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HAIR CLIP FOR USE IN GIVING PERMANENT WAVES

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Fig. 1

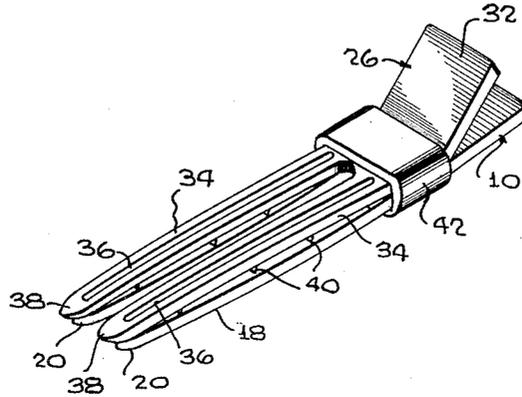


Fig. 2

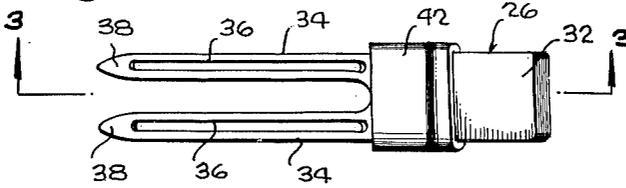


Fig. 3

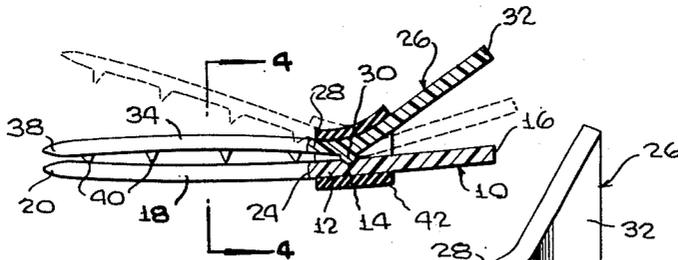


Fig. 4

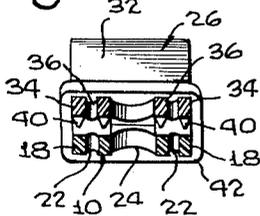
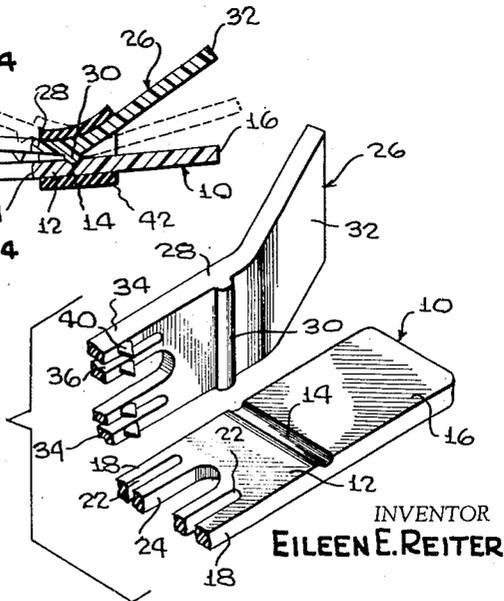


Fig. 5



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# UNITED STATES PATENT OFFICE

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## HAIR CLIP FOR USE IN GIVING PERMANENT WAVES

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2 Claims. (Cl. 132-46)

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This invention relates to a clip applicable to ladies' hair, and more particularly, has reference to a clip as described novelly designed for use when a permanent wave is being given.

Conventionally, a beauty operator, when giving a "cold wave" uses plastic rods and end papers for wrapping the hair, the hair being left upon said rods until the proper curl formation is obtained. Thereafter, the permanent wave solution is neutralized, for a predetermined length of time. The hair is then unwrapped from the curlers, rinsed, and is then pin curled, dressed, and combed out.

