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2,107,348

RINGLET CURLER

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Fig. 1.

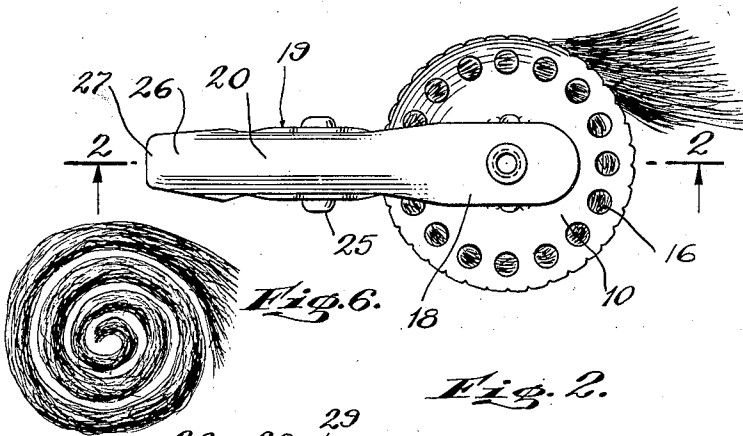


Fig. 2.

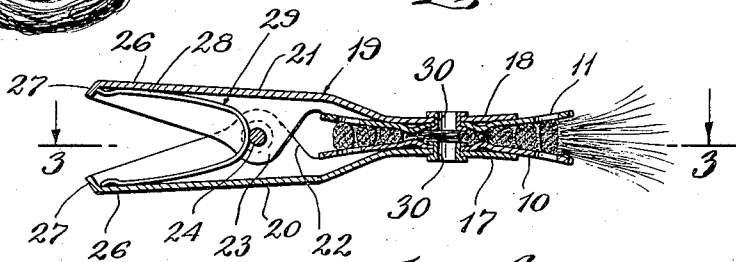


Fig. 3.

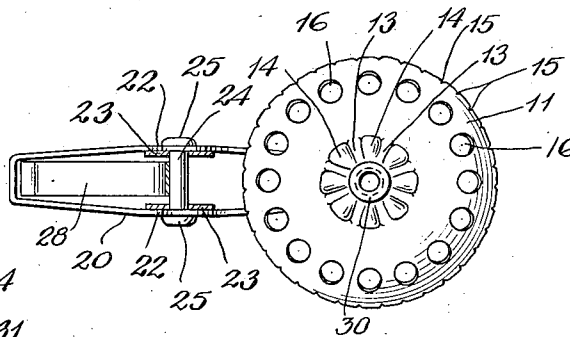


Fig. 4.

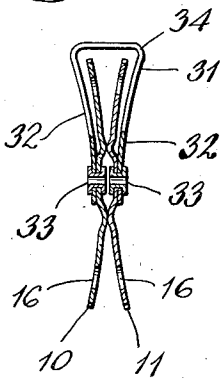
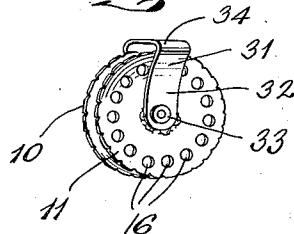


Fig. 5.



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RINGLET CURLER

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16 Claims. (Cl. 132-40)

