Jan. 15, 1929. 1,699,084

C. W. STICKEL ET AL

EYELASH CURLER

Filed Feb. 23, 1928

Fig. 1.

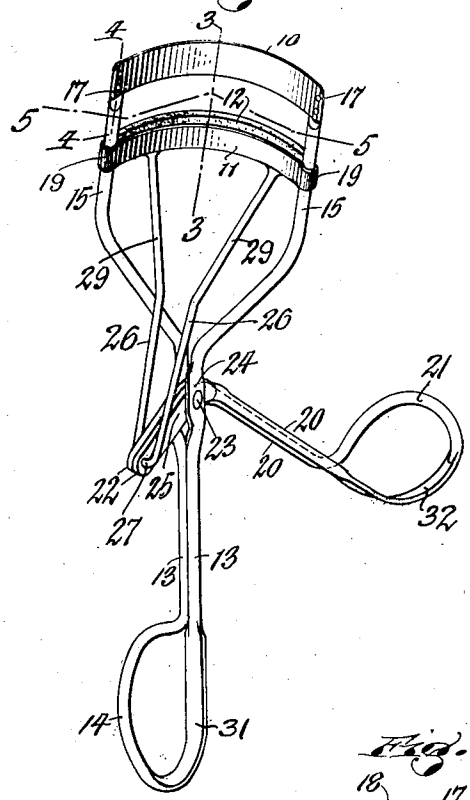


Fig. 3.

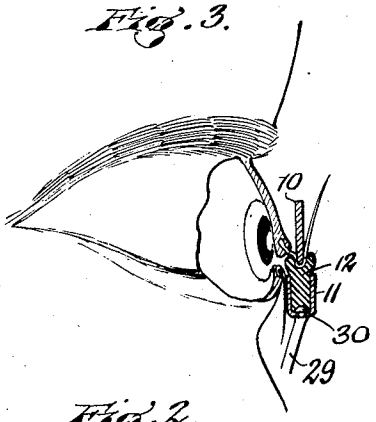


Fig. 2.

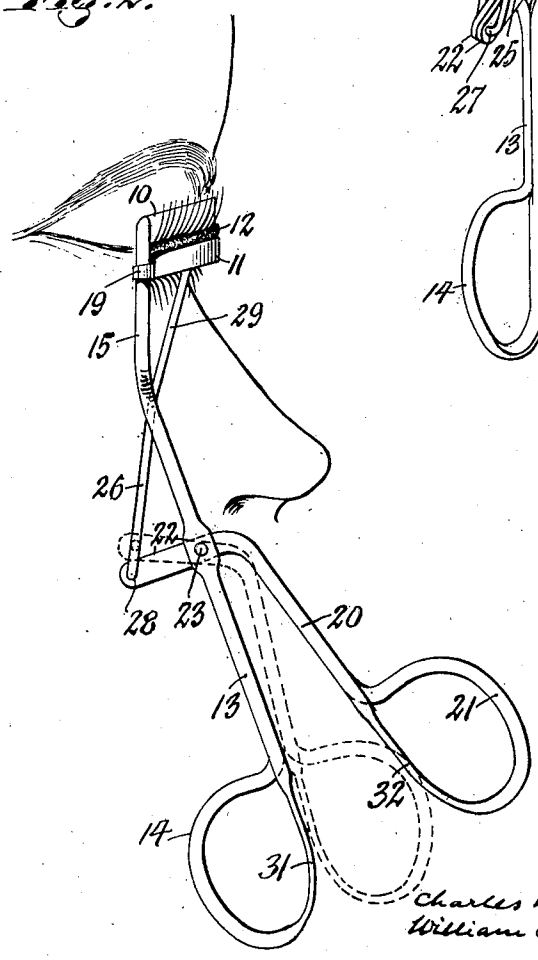


Fig. 4.

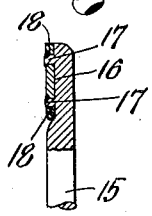
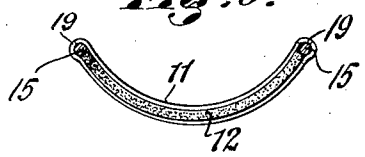


Fig. 5.



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UNITED STATES PATENT OFFICE.

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EYELASH CURLER.

Application filed February 23, 1928. Serial No. 256,179.

This invention relates to an eyelash curler or crimper of the same general character as that shown in United States Patents No. 1,542,014 June 16, 1925, and No. 1,527,964 Feb. 24, 1925, and the present invention is designed as an improvement on these prior structures.

