

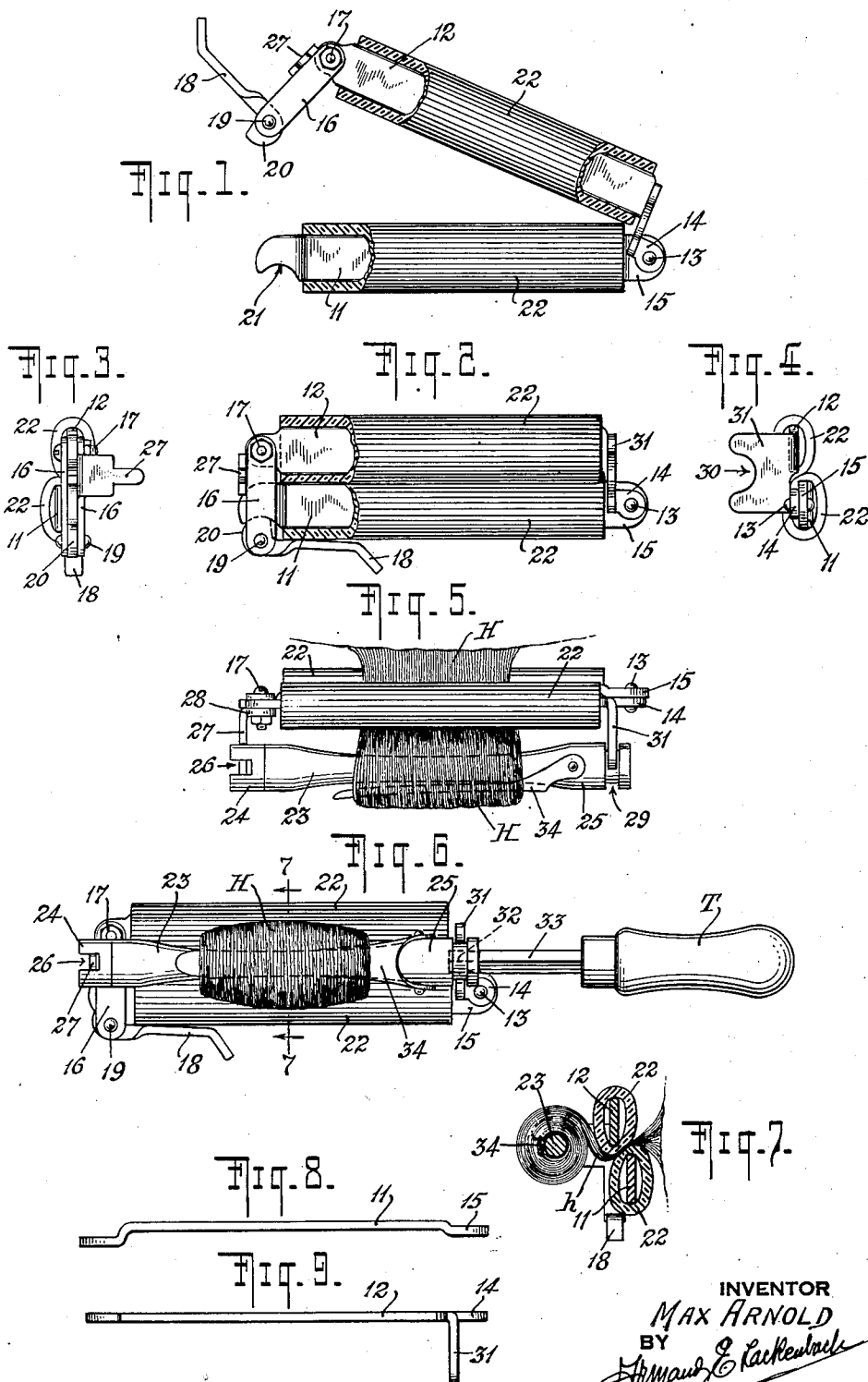
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PERMANENT WAVING APPLIANCE

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PERMANENT WAVING APPLIANCE

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The invention relates to apparatus used in the art of imparting a so-called "permanent wave" to human hair, and more particularly to mechanism designed to facilitate the winding of strands of hair to be waved upon a spindle or curling rod preparatory to the treatment of the hair by exposing it to the action of steam produced by means of an electrical heater or an exothermic composition, for instance, a mixture of certain chemicals. The invention also contemplates the provision of apparatus whereby the heat treatment of the hair is accomplished more effectively than has been possible with devices of the prior art.