The present invention is concerned with a novel hair curler conveniently controlled for processing hair to form ringlet curls. The invention has as one object the provision of an improved ringlet curler having normally contacting juxtapositioned arms each rotatably supporting an inwardly curved hair gripping member. The invention has as another object the provision of a ringlet curler characterized by a pair of normally closed but separable rotatable members having cooperative means for initially gripping and clamping a portion of the hair to be processed preparatory to manual rotation of the pair of members for winding the hair about the gripped and clamped portion upon rotation of both of the members. The invention contemplates as a further object the provision of a readily manipulatable ringlet curler embodying a pair of inwardly curved members defining a gap progressively increasing in width outwardly from corresponding central portions of the members towards the peripheral edges thereof, wherein the hair is wound upon rotation of the members and whereby successive convolutions of progressively increasing thicknesses of the ringlet curl in its formation are accommodated between the members during rotation of the latter. The invention further comprehends the provision of an improved ringlet curler of the type comprising a pair of inwardly curved and perforated members between which a portion of the hair to be treated is initially gripped and subsequently wound upon itself and which define an annular but flared ventilated gap or channel to facilitate drying of the hair compressed therein. The invention has as another object to provide a ringlet curler embodying a spring controlled support or handle having pivotally interconnected arms or components each carrying a rotatable member, the rotatable members having their origins normally retained in contact upon the release of manual pressure from the components when no hair is interposed between the members. The invention, as a further object, has to do with a support formed from a spring having juxtapositioned and normally closed though separable arms or extensions each rotatably carrying inwardly curved members for gripping the hair and subsequently upon rotation of the members relative to the spring support, winding the hair about the portion gripped to form a ringlet curl as above referred to. Other objects, advantages, and features of the invention are in part obvious and in part specifically pointed out hereinafter.

The invention accordingly comprises features

of construction, combination of elements and arrangement of parts exemplified in the structural embodiments hereinafter set forth in detail and the scope thereof will be more particularly pointed out in the appended claims.

For a clearer understanding of the invention and how the features, advantages and objects thereof are accomplished and carried into effect, attention is directed to the several embodiments illustrated in the accompanying drawing in which:—

Fig. 1 is a side view of the ringlet curler according to my invention.

Fig. 2 is a sectional view on the line 2-2 of Fig. 1.

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

Fig. 4 is a slightly modified form, illustrating a pair of inwardly curved and juxtapositioned hair gripping members rotatably sustained by a pair of resilient arms of a hair pin loop spring.

Fig. 5 is a perspective view of the form according to Fig. 4 and

Fig. 6 is an elevational view of a hair ringlet curl formed by the curlers according to Figs. 1-5.

According to the invention, the ringlet curler comprises a pair of companion and similar but opposing jaws or members 10 and 11. Each of these jaws are inwardly curved, that is, towards its companion jaw such that its inner surface is substantially convex and its outer surface is substantially concaved.

Specifically, however, each of the curved jaws 10 and 11 has its central portion provided with a plurality of radially arranged ridges and indentations comprising alternately arranged grooves and ribs 13 and 14 respectively thereby forming an irregular contour, the arrangement being such that in the assembled relation of the ringlet curler, the undulating central portions of the jaws are in contact when the jaws are closed but at a time when no hair is interposed therebetween.

The rotatable jaws, if desired, may each include a plurality of transversely disposed and spaced indentations 15 arranged along the circumferential edge thereby providing means to readily manipulate the jaws by finger pressure and each of the jaws comprises a circular band of perforations 16 to permit ventilation to facilitate drying of the hair between the jaws.

In the form according to Figs. 1-3 inclusive the rotatable jaws 10 and 11 are appropriately carried by a pair of similar but opposing extensions 17 and 18 of a handle or support generally designed

nated 19 which comprises a pair of pivotally interconnected components or arms 20 and 21. More particularly, component 20 includes a pair of upstanding perforated spaced ears 22 closely but movably straddling a pair of perforated ears 23 depending from component 21.

A fulcrum pin 24 is passed through aligned perforations of the upstanding and depending ears 22 and 23 and the ends of the pin are appropriately upset to provide relatively large terminals 25 to prevent transverse bodily displacement of pin 24 relative to its pivotally carried components 20 and 21 each of which comprises a rearwardly disposed manipulating portion 26 having an inwardly extending lip 27.

Manipulating portions 26 of the components are transversely curved to define a housing for retaining arms 28 of a U shaped spring 29 having its crown portion abutting fulcrum pin 24. Arms 28 of the spring normally urge manipulating portions 26 outwardly to permit the undulating central portions of the rotatable jaws to be held in contact when no hair is between the jaws.

By moving the manipulatable portions 26 towards each other, the components of the handle pivot relative to the fulcrum pin and hence the rotatable jaws 10 and 11 are separated to permit the insertion of the hair between the jaws. In this connection, it will be appreciated that each of the extensions 17 and 18 of the components rotatably sustain a companion jaw by a suitable ferrule or rivet 30, the latter having its ends suitably upset to appropriately retain its rotatable jaw and to prevent lateral displacement thereof.

