No. 842,337. PATENTED JAN. 29, 1907.

M. W. ROBERTSHAW.

AUTOMATIC HAT FASTENER.

APPLICATION FILED FEB. 23, 1906.

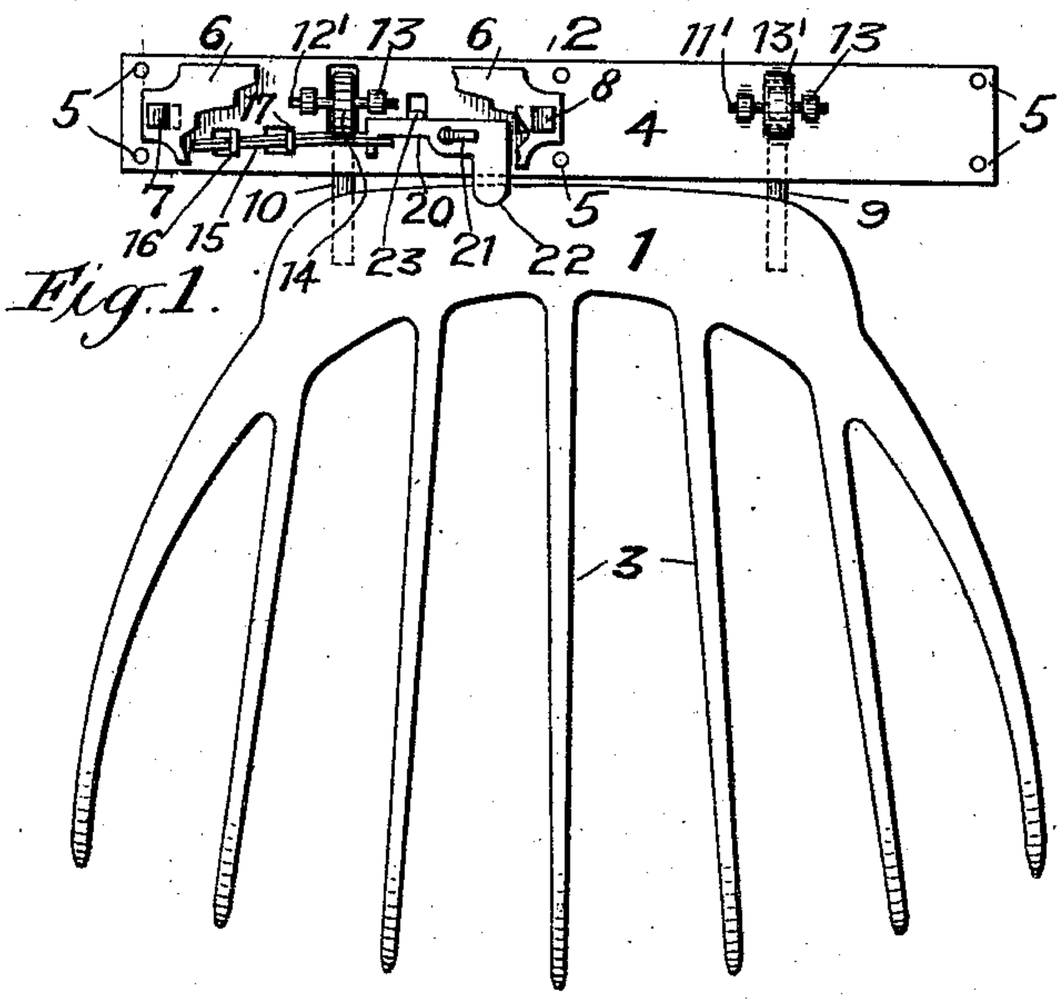


Fig. 1.

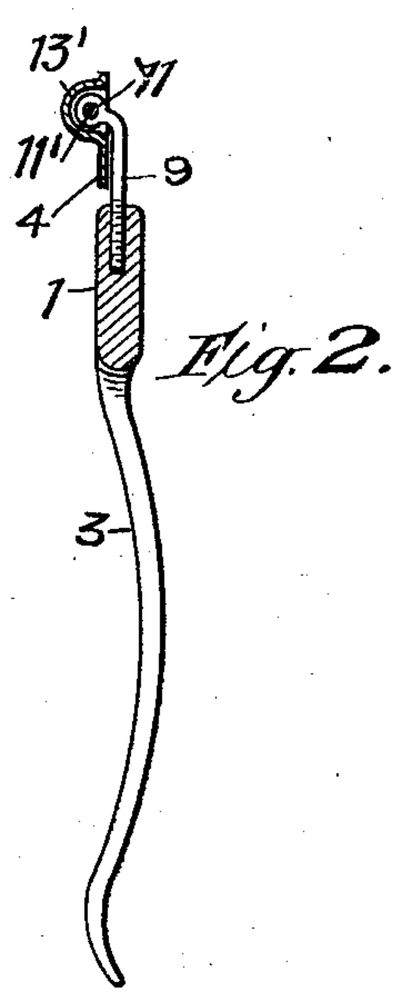


Fig. 2.