Among the objects of the invention is the simplification and greater effectiveness of the methods used in permanent waving of hair by means of the improved apparatus and devices forming the subject-matter of this specification. The method of imparting permanent waves to the hair to which the present invention relates and which results in a more effective and positive action in the heating treatment of the hair by means of my novel apparatus is particularly designated in the art as the croquignole method of permanent waving. Particular objects of the present method are the following:

To facilitate the winding of the hair on the spindle or curling rod; to obtain a more even distribution and proper and even stretching of the hair in the course of its winding on the curling rod; to reduce the time required for the operator to prepare the hair for heat treatment; to reduce the necessity of care and expertness required in effecting the winding of the hair on the curling rod; to make more certain the proper winding of the hair on the curling rod for obtaining the best possible wave as a result of the heat treatment; to make possible the waving of hair practically throughout the length of the tress, including the portion thereof nearest the scalp; to facilitate the application of the device to the tress adjacent to the scalp by providing for a more complete opening of the swinging clamping elements; to provide for an overlapping action of the resilient sleeves upon the clamping elements, whereby the possibility of leakage of vapor through the device adjacent to the ends of the clamping elements is eliminated; to provide for imparting to the tress an extra wave by an initial bend of the tress not provided for hitherto; to provide for supporting the curling spindle or rod at an eccentric position to facilitate the formation of the extra wave; to provide for a sliding action of the elements into gripping re-

lation to the tress in contradistinction to the scissors action of conventional devices; and to provide an organization of the elements of the device whereby a large amount of hair can be included in each component tress secured therein.

In prior art devices employed in the croquignole method of waving hair, the strands of hair are clamped at the end of the tress comprising the strands, such clamping being intended to secure the end of the tress firmly upon the curling rod, the curling rod being then held at the two ends thereof by the fingers of the operator and the hair wound on the curling rod by moving the curling rod, at the same time that it is rotated, towards the scalp. I have found that in performing this operation, the operator, even if an expert, and well-skilled in performing the operation, finds it difficult to distribute the hair that is being wound evenly on the curling rod and to effect the stretching of the hair thereon, an important condition in the determination of the final results, so that the distribution will not be so even as to yield a proper wave after treatment.

This disadvantage of the devices of the prior art may be attributed in considerable measure to the fact that the hinged clamping devices which characterize the type of device employed cannot be swung apart to a sufficiently divergent position to enable the operator to distribute the hair strands evenly and smoothly throughout the length of the device, and this results both in a tendency on the part of the operator to insert the tress in an unduly bunched form, and also to insert a less number of strands than it is desirable to include in a single tress.

A very undesirable result of bunching the strands is to cause undue separation of the clamping elements, so that relatively large openings between the clamping elements are left at either or both sides of the tress, and steam is permitted to escape therethrough, with resultant waste of steam, undue prolongation of the time required for treatment, and attendant discomfort and possible injury to the person whose hair is being treated.

A further disadvantage of the devices of the prior art is that the curling spindle or rod is supported in a position directly opposite the "bite" of the clamping members, so that the strands of hair extended directly from the clamping bracket to the curling rod or spindle and for a distance of approximately three-quarters of an inch there is substantially no waving action upon the tress.

Thus, the very portion of the hair tress, i. e., that nearest the scalp, which requires the greatest amount of heat treatment in order to impart thereto a proper wave, is outside the ambit of the waving treatment.

In carrying the present invention into effect, I provide for hinging the clamping elements of the bracket in such a novel manner that they can be swung divergently to an open position where they do not interfere with the operator in accomplishing the preliminary insertion between the clamping elements of an optimum number of strands, in distributing these tress components in a uniform smooth layer along the entire available length of the bracket, and the clamping elements are so disposed that when closed the adjacent longitudinal margins of the clamping elements are arranged in overlapping juxtaposition, so that no space is left unoccupied between the clamping elements and no steam can escape. The invention provides also for supporting the curling rod or spindle at a position removed to one side of the "bite" between the clamping elements, so that the emergent strands, in passing to the rod, receive an initial bend that results in imparting to the tress an extra wave, and as this occurs at the region nearest to the scalp, the maximum wave effect is produced.

The above novel provisions also have the advantage of making it possible for the operator to arrange the hair strands slidingly, and the combined effect of the advantages of operation for which provision is thus made is that the waving operation can be effected more rapidly, more completely, with greater economy of the operator's time and of the heating medium, and with greater comfort to the person under treatment, and with greater satisfaction in the final effect of the treatment.

A particular embodiment of my invention is illustrated in the accompanying drawing forming part of the specification, in which Fig. 1 is a plan view of my novel clamping device showing the same in the partly open position of its parts, with portions of the resilient sleeves broken away to show the underlying structure; Fig. 2 is a plan view showing the same in the closed position, parts being broken away to reveal the operative position of the end clamp; Fig. 3 is a view in end elevation, looking from left to right of Fig. 2; Fig. 4 is a similar view in elevation looking from right to left; Fig. 5 shows the clamping packet and curling rod assembled with the hair wound thereon, illustrating the manner of winding the hair to be waved upon the curling rod; Fig. 6 shows the curling rod with the hair wound thereon in position upon the surface of the clamping device and the tightening handle inserted into the end of the curling rod to effect a tightening of the hair wound thereon; Fig. 7 is a view in vertical cross-section taken on the line 7—7 of Fig. 6; Fig. 8 is a detail view in side elevation of one of the clamping elements shown separately; Fig. 9 is a similar view of the other clamping element.

