March 23, 1943. W. R. TUTTLE ET AL 2,314,375

EYELASH CURLER

Filed Nov. 27, 1941

Fig. 1.

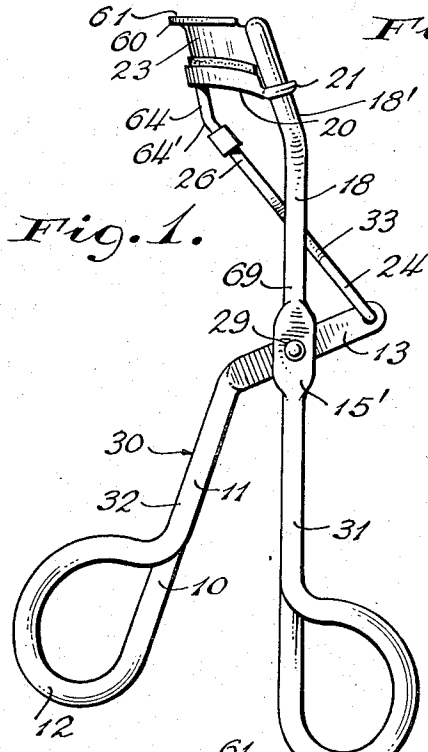


Fig. 6.

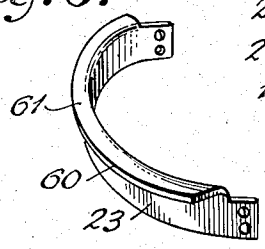


Fig. 3.

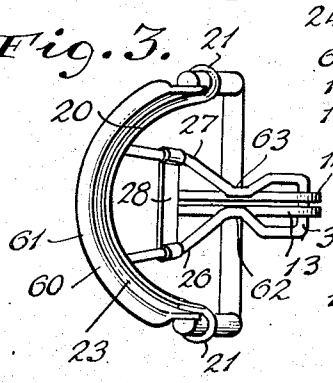


Fig. 2.

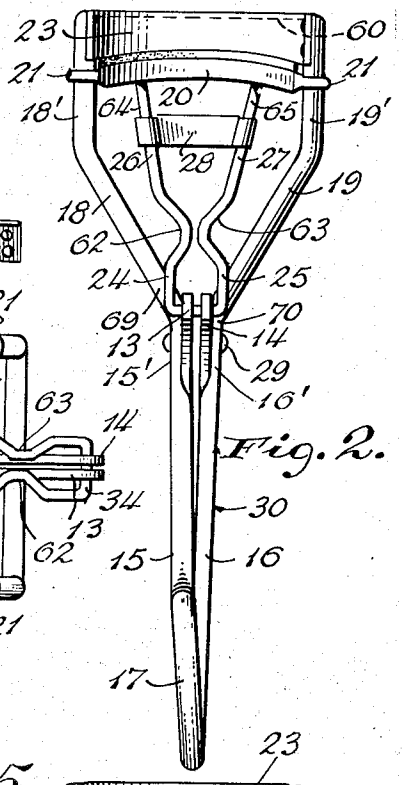


Fig. 4.

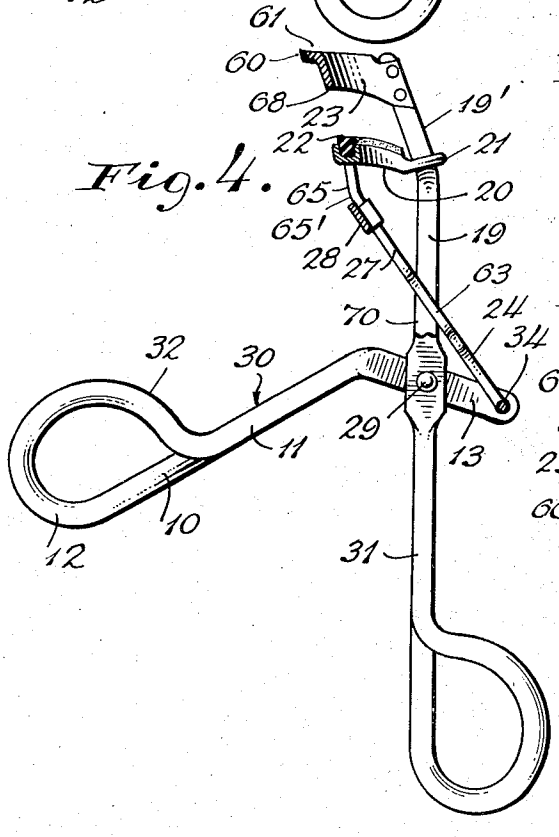


Fig. 5.

