Aug. 10, 1948. M. LAMPERT 2,446,705

HAT CONSTRUCTION

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Fig. 1.

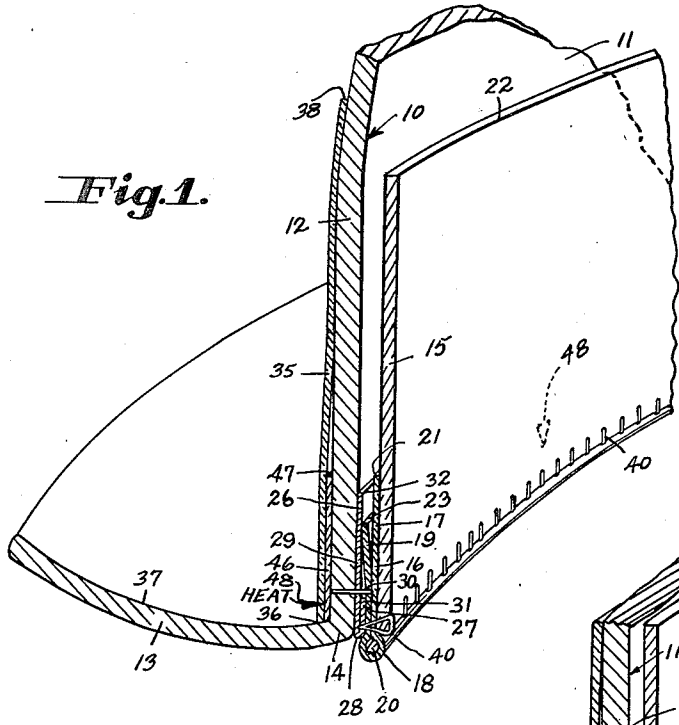
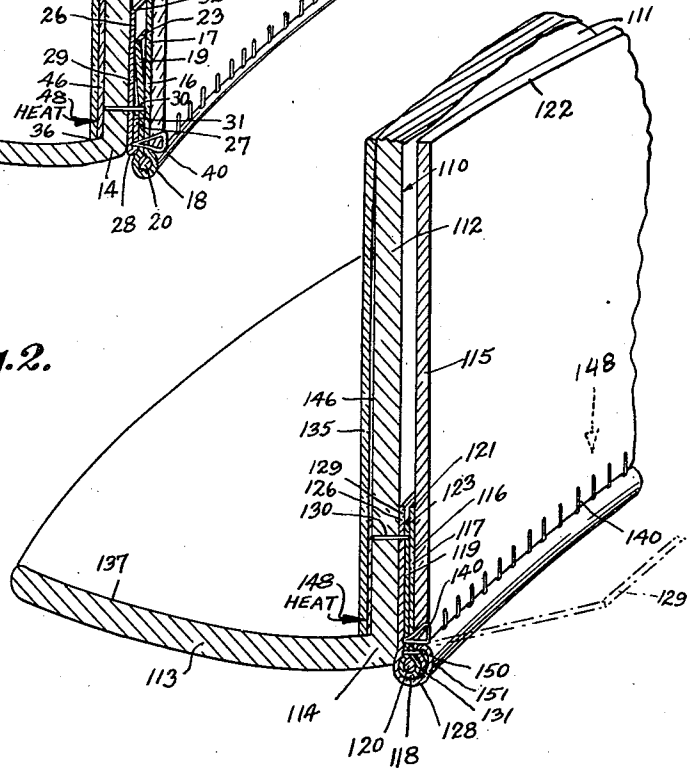


Fig. 2.



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HAT CONSTRUCTION

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4 Claims. (Cl. 2—181)

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This invention relates generally to new and useful improvements in the construction of hats with particular reference to the prevention or reduction of the staining of the fabric of the hat or the ribbon usually attached thereto by the perspiration or oil from the hair of the wearer.