Referring now more particularly to the drawing, in which similar reference characters identify similar parts in the several views, 11 designates one of the clamping elements of the clamping device embodying certain features of my invention, the other of said clamping elements, 12, being hingedly connected to the member 11 by a pivot 13 formed as a rivet fixed in a lug 14 at one end of member 12 and on which is mounted loosely the end 15 of member 11

As illustrated (see Fig. 9) the lug 14 lies in the same plane as the flat, blade-like body portion of element 12, but is offset laterally therefrom, as best shown in Figs. 1, 2, and 4, so that the elements 11 and 12 are capable of swinging movements relatively to each other around the pivot 13, divergently to an open position greatly in excess of that shown in Fig. 1, and convergently to the closed position shown in Fig. 2. In the latter position the clamping elements are held together by a swinging latch device, comprising a pair of link members 16 of which one end is mounted on the pivot bolt 17 at the free end of element 12, while the other ends of the links embrace a latch member 18 mounted on a pivot rivet 19, this latch member being formed as a lever having a cam 20 adapted to be engaged crampingly with a suitable curved surface 21 formed on the free end of the element 11.

Both ends of the element 11 are shown as offset from the plane of the flat blade, or body, portion of the element, so that the body portions of the elements 11 and 12 have their relative swinging movements in parallel planes, and each of the elements comprises a sleeve 22, of resilient material and preferably conventional form, fitted snugly, and adapted to be brought into contiguous relation along their mutually adjacent lengthwise margins when the clamping device is closed, the latch member 18 insuring a close contact, in the overlapping relation best seen in Fig. 7.

The waving device of my invention comprises also a curling spindle or rod 23, preferably having a relatively narrow shank which is enlarged toward each end, forming the enlargements taking the form of cylindrical attachment heads or portions 24 and 25, the former of which heads is connected rotatably with the shank 23 in a manner known in the art, or otherwise suitably, and is notched at 26 for non-rotative engagement with, and support by, a post 27, which may conveniently be formed separately, and secured, as by bolt 17, to the free end of element 12, the post having an apertured foot 28 through which the bolt 17 passes.

The head 25 of the spindle 23 may be, and preferably is, integral with the shank of the spindle, and is grooved at 29 to enter the bearing notch 30 (see Fig. 4) of a yoke plate 31 which is desirably formed integrally with element 12, being bent up at right angles thereto as shown in Fig. 9. The head 25 is desirably formed with an end recess, 32, indicated in dotted lines in Fig. 6, to receive the squared shank 33 of a tightening handle T of conventional form, by which the curling rod or spindle may be rotated to wind on the tress of hair H as shown in Figs. 5 and 6 in elevation, and in Fig. 7 in transverse section.

From the last named figure, it will be seen that the shank of the curling rod 23 is parallel with the "bite" of elements 11 and 12, but is disposed at a substantial distance from a plane passing through said bite at right angles to a plane parallel to the elements 11 and 12.

The purpose of this arrangement is to facilitate the imparting to the tress of an extra wave by the initial bend of the tress, resulting from the overlapped positioning of the resilient sleeves upon the clamping elements, as more particularly described hereinafter.

The manner of using my novel hair waving apparatus is as follows:

A tress of hair H to be waved is prepared in the usual manner by combing, and the elements 75

11 and 12 having been swung apart as far as desirable to permit free entrance of the tress therebetween, the member 11 is disposed as closely as possible to the scalp, as shown in Fig. 7, and the tress H is drawn thereover and the strands of hair are distributed uniformly along the element 11, after which the element 12 is swung into closed position and there locked by the latch 16 and lever 18, in which position the strands are gripped firmly by the resilient sleeves 22 whose adjacent lengthwise margins are in overlapped contiguous relation, in accordance with the invention, instead of being in the same plane, as in prior art devices of the same general character.

The curling rod 23 having been disposed in the position illustrated, the end of the tress of hair is then wound upon the reduced shank of the curling rod and there secured by means of the usual swinging tongue 34, or by any suitable equivalent means. The operator then grips the clamping device with two fingers of one hand by means of the yoke plate 31 and links 16, and imparts a rotation to the rod by two fingers of the other hand, the entire tress of hair being thus wound on the rod, until it occupies the position shown in Figs. 6 and 7.