With the jaws separated, a portion of the hair is first interposed between the adjacent undulating portions thereof and pressure is removed from the manipulatable portions 26. Hence jaws 10 and 11 move towards each other or close. Accordingly the hair between the undulating portions of the jaws is gripped and locked. Now by turning both of the jaws 10 and 11 upon the application of finger pressure along the circumferential edges thereof, the remaining portion of the hair is wound about the gripped part of the hair locked between the undulating portions, thus forming therefore a plurality of convolutions of progressively increasing widths and thicknesses confined between the outwardly flared channel or gap defined by the companion jaws. Having wound the hair between the jaws, pressure imparted by spring 28 against the manipulating portions 26 is also transmitted to the jaws and consequently the ringlet curl formed between the jaws is also under pressure and this pressure is maintained until the operator moves manipulating portion 26 towards one another thereby separating the jaws, permitting removal of the ringlet curl which takes the form along the lines illustrated in Fig. 6.

In the form according to Figs. 4 and 5, the handle or support 31 takes the form of an irregularly shaped hair pin loop which is of spring material having a width greater than its thickness, the arms or extensions 32 of the spring 31 serving to rotatably carry jaws 10 and 11 of the type disclosed in connection with the earlier views, by means of a rivet or ferrule 33. The crown portion 34 of spring 31 is so shaped as to urge its resilient arms 32 towards each other and consequently hold jaws 10 and 11 in contact or closed when no hair is interposed therebetween. Where, however, the jaws are manually separated, against the resiliency of the extensions 32, hair may be

interposed between the undulating portions of the jaws, and subsequently, manual pressure is removed and the jaws automatically travel towards each other, thus gripping and locking the hair after which the jaws are rotated relative to the spring 31 thus providing a plurality of convolutions of hair wound about the gripped portion between the undulating portions of the jaws. In other aspects, the form illustrated in Figs. 4 and 5 is identical to the construction of Figs. 1-3 inclusive.

While the invention has been described in detail and reference has been made to specific applications thereof, it is to be understood that the invention herein disclosed is not limited to such specific applications and it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim:—

1. In a ringlet hair curler, the combination of, a handle comprising spaced extensions, and rotatable and separable jaws carried by said extensions for gripping a portion of the hair to be coiled therebetween and about said gripped portion.

2. In a ringlet hair curler, the combination of, a handle having spaced extensions, a pair of jaws rotatably carried by said extensions, said jaws having undulating central portions for initially gripping a portion of hair to be coiled therebetween, said jaws having substantially convex facing surfaces defining a channel having progressively increasing widths beyond said undulating portions and in a direction towards peripheral edges of said jaws.

3. In a ringlet curler, the combination of, a handle having spaced extensions, a pair of jaws rotatably carried by said extensions, said jaws having irregular inner central portions for initially gripping a portion of hair to be coiled between said jaws, said jaws defining a channel having progressively increasing widths away from said irregular portions and towards peripheral edges of said jaws, said channel receiving successive convolutions of hair coiled about said gripped portion of said hair upon rotation of said jaws relative to said handle.

4. In a ringlet hair curler, the combination of, a handle having spaced extensions, a pair of separable hair gripping and clamping jaws rotatably carried by said extensions, said jaws having central portions for gripping a portion of hair to be coiled between said jaws about said central portions and spring means for urging said central portions towards each other and for urging the remaining portions of said jaws towards the hair wound about said central portions.

5. In a ringlet hair curler, the combination of, a handle comprising pivotally interconnected components having spaced extensions and oppositely disposed manipulating portions, a pair of separable jaws rotatably carried by said extensions, and spring means cooperating with said manipulating portions for holding said jaws closed.

6. In a ringlet hair curler, the combination of, a handle comprising pivotally interconnected components having spaced extensions and oppositely arranged manipulating portions, a pair of jaws defining an outwardly flared annular channel means rotatably supporting said jaws on said extensions, and centrally arranged irregular faces, and spring means cooperating with

said manipulating portions for holding said central irregular faces in contact.

