March 16, 1926. 1,577,183

M. W. DOWIARZ

SHAPE PRESERVING DEVICE FOR HATS

Filed May 2, 1925

Fig. 1.

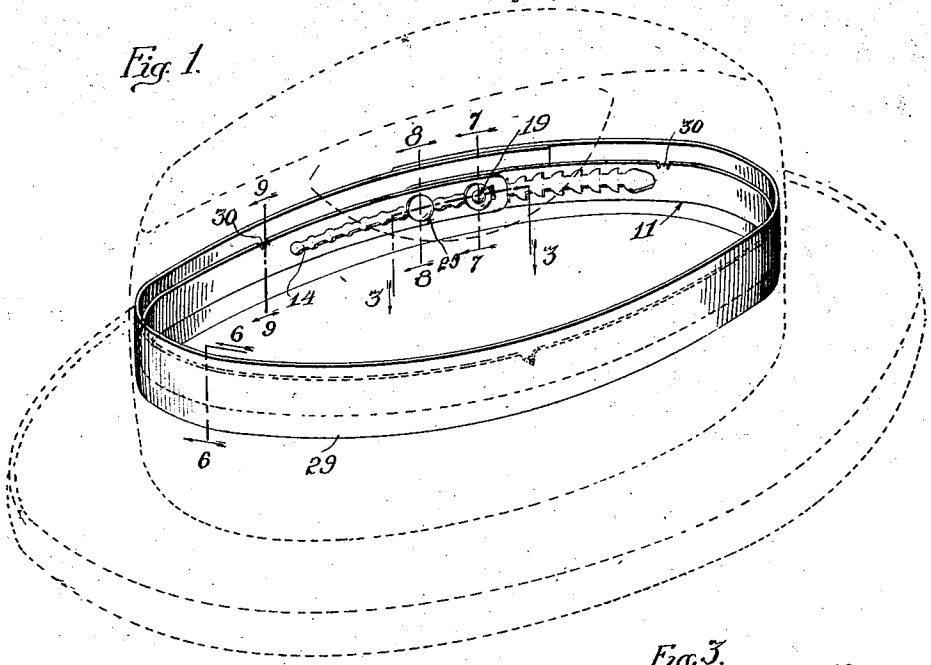


Fig. 2.

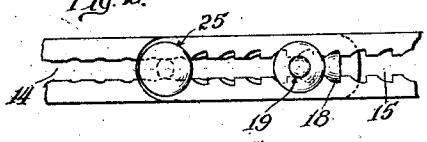


Fig. 3.

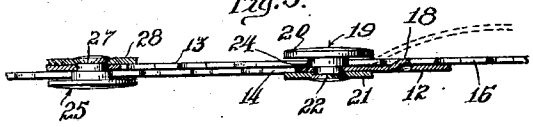


Fig. 4.

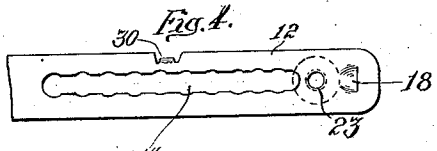


Fig. 5.

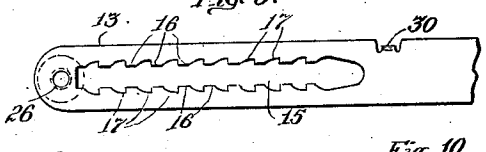


Fig 6

Fig. 7.

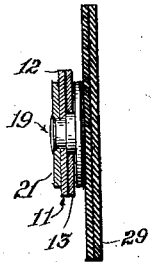


Fig. 8.

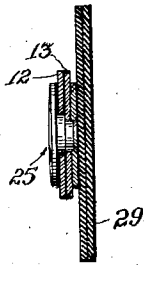


Fig. 9.

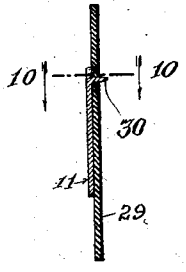
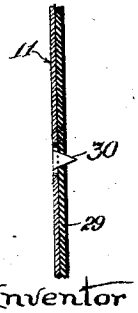


Fig. 10.