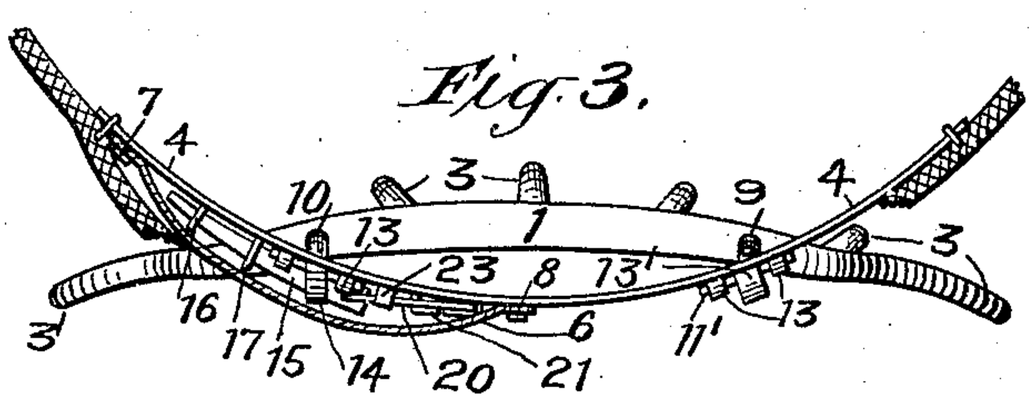


Fig. 3.

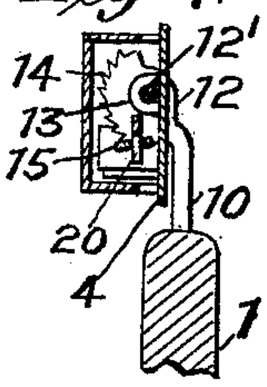


Fig. 4.

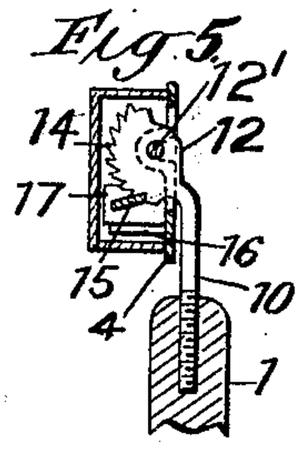


Fig. 5.

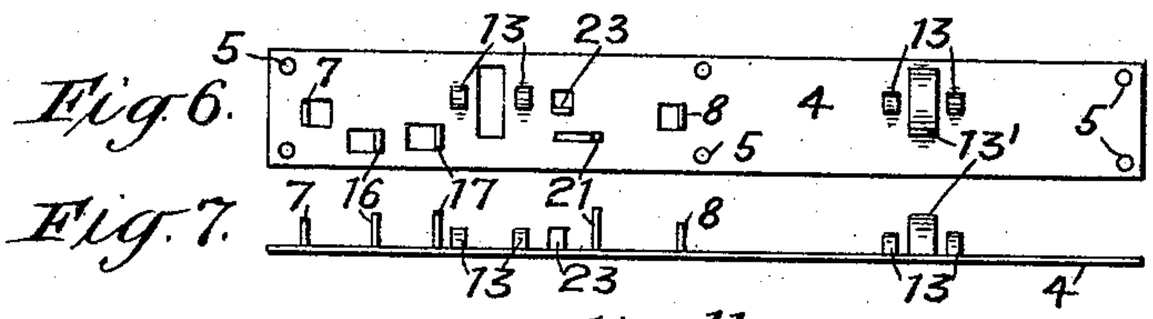
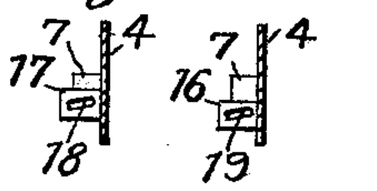


Fig. 6.

Fig. 7.



Figs. 8 and 9.

