Nov. 26, 1946. E. BYRON 2,411,519

EYELASH CURLER

Filed Oct. 30, 1944

Fig. 1.

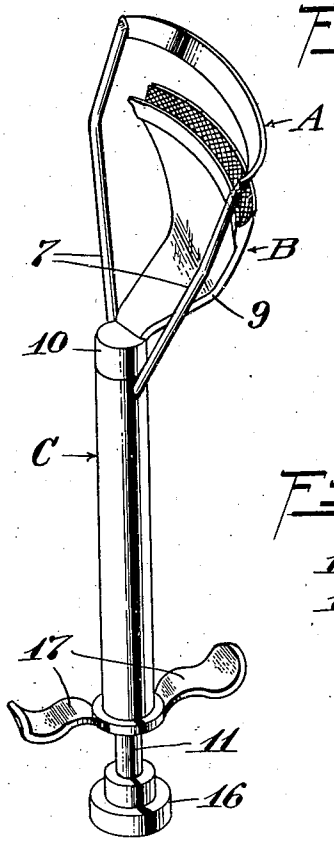


Fig. 2.

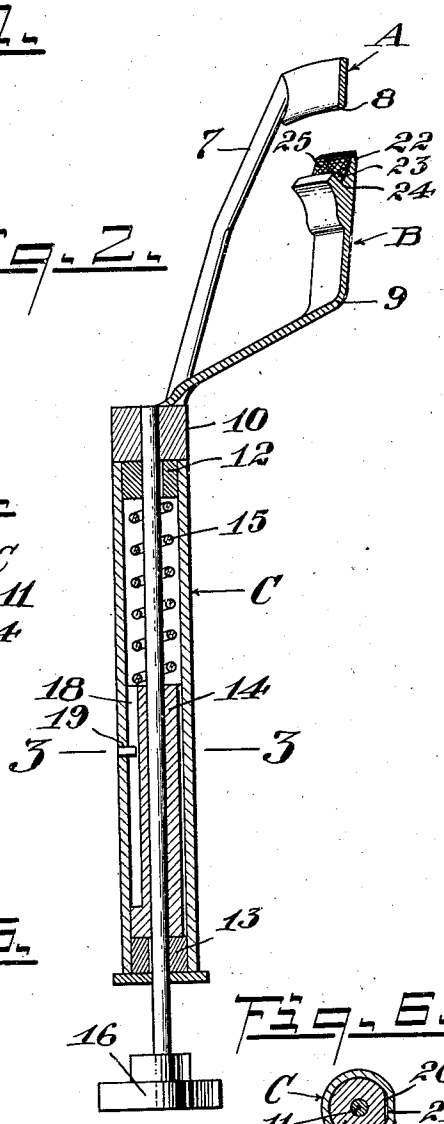


Fig. 3.

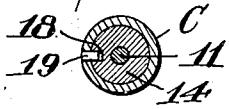


Fig. 4.

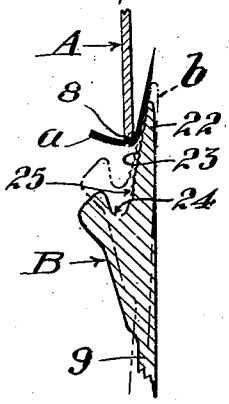


Fig. 5.

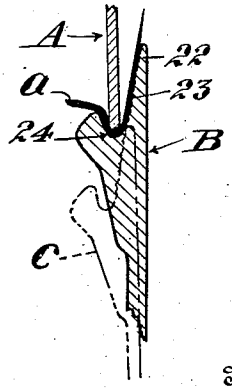
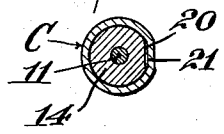


Fig. 6.



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EYELASH CURLER

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Application October 30, 1944, Serial No. 561,092

5 Claims. (Cl. 132—32)

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This invention relates to eyelash curlers and particularly pertains to eyelash curlers of the type embodying a fixed arcuate jaw and a cooperating reciprocal jaw formed to coact with the fixed jaw to effect a curling action on eyelashes by engagement thereof between the jaws.

An object of the invention is to provide a construction and arrangement in the jaw members and a mode of operation thereof whereby in effecting curling of the eyelashes an initial ironing action will be had on the eyelashes longitudinally thereof leading in a direction from their tips toward their bases followed by a crimping action at the base portions thereof, and then by an ironing action on the eyelashes outwardly thereof whereby a highly effective curling action is attained.

Another object is to provide a construction in the movable jaw member whereby the eyelashes will be effectively gripped and held against both longitudinal and lateral movement relative to the jaw members during the curling operation.

