

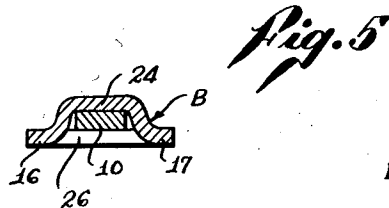
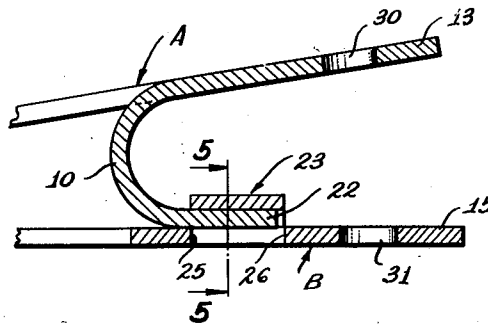
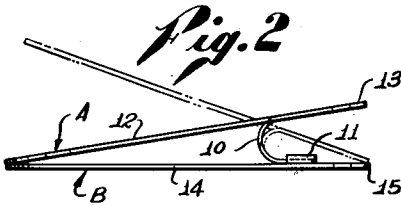
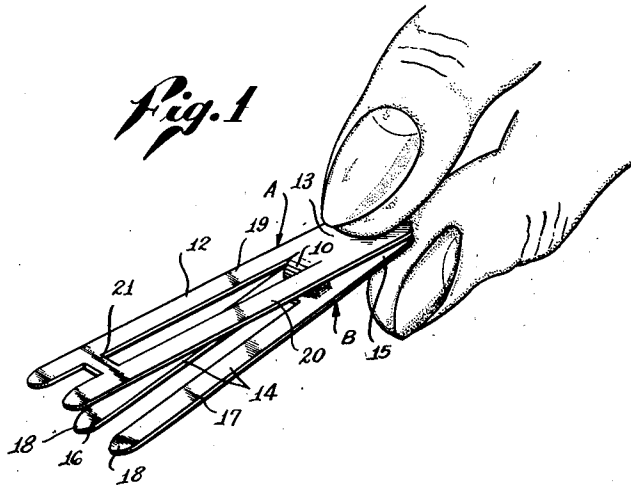
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HAIR CLAMP

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HAIR CLAMP

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This invention relates to a hair clamp and has particular reference to a spring clamp for use in curling and dressing ladies' hair, and which finds particular utility when utilized in connection with the practice of setting pin curls.

In the art of dressing ladies' hair, it is a common practice to use pin curls to set a curl in the hair and thus facilitate the formation of waves, swirls, and the like, which are featured in the completed coiffure. In this practice, the hair is separated into small strands which are moistened with water or a setting solution and then coiled in flat circular coils. These coils or pin curls must be held in their coiled form until dry. Since a substantial time is required to dry the pin curls, it is necessary to resort to some mechanical expedient for holding the strands in their coiled form during the drying period.

Many devices have been developed and utilized for holding pin curls during the drying period, but all such devices used prior to the present invention have been characterized by serious disadvantages. For example, the type of hair pin commonly referred to as a "bobby pin" is often utilized for this purpose. Such pins are, however, small and somewhat difficult to manage, particularly where a person is curling their own hair. Furthermore, bobby pins, because of the small surface which engages the curl, tend to distort the curl and also fail to hold the curl as securely as is desired. Certain types of spring clamps or clips have also been used heretofore for holding pin curls during the drying period. However, all of the prior clamps have been of such relatively complicated construction as to make them too costly to be within the reach of everyone. Furthermore, the prior clamps are generally bulky and subject the user to a considerable amount of discomfort. The prior devices do not all hold the pin curl sufficiently firmly to permit the user to carry out ordinary daily tasks during the drying period without dislodging the curls from the clamps. Furthermore, the prior clips and clamps incorporate sharp corners or bifurcated finger pieces which are painful to the sensitive fingers of the ladies when sufficient force is applied to open the clamp for application to the curl.

It is accordingly an object of this invention to provide a hair clamp which overcomes the above-mentioned disadvantages by reason of a novel and simple construction permitting the clamps to be manufactured at an extremely low cost.

It is also an object of this invention to provide a hair clamp which comprises two parts which are pivoted together and spring urged to a closed position so as to securely clamp between said two parts a pin curl embraced by the clamp, and in which each of said parts constitutes a hair engaging portion and a finger piece by means of which the clamp may be opened, the finger pieces being smooth and unbroken in contradistinction to the bifurcated or sharp cornered constructions previously known.

It is also an object of this invention to provide a hair

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clamp of the character described in the preceding paragraph which is constructed as two parts, one of said parts having a downwardly and rearwardly curving spring formed integrally therewith, and the other part providing a socket for receiving the end of said spring to thereby interconnect the two parts.

