture, a head gear including a crown and a brim radiating from a curving juncture with the crown, said crown and brim being formed in one piece from synthetic plastic material, and said crown having spaced ribs inset from its inner surface radiating toward the brim and extending curvilinearly at their lower end portions across said juncture and merging with the underside of the brim, said ribs being resiliently flexible relative to each other and at least said lower end portions of the ribs providing land areas for contact with a wearer's head to maintain the lower portion of the crown intervening between the ribs in spaced relation to the wearer's head.

2. As an article of manufacture, a head gear including a crown and a brim radiating from a curving juncture with the crown, said crown and brim being formed in one piece from synthetic plastic material, and said crown having spaced ribs inset from its inner surface radiating toward the brim and extending curvilinearly at their lower end portions across said juncture and merging with the underside of the brim, said ribs being resiliently flexible relative to each other and at least said lower end portions of the ribs providing land areas for contact with a wearer's head to maintain the lower portion of the crown intervening between the ribs in spaced relation to the wearer's head, the outer edge portion of the brim being rolled and providing a reinforcing head.

3. As an article of manufacture, a head gear including a crown and a brim radiating from a curving juncture with the crown, said crown and brim being formed in one piece from synthetic plastic material, and said crown having spaced ribs inset from its inner surface radiating toward the brim and extending curvilinearly at their lower end portions across said juncture and merging with the underside of the brim, said ribs being resiliently flexible relative to each other and at least said lower end portions of the ribs providing land areas for contact with a wearer's head to maintain the lower portion of the crown intervening between the ribs in spaced relation to the wearer's head, said ribs being of increasingly greater width from the peak of the crown to the lower end portions of the ribs and in at least said lower end portion land areas being of transverse shape substantially conforming to the contiguous crown contour to facilitate fitting the wearer's head.

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4. As an article of manufacture, a head gear including a crown and a brim radiating from a curving juncture with the crown, said crown and brim being formed in one piece from synthetic plastic material, and said crown having spaced ribs inset from its inner surface radiating toward the brim and extending curvilinearly at their lower end portions across said juncture and merging with the underside of the brim, said ribs being resiliently flexible relative to each other and at least said lower end portions of the ribs providing land areas for contact with a wearer's head to maintain the lower portion of the crown intervening between the ribs in spaced relation to the wearer's head, said ribs throughout their lengths having the sides angularly joined to the rib surfaces and to the contiguous crown surfaces.

5. As an article of manufacture, a head gear including a crown and a brim radiating from a curving juncture with the crown, said crown and brim being formed in one piece from synthetic plastic material, and said crown having spaced ribs inset from its inner surface radiating toward the brim and extending curvilinearly at their lower end portions across said juncture and merging with the underside of the brim, said ribs being resiliently flexible relative to each other and at least said lower end portions of the ribs providing land areas for contact with a wearer's head to maintain the lower portion of the crown intervening between the ribs in spaced relation to the wearer's head, said ribs being of solid structure and thus providing substantially thickened areas for the head gear throughout their lengths.

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