May 20, 1924. 1,495,054

A. A. WEST

HAIR CURLER

Filed July 23, 1923 2 Sheets-Sheet 1

Fig 1

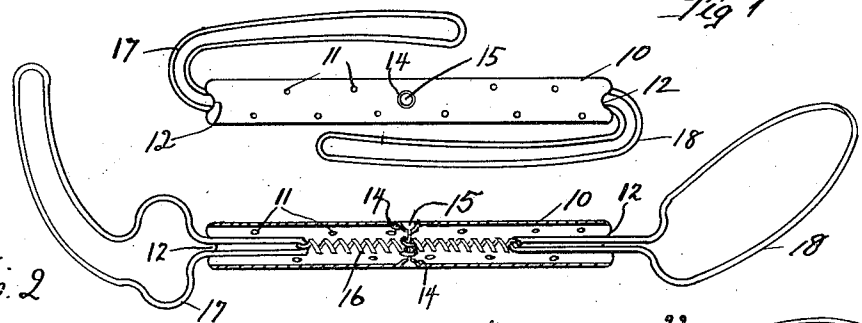


Fig. 2

Fig 3

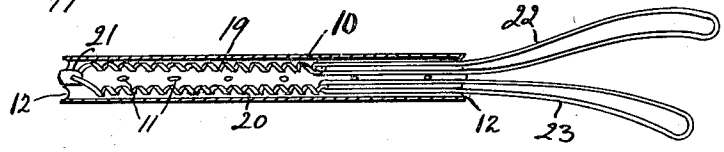
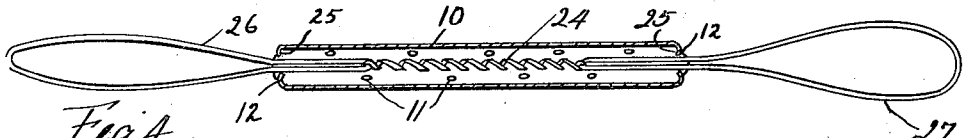


Fig 4.



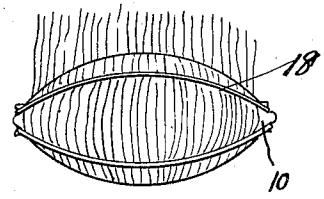


Fig 6

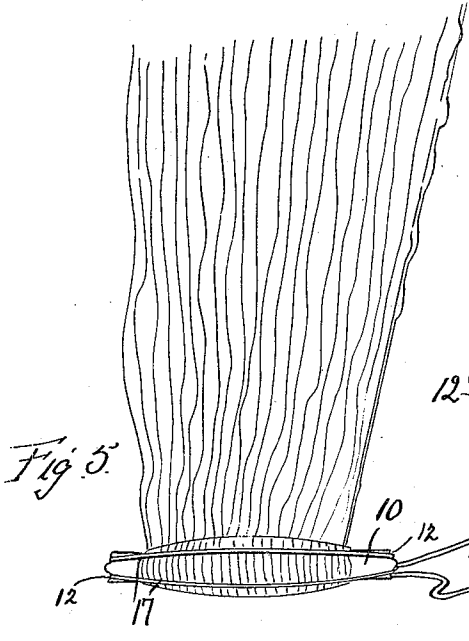


Fig. 5.

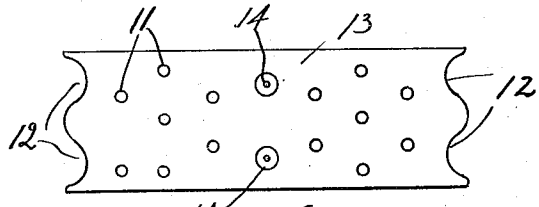


Fig. 7.

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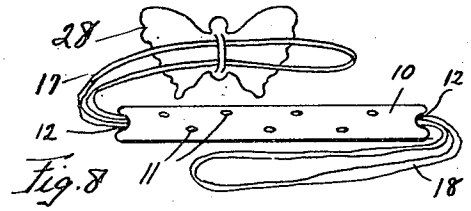


