April 9, 1929. E. CAHILL 1,708,467

HAIR DRESSING APPLIANCE

Filed Aug. 14, 1928

Fig. 1.

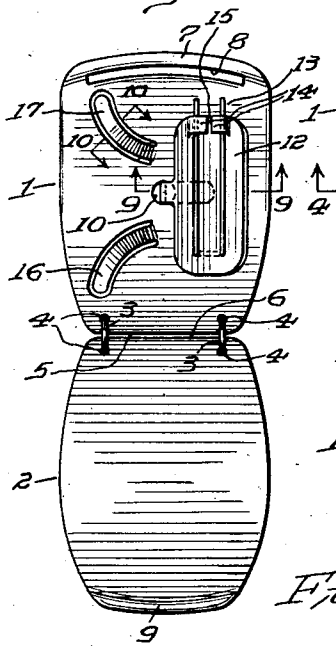


Fig. 2.

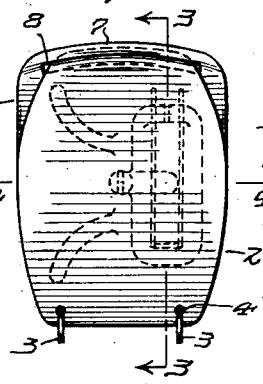


Fig. 3.

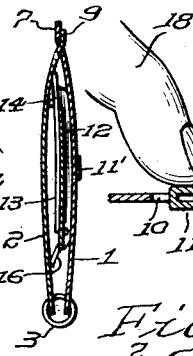


Fig. 9.

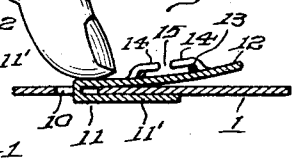


Fig. 4.

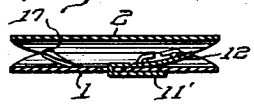


Fig. 5.

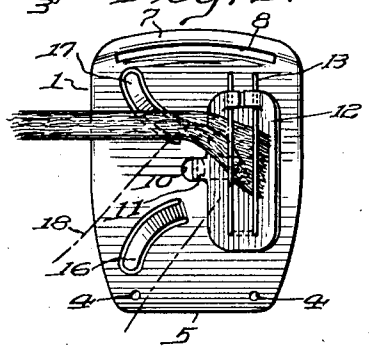


Fig. 11.

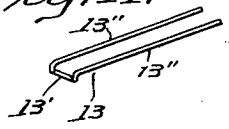


Fig. 6.

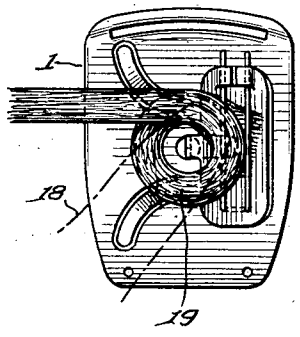


Fig. 7.

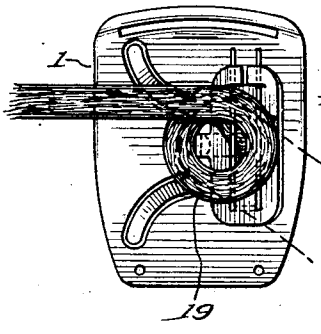


Fig. 8.

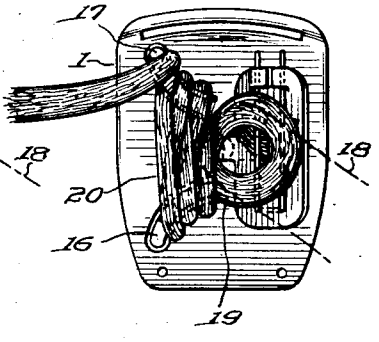
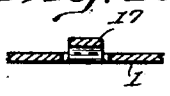


Fig. 10.



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UNITED STATES PATENT OFFICE.

ELIZABETH CAHILL, OF ATLANTIC CITY, NEW JERSEY.

HAIRDRESSING APPLIANCE.

Application filed August 14, 1928. Serial No. 299,543.

My invention relates to appliances for dressing the hair and more particularly to those devices by means of which both a curl and waves may be imparted to a strand of hair without injury to the hair and in a simple and effective manner.

The object of my invention is to produce an article of the character indicated, which shall be durable, easily operated, inexpensive, and adapted to be worn by the user with comfort and without inconvenience.

An object of my invention is to produce a simple and effective device which, by easy manipulation, will impart to an untwisted lock of hair, a curl and waves between the curl and the scalp. When the suit of hair is bobbed or semi-bobbed, the curl will be formed at the end of a lock, but with long unbobbed hair, the curl may be formed at a distance of from four to six inches from the scalp.

