April 3, 1962 G. B. WAGENFELD 3,027,564

HEAD-PIECE CONSTRUCTION

Filed Aug. 25, 1958

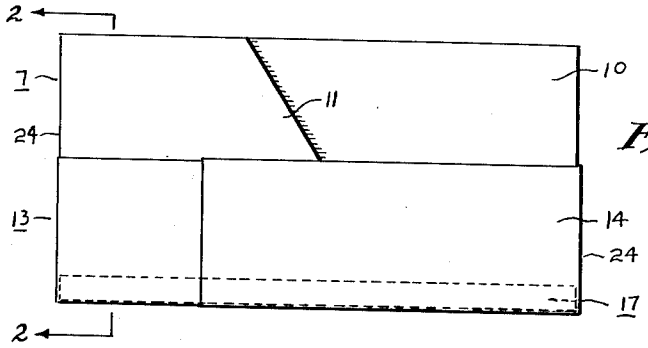


Fig. 1.

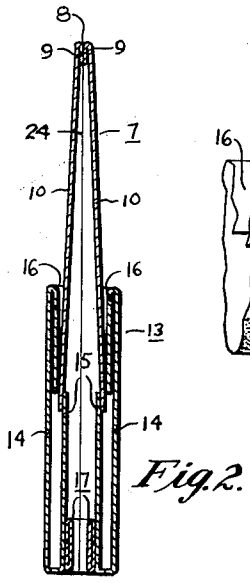


Fig. 2.

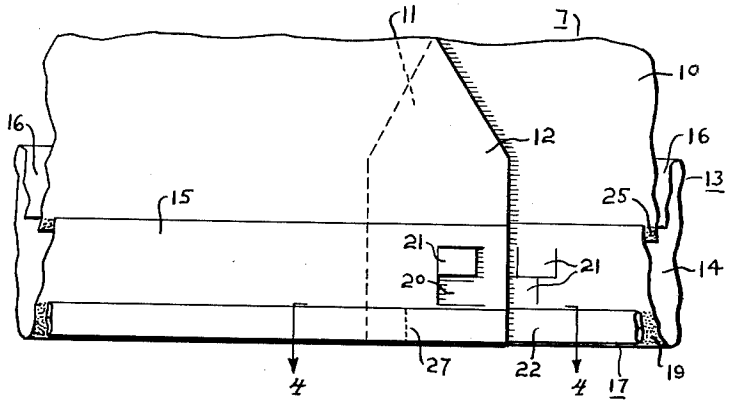


Fig. 3.

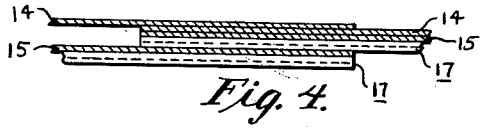


Fig. 4.

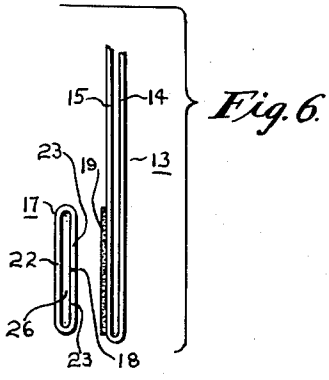


Fig. 6.

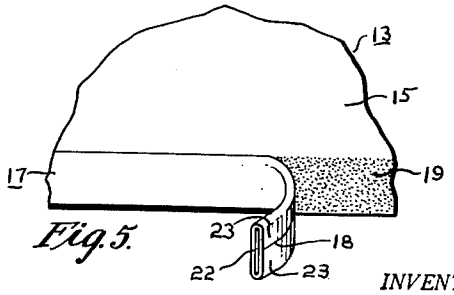


Fig. 5.

INVENTOR.

GILBERT B. WAGENFELD

BY

L Eon Peterson

ATTORNEY.

United States Patent Office

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HEAD-PIECE CONSTRUCTION

Gilbert B. Wagenfeld, 5707 Wyndale Ave., Philadelphia, Pa.

