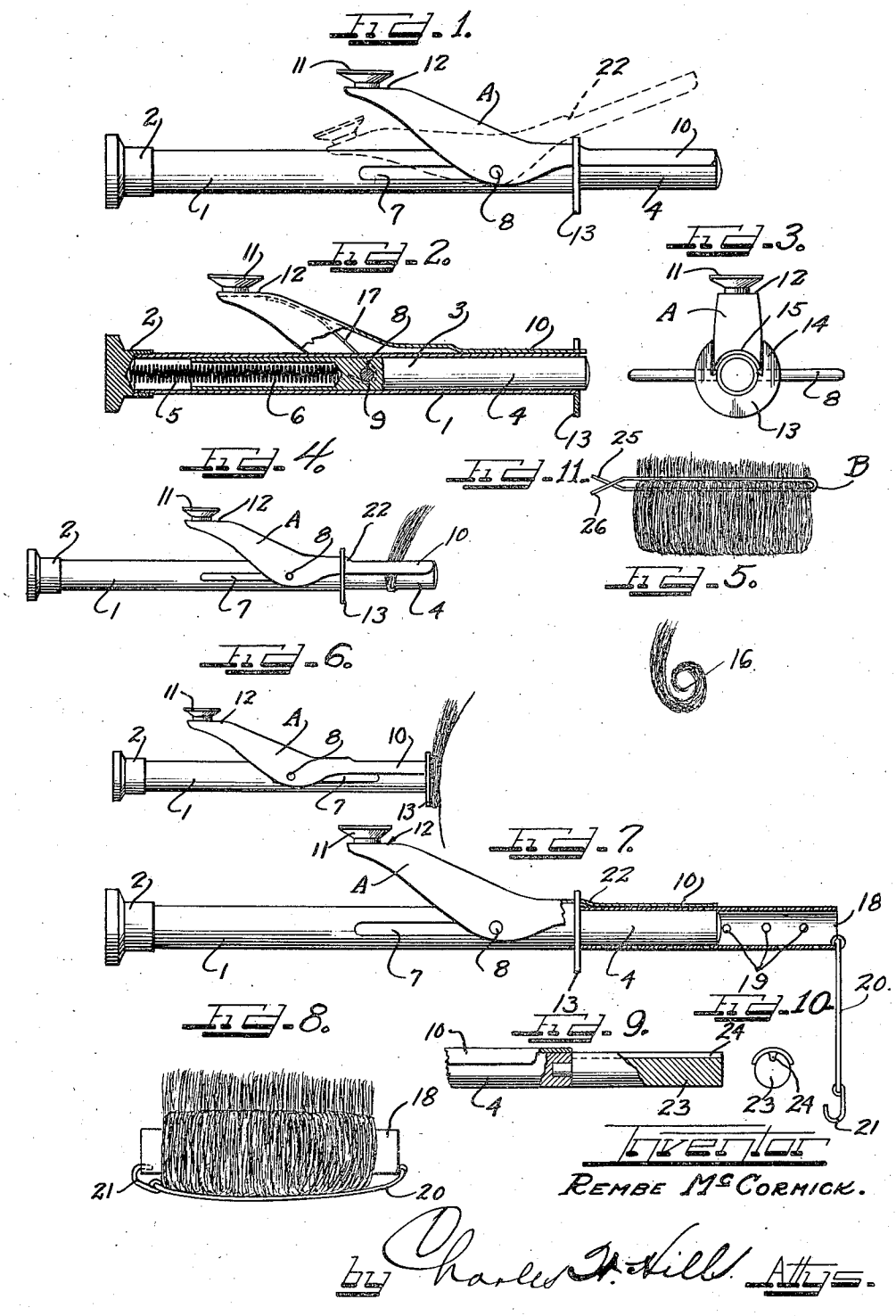
Nov. 29, 1938. R. McCORMICK 2,138,608

PIN CURLER

Filed June 23, 1937



Patented Nov. 29, 1938 2,138,608

UNITED STATES PATENT OFFICE

2,138,608

PIN CURLER

Rembe McCormick, Chicago, Ill.

