April 17, 1951 H. GRISON 2,549,193

HAIR CURL CLAMP

Filed Dec. 27, 1949

Fig. 1.

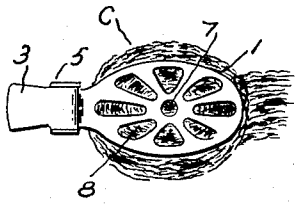


Fig. 2.

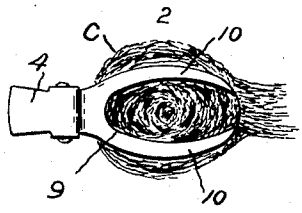


Fig. 3.

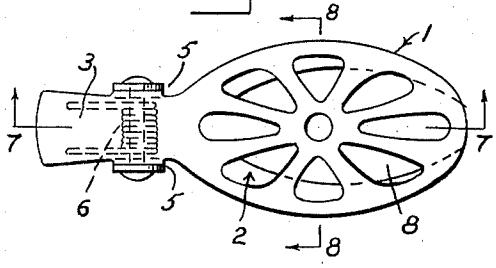


Fig. 4.

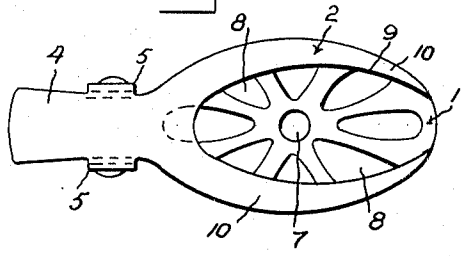


Fig. 5.

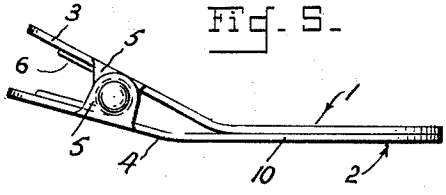


Fig. 6.

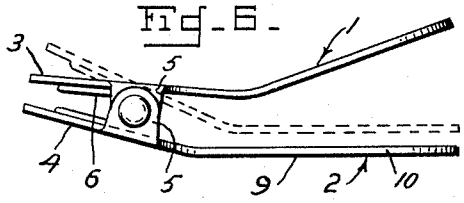


Fig. 7.

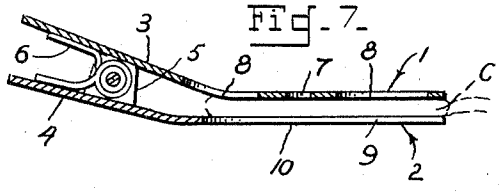
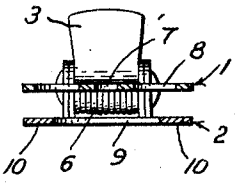


Fig. 8.



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HAIR CURL CLAMP

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1 Claim. (Cl. 132—46)

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This invention relates to a curl holding and setting clamp for holding cold permanent waves flat, finger or mandrel formed curls during the process of setting. More particularly, the invention relates to a clamp of that type comprising a pair of thin metal spring actuated jaws or plates which are pivotally connected at one end for closing and opening movements and adapted for engagement with opposite sides of an inchoate curl to hold the inchoate curl flat during setting solution applying and setting actions.

In the process of forming and setting curls of this character it has been the practice to wind a curl at a proper tension around a finger or mandrel, then press the curl to a flattened condition by the fingers of the hand, and then apply a pin or clamp to the curl to hold it in such condition while the setting solution is being applied and the curl is allowed to set. In such operation it is necessary, in order to form a good or perfect curl, to clamp the curl firmly and with equal force throughout its full area or substantially so, so that the solution may be properly applied thereto and so that the curl may be so held while it is setting to avoid the formation of a fringed or improperly shaped curl. All clamps of the type heretofore used for this purpose and with which I am familiar have been improperly shaped or constructed to allow proper application of the setting solution and engagement of the inchoate curl in a proper manner to form a permanent curl of perfect shape. Such prior clamps have been either defective in having jaws which are individually or jointly of improper form and/or in having their upper jaws provided with solution applying openings which allow too much solution to be applied to the inchoate curl, with deleterious results, thus making it difficult or impossible to produce a finely shaped curl which has been held under the proper tension and has not been injured by the setting solution.

One object of my invention is to provide a clamp of the type described which is free from these objections to prior clamps, which will hold the inchoate curl in proper form and under the proper tension, and which will allow the under jaw of the clamp to be inserted either under or into the hair, as circumstances may require, without material reduction of its clamping area with respect to that of the upper jaw.

Another object of the invention is to provide a clamp having an upper jaw formed with solution admitting openings so constructed and arranged as to insure uniform distribution of a

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proper amount of the setting solution to the clamped inchoate curl.

