(No Model.)

L. OUSEY.

HAIR PIN.

No. 523,904. Patented July 31, 1894.

Fig. 1.

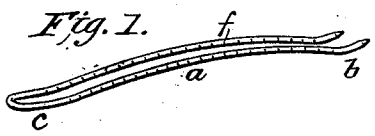


Fig. 2.

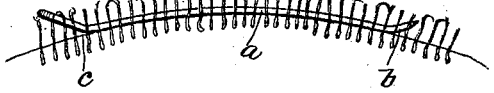


Fig. 3.

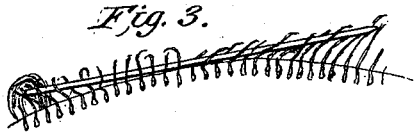


Fig. 4.

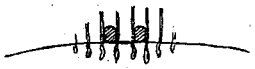


Fig. 5.

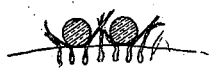


Fig. 6.

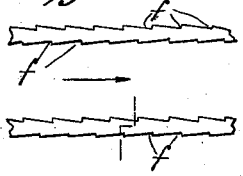
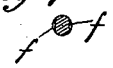


Fig. 7.



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UNITED STATES PATENT OFFICE.

LOUISA OUSEY, OF SOUTH WIMBLEDON, ENGLAND.

HAIR-PIN.

SPECIFICATION forming part of Letters Patent No. 523,904, dated July 31, 1894.

Application filed June 29, 1893. Serial No. 479,145. (No model.)

To all whom it may concern:

Be it known that I, LOUISA OUSEY, of Bellevue Villa, South Wimbledon, in the county of Surrey, England, have invented a new and useful Improved Hair-Pin, of which the following is a specification.

The continuous use of hair pins now generally in vogue, is detrimental and destructive to the hair, since the most of them are usually straight and not adapted to fit themselves to the contour of the head, and therefore can only touch the integument of the skull at the base of a very few hairs, and as the strain of supporting a mass of hair is thereby imposed upon such limited number of such hairs, it follows, that the follicles are injured, causing thereby the hair to gradually fail, and disappear, producing bare patches and consequent diminution of the mass.

In cases where large or ornamented pins are used, whether straight or bent, it is impossible for such pins, owing to their thickness and weight, to fit between the shafts of the hair and closely against the integument of the skull, where such shafts are of the greatest strength, without imparting a lateral or sidewise pressure or strain upon the follicles, to such extent as to injure the hair; as also without failing to properly receive the support which the hair shafts should impart to the pin, and in consequence the employment of such pins for holding up the hair becomes practically a useless one, not to speak of the irritation produced in the scalp by their close adjustment.

As the hair shafts spring from the follicles in the scalp in definite directions, it follows, that, they may be injured, broken or destroyed by a constant strain, by being bent in a wrong direction, and by injuries to the skin and follicles, such latter injuries being often caused by the user's endeavors to insert straight pins closely against the scalp, to tightly hold the hair in place.

These serious objections I overcome by the use of my invention, the ulterior purpose of which is to produce a hair pin which is adapted to be inserted into the hair, in the greatest possible manner of directions, with the least possible injury to follicles, while obtaining from the hair shafts which spring from them, the utmost possible support or hold back for the pin, when inserted between such shafts.

Furthermore my invention has for its object to provide a hair pin formed of thin flexible material preferably wire curved to fit itself to the contour of the head, whereby it will project between a large number of hair shafts at points between the follicle ends of such hair without applying undue lateral pressure thereagainst and at the same time apply a uniform strain upon such supporting hair shafts.

Another object is to provide a hair pin which will, as it is hurriedly inserted, quickly adapt itself to the head curvature, and enter between the follicle ends of the hair, nearly its entire length without the possibility of abrading or otherwise injuring the scalp; also to add to the comfort of the user, by enabling her to rest her head against the back of a chair or carriage, or to wear a bonnet that fits her head snugly without causing suffering by the pressure of the wire pin, and without disturbing either the hair pins or the arrangement of her hair and without lugging or breaking it.

With other objects in view which hereinafter will be referred to, my invention consists in a hair pin constructed in the manner fully set out in the following description, and specifically pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved hair pin. Fig. 2 illustrates it as applied for use. Fig. 3 illustrates a straight hair pin as applied for use. Fig. 4 is a diagrammatic view illustrating the relative thickness of my improved hair pin to the hair and the positions which the hair shafts assume to serve as lateral supports for the prongs of the pin. Fig. 5 illustrates the use of a thick metal shell or celluloid pin, illustrating the manner in which the use of such pins serves to bend, break and injure the hair shafts and prevent them from serving as lateral supports. Fig. 6 is a view of a section of my improved pin on an enlarged scale, illustrating

the denticulations. Fig. 7 is a transverse section of the same on the line 7—7.