Application June 23, 1937, Serial No. 149,825

18 Claims. (Cl. 132—33)

The present invention relates to a device, for use in hair dressing, for expediting the formation of pin curls, roll-up curls, and the like.

Pin curls, sometimes called spit curls, are at the present time formed on the head of a customer, by a beauty parlor operator, by the operator placing one of her fingers endwise against the head of the customer, and winding a tress of hair about the finger, with the ends of the hair of the tress on the outside of the curl so formed. When the tress has been wound completely, it is pushed off the operator's finger against the head of the customer and there pinned in place and other curls formed in the same manner.

Experience has demonstrated that pin curls so fashioned, are not uniform, are not even in appearance, and require considerable time by the operator to completely finish the head of a customer, with such curls.

The present invention has for an object the provision of a device which may be utilized by a beauty parlor operator to quickly and expeditiously form pin curls, as well as roll-up curls, in which the ends of the hairs of the tresses curled are inside the curls, thus making more attractive curls, and all the curls of uniform size.

Another object of the present invention is to provide a device for use in making pin curls and roll-up curls, which is handy to use, efficient for the purpose intended, and by the use of which the time consumed for forming a plurality of curls on the head of a customer may be greatly reduced.

A still further object of the present invention is to provide a combined hair curling tool and sleeve member for making roll-up curls, whereby the sleeve may be applied to the curler, the tress wound about the sleeve, the sleeve removed from the curler and the curl still about the curler secured thereto by simple retaining means, thus freeing the curler for formation of additional curls.

The above, other, and further objects of the present invention will be apparent from the following description and accompanying drawing.

The accompanying drawing illustrates embodiments of the present invention and the views thereof are as follows:

Figure 1 is a side elevational view of a hair curler of the present invention, showing in full lines the spoonbill member in normal position and in dotted lines the member tilted to a position whereby a tress of hair may be applied to the device for curling purposes.

Figure 2 is a longitudinal sectional view through the device of Figure 1, showing the mandrel and spoonbill member in retracted or housed position.

Figure 3 is an end view of the structure of Figure 1.

Figure 4 is a side elevational view of the curler of the present invention showing the initial step in the formation of a curl, utilizing the device of the present invention.

Figure 5 is a side view of a tress of hair showing the manner in which the ends of the hairs of the tress are inturned and lie within the curl when completed.

Figure 6 shows the device with the mandrel and spoonbill retracted and in the position assumed when pushing off a curl from the mandrel against the head of a person.

Figure 7 is a view, partially in elevation and partially in longitudinal central section, with parts broken away to show details of construction, of the device of Figure 1 with the supplemental sleeve for use in the formation of roll-up curls applied to the mandrel of the device.

Figure 8 shows a tress of hair curled about the sleeve of Figure 7, with the sleeve removed from the device and the curl secured to the sleeve by suitable fastening means.

Figure 9 is a fragmental view, partially in elevation and partially in section, of an extension member which may be removably applied to the curling mandrel for lengthing it, to form roll-up curls.

Figure 10 is an end view of the device of Figure 9.

Figure 11 is a roll-up curl, formed on the mandrel and extension member, after removal therefrom, and held in curl by a hair pin.

The drawing will now be explained.

The device as herein illustrated consists of an elongated tube 1 closed at one end by means of a suitable cap 2 and open at the other end.

Housed within the tube, for sliding movement, is a bar 3 constituting a mandrel about which hair may be wound to be curled. Normally the bar has a portion thereof, indicated at 4, which projects outwardly of the open end of the tube 1 for curling purposes. For normally urging the mandrel into projected position, suitable spring means, such as the spring 5 may be employed.

Figure 2 shows the mandrel 3 counterbored at 6 through its inner end with the spring entered in the counterbore and at the other end of the spring bearing against the cap 2. Instead of forming a counterbore in the mandrel, the spring 5 might be shortened and interposed between the cap 2 and

the adjacent end of the mandrel, for functioning in the manner described.