As is well known, when hats are worn, the wearer's head perspires and this perspiration contain acids and similar body waste products which upon the evaporation of the water therefrom leave a residue which discolors the hat ribbon and also the material of which the hat is composed. Furthermore, these materials, while in solution in the perspiration frequently have a chemical action upon the constituent materials of the hat body or ribbon or both. The perspiration, in addition to the foregoing, carries oil from the hair of the wearer's head. This condition is aggravated by the addition of hair dressings, containing oil or grease, to the wearer's hair in the form of tonics and pomades.

Customarily, a thick leather sweat band is disposed within the hat extending upwardly from the juncture of the crown and the brim. When the hat is new or for a relatively short period of time, the leather sweat band, being highly absorptive, collects the oil and perspiration. Soon, however, the threads which serve to secure the leather sweat band in place have a wick-like action which by capillarity carries the perspiration and oil to the vertical wall portions of the crown of the hat and to the "silk" ribbon. By the action of gravity and capillarity some of the perspiration and/or oil is carried by the material of which the hat body is composed.

It is therefore among the principal objects of the present invention to provide improved structure of the class described in which this tendency of the perspiration and oil is inhibited so that the hat containing the same may be worn for relatively long periods without a discoloration of the exterior of the hat or ribbon.

Another object herein lies in the provision of hat construction wherein material which is relatively impervious to perspiration is interposed between the ribbon and the hat body whereby the ribbon is protected from becoming discolored or damaged by the perspiration of the wearer.

Another object herein lies in the provision of hat construction wherein the outer ribbon is secured to the hat body in the absence of stitches so that the tendency of said stitches to carry the wearer's perspiration to the ribbon is avoided.

Another object herein lies in the provision of hat construction wherein the general appearance

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and comfort attributes of a so-called reeded sweat band construction are retained with a material reduction in the amount of perspiration which is conveyed to the outer portions of the hat body.

Another object herein lies in the use of an improved type of thread for the manufacturing operations related to the insulation of the sweat band so that the tendency of the thread to attract the perspiration by capillarity is reduced.

A feature of the invention lies in the fact that the added members do not materially increase the total bulk so that the appearance both inside the hat and outwardly thereof is not deleteriously affected.

By my improved construction, the hereinabove described desired features may be incorporated at relatively low cost so that they may have a wide spread distribution and use.

These objects and other incidental ends and advantages will more fully appear in the progress of this disclosure and be pointed out in the appended claims.

In the drawings in which similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a fragmentary perspective view partly in vertical section showing a first embodiment of the invention.

Figure 2 is a view corresponding generally to Figure 1 showing a second embodiment of the invention.

For the purpose of clarity in the drawings, the relative thickness of some of the parts has been exaggerated.

Turning now to the first embodiment of the invention illustrated in Figure 1 there is shown, the hat generally indicated by reference character 10 includes a crown 11, an annular vertical wall portion 12 and a brim 13. The juncture of the wall 12 and the brim 13 is indicated by reference character 14. The hat 10 may be in the form of a finished body composed of any suitable material, as for example, felt although my invention will operate with hat bodies composed of other materials.

The sweat band 15 may be composed of leather or other material which is capable of absorbing perspiration. It is desirable that the sweat band be slightly deformable so that it may shape to conform to the shape of the wearer's head. At the present time the most widely used of satisfactory material for the sweat band is leather.

A first liner element 16 is preferably composed of suitable water and oil-proof material and includes an inner member 17, a bight and an outer

member 19. The element 16, since it carries a considerable portion of the wearing stresses, is preferably composed of a durable material such as, for example, textile fabric which is coated with rubber or a similar impervious coating. The liner element 16 is preferably cut in a strip in which the threads of the textile are arranged on the bias with the coated surfaces being exposed in the bight 18. The bight 18 encloses the wire or reed 20. The upper edge 21 of the member 17 is preferably disposed a substantial distance below the upper edge 22 of the sweat band 15, while the member 19 has the upper edge 23 thereof disposed a substantial distance below the edge 21.