A further object is to provide a formation in the jaw members together with a mounting and means of operation thereof, whereby the movable jaw member will be permitted to have outward movement against yieldable resistance along the contiguous edge of the fixed jaw member on advancing and retracting the movable jaw member relative to the fixed jaw member.

Another object is to provide the movable jaw member with a contoured face including an inclined portion adapted to be advanced and retracted in overlapping relation to the contiguous margin of the fixed jaw member.

Another object is to provide an effective means for reciprocating the movable jaw member relative to the fixed jaw member.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the parts and in the combination, construction and arrangement of parts hereinafter described and claimed, and illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a perspective view of the eyelash curler;

Fig. 2 is a view of the curler as seen in vertical section with parts in elevation;

Fig. 3 is a detail in horizontal section taken on the line 3—3 of Fig. 2;

Fig. 4 is an enlarged detail in section of the curler jaw member showing the manner in which the jaw members are initially engaged with an eyelash;

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Fig. 5 is a sectional view similar to Fig. 4 showing the manner in which the jaw members are moved into interengagement with each other at the termination of the advancing stroke of the movable jaw member relative to the fixed jaw member;

Fig. 6 is a detail in cross section similar to Fig. 3 showing a modified construction.

Referring to the drawing more specifically, A indicates generally a longitudinally curved or arcuate fixed jaw member and B designates a cooperative longitudinally curved movable jaw member arranged to be advanced and retracted relative to a marginal portion of the jaw member A. The mounting for the jaw member A is here shown as comprising a tubular shank C from one end portion of which projects a pair of diverging stems 7 rigidly affixed to the shank C and fastened at their outer ends to the ends of the jaw member A; the stems 7 being collectively inclined relative to the longitudinal axis of the shank C so as to offset the jaw member A relative to the shank. The jaw member A comprises a strip of thin material having its lower margin rounded as indicated at 8.

The jaw member B is carried on the outer end of a resilient angular plate 9 having an inner end portion affixed to a collar 10 fastened on a shaft 11 extending axially through the shank C; the collar 10 being adapted to seat on the end of the shank between the diverging stems 7 with the plate 9 leading outwardly from the collar 10 between the stems 7 and thence upwardly with the jaw member B on the outer end thereof presented toward the rounded edge 8 of the jaw member A in spaced relation thereto.

The tubular shank C is fitted at its ends with bushings 12 and 13 through which the shaft 11 slidably extends. Fixed on the shaft 11 between the bushings 12 and 13 is a sleeve 14 one end of which normally abuts the bushing 13 and between the other end of which and the bushing 12 is interposed a coil spring 15 which normally maintains the shaft 11 and the parts carried thereby in a retracted position relative to the fixed jaw member A. The lower outer end of the shaft 11 is fitted with a head 16 and the lower end of the shaft C is fitted with finger holds 17 adapted to be engaged by the first and second fingers with the thumb bearing against the end face of the head 16 in such fashion that pressure of the thumb will effect longitudinal movement of the shaft 11 in a direction to advance the jaw member B toward the fixed jaw member A and which movement is yieldably op-

posed by the spring 15 which operates on release of thumb pressure on the head 16 to restore the shaft 11 and jaw member B to normal.

The shaft 11 while being permitted to move longitudinally is held against rotation so as to maintain the jaw member B in operative alignment with the fixed jaw member A. This may be accomplished by forming the sleeve 14 with a longitudinally extending channel 18 into which is extended a pin 19 carried by the shank C as particularly shown in Fig. 3 or by forming the sleeve 14 and shank C with longitudinally extending contiguous flat faces 20 and 21 as shown in Fig. 6.

A particular feature of the invention resides in the formation of the jaw member B whereby the latter will move into engagement with the fixed jaw member A with a sliding action vertically of the latter. This is accomplished by forming the jaw member B with an outer marginal flauge 22 having an inclined inner face 23 so arranged that the upper marginal portion of the inclined face 23 initially contacts the outer margin of the rounded edge 8 of the fixed jaw member on moving the jaw member B into engagement with the latter and whereby on continued upward movement of the movable jaw member relative to the fixed jaw member the lower edge of the latter will abut the inclined face 23 in such fashion as to press the jaw member B outwardly in opposition to the yieldable resistance afforded by the tensioned angle plate 9.

The inclined face 23 leads from one side of a channel 24 formed to receive the curved lower edge 8 of the fixed jaw member A.

In order to afford a gripping action of the jaw member B on eyelashes engaged thereby the inclined face 23 is roughened with fine criss-cross lines as indicated at 25.

The shaft 11 and sleeve 14 thereon are slidably supported in the bushings 12 and 13 and tubular shank C with tolerances such as to permit slight lateral movement of the jaw member B outwardly relative to the fixed jaw member A when the tip of the flange 22 of the jaw member B initially engages the eyelashes interposed between the jaw members so as to minimize the pull on the eyelashes when initially engaged between the jaw members.