Fig. 8

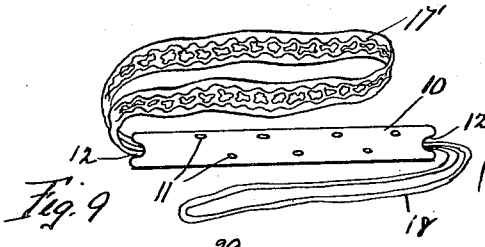


Fig. 9

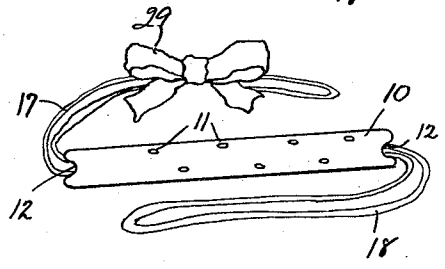


Fig 11

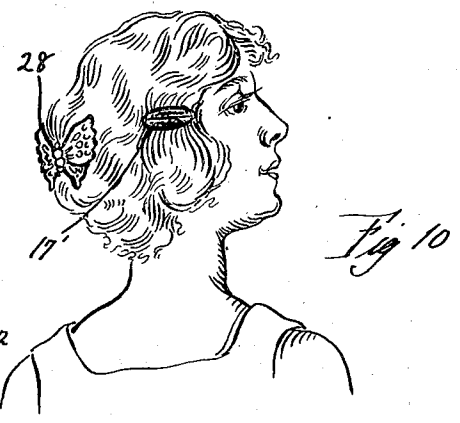


Fig 10

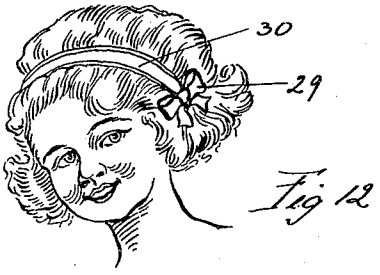


Fig 12



Fig 13



Fig 14

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Patented May 20, 1924. 1,495,054

UNITED STATES PATENT OFFICE.

AUGUSTUS ALBERT WEST, OF PHILADELPHIA, PENNSYLVANIA.

HAIR CURLER.

Application filed July 23, 1923. Serial No. 653,129.

To all whom it may concern:

Be it known that I, AUGUSTUS ALBERT WEST, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in a Hair Curler, of which the following is a specification.

My invention relates to new and useful improvements in a hair curler, and has for its primary object to provide such a device with non-metallic clamping means, the tension for which is provided in a separate member or members housed within the body on which the hair is wrapped.

Another object of the invention is the production of a simple inexpensive hair curler especially adapted for use with children's and bobbed or short hair so that the same may be curled or waved without injury thereto.

A further object of the invention is to provide a smooth cornerless body preferably of round or oval cross section on which the hair is to be wrapped thereby eliminating the danger of cutting or otherwise damaging the hair strands which often occurs with the use of relatively thin flat curlers, said body having a spring or springs housed therein for supplying the tension or adjustable properties to the non-metallic clamping members which are preferably of non-elastic material such as tape or cord, the said clamping members being connected with the spring or springs and adapted to fold over the exterior of the body for temporary attachment to the ends thereof.

When the clamping members are made of metal they have a tendency to crush, cut, break or otherwise injure the hair and if such clamping members are of rubber they soon deteriorate and lose their elasticity thereby making the curler useless. Further if exposed springs are used to provide the necessary tension for the clamping members, the hair is likely to catch in the coils thereof and be injured. These disadvantages are entirely overcome by the use of my invention, as the spring tensioning means is completely enclosed, and the clamping means being of tape, cord or similar material, it will not injure the hair, and since the tension on the clamping means is created by the springs such tension will not be lost even after a long period of use.

Another advantage in the use of tape and like material for the clamping means is that such tape may be replaced when soiled or damaged. Then again the tape may be changed so as to employ one of the color matching or approximating the color of the hair, thus making the curler less conspicuous when in use. Also the clamping means may be in the form of ribbon for adornment or embellishment purposes and then again ornaments such as jewelry or bows of ribbon may be attached to the clamping means.

Still further objects of the invention are to utilize the curler as a barrette and as a hat retainer. In the former case some of the inside or underneath strands of hair may be engaged by one of the clamping elements while the outer strands will be engaged by another clamping element thereby more effectually retaining the curler in place than is possible with a single fastening. When used as a hat retainer the body of the curler is inserted in the hair and held in place by one of the clamping members while the other clamping member is threaded through suitable openings or slots in the brim or other part of the hat the free end then fastened to the body thus securely holding the hat on the head.

It will be understood that where the term "tape" is used herein it not only includes the article ordinarily known in the trade by this term but also cord, ribbon and similar or equivalent material or articles.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Fig. 1, is a side elevation of a hair curler constructed in accordance with my invention.

Fig. 2, is a longitudinal sectional view through the body thereof.

Fig. 3, is a view similar to Fig. 2 of a slightly modified form of the invention.