The second liner element 26 is composed of water and oil-proof material and includes an inner member 27, a bight 28 and an outer member 29. Since the element 26 is not primarily required in integrating the reed 20 with the sweat band 15 it is preferably composed of lighter material and a thin grade of oil silk has been found satisfactory. Other impervious materials may be substituted therefor, for example, vinyl or polyvinyl acetate compounds in sheet form sold under the trade-mark "Vinylite," a relatively heavy gauge Cellophane; chlorinated rubber; and various other oil and water impervious flexible and elastic sheets composed of synthetic resinous material. The upper edge 31 of the inner member 27 is arranged so that it lies a substantial distance below the edge 23 to provide clearance for the upper row of stitching 30. The upper edge 32 of the outer member 29 is preferably at the same level as the edge 21, or slightly below.

The lower row of stitches 40 may be generally of the usual character, well known in the art, which are used to secure the first liner element 16 to the sweat band 15 and to close the bight 18 so that the reed 20 is established in position. In accordance with the present invention, however, the stitches 40 penetrate the inner member 27 in the immediate vicinity of the bight 28 but they do not extend through the outer member 29.

The upper row of stitches 30 penetrates the outer member 19, the outer member 29 and the wall 12, said stitches being located well below the upper edge 23 of the outer member 19. The ribbon 35 may be of a usual kind employed with the particular style hat with which it is associated. In the case of felt hats this is usually a grosgrain ribbon composed of mercerized cotton, rayon, silk, or similar fibers. The lower edge 36 of the ribbon 35 is supported by resting upon the upper surface 37 of the brim 13. The ribbon may be of any suitable width so that, for example, its upper edge 38 may be disposed at substantially the same level as the upper edge 22 of the sweat band 15.

Interposed between the inner surface of the ribbon 35 and the outer surface of the wall 12 is a third liner element 46. The liner element is composed of water and oil impervious material, flexible and thermoplastic. Such materials may be composed of a thin strip of a synthetic resin having a relatively low fusion point as for example "Vinylite" or they may be composed of a thin strip of gutta percha. It is desirable that such materials, upon being heated, become adhesive and when they congeal, retain their connection with the materials with which they are laminated. In the first embodiment of the invention I have shown the upper edge 47 of the element 46 as being substantially equal in height to the upper edge 32. The width of the element 46 may be varied, but it is necessary that it extend substantially higher than the level of the stitching 30. The liner element 46 and the ribbon 35 are preferably put in place in that order after the rest of the hat and the band 15 are substantially completely fabricated. When the parts are in position as shown in Figure 1, heat is applied at a plurality of points 48. The action of this heat is to adhesively secure the ribbon 35 to the liner 46 and the liner 46 to the outer surface of the wall 12. The heat referred to is preferably accompanied by pressure to hold the parts in position until the thermoplastic material has set.

While I have described the third liner element 46 and the outer band 35 as being put into place consecutively and then by the application of heat at selected points welded to each other and to the hat body, I have found it advantageous to first adhesively secure the third liner element 46 to the inner surface of the outer band 35 by an over all heat and pressure treatment so that the entire area of the third liner element 46 becomes integrated with the inner surface of the outer band 35. This produces a new article of manufacture which is very economically connected with the hat body. There is the further advantage that since the third liner element exists only at the lowermost portions of the outer band, the upper portion of the outer band, that is to say that portion which is free of the third liner element, may be shrunk when the hat is first fabricated and blocked so that it may conform to the upward and inward taper of the crown of the hat.

By virtue of the fact that the composite outer band 35 and the third liner unit are connected to the hat body only at a series of spaced points, as for example, eight about the entire circumference of the hat 10, and these points are relatively small in area, they serve as a frangible tacking so that when it becomes necessary to clean the entire hat the outer band 35, together with the third liner element 46 may be stripped as a unit, to be later replaced after the cleaning operation is completed.

By virtue of the fact that the third liner 46 is thin, the upper edge 47 is relatively unnoticeable through the ribbon 35 and the finished hat does not give the appearance of one specially treated to avoid soiling of the ribbon or brim by perspiration.