The tube 1 is provided, in diametrically opposite portions, with elongated slots 7. A pin 8 passes through the slots and through a suitable aperture 9 in the mandrel 3. The slots cooperating with the pin serve as guides for forward and backward movement of the mandrel and the pin serves as means for actuating the mandrel by engagement of the pin by fingers of the operator. The cap 2 constitutes a thumb rest for the operator.

Pivoted on the pin 8, and therefore movable with the mandrel, is a spoonbill member A, having a spoonbill portion 10 lying along the projected part 4 of the mandrel and conforming to the contour of the mandrel for a portion of its circumferential extent. The member A is provided with a suitable part for engagement by the thumb of an operator's hand to rock the member about the pin 8 for a purpose well understood. The illustrated device has a button 11 suitably secured to the member A in convenient position for engagement by the operator's thumb. It is to be understood that if desired the button might be eliminated and the portion 12 of the member A sufficiently flattened and corrugated, to serve the same purpose.

At the open end of the tube 1 stop means are provided to press against the curl of hair on the mandrel 4, when it is desired to withdraw the mandrel from the curl. The stop illustrated comprises the disk 13 secured by soldering, welding, or the like, to the tube 1, adjacent its open end, which disk is provided with a slot 14 through which the spoonbill member 10 moves as the mandrel is reciprocated, and within which it is swingable towards and away from the mandrel. It will be observed that the disk 13 constitutes a stop extending more than 180° in extent. Between margins of the disk 13, defining the slot 14, the thickness of the tube, indicated at 15, has been found adequate to act as a stop in the slot 14, the major portion of the end pressure applied to the curl being effected by the disk 13.

The lengths of the slots 7 are such that the mandrel may be projected a sufficient distance so that a sizeable tress of hair may be wound about its projected portion, and also limit the inward or withdrawal movement of the mandrel when forcing a curl off of the mandrel.

In the formation of pin or spit curls, the procedure is as follows.

The operator combs out a tress of hair and then by pressure against the button 11 raises the spoonbill 10 away from the mandrel portion 4 a sufficient distance to insert the ends of the hairs, indicated at 16 in Figure 5, between the mandrel 4 and the spoonbill 10. Pressure on the button 11 is then released, and a spring 17 holds the spoonbill 10 against the mandrel and the ends of the hair which have been inserted between them. The operator holding the device in a position along the head of the customer, winds the tress about the mandrel and the spoonbill 10 towards the head of the customer, and then presses the end of the mandrel against the head of the customer, endwise, as shown in Figure 6. The operator then applies a thumb to the cap 2 and with two fingers engages the pin 8 and by relative pressure applied to the cap 2 and the pin, withdraws the portion 4 of the mandrel into the tube, which in effect is the same as pushing the open end of the tube and stop disk 13 towards and against the head of the customer. Such movement compresses the curl, as may be observed in Figure 6, whereupon, when the curl is sufficiently compressed, it is forced off the mandrel, the device is then removed, and the curl pinned in position until the curl, which was damp at the time of formation, dries.

Formation of a pin curl, in the manner stated, produces a very pleasing curl, especially so as the ends of the hairs 16 are inside the curl.

The operator then proceeds to form other pin curls in the manner stated.

The pin curls may be as tightly wound as desired, as the device may be readily withdrawn from tightly wound curls as may be understood. In withdrawing the device from a curl, or forcing a curl off the mandrel against the head of a customer, the member A is rocked slightly on the pin 8 to relieve the grip of the ends of the hairs 16 between the mandrel and the spoonbill 10.

In the formation of roll-up curls, a sleeve 18 is employed. This sleeve is provided with a plurality of aperture 19 whereby air may reach hair curled about the sleeve for drying purposes. The sleeve is adapted to be slid over the projected portion 4 of the mandrel and clamped thereon by the spoonbill 10. As shown in Figure 7, the sleeve 18 may be greater in length than the projected portion 4 of the mandrel. Secured at one end of the sleeve 18 is an elastic 20 which carries a hook 21 at its free end.