It has been satisfactorily established that the appearance of a person's eyes is improved by bending, crimping or curling the eyelashes of the eyelids so that they are turned upwardly and therefore make the lashes appear longer and the eyes larger, thereby rendering the appearance of the person more attractive. In addition to this it has been found that crimping, bending or curling upward of the eyelashes is an assistance to oculists for the purpose of overcoming the difficulty of persons whose eyelashes are sufficiently long that they rub continually on the inside of the lenses of eye-glasses or spectacles, and thereby cause irritation. Upward crimping, curling or bending of the eyelashes is also desirable for persons having inverted eyelashes which normally turn downwardly and to some extent obstruct the vision, which difficulty is corrected by bending the eyelashes upwardly and thereby improving the vision.

The eye-glass lens should be placed a certain distance from the pupil of the eye to effect a perfect fit of a pair of glasses for each individual, which distance oculists attempt to compute in each case and is governed by the thickness of the outer covering of the eyeballs. Inasmuch as this computation is difficult and often incorrect, the eyelashes, if comparatively long, will sweep the rear side of the lenses and cause annoyance to the wearer unless the eyelashes are turned up to avoid conflict with the lenses.

It is the object of this invention to provide improved means for bending, curling or crimping the eyelashes upwardly which can be very easily and conveniently applied to and removed from the eyelashes and operated readily, which will cause the lashes to be turned upwardly effectively and hold their shape for a considerable length of time, and thereby not only enhance the facial appearance of a person but also overcome the objectionable conditions above referred to.

In the accompanying drawings:

Figure 1 is a perspective view of the improved eyelash curler.

Figure 2 is a side elevation of the same showing the parts in the position which they occupy when applied to the eyelashes of the upper eyelid of a person.

Figure 3 is a fragmentary vertical section of the jaws of the eyelash curler and adjacent parts, showing the action of the same on the eyelashes of the upper eyelid, the section being taken on line 3—3 Fig. 1.

Figure 4 is a fragmentary vertical section, on an enlarged scale, taken on line 4—4 Fig. 1.

Figure 5 is a horizontal section taken on line 5—5 Fig. 1.

Similar characters of reference indicate like parts in the several figures of the drawings:—

In its general organization this eyelash curler comprises upper and lower jaws which are adapted to be engaged with opposite sides of a row of eyelashes, two crossed levers which are pivotally connected with each other and which are adapted to be opened and closed manually, means for mounting one of the jaws rigidly on one of said levers, means for mounting the other jaw movably on the same lever, and a link operatively connecting the movable jaw with the other lever.

As shown in the drawings the two jaws are curved both vertically and horizontally so as to permit them to be fitted to an eyelid and adapt themselves to the horizontal and vertical curvature of the row of eyelashes which are received between the same for the purpose of being bent upwardly. In the preferred construction the upper jaw 10 is constructed of a thin strip of metal which preferably has a rounded lower edge and which is curved horizontally and vertically, and the lower jaw preferably consists of an upwardly opening channel 11, and a facing 12 of rubber or other elastic or resilient material secured in this channel and projecting with its upper edge above the side walls of the channel, this channel and facing being both curved horizontally and vertically parallel with the curvature of the upper jaw. While these jaws are separated from each other the same may be applied to the eyelashes which are received between the opposing inner or crimping edges of the jaws and thereafter a movement of the jaws toward one another will cause the eyelashes to be engaged adjacent to the base thereof by

the inner edges of the jaws, sufficient pressure being applied to the jaws for causing the eyelashes to be pressed downwardly by the upper rigid jaw into the opposing face of the lower elastic jaw facing, whereby the latter is spread out into concave form in cross-section and the eyelashes are caused to turn upwardly, as shown in Figs. 2 and 3. By holding the jaws in this closed position for a comparatively short time while thus engaging with the eyelashes, an upward bend, curl or crimp is produced in the same which will last for a number of days, depending upon the pressure which has been applied and the length of time which the jaws are retained in engagement with the eyelashes while in a crimped condition.

The improved means for moving the jaws toward and from each other for the purpose of engaging the same with the eyelashes and disengaging the same therefrom are constructed as follows:—

The supporting lever which is rigidly connected with the upper jaw and forms a support for the lower movable jaw is preferably constructed of a single piece of metal wire which is doubled upon itself and forms a lower or outer handle arm and an upper supporting arm. The lower arm of the supporting lever is provided with two longitudinal bars 13, 13 which are juxtaposed or arranged close together and connected at their outer ends by a finger-receiving loop 14, while the upper arm of this lever is composed of two side bars 15—15 which are spaced apart and form upward parallel continuations of the bars 13, 13 of the lower arm of the supporting lever.