My improved hair pin is formed preferably of wire, but may be made of annealed or toughened glass, or other suitable material and in practice is of varied sizes, their use and position of use depending, upon the quantity or mass of hair to be held up, in all cases, however, the thickness of the prongs is approximately such as will enable them to be inserted between the hair shafts to receive from them their full degree of lateral support, without the danger of bending them sidewise or crowding them down. This degree of thickness it should be stated, is very advantageous, in that, to receive the maximum supporting power of the hair shaft, the thickness of such prongs should not be greater than the average space between the hair shafts, as such construction avoids all danger of the hair breaking or being overstrained.

Referring now to Figs. 4 and 5 of the drawings, the relation of a thin pin and a thick pin to the hair shafts will be best understood. In Fig. 4 I have illustrated on a somewhat enlarged scale, the position the prongs of my improved hair pin assume when inserted. It will be noticed that the thickness (diameter) of such prongs, is nearly equal to the space between hair shafts, which being not crowded, retain their normal or vertical position and extend up at each side of the prongs and form substantially side or lateral supports therefor.

Now in the use of a thick pin, such as for instance the common celluloid or shell pin, should it be inserted close to the scalp the prongs in crowding between the hair shafts, will, owing to their thickness, crowd such shafts, bend them over and down, as shown in Fig. 5, and thereby not alone render them practically useless as side supports, but in consequence injure them and cause the hair to waste in strength and color and drop out.

I am aware that straight thin hair pins have been before employed but these are all open to the objections above noted, especially so, in that owing to their extreme thinness they will not have sufficient support from the few hair shafts through which they pass.

In my construction the pin is curved nearly its entire length as shown at *a*, such curve being approximately that of the surface contour of the average female skull, the ends of the prongs proper terminating in short upturned ends *b*, while the head portion ends in a straight portion projected obtusely from the curved portion as at *c*, such end forming the loop to hold up the hair mass, and in practice its length is varied in accordance with the length of the pin. This loop *c* it will be noticed projects from the head and is really the only portion of the pin which projects beyond or to the outside of the hair, making the pin practically an invisible one.

The curvature of the pin being as stated, such as to fit the head, permits such pin to lie flatly thereagainst, between the hair shafts, and while such curvature allows for a close fit of the pin nearly its entire length, makes it possible for a thin pin to seat itself between a large number of hair shafts and receive from them a lateral support, sufficient to hold them secure, (a result impossible to obtain in the use of a straight thin pin) without undue strain on any one hair of the sustaining number.

The turned up ends *b* which in practice are preferably rounded, allow the pin to be inserted against the head at almost any angle that would in practice be traversed by the user, without the danger of scratching the scalp, and also causes the said ends to ride easily over the scalp without injury thereto, such ends also serving to some extent as supports for a mass of hair.

To prevent hair pins from shaking out, it has hitherto been usual to make their prongs diverge. In inserting such pins the divergent prongs are squeezed toward each other, and when in position, allowed to expand, which expansion causes them to push over the shafts of the hair, that are not between them, and as such hair shafts naturally resist flexion they serve to thrust the prongs away from the head. This injurious bending of the hair in different directions I overcome by making the prongs parallel and serrating them (by indentations or denticulations) as shown at *f*, such serrations being inclined in the direction shown, whereby the prongs meet with little or no resistance to their penetration, but will resist withdrawal, such serrations however, while of sufficient depth, to serve as notches to slip over the hair shafts to hold the pins from coming out are not sufficiently deep to affect the strength or rigidity of the prongs. The prongs if thus made parallel and serrated in the manner stated will not, on account of their thickness push over and injure the hair shafts nor will they slip out.

In practice the pins may have their bent or loop portion colored in different shades to suit the different colors of hair, and this is the object of adopting toughened glass, as the strongest material capable when colored to the same hue as the hair of being so thin as to be practically invisible and at the same time to pass between the hair shafts without bending them over.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An improved hair pin formed of thin flexible wire having the prongs projected parallel and curved in an arc, as at *a*, the loop end terminating in a supporting portion *c* projected at an obtuse angle from the curved part, and the points terminating in upturned ends *b*, substantially as and for the purposes shown and described.

2. An improved hair pin formed of thin

flexible wire having the prongs projected parallel and curved in an arc as at *a*, the loop end terminating in a supporting portion *c* projected at an obtuse angle from the curved part, the points terminating in upturned ends *b*, said curved portions having serrated or incut edges, such cut edges tapering inward from the loop to the point ends, all substantially as shown and for the purposes described.

LOUISA OUSEY.

Witnesses:
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