

Aug. 6, 1935.

F. B. PROBST

2,010,107

HEAD SIZE ADJUSTING MEANS FOR HATS

Filed Jan. 28, 1935

2 Sheets-Sheet 1

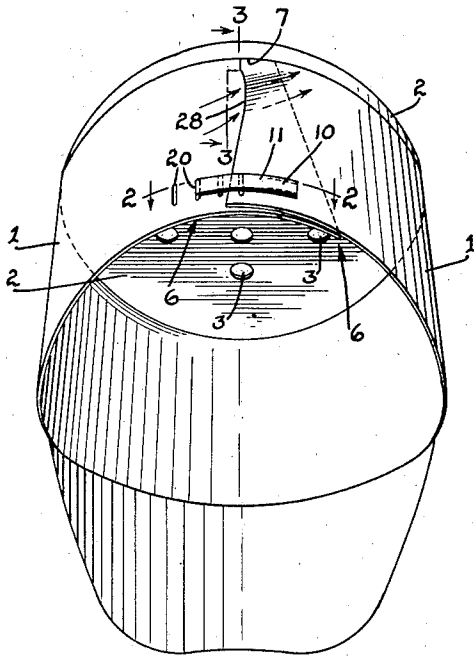


Fig. 1

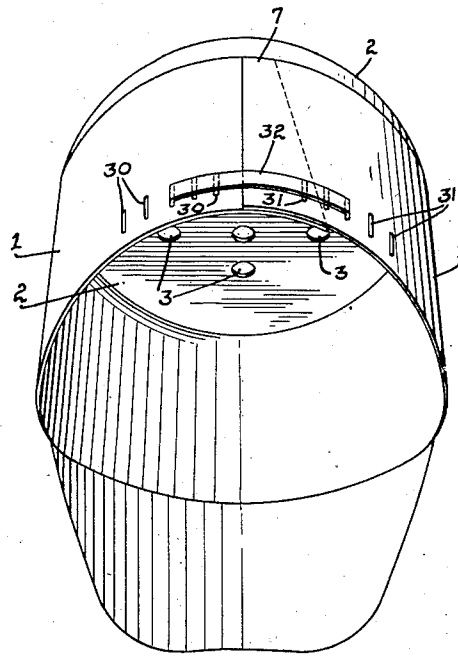


Fig. 5

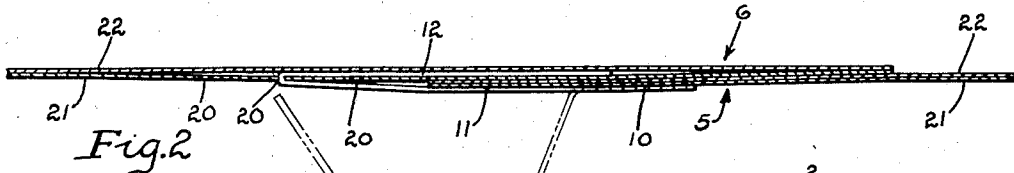


Fig. 2

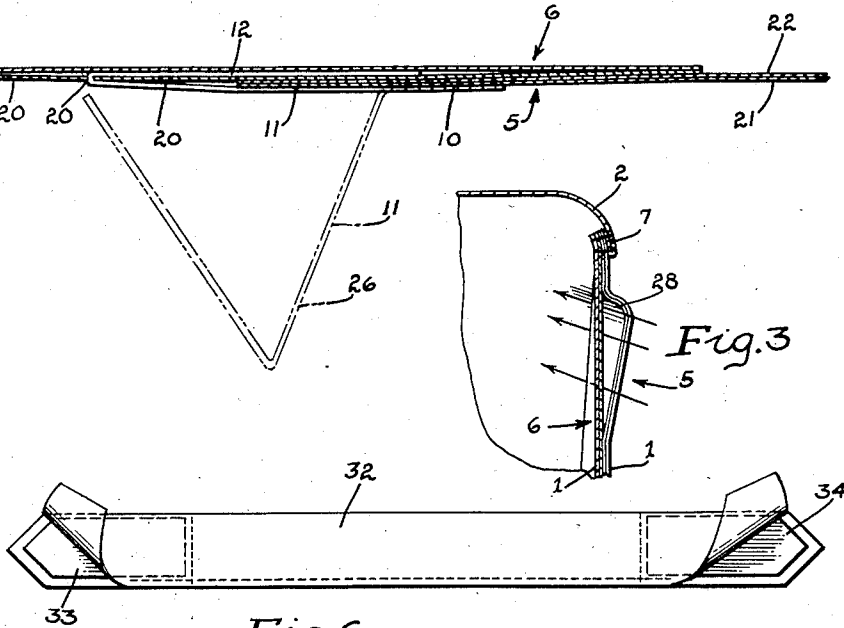


Fig. 3

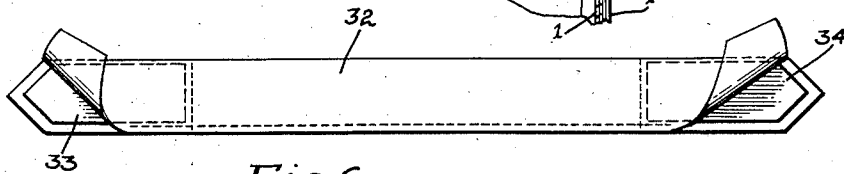


Fig. 6

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2 Sheets-Sheet 2

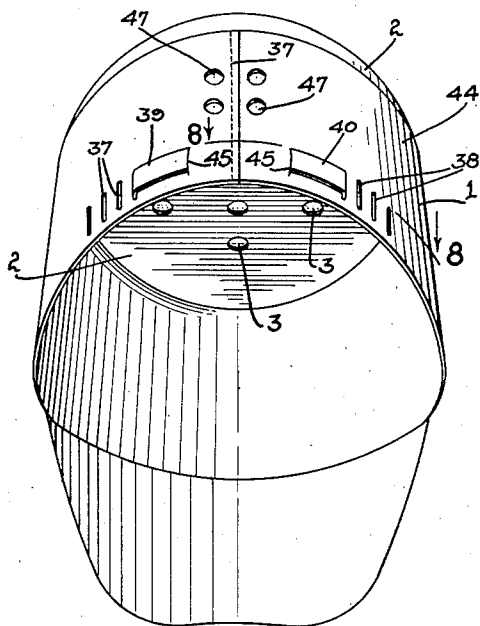


Fig. 7

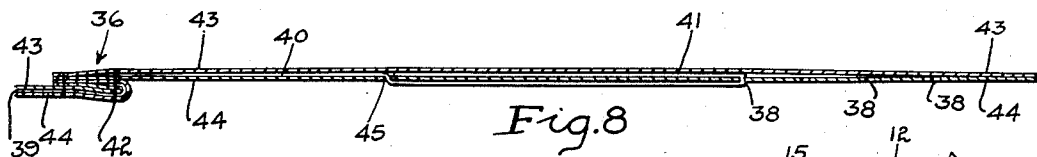


Fig. 8

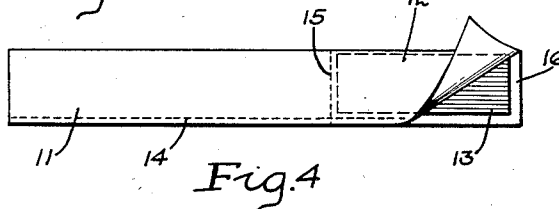


Fig. 4

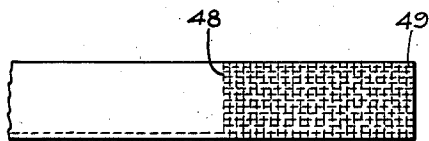


Fig. 9

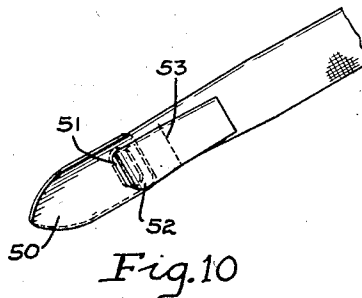


Fig. 10

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## UNITED STATES PATENT OFFICE

2,010,107

## HEAD SIZE ADJUSTING MEANS FOR HATS

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Application January 28, 1935, Serial No. 3,821

11 Claims. (Cl. 2—197)

This invention relates to improvements in hats, and to means for adjusting the head size thereof. An important object is to provide a hat or cap which can be laundered, and to provide head size adjusting means which can also be laundered and which remains on the cap during laundering.

Another object is to provide through ventilation for the hat or cap, and to utilize part of the means for adjusting the head size for carrying out a ventilating function.

Features of the invention include all details of construction, along with the broader ideas of means inherent in the disclosure.

Objects, features and advantages of the invention will be set forth in the description of the drawings forming a part of this application, and in said drawings.

Figure 1 is a perspective view looking at the rear of and underneath a cap, and illustrating the present invention;

Figure 2 is an enlarged somewhat diagrammatic horizontal section on line 2—2 of Figure 1, showing the elements in adjusted position;

Figure 3 is a vertical section on line 3—3 of Figure 1 illustrating the ventilating feature;

Figure 4 is a detail view of the form of strap used in Figure 1;

Figure 5 is a view similar to Figure 1, showing a modification;

Figure 6 illustrates in detail the type of strap used in Figure 5;

Figure 7 is a view similar to Figure 1, but showing an additional modification;

Figure 8 is a somewhat diagrammatic section on line 8—8 of Figure 7 showing the elements in their adjusted position;

Figure 9 is a view showing another manner in which the end of the strap can be stiffened for the purpose herein; and

Figure 10 is a perspective view of a modified form of stiffening means for the strap.