Various means may be employed for rigidly connecting opposite ends of the upper crimping or curling jaw 10 with the upper ends of the side bars 15 of the supporting lever. In the preferred construction, however, the upper end 16 of each of the upper side bars 15 is flattened and provided with one or more integral rivets 17 which pass rearwardly through openings 18 in the adjacent end of the upper fixed jaw 10 and are upset at their rear ends against the rear or inner side of the upper jaw, as best shown in Fig. 4, whereby these parts are reliably connected and held against displacement relative to each other.

The lower movable jaw may be mounted on the upper arm of the supporting lever in various ways so as to slide lengthwise thereon toward and from the fixed upper jaw 10. This however is preferably accomplished by providing opposite ends of the channel 11 of this jaw with sleeves 19 which are formed integral thereon by curling the walls of this channel, as shown in Fig. 5. These sleeves are slidably mounted on the guide bars 15 of the supporting lever and operate to maintain the two jaws in parallelism with each other as the same are moved toward and from each other.

The movement of the lower or movable jaw is effected by means which include an operating lever which is made from a single piece of wire which is doubled upon itself. The lower or outer arm of this operating lever comprises two longitudinal bars 20, 20 which are juxtaposed and connected at their outer ends by means of a finger loop 21, and two upper or inner bars 22, 22 which are also arranged close together or juxtaposed. The upper and lower arms of the operating lever are arranged at an angle relatively to each other so that the same as a whole has the form of an elbow lever, and it is preferably pivotally connected with the supporting lever by inserting the operating lever between the two bars of the supporting lever and running a rivet 23 horizontally and transversely through the several bars of the two levers at the point of crossing or intersection of the same, as shown in Figs. 1 and 2. In order to provide a wide bearing surface of these levers against each other at the place where they cross one another, those parts of the same adjacent to the pivot 23 connecting the same are flattened, as shown at 24 and 25, thereby guiding these levers relative to each other and maintaining them in the proper position as they turn about the axis of the pivot pin 23.

The link which connects the upper arm of the operating lever with the lower jaw is also preferably constructed of a single piece of wire which is doubled upon itself so as to form two side bars, the lower parts 26, 26 of which are arranged close together and are connected by a wrist pin 27 which passes through an opening 28 in the upper arm of the operating lever while the rods or upper parts 29 of the link diverge upwardly and are connected in any suitable manner with the channel of the lower jaw, preferably by passing each bar of this link through an opening in the bottom of the channel and riveting the same against the inner side of this channel, as shown at 30 in Fig. 3. The pin 27 and the rods 29 are made in one piece.

When the levers are assembled, the lower arm of the operating lever is arranged lengthwise on the outer side of the lower arm of the supporting lever and the upper or inner arm of the operating lever projects substantially horizontally inwardly across the central part of the supporting lever, whereby a substantially horizontal movement of the lower arm of the operating lever toward and from the lower arm of the supporting lever will produce a vertical movement of the upper or inner arm of the operating lever, and thereby cause the lower jaw to be moved toward and from the upper

jaw in the act of engaging the jaws with the eyelashes and disengaging the same therefrom.

Although the lower jaw moves in a rectilinear direction and the upper arm of the operating lever swings in an arc, no cramping action of the lower jaw on the guide bars of the supporting lever occurs which would interfere with the free movement of the same inasmuch as the guide sleeves of the lower jaw are fitted sufficiently loose on the guide bars 15, 15 and there is sufficient resilience in the bars of the link to permit of the requisite play of these parts to avoid such binding.

The lower arms of operating lever are preferably actuated manually by two fingers of the same hand and in order to permit these fingers to effectively apply the desired pressure without experiencing discomfort or chafing of the fingers, the inner side of the finger loops 14 and 21 of these levers have the stock of the wire from which they are constructed flattened, as shown at 31 and 32 of Figs. 1 and 2, thereby providing a wide bearing surface which receives the pressure of the fingers when operating the levers for producing a crimping, curling or bending effect on the eyelashes.

As a whole this construction is very simple, durable and low in cost, and permits of conveniently applying the device to the eyelashes and readily manipulating the same with ease and convenience so as to produce an effective crimp in the eyelashes without any discomfort to the person using the same.

Obviously this improvement can be modified structurally and still embody the essential features of novelty summed up in the appended claims.

In the preferred construction the handle 21 engages the other handle 31, as shown by dotted line in Fig. 2, and thereby operate as stops to limit the closing movement of these levers when the proper curling pressure has been applied to the eyelashes, and thereby prevent excess pressure which might cut the rubber cushion.