The operation described is time consuming, and to this end, it is an important object of my invention to provide a clip so formed as to eliminate the necessity for the rods and end papers hereinbefore employed, the clip formed in accordance with the present invention being adapted, by reason of its particular construction, to remain in the hair throughout the entire time during which the proper curl formation is being obtained, the solution neutralized, and the hair rinsed. It will be readily appreciated that this would represent a considerable saving in time, since it would eliminate the laborious operation of wrapping the hair upon rods and end papers, which operation is performed twice in conventional practice, as distinguished from the hair-wrapping operation performed through the use of my clip, which need be performed only once.

Another important object is to provide a hair clip as described so formed as to eliminate the tight wrapping of the hair which is now common practice during the giving of a cold wave permanent, thereby to prevent the fuzziness which often results when a permanent wave of this type is received.

Yet another important object is to provide a hair clip as stated which would be adapted not only for use in beauty shops or similar establishments, but also, can be used in the home, not only when a home permanent wave is being given, but also, on other occasions where it is desired to set pin curls in the hair, or set the hair after a shampoo.

Still another important object is to provide a clip of the type stated which is so constructed as to be non-irritating to the hair or scalp, and which will not be affected by the permanent wave solution.

Yet another object is to provide a hair clip as stated so formed as to insure proper penetration of the permanent wave solution through the hair wrapped around the clip, thus to make certain that the hair is properly saturated and, subsequently, properly neutralized.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference

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characters designate like parts throughout the several views, and wherein:

Figure 1 is a perspective view of a hair clip formed in accordance with the present invention;

Figure 2 is a top plan view;

Figure 3 is a longitudinal sectional view taken on line 3-3 of Figure 2, the dotted lines indicating an open position of the clip;

Figure 4 is a transverse sectional view taken on line 4-4 of Figure 3; and

Figure 5 is an exploded fragmentary perspective view.

Referring to the drawings in detail, the hair clip formed in accordance with the present invention includes a lower clip member generally designated 10, said clip member being formed of molded plastic material or the like. The clip member 10 includes, intermediate opposite ends thereof, a flat body 12 formed with a transverse groove 14 extending fully to opposite sides of the clip member.

At the grooved end of the body 12, said body merges into and is coplanar with a flat finger-receiving plate 16.

At its opposite end, the body 12 is integrally formed with a pair of longitudinally extended, parallel arms 18, said arms 18 being given a slight longitudinal curvature during the formation thereof, as may be readily noted from Figure 3.

At their free ends, the arms 18 are pointed as at 20, and substantially from end to end of the arms 18, said arms are formed with closed, longitudinal slots 22. A wide slot 24 spaces the arms 18 apart, and opens at the free ends of the arms.

An upper clip member has been generally designated 26, and like the lower clip member, is formed of molded plastic material or the like. The upper clip member includes a flat body 28, arranged in superposed relation to the body 12 of the lower clip member, said body 28 having a transverse tongue or rib 30 receivable in the groove 14 of the lower clip member, thus to rockably mount the upper clip member 26 upon said lower clip member.

The body 28 merges, at one side of the tongue 30, into a finger-receiving plate 32, which in the normal position of the clip members is extended from the fulcrum point of said members in diverging relation to the finger-receiving plate 16.

Formed integrally upon the body 28, and overlying the arms 18 in longitudinal alignment with said arms, are arms 34 having longitudinal slots 36 extending fully from end to end thereof. The slots 36 register with the slots 22 of the lower clip member, so as to permit the free passage of permanent waving or neutralizing solutions through the registering slots, thus to insure proper saturation of hair wrapped around the hair clip.

At their free ends, the arms 34 are pointed as at 38.

Formed upon each arm 34 are longitudinal spaced pairs of teeth 40, the teeth of each pair being aligned transversely of the arm on which they are formed, at opposite sides of the slot 36 of said arm. This construction may be readily noted by reference to Figure 5.

The teeth of the several pairs are of different lengths (see Figure 3), to compensate for the longitudinal curvature formed in the arms 34, which curvature is opposite that given the lower arms 18. Thus, the formation of the teeth 40 to different lengths permits all of the teeth to engage the arms of the lower clip member, despite the oppositely bowed formation of the arms of said members.