When substantially the entire tress has been wound upon the curling rod, the portion h of the strands of hair will form a loop extending from the bite of the clamping elements around the lower rounded surface of the sleeve 22 upon element 12 and thence upward and over upon the wound up convolutions of the tress upon curling rod 23. By this novel arrangement of elements, I have provided means to produce a new, extra wave at the region of the hair next to the scalp, and the setting of this wave preliminarily is promoted by the use of the tightening handle T in the usual way, after which the steaming process may be effected according to known procedure.

It will be noted that when tightening up the strand, the latter will slip through the bite of the overlapping sleeves 22 more readily than where there is a direct abutment of one in the same plane with the other, thus facilitating the emplacement of the clamping device at optimum proximity to the scalp; also that this same overlapping engagement, after the slipping disposition of the strands in uniformly distributed arrangement along the length of the "bite", as shown in Fig. 5, avoids the possibility of any unoccupied spaces being present, alongside the tress, between the sleeves, so that there will be no escape therethrough of vapor, with resultant inefficiency, delay, loss of steam, and discomfort or possible injury to the scalp of the person under treatment. By means of the above described arrangement, a larger amount of hair can be secured between the clamping elements, with less operative pressure necessary to bring the portions of the protector together so as to secure them by the latch device, than has been necessary with devices of the prior art.

While I have described a specific embodiment of my invention, it is to be understood that various modifications therein, particularly in the arrangement and configuration of the several parts thereof, may be made without departing from my invention. For instance, the clamping elements 11 and 12 may be disposed at an angle instead of vertically as shown in Fig. 7, so long as they remain parallel in forming the "bite" or overlapped positioning of the resilient sleeves carried by the clamping elements. Also, the same result ob-

tained by the specific arrangement shown and described may be attained by bevelling the "bite" edges of the clamping elements 11 and 12 for instance, when using a composition such as "Bakelite" instead of metal for the body of the element.

I claim:

1. An appliance of the class described, for use in waving hair, comprising a pair of clamping elements connected together hingedly at one end to permit bodily divergent and convergent movements of said elements swingingly relatively to each other, said appliance being further characterized by having said elements so hinged as to permit an overlapping of adjacent marginal edges of said elements when closed together.
2. An appliance of the class described, for use in waving hair, comprising a pair of clamping elements connected together hingedly at one end to permit bodily divergent and convergent movements of said elements swingingly relatively to each other, said appliance being further characterized by having said elements so hinged as to swing in parallel, spaced planes, so as to permit an overlapping of adjacent marginal edges of said elements when closed together.
3. An appliance of the class described, comprising a pair of clamping elements including a pair of flat metal blades combined and cooperating as set forth in claim 1, and further characterized by having a sleeve of resilient material on at least one of said blades adapted to be included compressively and/or yieldingly with a strand of hair between the overlapping margins of said elements and thereby acting to prevent passage of vapor through said appliance when in use.
4. An appliance of the class described, comprising a pair of clamping elements including a pair of flat metal blades combined and cooperating as set forth in claim 1, and further characterized by having a sleeve of resilient material on each of said blades adapted to be included compressively and/or yieldingly with a strand of hair between the overlapping margins of said elements and thereby acting to prevent passage of vapor through said appliance when in use.
5. An appliance of the class described, for use in waving hair, including a pair of clamping elements having blade members combined hingedly and cooperating swingingly as set forth in claim 1, and further characterized by having said hinge formed as a plate integral with one of said elements and provided with a blade-pivot so offset from the longitudinal axis of its blade as to cause said overlapping relation of the elements.
6. An appliance of the class described, for use in waving hair, including a pair of clamping elements having blade members combined hingedly and cooperating swingingly as set forth in claim 1, and further characterized by having said hinge formed as a plate integral with one of said elements and provided with a blade-pivot so offset from the longitudinal axis of its blade as to cause said overlapping relation of the elements, at least one of the blades having its hinge-part offset from the plane of its blade to facilitate said overlapping action.
7. An appliance of the class described, for use in waving hair; said appliance comprising a pair of clamping elements connected together hingedly at one end to permit bodily divergent and convergent movements of said elements swingingly relatively to each other, said elements including cooperating sleeves of yielding material, said appliance being further characterized by having said elements so hinged as to permit an overlap-

ping of adjacent marginal edges of said elements when closed together, and a swinging cam-latch adapted to lock the free ends of said elements together with the contiguous margins of said sleeves under compression.

5 8. An appliance of the class described, for use in waving hair; said appliance comprising a pair of clamping elements connected together hingedly at one end, said elements including cooperating

sleeves of yielding material, said appliance being further characterized by having said elements so hinged as to permit an overlapping of adjacent marginal edges of said elements when closed together, and a swinging cam-latch adapted to lock the free ends of said elements together with the contiguous margins of said sleeves under compression.

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