Fig. 4, likewise is a similar view of another formation.

Fig. 5, is a view in elevation of a strand of hair with the curler clamped thereon as in the first operation of hair curling.

Fig. 6, is a view similar to Fig. 5 after the hair has been completely wound on the body of the curler and the latter clamped in place.

Fig. 7, is a face view of the metal blank from which the body of the curler is generally produced.

Fig. 8, is a side elevation of the hair curler on a reduced scale illustrating how an ornamental piece of jewelry may be attached thereto.

Fig. 9, is a view similar to Fig. 8 showing one of the clamping members formed from a piece of fancy ribbon.

Fig. 10, is a picture of a woman's head showing the use of both the devices illustrated in Figs. 8 and 9.

Fig. 11, is a side elevation of the curler showing the manner of attaching a bow of ribbon thereto.

Fig. 12, is a picture of a child's head showing one manner in which the arrangement illustrated in Fig. 11 may be used.

Fig. 13, is also the picture of a child's head showing another use for the curler such as illustrated in Fig. 11.

Fig. 14, is a picture of a woman's head illustrating the curler used as a hat retainer.

In carrying out my invention as embodied in Figs. 1 and 2, 10 represents the body of hollow formation and preferably produced from metal having a circular or oval cross sectional shape in order to eliminate corners which have a tendency to cut, break or otherwise injure the hair strands. This body may be provided with perforations 11 if found desirable to permit the circulation of a certain amount of air to assist in drying the same if dampened for the curling process. The ends of the body are notched as at 12 to provide recesses for the reception of the clamping means to retain said clamping means in their operative positions.

As shown in Fig. 7, this body may be formed from a strip of sheet material 13 having the perforations 11 and notches 12 and further provided with two countersunk holes 14 which, when the body is formed, will align as shown in Fig. 2 and receive the heads of the rivet 15 extending across the interior of the body.

Within the body is located the tension device 16 in the form of a spring which may be of unitary or sectional formation. Where such spring is of unitary or one piece formation it is held approximately midway its length within the body by means of the rivet 15 but where of sectional or two piece formation the inner ends of the two sections are connected to the rivet for holding both of said sections within the body substantially in the center thereof. This spring whether of unitary or sectional formation should be of such length that its outer ends terminate short of the ends of the body which are open for the free passage of the clamping means to be directly described.

To the outer or free ends of the spring tension member 16 are fastened the inner ends of the non-metallic, non-elastic tape clamping means 17 and 18 each of which is adapted to project over the outside of the body lengthwise thereof and be temporarily attached to the end opposite that from which it projects by reason of their insertion in the notches 12.

In actual practice the tapes or clamping members should be of such length as to terminate just short of an end of the body when folded over the latter with the spring contracted so that to attach a tape to an end of the body it becomes necessary to expand the spring tensioning means and therefore the action of said spring tensioning means will prevent the accidental detachment of the clamping tape.

In Fig. 3, I have shown a slightly modified form of my invention wherein two springs 19 and 20 have one end of each suitably fixed at one end of the body within the latter as to a lug 21 while to the opposite end of these springs are attached the tape clamping members 22 and 23, one to each spring.

Where the curler is constructed in accordance with the showing in Fig. 3, the two tapes project from the body at the same end and therefore the notches 12 may be eliminated from one end of the body.

Another formation is illustrated in Fig. 4 wherein a single spring 24 is loosely housed within the body so as to be free to move about therein, said spring being retained by any suitable means such as inturned lips 25 at the ends of the body, which lips may be produced from the metal pressed out of the ends of the body during the formation of the notches 12, it being understood that such metal is not actually cut or removed from the body as in the case of the formation of such notches illustrated in connection with Figs. 1 and 2. Tape clamping members 26 and 27 are attached to the spring, one at each end, and project through the restricted or partially open ends of the body in order to be folded or extended over the outside of the body and fastened to the ends opposite those from which they project. In such a spring one of the tapes would have to be of a length sufficient to reach the end of the body when the spring engages the lips at the opposite end of said body and in fact should be slightly longer in order to fold over strands of hair wrapped on the body. The other tape would then be of sufficient length which with the extension of the spring will allow it to fold over a certain quantity of hair and be attached to an end of the body. When this is done the tension of the spring is applied to both the tapes.

As shown in Fig. 5, the end of a strand of

hair is first rolled one or two turns on the body and one of the tape clamping elements then folded over this rolled portion of the hair and attached to an end of the body through the medium of the notches 12. Next the body of the curler is revolved until the desired amount of hair is rolled thereon, as shown in Fig. 6, at which time the other clamping tape 18 is carried over the roll of hair and attached to the opposite end of the body and thereby securely but temporarily retaining the hair in the rolled condition for the production of a curl.