Witness
Milton Lenoir

Inventor
Martin W. Dowiarz.
By John L. Jackson.
Attorney

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UNITED STATES PATENT OFFICE.

MARTIN W. DOWIARZ, OF CHICAGO, ILLINOIS.

SHAPE-PRESERVING DEVICE FOR HATS.

Application filed May 2, 1925. Serial No. 27,408.

To all whom it may concern:

Be it known that I, MARTIN W. DOWIARZ, a citizen of Poland, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shape-Preserving Devices for Hats, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to devices adapted to be inserted in hats to prevent them from being pressed inwardly out of shape, and has particularly for its object to provide an improved device adapted to be inserted in mens's hats of the fedora type to maintain them in proper form. As is well understood, fedora hats are usually indented longitudinally at the top to form a groove or channel, and are indented laterally at opposite sides of said groove. These lateral indentations should be confined to the upper portion of the hat so as not to extend quite down to the upper margin of the ribbon, but unless the user is very careful in handling his hat they are very apt to extend down too far to present a proper appearance, and this is especially true after a hat has been worn for some time and is not as stiff as it was originally. By holding such lateral indentations in place, however, the hat will be caused to present a fresh and neat appearance so that even though it may have been worn a long time it will not show its age.

I accomplish my object as illustrated in the drawings and hereinafter described. What I regard as new is set forth in the claims.

In the accompanying drawings,—

Fig. 1 is a perspective view of my improved shape preserving device applied to a hat, which is shown in dotted lines;

Fig. 2 is an elevation showing the construction by which the overlapped ends of the band are held in operative relation to each other;

Fig. 3 is a partial longitudinal section on line 3—3 of Fig. 1;

Figs. 4 and 5 are elevations showing the two end portions of the band separately;

Fig. 6 is an enlarged vertical section on line 6—6 of Fig. 1;

Fig. 7 is an enlarged vertical section on line 7—7 of Fig. 1;

Fig. 8 is an enlarged vertical section on line 8—8 of Fig. 1;

Fig. 9 is an enlarged vertical section on line 9—9 of Fig. 1; **and**

Fig. 10 is a partial longitudinal section on line 10—10 of Fig. 9.

My improved shape preserving device comprises an annular band of suitable elastic material, such as spring metal, which is adapted to be inserted in the hat and then expanded sufficiently so that it fits closely all around the inner surface of the hat just below the proper low point of the lateral indentations, and is held against dropping from its proper position. Obviously the band should have sufficient elasticity so that it will hold its shape without causing the sides of the hat to protrude beyond their normal lines. While the band should be capable of being expanded readily, not only for convenience in inserting it, but also so that it may be adjusted to hats of different sizes, it should also be incapable of accidentally contracting, or in other words should be normally locked against contraction, as otherwise it might work loose and drop out of place. As will be seen from the following description, these desirable qualities are realized by my improved construction. Referring now to the drawings,—11 indicates the elastic band which constitutes the main member of my improved form preserving device, said band being of sheet steel bent to elliptical shape with its ends overlapped so that it corresponds in contour to the ordinary or proper shape of a hat. The side portions of the band, that is to say, the portions that lie opposite the side portions of the hat, are substantially flat, while the end portions of the band are preferably crowned or rounded slightly to conform to the curvature in a vertical plane of the end portions of the hat. This crowning is best shown in Fig. 6.

The end portions of the band 11 are indicated by the reference numerals 12, 13, and are shown separately in Figs. 4 and 5, in which their inner surfaces are represented. As therein shown, the end portion 12 is provided with a longitudinal slot

14, and the end portion 13 is provided with a longitudinal slot 15. The side margins of the slot 15 are notched or serrated to provide teeth 16 between which are recesses 17, the teeth 16 being designed after the manner of ratchet teeth. Adjacent to one end of the end portion 12 it is provided with a dog 18 frustro-conical in contour so that it is adapted to fit in two opposite recesses 17 when the two end portions 12, 13 are superposed and are in close contact with each other, as illustrated in Fig. 2. Preferably the dog 18 is formed by indenting one surface of the end portion 12 by a suitable die so as to form a projection at the opposite surface thereof of proper shape to constitute the dog 18. When the two end portions are assembled in operative position the two slots 14, 15 register and the dog 18 lies in opposite notches 17 so that it abuts against the teeth 16 at the bases of said notches. The outer surface of the dog 18 is rounded slightly at its margins so that it presents a rounded surface to the inclined portions of the notches 17, the purpose of which is to permit the band to be expanded easily, as will be hereinafter explained.