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1 Claim. (Cl. 2—181)

This invention relates generally to head-wear, and more particularly this invention is concerned with certain improvements in caps of the type which are worn, for example, by persons engaged in the dispensing of foods and beverages. Caps of the type to be described are made generally of paper, and therefore have a tendency to become soiled and discolored by the perspiration of the wearer. The soiling and discoloration, of course, occurs primarily because the head perspiration penetrates though the paper head-band and thus is visible on the outside of the cap, causing generally a very unsightly appearance. The unsightly appearance of the perspiration stained cap worn by a person dispensing foods and beverages to the purchasing public creates an undesirable psychological connection with the food or beverages being dispensed. Hence, it is highly desirable to be able to maintain a clean and fresh appearance to these paper caps. Accordingly, it is a principal object of my invention to provide novel perspiration absorbing means in paper caps.

Another object of my invention is to provide novel perspiration absorbing means for paper caps, which in addition to providing a perspiration absorbing function, also prevents the transmission of perspiration through the body of the cap, and so preserve the neat and fresh appearance of the cap as viewed from the outside.

Still another object of my invention is to provide a novel perspiration absorbing means for paper caps which is inexpensive and relatively easy to incorporate into the cap, so that the total cost of the cap to the manufacturer, and hence to the purchaser, is not materially increased.

The foregoing and other objects of my invention will appear more clearly hereinafter from a careful reading of the following specification when taken in conjunction with the several figures, wherein:

FIGURE 1 is a side elevational view of a typical paper cap within which is secured the novel perspiration absorbing means according to my invention.

FIGURE 2 is a cross-sectional view of the cap of FIGURE 1 taken along the lines 2—2 of that figure.

FIGURE 3 is a fragmentary side elevational view of the cap of FIGURE 1, showing one side panel broken away to expose to view certain constructional details.

FIGURE 4 is a cross-sectional view taken along the lines 4—4 of the fragmentary view of FIGURE 3.

FIGURE 5 is a fragmented view of the inside lower marginal portion of the cap illustrating some details of the novel perspiration absorbing means.

FIGURE 6 is an exploded enlarged fragmentary view of the lower marginal portion of the cap illustrating certain other details of the novel perspiration absorbing means according to the invention.

In the several figures, like elements are denoted by like reference numerals.

Referring now to the figures, and firstly to FIGURES 1, 2 and 3, it is seen that the illustrated cap is of the type generally known as an overseas cap and includes a crown portion 7, a hat-band portion 13, and a sweat band 17 affixed to the inside of the hat-band 13. Alternatively, the crown portion 7 and the head-band portion 13, could be formed from a single sheet of material, although the illustrated arrangement is preferred since it is generally desirable to make the head-band portion 13 of stiffer paper than the crown portion 7. The crown

portion 7 may be formed from a rectangular piece of sheet material with a downwardly folded top margin to provide a pair of main crown side panels 10 and marginal portions 9. The ends of the crown portion 7 may be cut as shown at 11 and 12 of FIGURE 3, and folded as along the lines 24, best seen in FIGURE 1, to provide an overlap of the ends 11 and 12.

The head-band 13 may be formed from a piece of stiffer material than that of which the crown 7 is made, as before mentioned, and may be folded as best seen in the views of FIGURES 2 and 3. FIGURES 2 and 3 show that the head-band 13 includes an outer main panel 14, a downwardly inside folded marginal portion 16, and an upwardly folded inside marginal portion 15. Prior to folding the crown portion 7 along the end lines 24 seen in FIGURE 1, the downwardly turned crown marginal portions 9 and the bottom edge of the crown main side walls 10 are coated with an adhesive. While still in the unfolded condition, the upwardly turned inside marginal portion 15 of the head-band 13 is secured to the lower edge of the side walls 10 of the crown 7 by the applied adhesive 25 as best seen in FIGURE 3. The cap may now be folded along the lines 24 so that the adhesive coated crown marginal portions 9 are folded upon each other and adhered together as at 8 in FIGURE 2. The overlapping ends of the now secured together crown 7 and head-band 13 may be telescopically engaged in the manner clearly illustrated in FIGURES 1, 3 and 4. The sweat band 17 may be now secured to the inside of the cap with the adhesive 19 which is first applied to the bottom margin of the inside marginal portion 15 of the head-band 13. Alternatively, and possibly preferably from a manufacturing standpoint, the sweat-band 17 may be applied to the inside of the head-band 13 prior to folding the cap along the lines 24, so that the cap is in a flattened opened out condition when the sweat band 17 is applied thereto.

