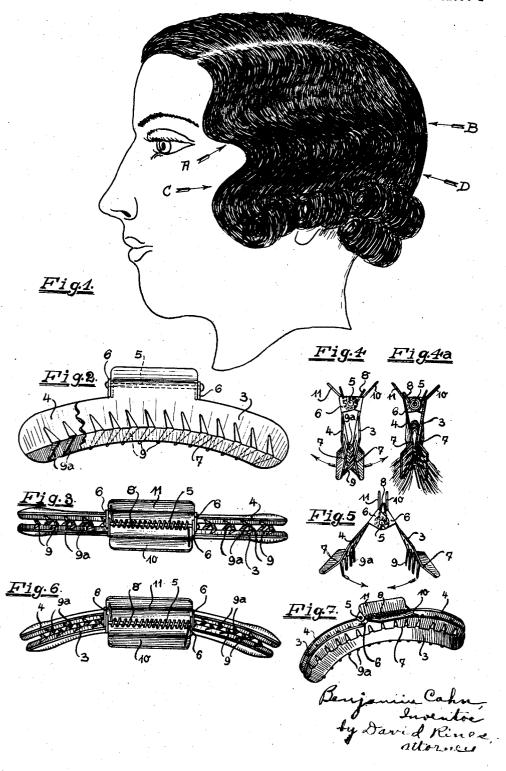
CLASP OR CLIP FOR HAIR WAVING

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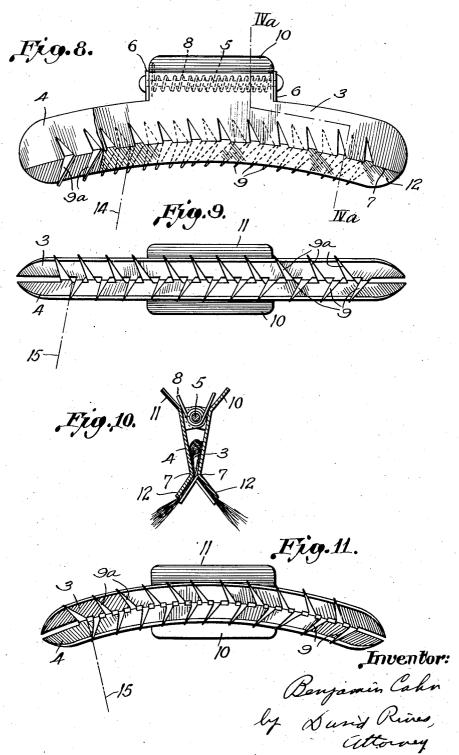
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UNITED STATES PATENT OFFICE

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CLASP OR CLIP FOR HAIR WAVING

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15 Claims. (Cl. 132-31)

This invention concerns a clasp or clip for relation to the direction of the ridge A-B or forming waves in the hair, that is, for arranging, giving form to and holding hair waves, having sides pressed on to each other lengthwise under 5 the influence of a spring, which sides are provided with lower edges curved according to the shape of the head and inner rows of teeth lying opposite to one another, but taking up their position in gaps, and further provided with finger gripping 10 members for opening the clasp.

According to this invention the teeth are so formed and are disposed in such a position on the sides of the clasp, that the longitudinal direction of each tooth is obliquely disposed in relation to 15 the curved line connecting the bases of the teeth of a row.

A further characteristic of the invention lies in the fact that the sides of the clasp are bent in a lateral direction.

In order that my invention may be better understood, reference may be made to the accompanying drawings, in which Fig. 1 shows hair waves as they are formed on the head, naturally or artificially; Fig. 2 is a partly broken side ele-25 vation of one embodiment of the improved clasp: Fig. 3 is a plan of the first embodiment, as viewed from above, in Fig. 2; Fig. 4 is a front elevation of the same, in closed position; Fig. 4a is a transverse section, with the hair wave secured. the section being taken upon the line IVa-IVa of Fig. 8, looking toward the left in Fig. 8; Fig. 5 is a view corresponding to Fig. 4, with the parts shown in extended position; Fig. 6 shows in plan a second embodiment; Fig. 7 is a perspective view of the same; Fig. 8 is an elevation corresponding to Fig. 2, with further parts shown in dotted lines; Fig. 9 is an underside plan of the embodiment shown in Figs. 2 to 5, inclusive, and Fig. 8; Fig. 10 is a section corresponding to Fig. 4a, but looking 40 toward the right in Fig. 8; and Fig. 11 is an underside plan of the modification shown in Figs. 6 and 7.