It is a still further object of this invention to provide a hair clamp of the character set forth in the preceding paragraphs in which the parts of the clamp are proportioned for a minimum thickness of the clamp when the clamp is in the closed position and yet which will permit the clamp to be opened widely to facilitate the application of the clamp to a pin curl.

It is another object of this invention to provide a hair clamp of the character set forth in the preceding paragraphs in which the hair engaging portions of both parts of the clamp comprise a pair of parallel fingers to facilitate the insertion of the lower part between the pin curl and the scalp, and in which one or more bridge portions interconnect the fingers of the upper part to provide greater rigidity and increased surface area for securely holding the pin curl in place.

Other objects and advantages of this invention will be apparent from a consideration of the following specification read in connection with the accompanying drawings, wherein:

Fig. 1 is a perspective view illustrating the general form and appearance of a preferred form of hair clamp constructed in accordance with this invention and illustrating the manner in which the same is opened by finger pressure applied to finger piece portions of the clamp;

Fig. 2 is a side view of the clamp shown in Fig. 1, the clamp being shown in the closed position, and indicating by means of dotted lines, the relative disposition of the parts when the clamp is opened;

Fig. 3 is a plan view of the clamp shown in Figs. 1 and 2;

Fig. 4 is an enlarged fragmentary longitudinal sectional view taken substantially along the line 4—4 of Fig. 3 and illustrating the details of construction of the spring and spring socket used to join the two parts to each other; and

Fig. 5 is an enlarged fragmentary cross-sectional view taken substantially along the line 5—5 of Fig. 4 to illustrate additional details of construction.

As may be seen from the drawings, the hair clamp of this invention comprises two parts; an upper part A and a lower part B, the parts A and B being interconnected by means of a spring 10 which is formed integrally with the upper part A and which is secured as indicated at 11 to the lower part B. The spring 10 serves to pivotally interconnect the parts A and B to permit them to be moved from their normally closed position as shown in solid lines in Fig. 2 to an open position as is represented by the dotted lines in that figure. The spring 10 also provides the restoring force for moving the parts A and B toward each other so as to securely clamp a pin curl placed therebetween.

The upper part A comprises a hair engaging portion 12 terminating in a finger piece 13. In a similar way the lower part B comprises a hair engaging portion 14 which terminates in a finger piece 15. The finger pieces are intended to be grasped between the thumb and forefinger so that the pressure thus applied may overcome the force of the spring 10 and move the parts A and B to their open position as is illustrated in Fig. 1. When the parts are so disposed, the clamp may be placed in embracing relationship to a pin curl.

The lower hair engaging portion 14 is preferably formed as a pair of parallel fingers 16 and 17 and is formed of sheet metal so that each of the fingers 16 and

17 may take the form of a thin, flat strip. The outermost ends of the fingers are preferably rounded or slightly pointed as shown at 18 to facilitate application between the pin curl and the scalp.

In a similar way, the upper hair engaging portion 12 comprises a pair of parallel, flat fingers 19 and 20. At one or more locations along the length of the upper portion 12, the fingers 19 and 20 are interconnected by a bridge portion 21. This imparts rigidity to the hair engaging portion 12 as well as providing additional surface area for engaging the upper surface of the pin curl.

The spring 10 is preferably formed integrally with the upper portion 10, being struck therefrom by a stamping operation, the spring 10 constituting a part of the material removed to provide the space between the fingers 19 and 20. The spring 10 is bent downwardly and rearwardly to provide a C-shaped spring terminating in a lower end 22 (see Fig. 4). The end 22 is received within a spring socket indicated generally at 23 formed upon the upper surface of the lower part B.

As is best shown in Figs. 4 and 5, the socket 23 is defined by a transversely extending strap portion 24 which is preferably integral with the body of the lower part B and is formed by severing the material along lines 25 and 26 extending only part-way across the width of the lower part B, the ends of the lines of severing 25 and 26 being spaced inwardly from the side edges of the part B. The material between the lines of severing 25 and 26 constituting the strap 24 is displaced upwardly to leave a space between the upper surface of the lower part B and the under surface of strap 24, said space being of such height and width as to closely receive the spring end 22.

If desired, the close sliding fit between the spring end 22 and the spring socket 23 may be utilized to hold the parts A and B in their proper relation to each other, in which event the device constitutes separable halves which may be taken apart for cleaning purposes. Preferably, however, the two parts are permanently attached to each other by first assembling the parts in the manner described and then striking the strap 24 a sharp blow, as with a punch or hammer, to securely clamp the spring end 22 against the upper surface of the lower part B.