The end portion 12 of the band is provided with a button 19 having heads 20, 21 at the opposite ends of a shank 22, said shank being long enough so that the heads 20, 21 are separated far enough so that the two end portions of the band may lie between them. The button may be made in any suitable way, as by using a rivet the shank of which is passed through a hole 23 in the end portion 12, a washer being secured upon the opposite end of the shank after the two end portions 12, 13 have been overlapped, the shank, of course, passing through the slot 15 in the end portion 13. Preferably, however, I form the shank with a portion 24 of somewhat greater diameter than that of the hole 23 so that the button may be tightly riveted to the end portion 12 over the washer 21, and still leave a space wide enough to receive the end portion 13 and permit it to slide longitudinally of the end portion 12. It will be noted that the hole 23 is at one side of the dog 18, and that said dog lies between said hole and the adjacent end of the end portion 12. The purpose of this arrangement is to permit the dog to be moved out of engagement with the teeth 16 by lateral separation of the overlapping portions of the band effected by deflecting the end portion 12 inwardly. The end portions of the band are overlapped with the portion 12 on the inside and the dog 18 projecting from the outer surface thereof into the notches 17 and engaging the teeth 16, and normally this position will be maintained by the elasticity of the band, which tends to prevent inward deflection of any part thereof. If, however, the band be deflected inwardly at or adjacent to the button 19, the end thereof which carries the dog 18 will move away from the overlapping part of the end portion 13, thereby carrying said dog out of the recesses 17 and out of engagement with the teeth 16. When this occurs, obviously the end portions may be slid along each other in either direction to expand or contract the band. As soon as released, however, the elasticity of the material will return the dog 18 into locking engagement with the teeth 16, which will prevent contraction of the band, without, however, preventing its easy expansion, such expansion being permitted because of the fact that the side portions of the dog 18 adjacent to the button 19 are bevelled or rounded, and as they engage the curved portions of the recesses 17 it will be obvious that when the end portions are slid along each other in a direction to expand the band, the dog 18 will be automatically moved inward away from the end portion 13 to permit such sliding movement. In other words, the dog 18 trips over the teeth 16 when the band is expanded, and interlocks with such teeth when an effort is made to contract it.

To hold the end portions 12, 13 so that the slots 14, 15 are always alined, I provide a second button 25 similar to the button 19, which however, is secured to the end portion 13 in a hole 26 therein, as shown in Figs. 3 and 5. The button 25 is provided with a shank 27 which extends through the slot 14, and said shank carries a washer 28 corresponding with the washer 21. The two buttons 19 and 25 are always spaced some distance apart, even when the band is expanded to its greatest extent, and consequently their shanks prevent dis-alinement of the slots 14 and 15.

From the foregoing description it will be seen that after the band has been introduced into the hat it may easily be expanded to the proper size, and after having been so expanded it will not accidentally contract. If, however, it be desired to contract it the end portions of the band may be unlocked from each other by deflecting the rim inwardly at or near the button 19 to move the dog 18 out of engagement with the teeth 16. As soon as the deflecting pressure is removed, however, the dog will be returned to its locking position by the elasticity of the band.

For various reasons it is not desirable to make the band 11 very wide, and to permit the use of a comparatively narrow band without danger of forming an externally visible ridge or bulge around the outer surface of the hat I introduce a comparatively broad strip 29, preferably of fibrous material, which extends a short distance beyond each margin of the band 11, as best shown in

Fig. 1, thus furnishing what may be called a comparatively wide tread for the elastic band. The strip 29 also has its ends overlapped so that it may expand or contract to conform to the size of the band 11, but it is not necessary to fasten its overlapping end portions together, as it is used merely as a pad interposed between the band 11 and the material of which the hat is formed.