In Fig. 1, the ridges of the crests of the waves are marked A-B and C-D. The hair, as clearly 45 shown in this Fig. 1, runs at an oblique angle to these ridges A—B and C—D, not perpendicular thereto. With the known forms of clasp, the teeth on the sides are so formed, and are disposed on the sides in such a position, that the 50 longitudinal direction of the teeth runs perpendicularly, or approximately so, to the curved, connecting base line. When such a clasp is applied to a hair wave in the usual way, the teeth thereof, at their gripping points, force the hair 55 out of its natural, oblique, illustrated position in

C-D, with the result that the wave arranged or formed by the clasp becomes distorted.

With the embodiment according to Figs. 2 to 5, each of the two lengthwise extended sides or jaws 3-4 of the clasp with the finger grips 10disposed thereon, is made from sheet metal. These sides or jaws are connected together by means of a pin 5 which passes through holes in lugs 6 bent over from the hand grips. The edges 10 of the clasp sides 3-4 are curved to conform to the shape of the head and a rim 12 is bent back outwardly from the extremity of each clasp side along a curved line 7. A spring 8 fitted around the pin 5 tends to press the sides 3-4 against 15 each other.

In the curved line 7 of each of the clasp sides -4 are disposed the bases of the teeth 9-9a. The teeth 9-9a which are pierced from the clasp sides are bent back inwardly thereof in such a 20 way that the longitudinal direction of each tooth runs obliquely in relation to the line 7, so that the line of projection from the reduced extremity or tip of any tooth intersects the line of its base outside the base of the tooth. The teeth of both 25 sides are so disposed in relation to each other that when the clasp is in its closed position, the teeth of the one side engage in the gaps between the teeth of the other side and with the teeth near the outer ends bearing on the outwardly 30 bent rims 12 (Figs. 4 and 10). In the closed position, the extremities of at least some of the teeth 9-9a project beyond the lower edge of the sides 3 or 4 against which they lie, which edge is curved to the shape of the head (Figs. 2 and 8). The object of this construction is to enable quite short hair to be secured by the clasp.

When the clasp is seen in side elevation, as in Figs. 2 and 8, the line of projection 14 (Fig. 8) from the tip of any tooth of a row intersects the line connecting the bases of the teeth at a point outside the base of the particular tooth. In the closed position of the clasp, as is particularly shown in Figs. 2—3, and as seen in edge view from below in Fig. 9, the line of projection 15 (Fig. 9) from the tip of any particular tooth of the row of one side intersects the line connecting the bases of the rows of teeth on the other side of the clasp at approximately the beginning of the the base of an adjacent tooth in the latter row. 50

As is shown in Figs. 4, 4a and 10, the sides 3-4of the clasp, when the clasp is in closed position, do not contact at the base line 7 of the teeth, but are held apart by the contact of the teeth with the rims 12, and the sides are also spaced 55 apart near the pivot axis. The clasp sides, when the clasp is closed, lie at an angle such that the sides converge from the back edges to the base line of the teeth.

When using the clasp, the finger grips sides 10—11 are pressed together against the pressure of the spring 8, whereupon the clasp opens and the teeth 9—9a are set apart from each other. The clasp is then fixed on a hair wave at the point of a wave crest, that is to say, along the ridge A—B or C—D of such a wave (Fig. 1). Then the grips sides 10—11 are slowly released so that the teeth 9—9a engage in the hair in such a way that they are disposed approximately in the direction of the hair lying obliquely in relation to the direction of the ridge of the wave.

By virtue of the fact that the teeth 9—9a, running obliquely in relation to the curved line 7, engage in the hair in the same direction as the hair itself takes, the position and fall of the hair are not disturbed, and, by virtue of the fact that the sides 3—4 of the clasp lie near together only on the curved line 7 and are set apart outside the line, the possibility of spoiling the wave or pressing it flat is also avoided.

Thus the waves, as far as their maintenance is concerned are not detrimentally affected by the use of the new clasp from the standpoint of airiness (ventilation) and looseness but are for the first time given their correct form and are thus advantageously influenced, as is shown particularly in Figs. 4a and 10.

Owing to the oblique position of the teeth as illustrated and described, in comparison with clasps of the known types, in which the teeth run vertically in relation to their base line, considerable advantages accrue from the use of this clasp. The hair is held considerably more securely by means of the clasp and an unintentional loosening of the hair from the teeth of the clasp is rendered difficult.

According to the second embodiment (Figs. 6, 7 and 11) of the invention, the clasp sides 3—4 are bent in such a manner that the line 7 in which the base of the teeth 9—9a are set, is curved in two planes that is to say longitudinally as shown in Figs. 2 and 8 and laterally as shown in Figs. 6 and 11, whereby the arrangement or holding of hair waves running in a curve is made possible.

The clasp may be modified in various respects in relation to the embodiment illustrated and described. For example, the teeth, instead of having a flat surface, may be given any other desired and suitable form; for instance, they may have a slight undulation, and at the ends, instead of being pointed, they may be rounded off.