Another object of my invention is to provide a simple device which will firmly press between resilient metallic plates and without cutting or breaking the hair, both the curl and the waves formed in an untwisted strand or lock of hair.

A further object of my invention is to provide a device of the character described which, when closed upon a lock of hair, presents no sharp corners or edges.

A further object of my invention will appear in the specification and claims below.

In the drawing forming a part of this application and in which the same reference characters are employed throughout the various views to designate the same parts.

Fig. 1 shows a plan view of my improved appliance open and ready for use.

Fig. 2 shows a plan view of the same with the two plates closed, pressed close and interlocked.

Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 2.

Figs. 5, 6 and 7 illustrate a plan view of the lower plate only and showing the various steps performed in using the device to form a curl at the end of a lock and waves between the lock and the scalp.

Fig. 5 shows the end of a lock clamped in the curl forming member.

Fig. 6 shows the completed curl after the forming member has been given a complete revolution in a plane substantially parallel to the plate, the curl being formed around the end of the thumb or finger of the user.

Fig. 7 shows the curl manually slid a little farther to the right preparatory to weaving the strand back and forth between the diverging fingers, and

Fig. 8 shows the manner of forming the waves in the lock of hair immediately after the curl has been formed.

Fig. 9 is a fragmentary sectional view on a slightly enlarged scale and taken on the line 9—9 of Fig. 1.

Fig. 10 is a fragmentary cross-sectional view taken on the line 10—10 of Fig. 1.

Fig. 11 is a perspective view of the resilient arms by means of which the end of the lock is clamped to the surface of the curl-forming member.

My hair dressing appliance comprises a base-plate 1, a top plate or cover 2, these two plates being permanently hingedly secured together preferably by means of wire rings 3, 3 passing through suitably provided openings 4, 4 in the base and top plates respectively and preferably adjacent the straight edges 5 and 6 of the base and top plates respectively. The margin 7 opposite the edge 5 is slightly offset upwardly and provided with a slot 8 adapted to receive the slightly offset end or edge 9 of the cover 2. When the two parts are closed together, the rings 3 permit a slight longitudinal movement of the top plate over and with respect to the base-plate 1 to permit the end 9 of the lid to be slid into the slot 8 and under the offset margin 7. It is to be noted that these two plates 1 and 2 are slightly oppositely convexed in the direction of the section-line 3, 3 but that the elements of the members are straight and parallel with respect to each other when a section is taken parallel to the section-line 4—4 as is clearly shown in Fig. 4. These plates 1 and 2 are preferably formed by stamping the same out of thin resilient metal sheets and then hingedly securing the two parts together by the rings 3, 3. The base-plate 1 is provided with a circular hole or opening 10, the diameter of which is substantially the same as the width of a tongue 11 extending from the side of the curl-forming member 12. This tongue 11 is inserted through the hole 10 and then the part 11′ thereof projecting beyond the outer surface of the base 1 is pressed back flat against said outer surface as is clearly shown in Fig. 9. This then forms a simple pivotal bearing about which the curl-forming

member 12 may be readily manually rotated to form the curl as will be referred to again below.

This curl-forming member 12 is preferably provided with a hairpin-like member 13 preferably made of resilient piano wire of small gage and with the straight connecting portion 13′ offset laterally so that the prongs 13″ may be inserted through the two small holes through one end of the curl-forming member 12 and then rotated downwardly to lie flat on the upper surface of the curl-forming member 12.

Because the base-plate 1 upon which the curl-forming member 12 is mounted is slightly convex in the direction of the section-line 3, 3, I preferably make the curl-forming member 12 slightly convex transversely (see Fig. 9), so that only that portion of the curl-forming member, which is close to the hole 10 will be in actual contact with the base-plate 1. In this way the member 12 may be freely turned or revolved about an eccentric axis at the point where the tongue 11 passes through the hole 10 without encountering any substantial resistance due to the longitudinal curving of the base-plate 1.

The edge of the curl-forming member 12 adjacent the ends of the prongs 13″ is also preferably provided with two fingers 14, 14 slightly upwardly offset from the major portion of the said member and in substantial alinement with each other. A slot or space 15 is thus provided between the adjacent ends of the fingers 14, 14 so that the prongs of the hairpin-like member may be passed between these fingers and when released will spring back under the fingers 14, 14.