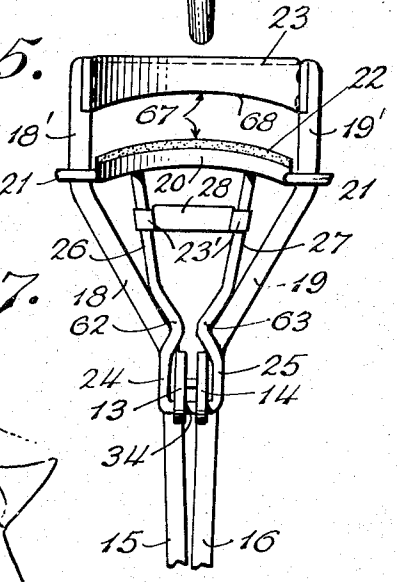
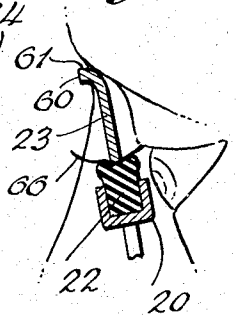


Fig. 7.



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EYELASH CURLER

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Application November 27, 1941, Serial No. 420,712

4 Claims. (Cl. 132—32)

Among the objects of the present invention is the provision of a novel eyelash curler structure constituting an improvement over that disclosed and claimed in Patents No. 1,699,084 granted July 15, 1929, No. 2,022,697 granted December 3, 1935, and No. 2,252,742 granted August 19, 1941. 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 verticaly reciprocated to the lower or open position thereof, insufficient space is provided to permit the ready and convenient insertion by the user of her eyelashes into the opening existing between the upper jaw, the lower jaw and the adjoining vertical arms or posts.

One of the objects of the present invention lies in the provision of a novel link structure permitting a greater reciprocal movement of the lower or movable jaw without increasing the basic size and principal dimensions of the device.

It has been found that in using eyelash curlers constructed in accordance with the above identified patents, as the device is used, the upper sharp edge of the relatively stationary jaw contacts the upper eye-lid of the user and tends to irritate the skin, causing pain and discomfort. This situation is aggravated by reason of the fact that in order to steady the position of the eyelash curler stationary jaw with relation to the face, the upper eye-lid is actually employed by the average user as a rest or support. Since the flesh of the upper eye-lid is soft and yielding, it is easily indented by the sharp upper edge of the prior art upper jaw constructions. This ease of indentation of the sharp edge of the upper jaw therefore permitted greater motion with a consequent unsteadiness.

It is, therefore, another object of the present invention to provide an improved upper jaw construction which, at practically no increase in cost, overcomes the objections just referred to with a consequent increase in steadiness and comfort of the device in use.

A still further object herein is the provision of a novel eyelash curler construction which may be incorporated into the curlers presently manufactured in accordance with the above identified patents and which will require a minimum amount of change in such curlers to produce the desired effect and result.

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.

In the drawing forming a material part hereof, similar reference characters designate corresponding parts throughout the several views in which:

Figure 1 is a side elevational view of an eyelash curler embodying the present invention, with the movable or lower jaw in the elevated or closed position thereof.

Figure 2 is a rear elevational view of the embodiment shown in Figure 1, as might be seen from the right side of Figure 1.

Figure 3 is a fragmentary top plan view of Figure 1.

Figure 4 is a view taken similarly to Figure 1 with parts broken away, the upper and lower jaw and crossbar being shown in central vertical section. In Figure 4 the lower jaw is in the lower or open position thereof.

Figure 5 is a view taken similarly to Figure 2 but shows the lower jaw and connected structure in the lower or open position thereof.

Figure 6 is a view in perspective of the upper jaw.

Figure 7 is a fragmentary vertical sectional view, schematic in nature, showing the device in use.

In accordance with the invention the eyelash curler generally indicated by numeral 30 comprises relatively stationary element 31 and a relatively movable element 32. The stationary element comprises juxtaposed members 15 and 16, the finger loop 17, flattening 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 upper jaw 23, when viewed from above, is curved, as best seen in Figure 3, and the upper edge thereof is provided with a forwardly extending guard flange 60 having a smooth upper surface 61.