In the formation of roll-up curls with a device of the present invention equipped with a sleeve 18, the ends of the hairs of a tress, are clamped between the outer portion of the sleeve 18 and the inner surface of the spoonbill member 10, and wound about the sleeve and the bill until the curl is completed. Holding the device along the head of the customer, the mandrel 4 is withdrawn from the interior of the sleeve 18, and then the hook 21 is engaged over the opposite end of the sleeve, as shown in Figure 8, to thus hold the tress wound about the sleeve against unrolling or uncurling, the hair being retained on the sleeve until dry. After one curl has been formed, the device may be utilized for forming other roll-up curls in the manner described so that at the completion of the curling operation, the head of the customer is dressed with a plurality of roll-up curls, all of which are temporarily retained on sleeves 18 until the hair is completely dry, whereupon the hooks 21 are released from the sleeves and the sleeves withdrawn from the curls so fashioned. The results are a plurality of uniformly shaped and appearing curls.

By provision of the apertures 19 in the sleeve 18 air may circulate through a curl formed about the sleeve, thus facilitating drying of the curl.

By use of the device of the present invention, a beauty parlor operator, or hairdresser, may quickly fashion a plurality of pin or roll-up curls, with minimum effort on her part, and with the assurance that all of the curls so formed are uniform in appearance and size, thus incurring the goodwill of a customer whose hair is dressed with such a device.

The member A is made with a slight offset 22 so that the bill portion 10 will make surface contact with the mandrel 4, for substantially the full length of the portion. When the bar 3 is withdrawn to house the mandrel 4 in the tube or handle 1, the bill portion 10 will ride against the exterior of the tube and thus automatically release its grip of hair which is between it and the mandrel. This construction makes it unnecessary to rock the member A, by hand, to release a curl.

In lieu of the sleeve member 18, for making roll-up curls, a removable extension member 23 may be used. The member 23 has an axial depression 24 formed in its surface to receive one leg 25 of a hair pin B.

The member 23 may have a skirt at one end to frictionally connect it to the free end of the mandrel 4, or it might have a threaded projection to thread into a threaded bore in the end of the mandrel.

To use the extension member for roll-up curls, it is applied to the mandrel, the ends of the hairs of a tress are clamped between the mandrel and the spoonbill 10, and the tress wound. To hold the curl, after removal from the curler, a hair pin is applied endwise to the extension member 23, with one leg 25 of the pin in the groove 24. The pin may be pushed in until its one leg strikes the stop, whereupon the mandrel is housed and the curl pushed off onto the pin, with one pin leg inside the curl and the other pin leg 26 outside. When the curler is removed, the extremities of the pin legs may be twisted together, as shown in Figure 11, thereby holding the curl until dried, whereupon the pin is removed, leaving a finished curl.

When the curler is adapted for use with the extension member 23, the mandrel may be axially grooved, to align with the member groove 24, so that the hair pin may be applied to the full extent of the curl.

The invention has been described herein more or less precisely as to details, yet it is to be understood that the invention is not to be limited thereby, as changes may be made in the arrangement and proportion of parts, and equivalents may be substituted, without departing from the spirit and scope of the invention.

The invention is claimed as follows:

1. A device of the class described, including a tube open at one end, a bar slidable within said tube and having a portion normally projected through said open end constituting a mandrel, a member pivoted to said bar and having a spoonbill extending along said mandrel and operative to clamp a tress of hair against the mandrel, and means for withdrawing said projected portion within said tube to remove a curl from said portion.

2. In a device of the class described, in combination, a tube open at one end and closed at the opposite end, a bar slidable within said tube and having a portion normally projected through said open end and constituting a winding mandrel, a member pivoted to said bar and having a spoonbill portion extending along said mandrel, a spring for maintaining said spoonbill portion against said mandrel, and means for withdrawing said mandrel into said tube to release said mandrel from a curl wound about it, the withdrawal of said mandrel causing said spoonbill to ride over said tube and release the curl from between the spoonbill and the mandrel.