Instead of the ends of all teeth, when closed, projecting over the lower edge of the clasp side against which they lie, their form may be such 60 that the ends of only certain teeth project over the lower edge.

I claim:-

1. A clasp for arranging, giving form to and holding hair waves, with sides pressed on to each other lengthwise under the influence of a spring, which sides are provided with lower edges, curved according to the shape of the head and inner rows of teeth lying opposite to one another, but taking up their position in gaps, and further provided with finger gripping members for opening the clasp, characterized in that the longitudinal direction of each tooth is obliquely disposed in relation to the curved line connecting the base of the teeth.

2. A clasp in accordance with claim 1, charac-

terized in that the line of projection from the reduced extremity or tip of a tooth crosses the base line of the tooth outside the base of this tooth.

3. A clasp in accordance with claim 1, characterized in that, in the closed position of the clasp, the line of projection from the reduced extremity or tip of a tooth on one side of the clasp crosses the base line of the neighbouring tooth on the other side of the clasp at approxitooth on the other side of the base of the latter tooth.

4. A clasp in accordance with claim 1, characterized in that in the closed position of the clasp, the reduced extremities or tips of the teeth of 15 one side are in contact with the opposite side.

5. A clasp in accordance with claim 1, characterized in that the two sides of the clasp are given such a transverse section that in the closed position, between the base line of the teeth and 20 the pivot axis, they are not in contact with each other.

6. A clasp in accordance with claim 1, characterized in that the two sides of the clasp are given such a transverse section that in the closed position, between the base line of the teeth and the pivot axis, they are not in contact with each other and in that the sides of the clasp, in the closed position, lie at an angle to one another, and converge towards the line connecting the 30 bases of the teeth.

7. A clasp in accordance with claim 1, characterized in that in the closed position of the clasp, the reduced extremities of at least some of the teeth project over the arched lower edge of 35 the opposite side.

8. A clasp in accordance with claim 1, characterized in that the sides of the clasp are curved laterally in the form of an arch.

9. A clasp for holding hair waves in place 40 comprising a pair of jaws each in the form of a curved, elongated plate, each of said plates having a rearwardly extended fingerpiece, a hinged connection between the plates, a spring for normally forcing the fingerpieces apart, the lower part of the plates being bent outwardly so that these parts are flared, when the clasp is closed, each of the plates having a row of spaced teeth stamped out from it, the teeth on each plate being staggered with respect to the teeth of the other plate end extending forwardly towards the front edge of the clasp and angularly towards one another, the longitudinal direction of the teeth being obliquely disposed in relation to a line connecting the bases of the teeth of each row.

10. A clasp for holding hair waves in place comprising a pair of jaws each in the form of a curved, elongated plate, each of said plates having a rearwardly extended fingerpiece, a hinged connection between the plates, a spring for normally forcing the fingerpieces apart, the lower part of the plates being bent outwardly so that these parts are flared, when the clasp is closed, each of the plates having a row of spaced teeth stamped out from it, the teeth on each plate being staggered with respect to the teeth of the other plate and extending forwardly towards the front edge of the clasp and angularly towards one another, the longitudinal direction of the teeth being obliquely disposed in relation to a line connecting the bases of the teeth of each row, so that the line of projection from the tip of any tooth intersects the line connecting the bases of the teeth outside the base of the particular

11. A clasp for holding hair waves in place comprising a pair of jaws each in the form of a curved, elongated plate, each of said plates having a rearwardly extended fingerpiece, a hinged con-5 nection between the plates, a spring for normally forcing the fingerpieces apart, the lower part of the plates being bent outwardly so that these parts are flared, when the clasp is closed, each of the plates having a row of spaced teeth stamped 10 out from it, the teeth on each plate being staggered with respect to the teeth of the other plate and extending forwardly towards the front edge of the clasp and angularly towards one another, the longitudinal direction of the teeth being 15 obliquely disposed in relation to a line connecting the bases of the teeth of each row in such a manner that the line of projection from the tip of any tooth of the row on one jaw of the clasp crosses the line connecting the bases of the teeth of the

other row at approximately the beginning of the base of the adjacent tooth in the latter row.

12. A clasp according to claim 11, in which, in the closed position of the clasp, the teeth of one row are in contact with the outwardly bent part or rim of the opposite plate.

13. A clasp according to claim 11, in which the hinged connection between the two plates is such that, in the closed position of the clasp, the two plates lie at an angle and converge from the ends carrying the fingerpieces towards the line connecting the bases of the teeth.

14. A clasp according to claim 11, in which the tips of at least some of the teeth project over the lower edges of the plates.

15. A clasp according to claim 11, in which the plates are curved laterally in the form of an arch

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