Fitted over the clip members 10 and 26 is a rubber sleeve 42, which not only serves to connect the clip members together, but also provides a spring means, that normally biases the clip members to the full line positions thereof illustrated in Figure 3.

It will be appreciated that during use of the clip, it is merely necessary that the operator grip the plates 16 and 32, and urge said plates toward one another, against the spring action inherent in the rubber sleeve 42. This spreads the clip members, the upper clip member moving to the dotted line position thereof seen in Figure 3. The hair is then entered between the clip members, and is properly curled, after which the finger-receiving plates 16, 32 are released, permitting the spring action of the sleeve 42 to assert itself, and grip the wrapped hair securely.

The clips are then left in the hair throughout the operation of saturating the hair with the cold wave solution, and are also allowed to remain in the hair during the neutralizing and rinsing thereof. As a result, a considerable saving of time is effected, since the laborious and time consuming operation heretofore followed, wherein the hair is wrapped around the rods and end papers on two separate occasions, need not be performed.

It is also believed important to note that the formation of the elongated slots 22, 36 in the arms of the respective clip members, and the provision of the wide slots between said arms, permits the wrapped hair to be fully saturated both during the application of the cold wave solution and during the neutralization of the hair during a subsequent step in the processing.

It has also been found, and is worthy of note, that the tight wrapping of the hair, said tight wrapping being a characteristic of the operation wherein rods and paper are used and resulting in many instances in overstretching of the hair, does not occur with the use of the clip formed in accordance with the present invention. In this way, the fuzziness often evident after a permanent wave has been given is eliminated.

It is believed clear that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles of operation and the means presently devised to carry out said principles, it being considered that the invention comprehends any minor changes in construction that may be permitted within the scope of the appended claims.

What is claimed is:

1. A hair clip having its main application to the permanent waving of ladies' hair and comprising a pair of cooperating clip members each of which is of integral construction and is formed of a material impervious to chemical solutions applied to the hair during the permanent waving thereof, each of said clip members including a generally flat body, a finger-receiving plate extending from one end thereof, and a pair of elongate arms extending from its other end, each arm having a longitudinal slot closed at its opposite ends and extending substantially the full length of the arm in which it is formed to permit the free passage through the arms of said chemical solutions, the arms of one of said clip members being formed with longitudinally spaced teeth extending in the direction of the arms of the other clip member, said teeth being arranged transversely of the arms on which they are formed and being disposed at opposite sides of the longitudinal slot of said arms, said bodies being rockably interengaged for spreading of the arms of the respective members responsive to manually exerted pressures tending to urge said plates toward one another, to position a plurality of strands of hair between the arms; and means operatively associated with said bodies and exerting a continuous yielding pressure thereagainst tending to bias the arms into a longitudinally contacting relationship.

2. A hair clip having its main application to the permanent waving of ladies' hair and comprising a pair of cooperating clip members each of which is of integral construction and is formed of a material impervious to chemical solutions applied to the hair during the permanent waving thereof, each of said clip members including a generally flat body, a finger-receiving plate extending from one end thereof, and a pair of elongate arms extending from its other end, each arm having a longitudinal slot closed at its opposite ends and extending substantially the full length of the arm in which the slot is formed, the arms of one of said clip members being formed with longitudinally spaced teeth extending in the direction of the arms of the other clip member, said teeth being arranged transversely of the arms on which they are formed and being disposed at opposite sides of the longitudinal slot of said arms, said bodies being pivotally engaged with one another for spreading of the arms of the respective members responsive to pressure exerted manually against the finger-receiving plates tending to urge said plates toward one another, for engaging a plurality of strands of hair between the arms; and a rubber sleeve extending around said bodies to connect said clip members with one another, said sleeve defining a spring and being adapted to exert continuous yielding pressure against the bodies of the clip members, tending to bias the arms into a longitudinally contacting relationship.

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