In the accompanying drawing illustrating the invention:

Fig. 1 is a top plan view of my improved clamp as applied to hold an inchoate curl for setting;

Fig. 2 is a bottom plan view of the same;

Figs. 3 and 4 are, respectively, a top plan view and a bottom plan view of the clamp, per se, on an enlarged scale;

Figs. 5 and 6 are side elevations of the clamp in closed and opened positions;

Fig. 7 is a longitudinal section through the clamp as shown by line 7—7 of Fig. 3;

Fig. 8 is a cross section through the clamp taken on line 8—8 of Fig. 3.

In carrying my invention into practice I provide a clamp comprising a flat upper jaw or plate 1 and a flat lower jaw or plate 2 which are of the substantially same boundary area and of the same general outline shape, each being of greater length than breadth and of elliptical or oval outline shape except at their rear ends, where the jaws or plates are provided with upwardly bent portions 3 and 4 forming operating handles. These handles are formed with pivotally connected hinge knuckles 5, adapting the jaws to swing open and closed, and to be swung open against the force of a spring 6 which normally hold the jaws in closed or clamping position.

After the inchoate curl C is formed and flattened, and while it is being held in one hand of the operator in such shape, the other hand of the operator is used to open the clamp and engage it with the curl so that the jaws 1 and 2 lie on the outer and inner sides of the curl and clamp the curl between them. Owing to the elliptical outline shape of each jaw a small diameter curl will be held completely between the jaws and curls of larger diameter will be held completely or substantially completely between the jaws, thus allowing curls to be held lengthwise or crosswise in a fully and equally clamped condition for setting at their wound tension, and so as to prevent the formation of a loose haired or fringed permanent curl, or one otherwise imperfectly formed.

As shown, the jaw 1 is provided with a plurality of solution feed openings comprising a central circular hole 7 and a series of slots 8 arranged about the same and extending around the jaw at spaced apart intervals and positioned radially between the central opening and the periphery of the jaw. This arrangement of the openings leaves an adequate amount of clamping surface on the

jaw and so locates the openings as to insure the feed of the solution uniformly to the clamped curl. This arrangement of the clamping surface and openings also permits of the use of a brush, such as an ordinary tooth brush, to supply the solution in a controlled way to the openings for uniform distribution by a patting action in which the saturated brush bristles are tapped or pressed against the jaw over its surface to cause exudation of the solution from the bristles to the openings for passage to the hair coil. By this mode of applying the solution the exact amount required for impregnating the curl may be supplied without supplying an excess in amount, causing setting difficulties, or causing injury to the hair or scalp of the patient. As the solution is so supplied the operator may determine with greater exactness when the curl is sufficiently set according to the hair texture. The clamp should then be removed and the hair washed to prevent injury to the hair.

The jaw 2 is provided with a central longitudinal opening or slot 9 extending from a point adjacent its rear end to and through its front end. By this means the jaw is provided with fork arms or prongs 10, of similar conformation, each having curved longitudinal inner and outer edges, the latter preserving the elliptical border contour of the jaw. The jaws are thus made wide enough for an effective clamping action and yet narrow enough to enter the hair when necessary to hold a thick curl or to straddle the ends of the treated lock or strand in the region of the patient's head, so that in all cases an effective clamping action will be obtained. The above described construction of these fork arms or prongs also insures the clamping of the curl between both jaws about the margins of the curl, thus avoiding an objection to prongs or jaws which are straight and have a less spread over the surface of the curl.

From the foregoing description the construction and mode of use of my improved clamp will be readily understood by those versed in the art

and its advantages appreciated in overcoming the stated defects of prior devices of its kind. It is to be understood, of course, that while the shape and arrangement of the openings 7 and 8 of the jaw 1, and shape and size of the opening 9 and prongs 10 of the jaw 2 are preferred, changes therein within the scope of the appended claim preserving their functions and advantages may be made without departing from the spirit of the invention.

The clip may be made of any suitable material, such as plastic, aluminum, or stainless steel, the latter being preferred.

Having thus described my invention, I claim:

A hair curl clamp of the character described comprising a pair of plate-like upper and lower clamping jaws pivotally connected and provided at one end with operating handles for opening them and associated spring means for normally holding them closed, each of said jaws being of elliptical outline form and of substantially equal length and breadth, for cooperation for holding a curl clamped therebetween, the lower jaw being provided with an elliptical slot opening outwardly through its front end and forming converging spaced fork arms for engagement with the hair and the upper jaw being provided with a relatively small central opening for admission of setting solution to the curl clamped by said jaws and a series of other openings in the form of elongated slots bounding the same and disposed radially between the same and the periphery of the jaw.

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