3. In a device of the class described, in combination, a mandrel and a spoon bill clamp about which a tress of hair is wound, means for withdrawing the mandrel and spoonbill by endwise movement from the formed curl, and stop means against which the curl rests during withdrawal of the mandrel and spoonbill.

4. A pin curler including an elongated hollow body open at one end, a mandrel movable within said body and through said open end, means for normally maintaining said mandrel projected through said end, a member movable with said mandrel and having a spoonbill portion extending along said mandrel, means to withdraw said mandrel into said body, and means constituting a stop at the said end of said body serving to push a curl off of said mandrel as the same is withdrawn into said body.

5. In a device of the class described, in combination, a tube open at one end and closed at the other end, a mandrel within said body having a portion endwise movable outwardly and inwardly through said open end, means for normally maintaining said portion of said mandrel in outwardly projected position, means for withdrawing said mandrel portion into said tube, a spoonbill member pivoted to said mandrel and having its spoonbill substantially coextensive with the projected portion of said mandrel, means for normally holding said spoonbill against said mandrel portion, and stop means at said open end of said tube for forcing a curl off of said mandrel portion and spoonbill as said mandrel portion is withdrawn into said tube.

6. In a device of the class described, a tube open at one end and closed at the other end, a bar slidable within said tube and having a portion normally projected through the open end of said tube, spring means for maintaining said portion in projected position, said tube having diametrically disposed elongated slots, a pin passing through said slots and through said bar and cooperating with said slots to limit the extent of travel of said bar, a member pivoted to said pin and having a spoonbill portion extending along the projected portion of said bar and cooperating therewith as a clamp, and spring means for maintaining said spoonbill portion against said projected portion of the bar, said pin constituting means for withdrawing the projected portion of the bar within the tube.

7. In a device of the class described, a tube open at one end and closed at the other end, a bar slidable within said tube and having a portion normally projected through the open end of said tube, spring means for maintaining said portion in projected position, said tube having diametrically disposed elongated slots, a pin passing through said slots and through said bar and cooperating with said slots to limit the extent of travel of said bar, a member pivoted to said pin and having a spoonbill portion extending along the projected portion of said bar and cooperating therewith as a clamp, and spring means for maintaining said spoonbill portion against said projected portion of the bar, said pin constituting means for withdrawing the projected portion of the bar within the tube, said tube having means adjacent its open end constituting a stop to push hair off of the projected portion of the bar as the same is withdrawn into said tube.

8. In a device of the class described, in combination, a tube open at one end and closed at the other end, a bar slidable within said tube, means between said closed end of said tube and said bar for urging a portion of the bar outwardly of the open end of said tube, said bar and tube having pin and slot connections for limiting the extent of movement of said bar with respect to said tube, means adjacent the open end of said tube constituting a stop against which hair wound on the projected portion of said bar rests when said bar is withdrawn into said tube after hair has been wound about said projected portion.

9. In a device of the class described, in combination, a tube open at one end and closed at the other end, a bar slidable within said tube, means

between said closed end of said tube and said bar for urging a portion of the bar outwardly of the open end of said tube, said bar and tube having pin and slot connections for limiting the extent of movement of said bar with respect to said tube, and means adjacent the open end of said tube constituting a stop against which hair wound on the projected portion of said bar rests when said bar is withdrawn into said tube after hair has been wound about said projected portion, said pin constituting means for withdrawing said projected portion of said bar into said tube.

10. A device for forming roll-up curls including a body, a mandrel having a portion slidable into and outwardly of said body, means for maintaining said body portion outwardly of said mandrel, a removable sleeve applied over said mandrel and adapted to have hair wound about it while on said mandrel, means for withdrawing said mandrel into said body, means engageable by said sleeve as said mandrel is withdrawn to dislodge said sleeve from said mandrel, and means on said sleeve for holding a curl formed about it against unwrapping after said sleeve has been removed from said mandrel.