7. In a ringlet curler, the combination of, a handle comprising pivotally interconnected components having spaced extensions and oppositely arranged manipulating portions, a pair of jaws rotatably connected to said extensions, said jaws being inwardly curved and having inner substantially convex surfaces facing each other, said jaws each having a ribbed central portion, and spring means cooperating with said manipulating portions for holding the ribbed portions of said jaws in contact in the closed position of the latter.

8. The ringlet curler according to claim 7 characterized in that said manipulating portions may be brought towards each other against the resistance of said spring means for separating said jaws to permit insertion of hair between said central ribbed portions.

9. The ringlet curler according to claim 7 characterized further in that said manipulating portions may be brought towards each other against the resistance of said spring means for diverging said jaws to permit the insertion of hair between said central ribbed portions, and said central portions upon release of said manual pressure from the manipulating portions automatically approaching each other to clamp the hair inserted therebetween.

10. The ringlet curler according to claim 7 further characterized in that said manipulating portions may be brought towards each other against the resistance of said spring means for diverging said jaws to permit the insertion of hair between said central ribbed portions, and said central portions upon release of said manual pressure from the manipulating portions automatically approaching each other to clamp the hair inserted therebetween, said jaws upon rotation thereof relative to said extensions coiling the hair about said gripped portions whereby several successive convolutions of hair may be formed between said jaws and retained by the latter.

11. In a ringlet hair curler, the combination of, a spring having spaced extensions, a hair gripping jaw rotatably carried by each of said extensions, said spring normally urging said jaws towards and against each other, said extensions constituting means adapted to be diverged to separate said jaws.

12. In a ringlet hair curler, the combination of, a support having a pair of extensions and opposed manipulating portions, spring means cooperating with said manipulating portions to prevent diverging of said extensions, a pair of inwardly curved and facing jaws rotatably carried by said extensions and comprising central portions adapted to grip a portion of hair interposed between said jaws, said jaws having diverging portions adapted to compress the hair

wound about said gripped portion of hair during rotation of said jaws relative to said extensions or subsequent to said rotation preparatory to diverging of said extensions for separating said jaws.

13. In a ringlet hair curler, the combination of, a pair of perforated and separable jaws defining a flared channel having surfaces for initially clamping a portion of hair to be wound therebetween, means for rotatably supporting said jaws, said jaws upon rotation thereof relative to said supporting means adapted to coil hair about said gripped portion of hair to form a plurality of contiguous and successive convolutions in said channel about said gripped portion.

14. In a ringlet hair curler, the combination of, supporting means comprising spaced extensions, jaws rotatably secured to said extensions and having facing surfaces, and means cooperating to hold the central portions of said faces in contact, said central portions constituting means for initially gripping a portion of hair interposed between said jaws, the remaining portions of said inner faces defining a channel adapted to receive remaining portions of said hair coiled therein during rotation of said jaws relative to said extensions.

15. In a ringlet hair curler, the combination of, supporting means comprising spaced extensions, jaws pivotally secured to said extensions and having facing surfaces defining an annular channel, means normally holding the central portions of said surfaces substantially in contact, said jaws upon separation thereof permitting the insertion of hair therebetween, said central portions constituting means for initially gripping a portion of the inserted hair, said jaws upon rotation thereof relative to said extensions adapted to wind remaining portions of hair about said gripped portions and within said channel.

16. In a ringlet hair curler, the combination of, supporting means comprising spaced extensions, jaws rotatably secured to said extensions and having facing surfaces defining an annular channel, spring means normally holding the central portions of said surfaces substantially in contact, said channel increasing in width from said central portions towards the outer edges of said jaws, said jaws upon separation thereof against the resistance of said spring means permitting the insertion of hair therebetween, said central portions constituting means for initially gripping a portion of the inserted hair pursuant to release of energy of said spring means, said jaws upon rotation thereof relative to said extensions adapted to coil remaining portions of hair about said gripped portions to provide within said channel a plurality of convolutions of hair gripped by said surfaces constituting said channel.

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