The parts A and B, and of course, the spring 10 are preferably made of a springy material or a material of such composition to permit it to be hardened and strengthened as by a heat-treating operation, subsequent to forming, so as to provide a spring 10 which is relatively strong and yet of sufficient flexibility to allow the device to be repeatedly opened and closed without failure of the spring. The spring 10 is initially formed with a larger radius or curvature than it presents when the device is assembled, and by this means, the spring 10 is prestressed to apply a substantial closing force to the parts A and B. Also, the spring 10 is made relatively short so that when formed to the shape shown in the drawing, the finger pieces 13 and 15 are disposed in relatively closely spaced relation to each other. This spacing, however, must be made sufficient to allow a sufficiently wide opening of the parts A and B before the rearward ends of the finger pieces 13 and 15 are brought into contact with each other.

To permit the clamp to be firmly held between the fingers, the outer surfaces of the finger pieces 13 and 15 may be corrugated if desired, or alternatively, as is shown in Figs. 3 and 4, the finger pieces 13 and 15 may be provided with small apertures 30 and 31 serving the same purpose.

From the foregoing, it will be observed that this invention provides an improved hair clamp which is of simple and inexpensive construction permitting the device to be made in large quantities at a sufficiently low cost to make them available to all. It will be seen that the device is so proportioned as to present a minimum

thickness in the closed position, while at the same time, permitting the device to be opened to an adequate width, and thus permit the device to be readily applied to a pin curl. In this connection attention is directed to the use of the parallel fingers 16 and 17, particularly in the lower part B, which facilitate the insertion of the lower part between the pin curl and the clamps.

Attention is directed to the fact that by reason of the construction described, the finger pieces 13 and 15 are smooth, unbroken members, except for such corrugations or apertures as are deliberately placed therein to facilitate firmly holding the device in the fingers. This is made possible by the two-piece construction and assembly arrangement described herein which is in contradistinction to the prior art devices, many of which are stamped from a single piece of metal and formed in one piece. Such one-piece constructions, invariably result in the bifurcation of one of the finger pieces 13 or 15 with the resultant disadvantages of a reduced surface area and sharp corners which are painful to the sensitive fingers of women when sufficient pressure is applied to the finger pieces to overcome the force of the spring. It will be seen that this disadvantage characteristic of the prior construction, is completely avoided by the two-piece construction described herein.

While there has been shown and described the preferred embodiment of this invention, the same is not to be limited to the details of construction illustrated and described, except as defined in the appended claims.

I claim:

1. A hair clamp comprising: a pair of thin, flat elongated clamp members, each including a hair engaging portion terminating at a finger piece disposed at one end of said member, the finger piece and the hair engaging portion being coplanar in both of said clamp members; and spring means interconnecting said clamp members at points near said finger pieces, but spaced inwardly from the ends thereof with said members disposed in face-to-face relation, said spring means comprising a thin, flat C-shaped spring member disposed between said hair engaging portions, said spring member being integrally joined at one end to one of said clamp members and comprising a displaced portion of said one clamp member, said displaced portion being spaced from both side edges of said one clamp member and being severed from said one clamp member along two sides and the other end of said spring member, said displaced portion being curved downwardly and rearwardly to face the open side of said C-shape toward the finger piece ends of said clamp members, said spring means being normally immovable with respect to said members, said spring means constituting the sole pivotal interconnection of said members and normally urging said hair engaging portions toward each to securely hold a curl placed therebetween, said spring means and said pivotal interconnection being disposed entirely between the planes of the opposed said clamp members, whereby no part of said hair clamp extends outwardly beyond said planes.

2. A hair clamp, according to claim 1, wherein the other of said clamp members has a spring socket for receiving and holding the other end of said spring member immovably with respect to said other clamp member, the upper and lower portions of said C-shaped spring member being spaced apart a relatively small distance to dispose said clamp members in substantial parallelism when engaging a curl placed between said hair engaging portions.

3. A hair clamp, according to claim 2, wherein said other end of said spring member is removably received within said spring socket, whereby said clamp members may be disengaged and separated by removing said spring member from said socket.

4. A hair clamp, according to claim 2, wherein said spring socket is defined by a displaced portion of said

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other clamp member, said displaced portion being spaced from both side edges of said other member, said portion being partially severed from said other member and displaced from the plane thereof to define a spring receiving space between one surface of said other clamp member and the opposite surface of said displaced portion.

5. A hair clamp, according to claim 4, wherein said displaced portion grips said spring member to substantially permanently secure said clamp members to each other.

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References Cited in the file of this patent

UNITED STATES PATENTS

1,586,025	Burkhart	May 25, 1926
1,893,281	Goodman	Jan. 3, 1933
2,464,739	Solomon et al.	Mar. 15, 1949
2,500,391	Weaver et al.	Mar. 14, 1950
2,508,563	Brown	May 23, 1950
2,638,908	Schildt	May 19, 1953
2,641,266	Thatcher	June 9, 1953