Regardless of the particular point in the fabrication of the cap at which the sweat band 17 is applied, certain considerations relating to the sweat band 17, the adhesive 19, and the particular configuration of the sweat band must be taken into account. As best seen in the views of FIGURES 5 and 6, the sweat band 17 is formed in the shape of a flattened tube by folding the long edges of an elongated rectangular piece of material toward one another so that the marginal portions 23 are butted as at 18, and provide a head facing panel area 22. The marginal portions 23 of the sweat band 17 are secured to the lower portion of the marginal area 15 of the head-band 13 by the adhesive coating 19 which should be of a moisture resistant character so that perspiration penetrating into the margins 23 from the head facing 22 cannot penetrate therethrough and eventually soak through the outer main panel 14 of the head-band 13.

Typically, the adhesive 19 may be a hot-melt wax base or resin base thermoplastic material which penetrates into the paper fibers to effect a bond therewith. Suitable thermoplastic materials of the foregoing type are commercially marketed by the Pyroxylin Products Co. under the trade name "Pyroxmelt."

Moreover, the margins 23 should so closely abut one another along the line 18 that there is no tendency for the inside surface of the head-facing 22 to contact the adhesive 19. In order to insure the non-adherence of the head facing 22 to the adhesive 19 it may be preferred to form the sweat band 17 so that the margins 23 slightly overlap one another. Attention to this latter detail guarantees the existence of an air space 26 between the inside surfaces of the margins 23 and the head facing 22 so that perspiration absorbed by the latter must travel through the material of the sweat band in

order to reach the area of the margins **23**, which assures maximum utilization of the absorption capacity of the sweat band. The air space **26** also allows for rapid evaporation of absorbed perspiration by providing three evaporating surfaces which are accessible to the air, instead of merely a single surface which would be presented if the head facing **22** were adhered to the margins **23**.

The vertical extent of the sweat band **17** upward along the marginl portion **15** of the head band **13** may of course be greater than that illustrated, and could of course, if desired, completely face the marginal portion **15**, although a sweat band of such extent has not been found to be necessary. Should it be desired to use a sweat band which extends upward to a greater degree than that illustrated with an adjustable size cap of the type shown in FIGURE 3, then the horizontal extent of the sweat band **17** could be terminated, as for example at the dash line **27** of FIGURE 3, so as not to interfere with the size locking mechanism illustrated in connection with the elements **20** and **21**. This size locking mechanism is described in complete detail in my copending patent application, Serial No. 590,751, filed June 11, 1956, now Patent No. 2,856,608, granted October 21, 1958.

Briefly, the size locking mechanism illustrated in the showing of FIGURE 3 operates in the following fashion. The door **20** may be opened by lifting to reveal through the window formed thereby the size index tabs **21**. The hat size may then be increased or decreased through the telescoping arrangement of the ends of the headband **13** until a tab **21** which corresponds to the desired hat size is observed. This tab **21** may then be projected outward through the window, and the door **20** closed down into the plane of the inner margin **15** of the head band **13**. The projected-through tab **21** is now locked in position and the size adjustment of the hat is thereby fixed. The sweat band **17** may be made of absorbent paper stock or of fabric. Moreover, the sweat-band **17** is not limited to use with paper hats or caps of the type described herein, but may be also advantageously utilized in other types of headwear.

Although my invention has been described in connection with a particularly illustrated type of cap, it will be understood of course, that such description is for illustrative purposes only and various changes and modifications may be made from time to time without departing from the general principles or real spirit thereof, and it is intended to claim the same broadly as well as specifically as indicated by the appended claim.

What is claimed as new and useful is:

A paper hat, comprising in combination, a headband with a crown portion secured thereto, and a sweatband, said headband being formed generally in the shape of a relatively wide flattened tube with the opposite ends thereof telescopically engaged one within the other to provide size adjustability of the headband, said sweatband being made of absorbent material formed into a hollow flattened tube commensurate in length with the headband and being positioned with one flattened tube face presenting inward for contact with the head when the hat is worn and the other flattened tube face presenting outward toward the lower marginal edge of the headband along the entire length of the headband inner periphery, the outward presenting flattened tube face of said sweatband being bonded directly to the headband by an intervening layer of a thermoplastic moisture-resistant substance which effects a moisture barrier therebetween and renders said sweatband simultaneously adjustable with said headband to insure that the sweatband always engages the head of the hat wearer about the complete periphery regardless of the adjusted size of the hat.

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