The device as illustrated in Figs. 3 and 4, is used in a like manner with the exception that when constructed as in Fig. 3, both tapes are attached to the same end of the body.

When the device is to be used as an ornament or barrette or for retaining the ribbon or jewelry ornament the body of the curler is inserted in the hair with one of the tapes passing under or inside of the inner strands of hair while the other tape passes over the outside of the outer strands of hair and this outer tape may be formed of ribbon as illustrated in Figs. 9 and 10 and designated by the numeral 17′ since in such case it takes the place of one of the clamping members. The curler being placed in the hair as just described the outer clamping member or element may be used to hold a jewelry ornament 28, Figs. 8 and 10, or a bow of ribbon 29, Figs. 11, 12 and 13. In Fig. 13, the device is shown positioned at the back of the head, while in Fig. 12, it is shown positioned on the side and as will be obvious from this view there could be two of these devices arranged in the hair, one at each side, with a bandeau 30 running from one of the devices to the other.

As shown in Fig. 14, the device may be used as a hat retainer by securing the body within the hair through the medium of one of the tape clamping members in the manner above described and then passing the other member, as 18, through suitable openings or slots 31 in the hat, as through the brim thereof. Such an arrangement will effectually hold the hat on the wearer's head against unexpected gusts of wind of considerable velocity.

Of course I do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is:—

1. A hair curler consisting of a spring, flexible clamping means connected with said spring, and held under tension thereby when in operative condition and means enclosing the spring.

2. A hair curler consisting of a spring, means enclosing the spring, and means attached to said spring to be held under tension thereby when in operative condition adapted to extend along the outside of the enclosing means and be temporarily fastened thereto.

3. A hair curler including two oppositely projecting flexible clamping members, means attached to the inner ends of said members to add tension thereto, and an enclosure to house the tensioning means and over which the clamping members are folded for temporary attachment to the ends thereof.

4. As an article of manufacture, a hair curler comprising a body, resilient tensioning means within said body, and non-elastic, non-metallic hair clamping means connected with said tensioning means and held under tension by said tensioning means adapted to be folded over the body for temporary attachment thereto.

5. As an article of manufacture, a hair curler comprising a body, a spring therein, and flexible means connected to the spring and adapted to be folded over the body for temporary attachment to an end of said body and be held under tension by said springs.

6. As an article of manufacture, a hair curler comprising a body, a spring completely housed in said body, and tapes connected to the ends of the spring with their free ends projecting from the body so as to be folded longitudinally over the same and temporarily fastened to the ends of said body where they will be held under tension by said spring.

7. As an article of manufacture, a hair curler comprising a hollow body, a spring fixed therein, and tapes secured to the free ends of the spring to be held under tension when in operative condition by said spring.

8. As an article of manufacture, a hair curler comprising a hollow body open at each end, a spring completely enclosed within said body, means to prevent displacement of said spring, and tapes secured to said spring to be held under tension when in operative condition by said spring.

9. As an article of manufacture, a hair curler comprising a hollow body open at both ends, a spring within the body, means to fix said spring in the body so that the ends of said spring terminate short of the ends of the body, and tapes secured to the free ends of the spring and projecting through the open ends of the body whereby they may be folded over said body longitudinally thereof and temporarily attached to the ends of said body where they will be held under tension by said springs.

10. A hair curler comprising a hollow open ended body having notches at both ends, a spring completely housed within said body and so positioned that the ends of said

spring terminate short of the ends of the body, a rivet having its heads countersunk in the walls of the body and projecting crosswise of said body in engagement with the spring substantially midway the length thereof and leaving the spring ends free, and tapes of loop formation secured to the free ends of said spring and projecting through the open ends of the body so as to be folded over the body longitudinally thereof under tension and temporarily attached to the ends of the body by registration with the notches.

11. A hair curler comprising a housing, resilient means completely enclosed in said housing, and hair clamping means connected with the resilient means, said resilient means holding the clamping means when in operative position, under tension on hair coiled about the housing.

12. A hair curler comprising a housing, a resilient member enclosed in said housing, and flexible means attached to the resilient member to be held under tension by said member when in operative position, said flexible member being foldable over one end of the housing and attachable to the opposite end of the housing for holding hair between the flexible member and the housing.

In testimony whereof, I have hereunto affixed my signature.

AUGUSTUS ALBERT WEST.