The invention has been shown applied to a miller's cap, but there is no intention to limit the broader aspects of the invention to any particular type of hat.

The preferred form of head size adjusting means is shown in Figures 1, 2, 3 and 4. Numeral 1 indicates the side of the cap, made of some flexible washable material such as canvas or duck.

Numeral 2 indicates the crown having perforations 3 of any suitable size and number, preferably of small size and arranged centrally of the crown. The crown is, of course, also formed of flexible washable material which can be laundered. The usual visor is provided.

The crown and side are properly secured together by stitching, not shown except in Figure 3. The head size adjusting structure includes overlapped terminal portions 5—6 of the side, which portions are free for circumferential adjustment and which are adapted to provide ventilation.

In this instance, the overlap is at the back of the cap, and at this point the side and crown are stitched only at the top at point 7, thus leaving the ends of the side-forming piece free for adjustment and leaving them conditioned for facilitating ventilation.

Attached to the outermost overlapped portion 5 by one end as at 10 is an element, as a strap 11, having a stiffened end portion generally indicated at 12. The stiffening can be accomplished in any suitable manner, but is conveniently accomplished by inserting a piece of non-corrosive metal 13, as shown in Figure 4, the strap being formed by folding a piece of canvas or the like upon itself and then stitching around the margins as shown at 14, and then cross-stitching at 15 and at the point 16 to enclose and secure the stiffening element 13. The top overlapped portion 6 is provided with a series of openings, in this instance slits indicated at 20, and having a button-hole finish.

Although it is not absolutely necessary, insofar as the adjusting feature per se is concerned, it is preferable, and is a feature of the invention, to form the side 1 of two or more layers of material. A two-layer construction is shown in Figure 2, and the outer and inner layers are respectively designated 21 and 22. For the sake of clearness, the strap has been shown in elevation. The stiffened end 12 is inserted through one of the slits to extend in a direction toward the opposite end of the strap 11. With the stiff portion thus inserted and extended in the direction shown, the element is securely fastened against accidental displacement while the cap is worn, the element being held in this instance between the plies and therefore virtually between the cap and the head of the wearer.

The fold line is formed at the junction of the flexible and inflexible portions of the strap and a shoulder is thus virtually formed, and this shoulder engages the edge of the slit as a stop to prevent accidental withdrawal. The inflexible portion after passage through the slit is opposed to the flexible portion. When the cap is off the head, the stiffened portion can be easily inserted or removed as indicated by dot-and-dash lines 26 of Figure 2.

In Figures 1 and 3, the ventilating feature has

been illustrated. The positions of the overlapped portions of the side have been exaggerated to accentuate the ventilating feature. Of course, the elements do not necessarily assume the relation shown in Figure 3, but normally, or as a result of adjustment of the overlapped portions, the two overlapped portions are sufficiently separated to permit air to enter. The arrows indicate the course of the air. When the cap is worn, the crown does not closely engage the head at all points so that there is a "through" ventilation, the course of which is through the opening 28 to the inside of the cap and then outwardly through the openings 3, or vice versa. A certain amount of ventilation is obtained by the use of the overlap of the end portions of the side of the cap independently of the openings 3 or their equivalent.

Figures 5 and 6 show a modification in which two spaced groups of openings or slits are used, the members of the groups being respectively indicated at 30—31. The strap is indicated at 32 and it is stiffened at each opposite end by means respectively generally indicated 33—34. In this case the stiffened end portions are respectively inserted through an opening of a corresponding group, and then extended from the opening toward the opposite end of the element. The other elements of the cap are the same as previously described for Figure 1. The ventilation feature has not been exaggerated in Figure 5 but it is understood that the ventilating function is performed here as in the first case.

In Figures 7 and 8 another form has been shown in which the terminal portions of the sides are not overlapped, but are stitched together as shown at 36. In this case two groups of openings the members of which are respectively indicated 37—38, are provided, a group arranged at each side of and spaced from the seam or stitching 36. In this case, two straps are used respectively indicated at 39—40. Each strap has a terminal stiffened portion indicated at 41, and each is secured by the opposite end to the side as by stitching 42. This secured end of the strap lies between the inner layer 43 and the outer layer 44. The strap passes from its point of stitched attachment through a corresponding opening 45, arranged between the seam and the corresponding group of slits, to the outside of the outer layer, see Figure 8. In this case, flexible elements each having a stiffened portion are provided and the stiffened portions are inserted through one of the slits of a corresponding group to extend from the opening toward the opposite end of the element. In addition, in this case ventilating openings 47 are provided which with the ventilating openings 3, provide for through ventilation in the manner before mentioned. Openings 47 can alone be used for ventilation, and this is a feature. Figure 9 shows that the stiffening of the end of the strap may be done without the use of any metallic element, but by repeatedly cross-stitching as shown at 48 and 49.