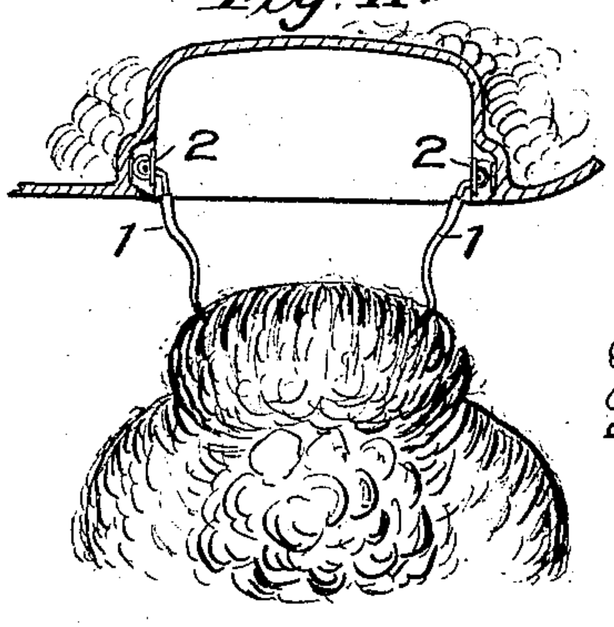


Fig. 11.

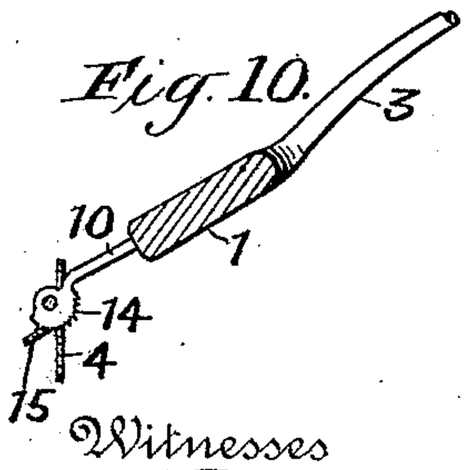


Fig. 10.

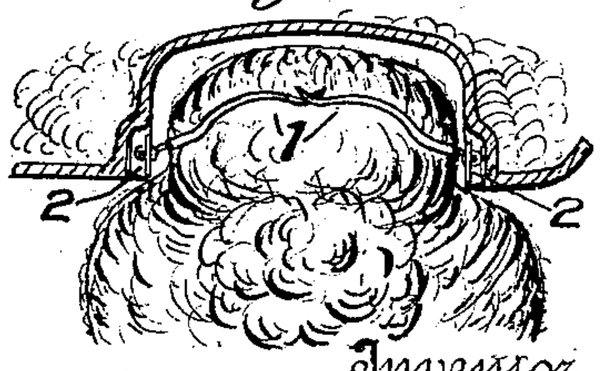


Fig. 12.

Witnesses
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Milfred W Robertshaw
By his Attorneys
Philipp Sawyer Lee & Kenneth

UNITED STATES PATENT OFFICE.

MILFRED W. ROBERTSHAW, OF NEW YORK, N. Y.

AUTOMATIC HAT-FASTENER.

No. 842,337. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed February 23, 1906. Serial No. 302,367.

To all whom it may concern:

Be it known that I, MILFRED W. ROBERTSHAW, a citizen of the United States, residing at New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Automatic Hat-Fasteners, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to improvements in fastening attachments for women's hats, it being the object of the invention to provide an attachment of this kind designed to be attached to the inside of the hat and by engagement with the hair of the wearer to effectively resist removal or displacement of the hat while being worn.

To this end the invention consists of an automatic fastening device comprising two members, one adapted to be sewed or otherwise attached to the inside of a hat and the other, which is toothed, (or in the form of a comb,) adapted to be inserted in the hair of the wearer, the latter member swinging on the former in a vertical direction when in use, so as to move into holding position and so that the hat may be adjusted up and down upon the head of the wearer and automatically locked in any position of adjustment by a suitable locking device interposed between the two members, which may be operated to release said hair-engaging member when the wearer desires to remove or readjust the hat.

