

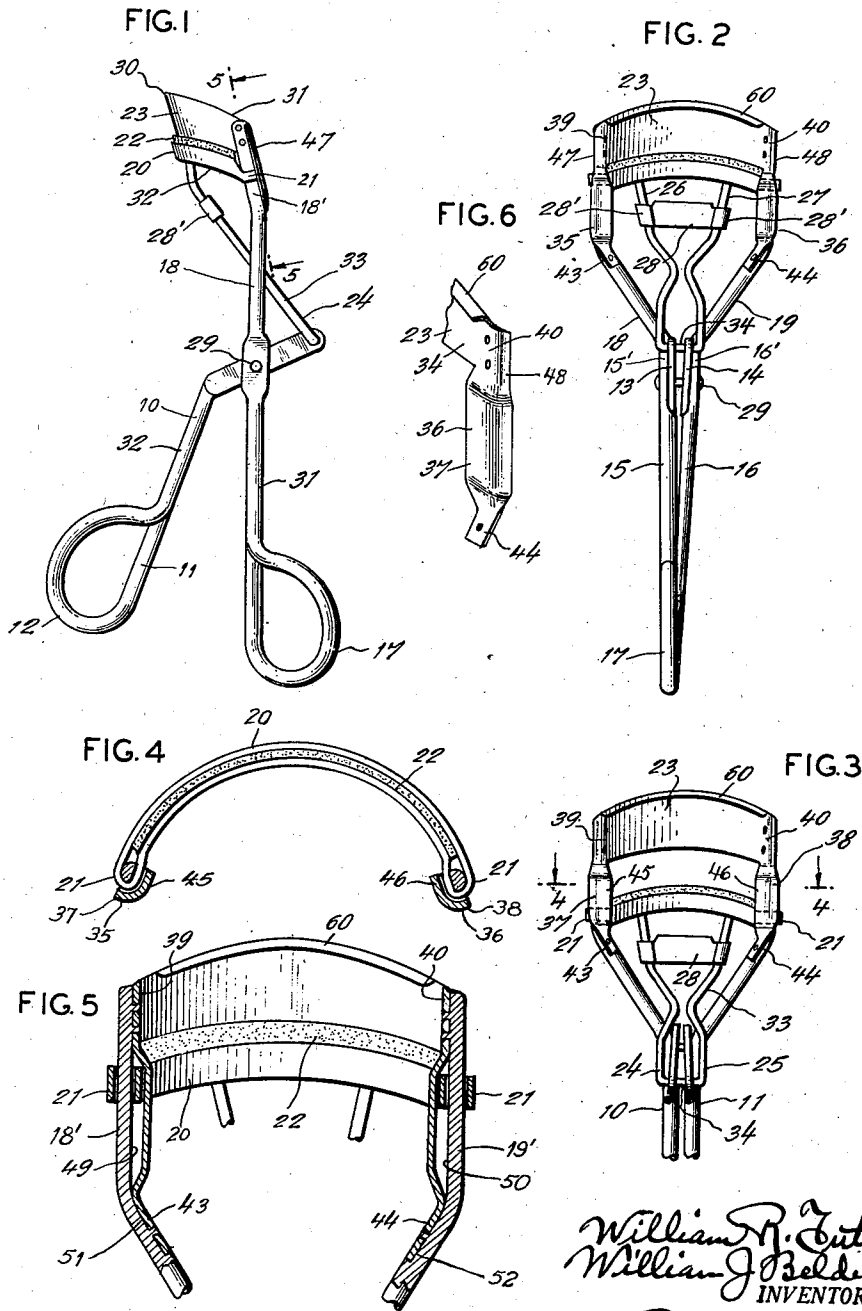
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EYELASH CURLER

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# UNITED STATES PATENT OFFICE

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## EYELASH CURLER

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2 Claims. (Cl. 132—32)

Among the objects of the present invention is the provision of a novel eyelash curling structure constituting an improvement over that disclosed and claimed in Patent Nos. 1,699,084 granted January 15, 1929, and 2,022,697 granted December 3, 1935.

In the utilization of eyelash curlers or crimpers constructed in accordance with the above identified patents it has been found that as the relatively movable jaw is vertically reciprocated, that the vertical arm engaging portions or movable sleeves on the end of said jaw tend to irritate the skin of the face of the user, and also to catch, between the said portions or sleeves and the parallel arms upon which they ride, facial hair from the user's cheek, causing pain, and being otherwise undesirable.

One of the objects of the present invention is the provision of a structure whereby the user's face is protected specifically from the movable vertical arm engaging portions or sleeves associated with or on the end of the movable jaws, and whereby in normal use no moving parts may contact the user's face.

Another object herein is the provision of such face shielding structure which is low in material cost and which may be affixed to the curler with a minimum amount of labor.

A still further object herein is the provision of a novel combination of eyelash curler and shielding means therefor which is extremely simple in construction so that said shielding means may be incorporated with curlers made in accordance with the above identified patents, and which will require a minimum amount of change in such curlers for the accommodation of the installation of the shields thereon.