The construction and arrangement of the parts shown, in use picks up the major portion of the wearer's perspiration in the sweat band 15. That portion of the perspiration which tends to penetrate the sweat band 15 in the lower portion thereof is prevented from travelling outwardly by the inner member 17. Some of the perspiration however is picked up and carried by the thread in the stitching 40 which carries it beyond the inner member 27 but it is stopped within the bight 28 by the outer member 29. Some moisture may, over a considerable period of time, reach the stitching 30, particularly by rising between the opposed inner surfaces of the members 17 and 19. This moisture, after it reaches the stitching 30, may be carried outwardly of the hat by said stitching but it is prevented from reaching the ribbon 35 by the third liner 46.

The thread used in making the stitches 30 and 40 is preferably of a relatively heavy gauge silk or nylon, and may be of a single strand.

Turning now to the second embodiment of the invention illustrated in Figure 2, where, for the purpose of avoiding needless repetition, parts corresponding to the first embodiment are given the

same reference characters with the addition of the prefix "1".

The second embodiment of the invention differs from the first in that the second liner element has an enlarged bight **128** which encloses the bight **118**, the edge **131** being folded upon itself and secured by the stitches **150** to the lowermost portions of the inner and outer members **116** and **119** just above the reed **120**. The row of stitching **150** is put in during a time when the outer member **129** may be in a position generally indicated by the dot-dash lines in Figure 2, said member **129** being folded about to the position it occupies in the full lines in said figure, prior to the installation of the stitches **130**.

In the second embodiment the perspiration isolating characteristics of the third liner **146** are generally similar to those previously described. Perspiration carried by the stitches **140** is prevented from travelling outwardly by the outer member **129**. The stitches **150** are not easily reached by the perspiration in view of the portion **151** which guards said stitches. Should perspiration reach the stitches **150**, however, it is prevented from moving outwardly by the lower portion of the outer member **129**.

It may thus be seen that I have provided a novel and useful hat construction which while simple and light in weight is highly efficient in the prevention of soiling of the hat ribbon by perspiration and oil conveyed from the sweat band of the hat.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described for obvious modifications will occur to a person skilled in the art.

It will be understood that the wall **12**, is preferably continuously annular, while the band **15**, and the first, second and third liner elements and the band **35** are suitably joined at opposed ends thereof so as to be circular.

I claim:

1. In a hat construction, in combination: a hat body having a substantially vertical wall and a brim extending outwardly therefrom; a sweat band of absorptive material; a first liner element composed of substantially perspiration impervious material, said first liner element being folded to form a first inner member, a first outer member and a first bight; a second liner element composed of substantially perspiration impervious material having an inner edge, a bight and a

second outer member; first stitch means interconnecting the lower edge of the sweat band, first inner member, and first outer member; second stitch means interconnecting the first outer member, the second outer member and the said wall, said second stitch means being spaced a substantial distance above the first stitch means; and third stitch means connecting the inner edge of the second liner element to the first inner member and the first outer member, said second liner being folded downwardly and then upwardly upon itself to enclose said first bight.

2. The combination claimed in claim 1 including a hat including a hat outer band disposed outwardly of the substantially vertical wall and a thermoplastic liner element interposed between the substantially vertical wall and the hat outer band, said hat outer band and said substantially vertical wall being interconnected at a plurality of spaced points, the outer band being free of connection with the hat body in the areas between said points.

3. In a hat construction in combination: a hat body having a substantially vertical wall and a brim extending outwardly therefrom; a hat outer band; a liner element composed of thermoplastic material and interposed between the inner surface of the hat outer band and the said substantially vertical wall; said hat outer band being connected to said substantially vertical wall at a plurality of spaced points along the long edge of said band by fusion of the liner element at said points, said hat outer band being free of connection with said substantially vertical wall in the areas between said spaced points.

4. The combination claimed in claim 3 characterized by the upper edge of the liner element being disposed a substantial distance below the hat outer band.

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