As a full understanding of the improvements of the present invention can best be given by a detailed description of an organization embodying the same, such description will now be given in connection with the accompanying drawings, in which—

Figure 1 is a plan view of one of the fastening attachments. Fig. 2 is a section of the same. Fig. 3 is an edge view of the same, showing it attached to a hat. Figs. 4 and 5 are sectional views illustrating particularly the automatic locking device between the two members and the means for operating it to release the hair-engaging member. Figs. 6 to 9 are details of the blanks from which is formed the member which is to be sewed to the hat. Fig. 10 is a section illustrating the two members in the positions they occupy relatively to each other when the hair-engaging member and the hat to which it is attached are adjusted to the desired position on the head of the wearer. Fig. 11 illustrates a hat provided on opposite sides with two of the attachments about to be placed upon the head, and Fig. 12 is a similar view illustrating the hat positioned on the head and the toothed member of the fastening attachment in the position it then occupies.

Referring to said drawings, 1 represents the hair-engaging member of the attachment, and 2 the other member, which is to be attached to the inside or inner band of the hat. The hair-engaging member 1 is curved slightly in a longitudinal direction to conform to the head (see Fig. 3) and is provided with teeth 3, which are preferably widely separated and diverge toward their outer ends, this toothed portion of the member 1 being also slightly curved lengthwise and crosswise of the teeth to conform to the head (see Figs. 2 and 3) and the ends of the teeth being turned inward, so that when the hat having the attachment is pressed down on the wearer's head the engaging member will be caused to swing inward and upward.

The member 2 consists, preferably, of a front plate 4, of sheet metal, having holes 5 at its ends and middle portion, by which it may be sewed or otherwise attached to the inner band of a hat, (see Fig. 3,) and a back protecting-plate or shield 6, (shown broken away in Fig. 1 and fully in Fig. 3,) which is secured to front plate 4 by lugs 7 8, rising from the blank from which said plate is formed (see Figs. 6, 7) and entering corresponding openings in the back plate 6, these lugs being turned down over the face of said plate, as shown in Fig. 1.

The hair-engaging member 1 is connected with member 2 by projections 9 10, screwed into or otherwise secured to the base of member 1, these projections 9 10 being provided with bosses 11 12, respectively, through which are drilled holes for receiving pins 11′ 12′, each mounted in a pair of lugs 13, (see Fig. 1,) stamped up from front plate 4. (See Figs. 6, 7.) The plate 4 is also stamped up, as shown, to form a small protecting-cover 13′ for the boss 11 on the projection 9. The member 1 is therefore pivotally mounted on the member 2 and is free to swing upwardly and downwardly thereon and downwardly and upwardly with relation to the hat to which the attachment may be secured, except for a locking device, which will now be described and the function of which is to automatically retain the hair-engaging member 1 in any position to which it may be moved

upwardly on the member 2 and prevent any downward movement thereof from that position. The locking device for this purpose consists of a ratchet 14, formed upon the boss 12, which is adapted to be engaged by a spring-pawl 15 in the form of a plate, mounted in lugs 16 17, struck up from the back plate 4. (See Figs. 6, 7.) These two lugs 16 17 are staggered or formed at different distances from the edge of the plate 4, so that when the spring-plate 15 is introduced into the slots 18 19, respectively, provided for its reception in these lugs, its forward end will be held yieldingly against the ratchet 14. These slots 18 19, it will be observed on reference to Figs. 8 and 9, are arranged obliquely, so that the ratchet-engaging edge of the spring-pawl 15 will be properly presented to the teeth of the ratchet, as shown in Figs. 4 and 5.

