

Dec. 20, 1966

M. STORY

3,292,183

HEAD COVERING

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FIG. 1

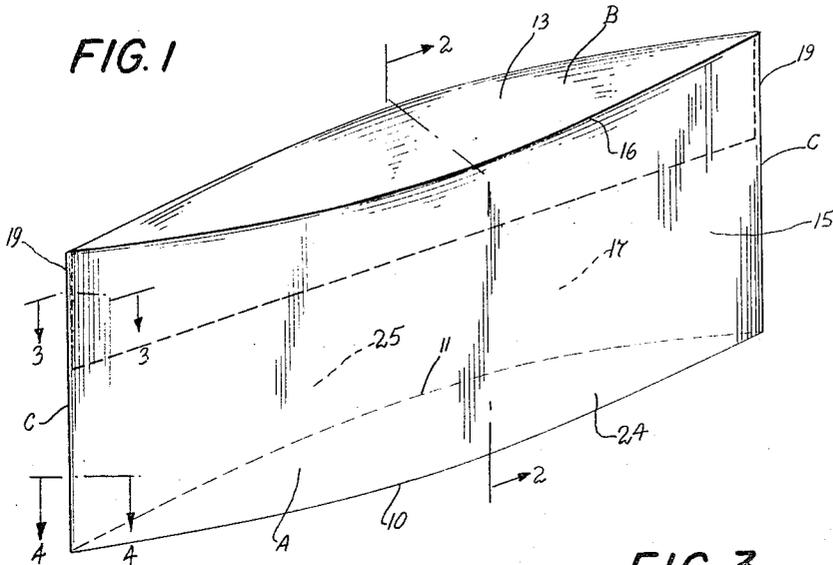


FIG. 5



FIG. 2

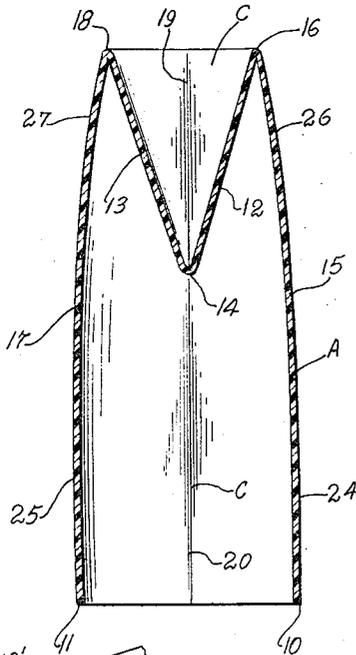


FIG. 3

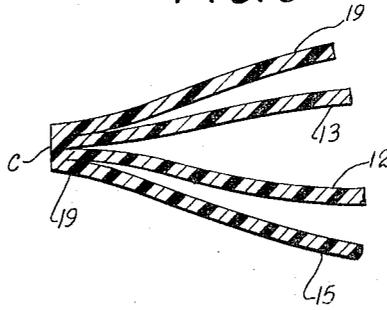


FIG. 4

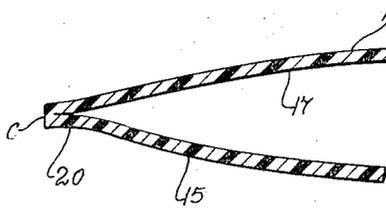


FIG. 6

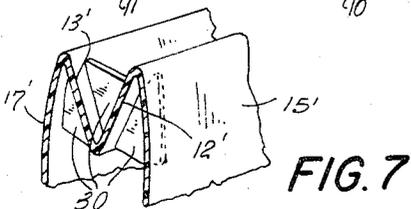
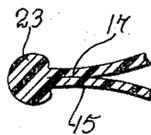


FIG. 7

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3,292,183  
**HEAD COVERING**  
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 1 Claim. (Cl. 2—200)

The present invention relates to a head covering and it particularly relates to a head covering made of thin plastic sheet material. In making head coverings of thin plastic sheet materials, and particularly those that might be used for advertising or publicity purposes in connection with the sale of merchandise, the election of candidates or nominees, it is desirable to have a light weight structure, which nevertheless can be readily made of sheet plastic materials.

It is among the objects of the present invention to make such a light weight head covering device which will be capable of rapid and inexpensive production on automatic machinery, and which will be comfortable to wear and conveniently carried in one's pocket without breaking or tearing and which will be so joined without stitching that it will be quite durable and capable of being stretched or forced upon various head sizes without rupture.