The relatively movable element 32 comprises juxtaposed members 10 and 11; the finger loop 12; flattened portions 13 and 14; an irregularly shaped link 33. The link 33 is preferably formed from a single piece of rod like material such as wire. The link 33 includes a horizontally disposed portion 34 having a pair of lower arms 24 and 25 extending generally upwardly therefrom; the upper portions of the lower arms 24 and 25 continue into inwardly bent oppositely disposed bifurcating post clearance portions 62 and 63. The uppermost portions of the clearance portions 62 and 63 continue into the upper arms 26 and 27; the upper ends 64 and 65 are slightly rearwardly bent at 64' and 65' and are fixedly con-

nected to the under surface of the lower movable jaw **20**. The movable jaw **20** 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 members to the link **33** which is reinforced by means of the crossbar **28**, in turn 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 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 outer ends of the stationary jaw **23** are affixed to the upper ends of the parallel arms **18'** and **19'**, the inner and opposite portions of the upper ends of said arms being flattened thereat to receive the ends of the stationary jaw. Attachment of the ends of the jaw to the ends of the arms 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 at the time the same are flattened preparatory to the connection thereto of the ends of the stationary jaw.

The operation of the device is generally similar to that of the prior patents above referred to with two principal exceptions, however.

Firstly, when the user is about to insert the eyelashes **66** into the opening **67** penetrating the device **30** as the latter is moved toward the eye of the user, the opening **67** between the lower edge **68** of the stationary upper jaw **23** and the upper surface of the resilient facing **22** is considerably larger than the prior art devices. This is so because the downward movement of the lower jaw **20** is limited only by the contact of the bifurcating post clearance portions **62** and **63** with the lowermost portions **69** and **70** of the bifurcating posts **18** and **19**.

In this position the short sleeves **21** have reached the lowermost portion of the straight vertical and parallel arms **18'** and **19'**. By reason of the configuration of the portions **62** and **63** and the spatial interrelation thereof with the portions **69** and **70** of the bifurcating posts **18** and **19**, the portions **62** and **63** will reach a lower position when they form a more obtuse angle with relation to the posts **18** and **19**, that is, when the whole link **33** is rotated about the pin **29** to a more nearly horizontal position. The obtuseness of the angle just referred to is increased by reason of the bends **64'** and **65'**, as without them the arms **26** and **27** would be straight and would take a more nearly vertical path in travelling from the horizontal portion **34** to the point of connection with the lower surface of the lower jaw **20**.

Secondly, after the user has fully inserted her eyelashes **66** into the opening **67**, thus penetrating the device **30**, as the latter is moved toward the eye of the user, the upper surface **61** will contact the eyelid or adjacent facial skin beneath the eyebrow (see Figure 7). Any upward movement of the device **30**, as contrasted with upward movement of the jaw **20** will result in upward pressure being exerted by the flange **60**. Since this flange furnishes a much greater area over which said upward pressure may be distributed correspondingly, less disfigurement or distortion of the eyelid will take place. With less distortion and movement of the skin surface a greater steadiness of the positioning of the device will result and a greater degree of comfort by the user will be obtained.

As best seen in Figure 4, the flange **60** forms an angle of greater than 90° with relation to the jaw **23** so that the point of juncture between the upper portion of the jaw **23** and the inner or rear portion of the flange **60** forms a smooth comfortably rounded surface. Thus the flange **60** takes a general direction corresponding to the flange positioning of the upper portion of the eyelid and adjacent facial structure, when the device is in use.

It may thus be seen that we have provided certain improvements in eyelash curlers of the general class heretofore identified, principally directed to securing a greater inter-jaw distance when the device is in the open position thereof, and greater comfort and stability of the device when in use in contact with the eyelid and adjacent facial portions of the user. These improvements have been accomplished at practically no increase in cost, either for labor or material, and without increasing the general size and weight of the device.

We wish it to be understood that we do not desire to be limited to the exact details of construction shown and described for obvious modifications will occur to a person skilled in the art.

We claim:

1. In an eyelash curling device of the class described a curved stationary upper jaw; an enlargement on the upper edge of said jaw increasing the area of contact of the upper edge of said jaw against the eyelid of a user when the same is in use.

2. In an eyelash curling device of the class described a curved stationary upper jaw and an outwardly and forwardly extending flange adapted to contact the eyelid of the user when the device is in use.

3. In an eyelash curler of the class described having a stationary lever and a movable lever crossing and pivoting therewith, the stationary lever having a fixed upper jaw and a lower movable jaw slightly mounted thereon: a link comprising diverging arms pivoting from the upper terminal of said movable lever and being inwardly and oppositely offset at a point above the lower end of said link, the terminals of said arms being affixed to the lower edge of said lower movable jaw.

4. In an eyelash curler, the combination of a stationary lever and a movable lever mounted thereon, an upper jaw secured to the upper end of said stationary lever, a slidable jaw mounted on said stationary lever and cooperating with said upper jaw and a link including a pair of generally upwardly extending arms which are inwardly offset toward each other near the lower end of said link, said link being pivotally connected at its lower end to said movable lever and having its upper end fixedly secured to said sliding jaw.

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