11. In a device of the class described, a hollow tube open at one end and constituting a handle, a bar slidable in said tube through said open end and having a portion which is normally projected and constitutes a mandrel for curling hair, a member pivoted to said bar and having a spoonbill part along said mandrel to clamp a tress of hair against it, said bill part being offset adjacent the open end of the tube when the mandrel is projected to effect surface contact of said bill part with said mandrel, said offset part riding along the outer surface of the tube when the mandrel is moved into the tube to automatically release said bill part from clamped engagement with said mandrel, and means for moving said bar.

12. In a device of the class described, a hollow tube open at one end and constituting a handle, a bar slidable in said tube through said open end and having a portion which is normally projected and constitutes a mandrel for curling hair, a member pivoted to said bar and having a spoonbill part along said mandrel to clamp a tress of hair against it, a disk secured to the tube adjacent its open end and having a slot through which said bill part moves, said disk constituting stop means to dislodge a curl from said mandrel when the latter is withdrawn into said tube.

13. In a device of the class described, a hollow tube open at one end and constituting a handle, a bar slidable in said tube through said open end and having a portion which is normally projected and constitutes a mandrel for curling hair, a member pivoted to said bar and having a spoonbill part along said mandrel to clamp a tress of hair against it, a disk secured to the tube adjacent its open end and having a slot through which said bill part moves, said disk and the portion of the tube end between the margins of the disk slot constituting stop means to dislodge a curl from said mandrel when the latter is withdrawn into said tube.

14. A hair curling device including a hollow handle, a mandrel movable into and out of said handle, and a spoonbill member pivoted to said mandrel and movable with it, said spoonbill riding over a portion of said handle when said mandrel is moved into said handle to automatically release said spoonbill from clamping cooperation with said mandrel.

15. In a device of the class described, a hollow handle, a bar slidable in said handle and having a part constituting a mandrel about which a tress of hair may be wound to form a curl, said mandrel part being movable to be housed within said handle or projected for use, means for normally maintaining said mandrel projected, a member pivoted to said bar and having a spoonbill part lying along and against said mandrel to cooperate with the mandrel to clamp a tress of hair for curling purposes, a pin extending through said bar and handle and constituting the pivot for said member and also constituting finger engageable means for housing the mandrel, said handle being longitudinally slotted for said pin, said pin and slots constituting guide means for the reciprocation of said bar and also means for limiting the extent of bar movement in either direction.

16. In a device of the class described, a hollow handle, a bar slidable in said handle and having a part constituting a mandrel about which a tress of hair may be wound to form a curl, said mandrel part being movable to be housed within said handle or projected for use, means for normally maintaining said mandrel projected, a member pivoted to said bar and having a spoonbill part lying along and against said mandrel to cooperate with the mandrel to clamp a tress of hair for curling purposes, a pin extending through said bar and handle and constituting the pivot for said member and also constituting finger engageable means for housing the mandrel, said handle being longitudinally slotted for said pin, said pin and slots constituting guide means for the reciprocation of said bar and also means for limiting the extent of bar movement in either direction, and a spring disposed against said pivoted member to normally maintain its bill portion clamped against said mandrel.

17. In a device of the class described, a handle, a retractible and projectible mandrel about which a tress of hair may be wound to form a curl, a member connected to and having a spoonbill lying along said mandrel in clamping relation, an extension applicable to said mandrel for increasing the length of winding effectiveness of said device, said extension and said mandrel having registering axial grooves to receive one leg of a hair pin which is applied to the curl prior to its removal from the device for holding the curl about the extension after the removal of the extension.

18. In a device of the class described, a handle, a retractible and projectible mandrel about which a tress of hair may be wound to form a curl, a member connected to and having a spoonbill lying along said mandrel in clamping relation, an extension applicable to said mandrel for increasing the length of winding effectiveness of said device, said extension and said mandrel having means for enabling insertion of a hair pin endwise of the curl between it and the mandrel and extension to hold the curl from unwinding from the extension after the removal of the extension from the device.

REMBE McCORMICK.