Another object is to make a simple, inexpensive light weight vinyl polyethylene or polypropylene sheet material which is capable of being attractively designed and is capable of carrying vivid advertising or display messages for sales of products or for political purposes.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects it has been found most satisfactory to form the cap of a sheet of thin plastic flexible material, such as thin vinyl polymer or thin polyethylene or polypropylene derivatives, and which will not be subject to rupture when stretched or expanded in placement upon the head. In forming the cap out of the unitary sheet of material, desirably a top inward fold is provided, with the edges of the fold and of the cap being sealed together incidental to the method of manufacture with a quadruple seal adjacent the top of the cap and a double seal adjacent the lower portion of the cap to balance and reinforce the same.

The inward fold, together with the upper quadruple seal, will give strength, while the lower structure with the edge seal will give sufficient flexibility and stretchability to enable the cap to be readily forced down over the varying different head sizes without likelihood of rupture or breaking. Desirably the material used should not be thicker than about 0.001 to 0.005 inch and, if desired, the lower portion of the cap to be stretched upon the head may be between 0.001 to 0.003 inch, while the upper portion, which should be more rigid and usually forms a double fold, may be of 0.005 to 0.015 inch. Generally, the upper portion can have a thickness of two to three times, and sometimes five times the thickness of the lower portion.

Desirably the cap material is made of an opaque thin film of plastic, which has a filler of titanium oxide, zinc oxide or clay, while the outer portion may carry a bright, vivid imprinting of red, blue, orange or other colors.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifica-

tions can be resorted to which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

5 FIG. 1 is a top perspective view, showing the cap or covering of the present invention.

FIG. 2 is a transverse sectional view upon the line 2—2 of FIG. 1.

10 FIG. 3 is a fragmentary transverse sectional view upon the line 3—3 of FIG. 1, upon an enlarged scale as compared to FIG. 1.

FIG. 4 is a transverse sectional view upon the line 4—4 of FIG. 1, upon an enlarged scale as compared to FIG. 1.

15 FIG. 5 is a vertical transverse fragmentary sectional view upon enlarged scale of the lower edge of the hat of an alternative embodiment.

FIG. 6 is a horizontal transverse fragmentary sectional view of a side edge of the hat.

20 FIG. 7 is a fragmentary diagrammatic perspective view taken in section of one corner of the device showing reinforcement therein.

Referring to FIGS. 1 to 4, the cap consists of an integral rectangular sheet A of plastic, folded upon a central fold line longitudinally of said sheet, said cap having a front section 15, a rear section 17 and in intermediate section B which is folded inwardly from the top of the front and rear sections to a depth of generally one-third of the vertical height of said cap to form the inwardly directed portions 12 and 13. The front section 15 extends from front edge 10 upwardly to the fold junction 16 and the rear section 17 extends upwardly from rear edge 11 to the fold junction 18. The sections 15, 17 and 12, 13 are all joined together by the edge heat sealing C, which is quadruple in the upper section 19 and double in the lower section 20.

If desired, the lower edges 10 and 11 may be beaded, as indicated diagrammatically in FIG. 5, with the thickness 15 terminating in a circular or cylindrical bead 22 having a diameter at least twice the thickness of the wall 15. The edges C may also be beaded, as indicated for example in FIG. 6, with an end bead 23 having about twice the thickness of the thickness of the sections 15 and 17. In respect to the actual thickness of the sheet material in sections 15 and 17 and their lower portions as indicated at 24 and 25, they may be pressed or so formed that their thickness will be one-half or three-quarters of the thickness in the upper portions 26 and 27.

Normally, the sheet to be processed will consist of a continuous sheet or strip having a width of about 10½ to 11½ inches, with an optimum of 11 inches, which may be cut off into short strips between 9½ to 12 inches in length, with a preference of 11¼ inches in length. The inward fold has a depth of between 1½ to 2 inches and desirably is about 1¾ inches.

25 The sealing should be along the edge and limited to not over ¼ of an inch and desirably ¼ to ½ of an inch. The material may be run through the machine continuously. To make the lower portions 24 and 25 thinner and more flexible, they may be pressure rolled before or after the complete cap is assembled.

30 As many changes could be made in the above head covering, and many widely different embodiments of this invention could be made without departure from the scope of the claim, it is intended that all matter contained in the above description shall be interpreted as illustrative and not in a limiting sense.

The seal at the edges may be made by welding or electronic sealing.

35 40 45 50 55 60 65 70 Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed, what is claimed is:

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An expandable stitchless end edge heat sealed thermo-plastic film cap formed into a single integral elongated folded rectangular sheet of thermoplastic synthetic film folded upon a central fold line longitudinally of said sheet, said fold line defining front and rear sections and an intermediate section therebetween, said intermediate section extending to a depth generally one-third of the height of the cap, heat-sealing means provided along the length of the opposite side edges of said cap, said heat sealing means securing the side edges said front, rear and intermediate sections together on both ends of the cap forming a four ply sealed thickness at the upper end edges of the front, rear and intermediate sections and a double seal thickness along the remaining side end edges of said cap.

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