In the operation of the invention the shank C is gripped between the first and second fingers seated in the finger hold 17 and the thumb bearing against the head 16 of the shaft 11. The implement in an upright position is then applied so as to position the eyelashes *a* between the then separated jaw members A and B with the tips of the eyelashes slightly overlying the rounded under edge 8 of the fixed jaw member A.

On pushing the head 16 with the thumb while holding the shank C with the fingers on the finger-holds 17 the shaft 11 will advance upwardly relative to the shank C and will thereby move the upper margin of the inclined face 23 into contact with the eyelashes *a* and press the tip portions of the latter against the outer margin of the rounded edge 8 of the fixed jaw member A as shown in full lines in Fig. 4. Continued upward movement of the shaft and jaw member B will cause the roughened inclined face 23 to feed the eyelashes upwardly around the lower edge of the fixed jaw member A; the jaw member B then moving outwardly and upwardly as indicated by the broken lines *b* in Fig. 4. This movement continues until the eyelashes are pressed into the channel 24 as indicated in full lines in

Fig. 5. An ironing action is had on the eyelashes from their tips toward their bases while they are being drawn upwardly over the rounded edge 8 by the action of the inclined face 23; the latter being held in engagement with the lashes during this operation by the pressure afforded by the spring action of the angle plate 9. A crimping action is imparted to the base portions of the eyelashes by pinching the lashes against the bottom of the channel 24 whereby a definite upward curl is imparted to the eyelashes.

On releasing pressure on the head 16, the spring 15 will retract the stem and thereby cause the inclined face 23 of the jaw member B to draw the eyelashes downwardly over the margin of the rounded edge 8 of the fixed jaw member thereby effecting an ironing action on the lashes from their base portions toward their tips. The jaw member B will then move inwardly and downwardly to the position indicated by the broken lines *c* in Fig. 5 under the urge of the tension of the angle plate 9 and thereafter will be moved to its normal open position to free the eyelashes. The ironing actions coupled with the crimping action insures imparting an effective and durable upward curl to the eyelashes.

While I have shown and described a specific embodiment of my invention I do not limit myself to the exact structure recited since the invention is subject to modification and accordingly the invention is to be considered as embracing constructions coming within the meaning and terms of the appended claims. For example, in some instances the roughening 25 of the inclined face 23 of the flange 22 may be omitted and various constructions may be employed for actuating the jaws as are well known in the art.

I claim:

1. In an eyelash curler, a longitudinally curved fixed jaw member, a correspondingly curved movable jaw member having a longitudinally extending channel on its upper edge arranged to receive the lower margin of the fixed jaw member, said jaw members being adapted to receive eyelashes therebetween, a flange on said movable jaw member projecting from and forming a continuation of the outer margin of said channel, the inner face of said flange being inclined relative to and arranged to slidably engage the lower margin of said fixed jaw member, a resilient support for said movable jaw member adapted to permit outward and inward movement of the movable jaw member relative to the fixed jaw member as determined by the inclined face of the flange traversing the lower margin of the fixed jaw member, means for supporting said fixed jaw member relative to said movable jaw member, and manually controlled means for reciprocating said movable jaw member.

2. The structure called for in claim 1 in which the inclined face of the flange on the movable jaw member is roughed.

3. In an eyelash curler, a longitudinally curved fixed member, a correspondingly curved movable jaw member having a longitudinally extending channel on its upper edge arranged to receive the lower margin of the fixed jaw member, said jaw members being adapted to receive eyelashes therebetween, a flange on said movable jaw member projecting from and forming a continuation of the outer margin of said channel, the inner face of said flange being inclined relative to and arranged to slidably engage the lower margin of said fixed jaw member, a shank, stems on said shank supporting said fixed jaw members at the ends

thereof, a reciprocal operating shaft carried by said shank, and a resilient plate connecting said shaft to the movable jaw member.

4. The structure called for in claim 3, together with means engaging the shaft for holding it and the movable jaw member against turning movement.

5. In an eyelash curler, a longitudinally curved jaw member formed with a channel of arcuate cross section on an edge thereof, a flange on said jaw member having an inclined face extending in continuation of a margin of said channel, a second longitudinally curved jaw member having an edge opposing the channeled edge of the first named jaw member, said jaw members being normally slightly offset relative to each other so that the edge of said second jaw member will overlie the outer portion of the inclined face of said flange, means for moving at least one of said jaw members relative to the other to advance the inclined face up and down in overlying relation to the contiguous edge of the second jaw member, and yieldable spring means for pressing the inclined face against said contiguous edge or against eyelashes interposed between said jaw members.

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