This invention is especially applicable to caps of the washable type, that is to caps which can be laundered, because it provides a head size adjusting means which can be made without any metal parts whatever. That is, as by stiffening the end of the flexible element in any suitable manner, or by inserting, as is shown in the present instance, some non-corrodible metal. An advantage of the forms of the invention shown in Figures 1 and 7 is that the strap cannot be lost in the wash.

Insofar as I am aware, no one has heretofore solved the problem of providing a head size adjusting means, which is cheap, efficient, nor such a means which can be laundered with the hat or cap. The invention is applicable to any hat or cap worn by men or women.

In Figure 10 is shown another modification in which the stiffening element has the form of a metal plate or clip 50 hinged terminally of the strap, by providing a slot 51 in the plate and looping the end of the strap through the slot as at 52 and then sewing, as indicated at 53. This plate is pointed so that it can be easily slid through any slit of the hat and its use speeds up and perfects the adjusting operation. The plate is made of some relatively non-corrodible metal which is not adversely affected by the laundering process so that it can remain on the hat. Brass is ordinarily used, but any other suitable and sufficiently stiff material can be used, the hinging of the piece being the gist of this form of the invention.

I claim as my invention:

1. A hat having a crown and a side, means for adjusting the head size of the hat, said means including an opening in one portion of said side and a flexible element attached to another portion of the side and having a stiffened end portion inserted through said opening and extending from the opening toward the opposite end of the element.

2. A hat having a crown and a side composed of inner and outer layers, means for adjusting the head size of the hat, said means including openings in one portion of the outer layer, and a flexible element attached to another portion of the side and having a stiffened end portion inserted through one of the openings and lying between the plies, and extending from the opening toward the opposite end of the element.

3. A hat having a crown and a side, means for adjusting the head size of the hat, said means including spaced groups of openings in said side, and a flexible element having stiffened end portions respectively inserted through an opening of a corresponding group, and extending from the opening toward the opposite end of the element.

4. A hat having a crown and a side, means for adjusting the head size of the hat, said means including spaced groups of openings in said side, and flexible elements each having a stiffened end portion inserted through one of the openings of a corresponding group, and extending from the opening toward the opposite end of the element.

5. A hat having a crown, and a side having overlapped terminal portions circumferentially adjustable, one of said portions having an opening and a flexible strap attached to the other overlapped portion and having a stiffened end portion inserted in the opening and extending therefrom toward the opposite end of the element.

6. A hat of flexible material having a crown, having ventilation openings and a side having overlapped terminal portions circumferentially adjustable, and adapted to provide ventilation, one of said portions having an opening and a flexible strap attached to the other overlapped portion and having a stiffened end portion inserted in the opening and extending therefrom toward the opposite end of the element.

7. A hat of flexible material having a crown, and a side composed of inner and outer layers of material, the outer layer having therein circum-

ferentially spaced slits, the slits extending vertically when the hat is worn and being located at a level corresponding to the sweat band, and a strap of flexible material having a stiffened terminal portion inserted through one of the slits and extending from the slit in a direction toward the opposite end of the strap.

8. A hat of flexible material having a crown having ventilation openings therein and a side composed of inner and outer layers, the terminal portions of the side being overlapped to permit of ventilation and of free circumferential adjustment, the outer ply of one terminal portion having a series of circumferentially spaced slits, and a flexible element attached to the other terminal portion and having a stiffened portion inserted in one of said slits to secure the terminal portions against circumferential motion in a direction away from one another, said stiffened portion lying between the plies and extending toward the opposite end of the element.

9. A hat having a crown and a side, means for adjusting the head size of the hat, said means including an opening in one portion of the side

and a flexible element attached to another portion and having hinged thereto a stiff metal clip which is inserted through the opening to extend from the opening toward the opposite end of the flexible element.

10. A hat having a crown and a side, means for adjusting the head size of the hat, said means including an opening in one portion of the side and a flexible element attached to another portion and having an end portion stiffened by sewing and having the stiffened portion inserted through the opening and extending from the opening toward the opposite end of the flexible element.

11. A hat having a crown and a side, means for adjusting the head size of the hat, said means including an opening in one portion of the side and a flexible element attached to another portion and having an end portion stiffened by a piece of metal, and having the stiffened portion inserted through the opening and extending from the opening toward the opposite end of the flexible element.

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