From this construction it results that when the hair-engaging member 1 of the attachment is swung upwardly, as shown in Fig. 10, the pawl 15, engaging the ratchet 14, will prevent any downward movement thereof until said pawl 15 is disengaged from the ratchet 14 by the manually-operated means which will now be described. The means for so disengaging the pawl 15 from the ratchet 14 consists of a bell-crank lever 20, pivotally mounted upon a lug 21, struck up from the back plate 4, (see Figs. 1, 6, and 7,) and the forward end of which engages the forward end of the spring-plate 15, while the rearward end thereof projects beyond the front plate 4 and back plate 6 in the form of a thumb-piece 22 in a convenient position for engagement by the thumb. The forward end of the lever 20 has a projection 20′, which extends through a hole in the end of the pawl, such connection serving to hold both the lever and the pawl against displacement. The forward end of the lever 20 normally rests against a back-stop consisting of a lug 23, struck up from the front plate 4, and in this position of the lever 20 the pawl 15 is in position for engagement or is in actual engagement with the ratchet 14. When, however, the lever 20 is swung upon its pivot by the inward movement of the thumb-piece 22, the pawl 15 will be moved out of engagement with the ratchet 14 by the engagement of the forward end of lever 20 with the forward end of said pawl 15, so that the hair-engaging member 1 may then be swung downwardly from any upward position to which it may have been moved upon the member 2 to the position in which it is shown in Fig. 11, for example, which is its normal position. These locking devices and the releasing-lever 20 are, as will be observed, all covered and protected by the shield or plate 6, which when the attachment is secured to a hat is interposed between these parts and the part of the hat to which the plate 4 is sewed. In use two such fastening devices, a right and a left hand device, will be secured to the hat on opposite sides thereof, so that the toothed portions of the two members 1 will project inwardly and overlap each other when the hat is in position upon the head. With two such devices so secured to the hat when the hat is brought over the head the toothed portions of the two hair-engaging members 1 will engage the hair substantially as indicated in Fig. 11 of the drawings. When the hat is then moved down upon the head and otherwise adjusted thereon, the hair-engaging members 1 of the two attachments will both swing upwardly upon the members 2, their toothed portions moving inwardly through the hair toward each other until the hat has reached its proper position upon the head, when the two hair-engaging members 1 will assume such overlapping position with relation to each other as is indicated in Fig. 12 of the drawings. These two hair-engaging members are then automatically locked in this position by the locking device, which has been described, and as a result of this the hat will be held securely against displacement or removal from the head until the ratchet 14 is released from pawl 15 by the upward movement by the wearer of thumb-piece 22 of the releasing-lever 20.

What I claim is—

1. An automatic hat-fastening attachment comprising a member for attachment to the hat, a hair-engaging member vertically movable thereon, and a hand-releasable locking device for positively locking it against retrograde movement in different positions to which it may be moved between its limits of vertical movement.

2. An automatic hat-fastening attachment comprising a member for attachment to the hat, a hair-engaging member pivotally mounted thereon so as to swing vertically, and a hand-releasable locking device for positively locking it against retrograde movement in different positions to which it may be moved between its limits of vertical movement.

3. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed hair-engaging member vertically movable thereon, and a hand-releasable locking device for positively locking it against retrograde movement in different positions to which it may be moved between its limits of vertical movement.

4. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed hair-engaging member pivotally mounted thereon so as to swing vertically, and a hand-releasable locking device for positively locking it against retrograde movement in different positions to which it may be moved between its limits of vertical movement.

5. An automatic hat-fastening attach-

ment comprising a member for attachment to the hat, a hair-engaging member pivotally mounted thereon so as to swing vertically, and a hand-releasable locking device, consisting of a ratchet on one member and a pawl on the other for retaining the hair-engaging member in the position to which it may be moved.

6. An automatic hat-fastening attachment comprising a member for attachment to the hat, a hair-engaging member pivotally mounted thereon so as to swing vertically, a locking device, consisting of a ratchet on one member and a pawl on the other, for retaining the hair-engaging member in the position to which it may be moved, and manually-operated means for disengaging said member from the locking device.

7. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed member 1 pivotally mounted thereon and having a ratchet 14, and a hand-releasable pawl 15 for engaging said ratchet.

8. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed member 1 pivotally mounted thereon and having a ratchet 14, a pawl 15 for engaging said ratchet, and a hand-operated lever 22 engaging said pawl.

9. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed member 1 pivotally mounted thereon and having a ratchet 14, a pawl 15 for engaging said ratchet, and a hand-operated lever 22 engaging said pawl, said pawl and lever being covered and protected by a plate 6.

10. An automatic hat-fastening attachment comprising a member for attachment to the hat, a hair-engaging member pivotally mounted thereon so as to swing vertically and having a plurality of diverging teeth 3, and a hand-releasable locking device for positively locking it against retrograde movement in different positions to which it may be moved between its limits of vertical movement.

11. An automatic hat-fastening attachment comprising a member for attachment to the hat, a toothed hair-engaging member pivotally mounted thereon so as to swing vertically, and a hand-releasable locking device for retaining the hair-engaging member in the position to which it may be moved, the toothed portion of said hair-engaging member being curved lengthwise and crosswise of the teeth to conform to the head, with the ends of the teeth curved in the opposite direction, substantially as described.

12. In an automatic hat-fastening attachment comprising a member for attachment to the hat and a hair-engaging member pivotally mounted thereon so as to swing vertically, the combination of a ratchet 14 on one member, a pawl 15 on the other, and a releasable lever 20 connected with the pawl 15 by means of a projection on one of said members extending into an opening in the other of said members.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

MILFRED W. ROBERTSHAW.

Witnesses:
A. L. KENT
J. A. GRAVES.