We claim as our invention:—

1. An eyelash curler comprising two jaws which are curved to fit about an eyelid and to receive eyelashes between them, one of said jaws having a body provided with a channel and an elastic facing arranged in said channel and projecting beyond the same, and the other jaw consisting of a bar arranged opposite said elastic facing, and means for moving said jaws toward and from one another.

2. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them and means for moving said jaws toward and from one another comprising a support having two side bars which are connected with opposite ends of one jaw, and sleeves movable lengthwise on said bars and arranged on the ends of the other jaw.

3. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another comprising two levers which are crossed and pivotally connected, one lever having one of its arms provided with two side bars, which are connected with the ends of one jaw, guide sleeves slidable lengthwise on said bars and arranged on the ends of the other jaw, and a link connecting the jaw having said sleeves with an arm of the other lever.

4. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another comprising two levers which are crossed and pivotally connected, one of said levers having a wide supporting arm provided with side bars connected with the ends of one jaw and also a narrow handle arm, and the other lever having a narrow operating arm and a narrow handle arm, means for guiding the other jaw on said bars, and a link connecting the guided jaw with said operating arm.

5. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another comprising two levers which are crossed and pivotally connected, one of said levers having a wide supporting arm provided with side bars connected with the ends of one jaw and also a narrow handle arm, and the other lever having a narrow operating arm and a narrow handle arm, and a V-shaped link having its wide end connected with said operating arm.

6. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another comprising two levers which are crossed and pivotally connected, and each constructed from a single piece of wire which doubles upon itself, one of said levers being connected with one of said jaws and slidably supporting the other jaw, and a link connecting the other lever with said sliding jaw.

7. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another comprising two levers which are crossed and pivotally connected and each constructed from a single piece of wire which doubles upon itself, one of said levers being connected with one of said jaws and slidably supporting the other jaw, and a link connecting the other lever with said sliding jaw and the outer arm of each lever being provided with a finger receiving loop.

8. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another including two levers which are crossed and pivotally connected, each of said levers consisting of a single piece of wire which is doubled upon itself, one of said levers having a front arm consisting of two spaced apart bars which carry one of said jaws and form a guide upon which the other jaw slides, and a rear arm having juxtaposed bars, and the other lever having juxtaposed bars arranged between the juxtaposed bars of the companion lever and provided with a front operating arm, and a link connecting said operating arm with said sliding jaw.

9. An eyelash curler comprising two jaws which are adapted to receive eyelashes between them, and means for moving said jaws toward and from one another including two levers which are crossed and pivotally connected, each of said levers consisting of a single piece of wire which is doubled upon itself, one of said levers having a front arm consisting of two spaced apart bars which carry one of said jaws and form a guide upon which the other jaw slides and a rear arm having juxtaposed bars, and the other lever having juxtaposed bars arranged between the juxtaposed bars of the companion lever and provided with a front operating arm, and a link connecting said operating arm with said sliding jaw, the parts of said levers which cross each other adjacent to the pivotal connection between the same being flattened.

10. An eyelash curler comprising two jaws adapted to receive eyelashes between them, and means for moving said jaws toward and from one another including two levers which are crossed and pivotally connected, one of said levers having spaced apart bars provided with integral rivets passing through the ends of one of said jaws, sleeves arranged on the ends of the other jaw and sliding on said bars, and a link connecting said jaw having the sleeves with the other lever.

11. An eyelash curler comprising a straight supporting lever having upper and lower arms arranged in line with each other, an elbow shaped operating lever pivoted to said supporting lever and having an upright lower lever arranged in front of the lower arm of the supporting lever and upper horizontal arm projecting rearwardly from said supporting lever, an upper fixed jaw mounted on the upper arm of the supporting lever, a lower movable jaw guided on the upper arm of said supporting lever to move toward and from said fixed jaw, and a link connecting said movable jaw with the horizontal upper arm of said operating lever.

12. An eyelash curler comprising a straight supporting lever, having upper and lower arms arranged in line with each other, an elbow shaped operating lever pivoted to said supporting lever and having an upright lower lever arranged in front of the lower arm of the supporting lever and upper horizontal arm projecting rearwardly from said supporting lever, an upper fixed jaw mounted on the upper arm of the supporting lever, a lower movable jaw guided on the upper arm of said supporting lever to move toward and from said fixed jaw, and a link connecting said movable jaw with the horizontal upper arm of said operating lever, said link being formed of a single piece of wire doubled upon itself to form two longitudinal bars, the upper ends of which are secured to said movable jaw and the lower ends thereof forming a transverse wrist pin which is pivoted in an opening in the upper arm of said operating lever.

In testimony whereof we hereby affix our signatures.

CHARLES W. STICKEL.
WILLIAM E. McDONELL.