Another object of the present invention is the provision of shielding means for an eyelash curler which will enhance the appearance of the device, and generally aid in producing a resulting streamlined contour.

Another object of the present invention lies in the provision of structure of the class described wherein the shields are integral with, and may be fabricated simultaneously with the fabrication of the stationary jaw.

A still further object herein lies in the provision of novel eyelash curler construction in which the upper ends of the shields are secured to the upper ends of the parallel arms by the same means which secure the outer ends of the stationary jaw to the upper ends of the parallel arms.

Another object herein lies in the provision of

a novel guard means on the upper edge of the stationary jaw.

These objects and other incidental ends and advantages will more fully appear in the progress of this disclosure and be pointed out in the appended claims.

Accompanying this specification and forming a material part of this disclosure is a drawing showing a preferred embodiment of the invention herein and wherein similar reference characters designate corresponding parts throughout the several views, in which:

Figure 1 is a side elevational view of an eyelash curler showing our improvement, said curler being seen from the left side of Figure 2.

Figure 2 is a front elevational view of an eyelash curler embodying the invention and as might be seen from the right side of Figure 1.

Figure 3 is a fragmentary front elevational view taken similarly to Figure 2 but showing the lower or movable jaw in the lowered or open position thereof.

Figure 4 is an enlarged fragmentary horizontal sectional view showing the lower jaw in elevation, and as seen from the plane 4—4 on Figure 3.

Figure 5 is an enlarged fragmentary vertical sectional view as seen from the plane 5—5 on Figure 1.

Figure 6 is an enlarged fragmentary view in perspective, showing the right end of the stationary jaw and the right shield.

Turning now to the embodiment of the invention illustrated in Figs. 1 to 6 inclusive, the eyelash curler, generally indicated by numeral 30, comprises a relatively stationary element 31 and a relatively movable element 32. The stationary element comprises juxtaposed members 15 and 16, the finger loop 17, flattened portions 15' and 16', bifurcating posts 18 and 19 and vertical and parallel arms 18' and 19'. Connecting the two upper ends of the parallel arms 18' and 19', is a curved stationary upper jaw 23.

The relatively movable element 32 comprises juxtaposed members 10 and 11; the finger loop 12; flattened portions 13 and 14; a relatively U shaped member 33 having lower arms 24 and 25; upper offset arms 26 and 27, and a horizontally disposed portion 34. The upper ends of the offset arms 26 and 27 are fixedly connected to the under surface of the lower movable jaw 20 which is suitably grooved or dished to have secured therewithin the resilient facing 22.

The horizontal portion 34 loosely penetrates two orifices in the upper ends of the members 10 and 11 serving thereby to pivotally connect said mem-

bers to the U shaped member 33 which is reinforced by means of the cross-bar 28 which is attached to the arms 26 and 27 by means of the knuckle reinforcements 28'.

The flattened portions 13 and 14 are disposed between the flattened portions 15' and 16' and are pivotally interconnected thereat by means of a pin 29.

The outer ends of the movable jaw 20 are provided with orificed vertical arm engaging portions constituting the integral irregularly shaped short sleeves 21. The sleeves 21 are adapted for slidable movement longitudinally of the arms 18' and 19', and this occurs when the finger loops 12 and 17 are moved toward or away from each other.

The stationary jaw 23 is generally U shaped in external configuration. It is preferably blanked from a single piece of sheet stock such as Duralumin, steel or brass and the crossbar portion of the U has extending from the ends thereof the pair of shields indicated by numerals 35 and 36. The shields are irregularly shaped and the configuration thereof is best seen by a reference to the several figures in the drawing.

Each of the shields is provided with a central partially cylindrical portion 37 and 38, which is based upon an imaginary cylinder of sufficient diameter and is sufficiently forwardly and inwardly displaced to permit adequate clearance between itself and the portions of the vertical and parallel arms 18' and 19' to allow the sleeves 21 to move freely therebetween. The shields also have rearwardly extending relatively planar lateral extensions 45 and 46 which are integral with the portions 37 and 38, respectively, and are sufficiently inwardly displaced to permit adequate clearance between themselves and the vertical and parallel arms 18' and 19' to allow the sleeves 21 to move freely therebetween.

The upper attaching portions 39 and 40 are integral with the ends of the stationary jaw and have rounded edges 47 and 48.

The shields 35 and 36 have lower attaching portions 43 and 44, which are angularly and inwardly bent to conform to the position of the bifurcating posts 18 and 19 thereat. This arrangement of the portions 43 and 44 is best seen in Figure 5.