To prevent the band 11 from working down from its proper position, it is provided at intervals with a number of pins 30 which project through the strip 29 far enough so that they penetrate a short distance into the fabric of the hat, as best shown in Fig. 9. These pins are preferably formed integral with the band 11 by making two angular incisions in the margin thereof to form a V-shaped tooth and bending the tooth over at right angles to the body of the band, as best shown in Fig. 10.

It will be understood that the material of which the band 11 is composed is quite thin so that it is not heavy enough to be objectionable, and as it is placed high enough in the hat so that it does not come in contact with the head of the wearer its use is not objectionable on that account. While a band capable of being freely expanded but locked against contraction as described is particularly applicable for use in preserving the form of hats, I wish it to be understood it may be used for any other purpose for which it is adapted.

What I claim as my invention and desire to secure by Letters Patent, is—

1. A device of the character described, comprising an elastic annular band having overlapping end portions, means holding said end portions together to slide longitudinally upon each other, and means carried by one of said end portions arranged normally to interlock with the other overlapping end portion to prevent contraction but permit expansion of said band, said means being movable out of such locking position by lateral separation of overlapping portions of the band.

2. A device of the character described, comprising an elastic annular band having overlapping end portions, means holding said end portions together to slide longitudinally upon each other, and a dog carried by one of said end portions adjacent to said holding means and at one side thereof adapted to interlock with the other overlapping end portion to prevent contraction but permit expansion of said band, whereby said dog may be moved out of locking position by lateral separation of overlapping portions of the band.

3. A device of the character described, comprising an elastic annular band having overlapping end portions, a dog carried by one of said end portions, ratchet teeth carried by the other end portion and adapted to be engaged by said dog when the end portions of the band are in normal position and to be disengaged from said dog by lateral separation of overlapping portions of the band, and means at the side of said dog remote from the end portion by which it is carried for holding said end portions together to slide longitudinally upon each other.

4. A device of the character described, comprising an elastic annular band having overlapping end portions provided with longitudinal slots, the slot of one of said portions having marginal ratchet teeth, a dog carried by the other end portion of the band and adapted to engage said ratchet teeth when the end portions of the band are in their normal relation to each other, and to be moved out of engagement with said teeth by inward movement of the dog, and means at one side of said dog for holding said end portions together to slide longitudinally upon each other.

5. A device of the character described, comprising an elastic annular band having overlapping end portions provided with longitudinal slots, the slot of one of said portions having marginal ratchet teeth, a dog carried by the other end portion of the band and adapted to engage said ratchet teeth when end portions of the band are in their normal relation to each other, and to be moved out of engagement with said teeth by inward movement of said dog, means at one side of said dog for holding said end portions together to slide longitudinally upon each other, and means for holding said slots in substantial alinement with each other.

6. A shape preserving device comprising an elastic annular band having overlapping end portions, means holding such end portions together to slide longitudinally upon each other, and means normally locking the end portions of said band against contraction but permitting expansion thereof.

7. A shape preserving device comprising an elastic annular band having overlapping end portions, means holding such end portions together to slide longitudinally upon each other, and ratchet devices carried by the end portions of said band and co-acting normally to prevent contraction of said band while permitting expansion thereof.

8. A shape preserving device comprising an elastic annular band having overlapping end portions, means holding such end portions together to slide longitudinally upon each other, and ratchet devices carried by the end portions of said band and elastically held normally in position to co-act to prevent contraction of said band while permitting expansion thereof, said ratchet devices being separable, to permit contraction

of the band, by lateral movement of one of the overlapping portions thereof relatively to the other.

9. A shape preserving device comprising an elastic annular band of oval shape, the band at the end portions of the oval being crowned in a vertical plane, said band having ends arranged to overlap, means for holding said ends together to slide longitudinally upon each other, and means normally locking the ends of the band against contraction but permitting expansion thereof.

MARTIN W. DOWIARZ.