The base-plate 1 is also preferably provided with a pair of resilient wave forming fingers 16, 17 preferably arranged substantially symmetrically with respect to the pivotal opening 10 and extending generally in directions diverging from one another and away from the curl forming member 12. Each is preferably curved slightly outwardly toward the hinged and the freely swinging edge respectively as is clearly shown in Fig. 1. These fingers 16, 17 are preferably integral with the base-plate 1 and in making the same a substantial amount of metal is preferably removed from the base-plate 1 around the fingers 16, 17 so as to substantially space the edges of the fingers from the adjacent edges of the base-plate. The free ends of these fingers 16, 17 are preferably slightly upturned to lie in a plane a little above that of the upper surface of the base-plate as is clearly shown in Fig. 10.

It is to be understood that the cover or top plate 2 is not to be removed from the base-plate 1 as might be inferred from Figs. 5 to 8. Figs. 5 to 8 are fragmentary views showing merely the base-plate 1, that being all that is necessary to illustrate in connection with the explanation of how the curl and waves are formed in a lock of hair.

To use the device the appliance is opened as shown in Fig. 1, then the prongs of the hairpin-like member 13 are pressed toward each other and raised through the slot 15 between the ends of the fingers 14, 14 and then the hairpin-like member is swung upwardly away from the upper surface of the curl-forming member 12. The end of an untwisted lock of hair is now placed upon the upper surface of the curl-forming member 12 and the prongs of the hairpin-like member are passed downwardly through the slot 15 between the ends of the fingers 14 and allowed to spring outwardly under said fingers 14. This securely clamps the end of the lock of hair to the curl-forming member as is clearly illustrated in Fig. 5 and when the end is clamped in this manner the appliance should be so held by the user that the end of the thumb 18 rests lightly against the tongue or prong 11 of the curl-forming member 12 just over the hole or opening 10. The curl-forming member is manually revolved by the other hand of the user through an angle of 360° around the hole 10 as a center, in a plane substantially parallel to the plane of the plate 2 in a clockwise direction, the curl forming member 12 sliding under the ball of the thumb 18, the operator sliding the device slowly upwardly on the lock of hair and toward the scalp as the hair is thus wrapped or wound around the thumb or between the thumb and the upper surface of the curl-forming portion. At the end of a complete revolution of the curl-forming member a circular curl will be formed at the very end of the lock as shown in Fig. 6. This having been done, the thumb may be lifted from the center of the curl and placed flatly across the curl as indicated in Figs. 7 and 8 to hold it in place while the waves are formed in the lock of hair. While the curl is thus held that portion of the lock of hair adjacent the curl 19 and between the curl and the scalp is passed or woven first under the finger 16, then upwardly over it; then toward the finger 17 and under it; then upwardly over the finger 17 to and under the finger 16; and then upwardly over the finger 16 to and under the finger 17 and then upwardly over the finger 17. This weaving of the lock back and forth in a figure 8 under and over the arms may be carried on until the whole length of the fingers 16, 17 is covered by the strand. When this has been accomplished, the top plate or cover 2 is swung downwardly on the rings 3 as hinges on the hair on the curl former and on the waver, and when closed the top plate 2 is slipped forwardly to insert the end or edge 9 of the lid into the hole or slot 8 of the base-plate 1. The top plate is thus securely interlocked with the base-plate.

The material of which these plates 1 and 2

is formed is preferably sheet aluminum or thin brass, which may be nickel-plated, but they may be made of any suitable material which is resilient and durable, and light in weight. The space between these plates 1 and 2 is small, and when there is a tress or lock of hair curled and lying on the curl-forming member 12 and wrapped around the arms 16, 17, the curled and the waved lock will be firmly but yieldingly pressed between the resilient members 1 and 2 when the device is closed and locked or interlocked.

I preferably make the edges of the fingers 16, 17 rounded so that they will not cut the hair. The lock or tress is pressed between the upper and lower plates 1 and 2. The removal of a substantial amount of material of the base-plate 1 around the wave-forming fingers 16, 17 also insures that the hair will not be cut in closing the device.

By thus using my appliance, a lock or tress of hair may be given a curl at the end of the lock, waves between the curl and the scalp, if the hair be bobbed or semi-bobbed. While the device is particularly adapted for dressing bobbed and semi-bobbed hair, it may be used to advantage on a suit of long hair, for the curl may be stretched out or partially straightened to form a longer waved portion in the lock of hair.

In using this device, the lock of hair is preferably untwisted, for in so doing a true wave and a more beautiful curl is formed in the lock of hair, markedly different from the frizzy and kinky effect produced by twisting the lock.

After the device has been allowed to remain a sufficiently long time to impart a set to the curl and to the parts wrapped around the wave forming fingers 16, 17, the device may be easily opened, the lock unwound from around the fingers 16, 17, and the prongs 13″ of the hairpin-like member 13 again lifted through the slot 15 between the ends of the fingers 14 to release the end of the lock from the curl-forming member 12.