Thus the outer ends of the stationary jaw 23, particularly the attaching portions 39 and 40, are affixed to the upper ends of the parallel arms 18' and 19'. The inner and opposite portions 49 and 50 of the parallel arms 18' and 19', as well as the upper portions 51 and 52 of the bifurcating posts 18 and 19, are flattened to receive the portions 39, 40, 43 and 44 in sufficient contact and this flattening of said arms corresponds to the internal shape of the short sleeves 21. This last mentioned interrelationship of the sleeves and the arms is best seen in Figure 4 of the accompanying drawing. The flattening of the inner and opposed portions of the parallel arms 18' and 19' and the corresponding flattening of the sleeves thereat permit the lateral extensions 45 and 46 to closely approach the sleeves. The result of this last described construction is that the shields, while operating effectively to prevent the face skin or hair being caught between the sleeves and the arms, are compactly arranged so that they do not extend inwardly a distance sufficient to interfere with the normal quick and convenient use of the device 30. The attachment of the attaching portions 39 and 40 to the upper ends of the portions 49 and 50 and the attachment of the portions 43 and 44 to the portions 51 and 52 may be made in any suitable manner as, for example, by spot

welding, or preferably by riveting the parts together by means of integral rivets extruded from the upper ends of the arms 18' and 19' and from the portions 51 and 52 of the bifurcating posts 18 and 19. The extrusion of said rivets may take place at the time that the arms and posts are flattened by suitably orificing the dies preparatory to the connection thereto of the portions 39, 40, 43 and 44.

The shields 35 and 36 at the central portions 37 and 38 are of such horizontal sectional size that at no point during the normal operation of the eyelash curling device 30 do the sleeves 21 contact the shields 35 and 36. This feature is perhaps best seen in Figure 5. This freedom of movement of the sleeves 21 is very important in the smooth and regular operation of the eyelash curling device 30.

The upper edge of the stationary jaw 23 is rolled rearwardly upon itself to form the guard 60 which forms a smooth pressure distributing surface which, upon engagement with the upper lid, will not deleteriously affect the same. By rolling the edge of the stationary curved jaw in this manner, the effect of a thicker jaw member is provided where it is needed and yet the lower edge 61 of said jaw may be of optimum thickness for the proper eyelash crimping effect.

#### Operation

It may be readily seen that the present combined shields and eyelash curling device may be operated in a manner similar to the eyelash curling device without the shields. Among the advantages presented by the present invention is that as the vertical and parallel arms 18' and 19' are placed toward the face the shields 35 and 36 automatically become interposed between these arms and the face so that the sleeves 21 are prevented from rubbing across the face of the user and catching facial hairs between said sleeves and said arms. Thus no moving parts of the eyelash curling device are allowed to come into contact with the face of the user.

Furthermore, by resting the shields against the face of the user, the entire device may be steadied and made more stationary so that the eyelashes may be more readily retained in proper position between the stationary and movable jaws as the movable jaws is closed against the stationary jaw with the eyelashes therebetween.

By virtue of the fact that the shields are integral with the upper stationary jaw member, a smooth curving surface is produced at the ends of the stationary jaw, which surface flows into the shields. Not only does this construction provide a more esthetically pleasant streamlined appearance but also it prevents, by its smoothness, any abrasion or damage to the skin of the user which, as is well known, in the area of the eye is very delicate.

Another advantage of this unitary construction of the stationary jaw member and the shields lies in the fact that the same may be fabricated in a more rapid and convenient manner and the assembling of the parts is facilitated with consequent reduction in manufacturing costs.

The rolled formation of the upper lid guard, which is integral with and disposed at the upper edge of the stationary jaw member, not only provides a pleasing appearance thereat but also assures a smooth surface in which accidental pressure upwardly is so distributed that there will be little tendency to harm the upper eyelid of the user.

It may thus be seen that there has been disclosed an embodiment of a novel eyelash curling device and shield combination possessing definite advantages in the use thereof, and a novel advantageous structure which accomplishes the desirable purposes set forth hereinabove with a minimum of parts and with a minimum of cost in the fabrication and installation thereof.

We claim:

1. In an eyelash curling device, a pair of pivotally connected handle members, one of said members having a pair of arms provided with flattened end portions connected by a curved stationary jaw, said jaw having an overturned upper edge portion and having downwardly extending integral end parts constituting shields and being secured at spaced points to the flattened end portions and providing a space between them and the flattened ends, a movable jaw having sleeve portions extending around and movable on the flattened end portions between the shields and said flattened ends, the shields each having a par-

tially cylindrical portion and a planar portion, the planar portions being inwardly directed toward the body of the stationary jaw.

2. In an eyelash curling device, a pair of pivotally connected handle members, one of said handle members having spaced arm portions connected by a curved stationary jaw, said jaw being provided at its opposite ends with integrally formed downward continuations constituting shields and consisting of integral extensions of the stationary jaw, said extensions being secured at spaced points to the arm portions, said arm portions being provided with flattened surfaces against which parts of the shield extensions are attached, a movable jaw having sleeved ends embracing the flattened ends of the arms and slidable thereon in back of the shields, and an operating connection between the movable jaw and the second handle member.

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