I have above described how my improved hair dressing appliance is used to produce both a curl and waves in a lock of hair, but the device may be used to form a curl or ringlet alone. Thus after forming the curl 19 at the end of a lock or strand of hair by rotating the curl-forming member 12 in a clockwise direction through one or more complete revolutions, as shown in Figs. 6 and 7, the user may then bring the uncurled portion of the lock under and over, or over and under, either of the fingers 16 or 17, and preferably over the finger 16, and then downwardly under the same finger 16. This will hold or clamp the strand or lock of hair to the base-plate 1 at the beginning of the curl or ringlet 19. After the lock of hair has been so fastened, the resilient top plate 2 may be swung over against the top surface of the curl and then locked to the base-plate, by sliding the offset end 9 into the slot 8 and under the offset margin 7 as above described. Thus a curl or ringlet at the end of a lock of hair may be readily formed, leaving the hair between the curl and the scalp in its natural condition.

It is to be understood that the lock of hair and the curl and the portions of the strand or lock which is woven back and forth under and over the fingers 16 and 17, are necessarily shown in the drawings quite solidly and mechanically for the sake of indicating with clarity the manner in which the device is manipulated and for indicating the general direction of the hairs at different points in the tress or strand under treatment in the appliance. But in actual use, the strand or lock will generally be thin and flat and the finished or dressed lock will be light, fluffy and wavy and not rope-like nor strand-like, nor having hard outlines, such as are shown in the drawings.

The illustration of the clamped end of the tress or lock in Figs. 5 to 8 is also somewhat exaggerated, for the purpose of making plain the fact that the end of the lock is thus securely clamped by the resilient arms or prongs 13″ flat against the plate 12, and for the purpose of clearly distinguishing the clamped end from the coils of the curl during and after the curl has been formed, as illustrated in Figs. 6 to 8 inclusive.

When actually using the device, the end of the hairs of the lock will be preferably placed on the clamping plate 12 so that the ends of the hairs will extend generally in the same direction, as will the hairs in the curl lying adjacent to the end of the lock.

Having thus described my invention, what I claim and desire to protect by Letters Patent of the United States, is:

1. In a hair dressing appliance, the combination of a base-plate, a curling member mounted on said base-plate to be revolved manually on an axis substantially normal to said base-plate and provided with means to clamp the end of the lock of hair thereto, said base-plate being also provided with a pair of diverging fingers with the outer free ends raised slightly above the adjacent portions of the base-plate, a cover hingedly secured to the edge of said base-plate, and means to lock together those edges of said base-plate and cover which are opposite to the hinged edges thereof to yieldingly press a lock of hair, on said curling member and fingers, between said base-plate and cover.

2. In a hair dressing appliance, the combination of a resilient base-plate, a curling member mounted on said base-plate to be manually revolved on an axis substantially normal to said base-plate and provided with means to clamp the end of a lock of hair thereto, said base-plate being provided with a pair

of diverging fingers, the ends of which project slightly above the adjacent portions of the base-plate, and a resilient cover loosely hingedly secured to an edge of said base-plate, the edges of said base-plate and cover opposite the hinged edge thereof being provided with interlocking means to hold said appliance closed to yieldingly press a lock of hair between said base-plate and cover.

3. In a hair dressing appliance, the combination of a base-plate, a curling member mounted on said base-plate to be revolved manually on an axis substantially normal to said base-plate and eccentric with respect to said curling member, and provided with means to clamp the end of a lock of hair thereto, said base-plate being provided with diverging fingers having their free ends raised slightly above the adjacent portions of said base-plate, a cover hingedly secured to an edge of said base-plate, and means to lock together those edges of said base-plate and cover which are opposite to the hinged edges thereof.

4. In a hair dressing appliance, the combination of a base-plate of resilient sheet material, a curling member mounted on said base-plate to be revolved manually about an axis substantially normal to the base-plate, and provided with means to clamp the end of a lock of hair thereto, said base-plate being provided with a pair of diverging fingers stamped out of the material of said base-plate and having their end, and adjacent edges clear of the material of said base-plate, a cover of resilient sheet material hinged to an edge of said base-plate, and means to lock said cover and base-plate together to yieldingly press a lock of hair on said curling member and fingers, between said base-plate and cover.

5. In a hair dressing appliance, the combination of a base-plate, a curling member revolvably mounted on said base-plate and provided with means to clamp the end of a lock of hair thereto, said base-plate being provided with a pair of fingers extending generally away from said curling member, a cover hingedly secured to said base-plate, and means to lock said cover to said base-plate to yieldingly press a lock of hair on said curling member and fingers, between said base-plate and cover.

In witness whereof, I have hereunto set my hand this eleventh day of August, 1928.

ELIZABETH CAHILL.