Oct. 18, 1955 N. L. SOLOMON 2,720,882

HAIR CURLERS

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Fig. 1.

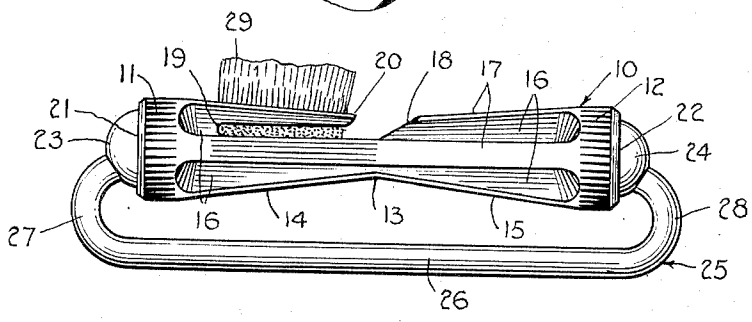


Fig. 2.

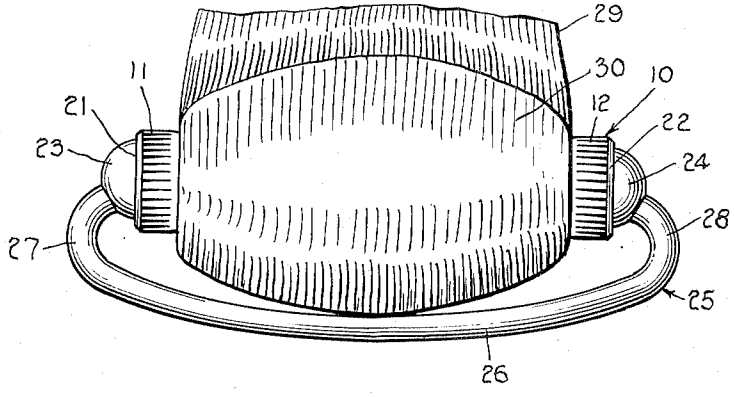


Fig. 3.

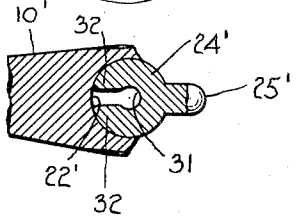
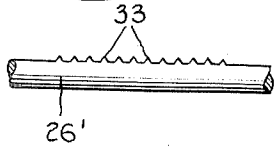


Fig. 4.



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HAIR CURLERS

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6 Claims. (Cl. 132—40)

This invention relates to devices for use in forming curls in the hair. More particularly, the invention deals with a device of the kind defined employing a centrally contracted and grooved elongated member shaped to form a hair end engaging loop or hook and having socket ends and an elongated ring or loop having ball ends for mounting in the end sockets of the member to facilitate free rotation of the member on the ball ends of said loop. Still more particularly, the invention deals with a device of the character described, wherein at least one of the ball ends of the loop is split to facilitate detachable mounting of one end of the loop with the member.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

Fig. 1 is a side view of a curler device made according to my invention, indicating the positioning of an end of a swatch of hair on the elongated member of the device, preparatory to winding the hair thereon.

Fig. 2 is a view, similar to Fig. 1, diagrammatically illustrating hair wound on the elongated member to form a curl and illustrating the loop of the curler in flexed position.

Fig. 3 is a sectional view of one end portion of the device showing a modified form of construction; and

Fig. 4 is a detailed view of the central portion of a modified form of loop which I employ.

My improved hair curler comprises an elongated bar or member **10** having narrow knurled or otherwise roughened ends **11** and **12**. Inwardly of the ends **11** and **12** the member is contracted in the direction of the narrow central portion **13** by what may be termed conical ends **14** and **15**. The ends **14** and **15** have registering longitudinal grooves or recesses, as at **16**, which grooves form, on the surface of the member **10**, circumferentially spaced ribs **17**. One of the ribs **17** is cut-out, or notched, as seen at **18**, and recessed, as seen at **19**, to form what may be termed a hook or clip portion **20**.

The knurled end portions **11** and **12** have ball sockets of the type and kind illustrated, for example, in Fig. 3 of the drawing and, for purposes of description, the reference characters **21** and **22**, as applied to Fig. 1, will designate the socket ends of the member **10**.

Fitting in the socket ends **21** and **22** are ball ends **23**, **24** of a loop **25**. The loop **25** comprises a long bar portion **26** which is normally substantially parallel to the axis of the member **10** and curved end portions **27** and **28** which join the ball ends **23**, **24** with the bar portion **26** and serve to space the bar portion a predetermined distance with respect to the outer surface of the member **10**. It will be understood that the curler device can be constructed of any suitable materials but, from a standpoint of economy, it would be desirable to form the same from plastic material and, particularly, utilizing, in the loop **25**, a plastic material having a reasonable

amount of spring property, so that, in winding a swatch of hair, shown in part at **29** in Fig. 1, into a curl, as indicated diagrammatically at **30** in Fig. 2, the curl will flex the bar **26**, substantially as shown in Fig. 2, and this flexure will have a tendency to force the ball ends **23**, **24** more firmly into the socket ends **21** and **22**, so as to aid in retaining the curler against displacement from the hair. It will be understood, in this connection, that the curl **30** engaging the bar **26** will definitely position the curler on the curl against accidental displacement.

In the use of the device, after the end of a swatch of hair, as at **29**, is placed beneath the hook or clip portion **20**, or within the recess **19**, fingers of the hand are used on the knurled or roughened ends **11** and **12** to rotate the member **10** on the ball ends **23**, **24**. This will result in the formation of the curl **30**, as indicated in Fig. 2. When it is desired to detach the curler, the ends of the loop **25** are grasped in a hand and the curler is pulled, in which operation the member **10** rotates, thus unravelling the curl.

In some instances, it may be desirable to detach one end portion of the loop **25** in the operation of winding and unwinding a curl and, to facilitate attachment and detachment of one end of a loop, I have provided a ball end, as at **24'** on a loop **25'**, which has a transverse split **31** therein, so that the ball end **24'** can be sprung into and out of the socket **22'** at one end of an elongated member **10'**, similar to the member **10**. In this connection, it will also be understood that the split construction, shown at **31** in Fig. 3, forms spring or yieldable side portions **32** on the ball **24'** and this type of construction can be utilized in a device such as shown in Figs. 1 and 2 simply to facilitate an assemblage of the loop on the member. In Figs. 1 and 2, one ball end, for example, the ball end **23**, can have a permanent mounting in the socket **21** and the other ball end **24** would be detachable with respect to the socket **22** and the loop **25** would simply be sprung into position. It will also be apparent, however, that sockets **21** and **22** can be open sockets which will facilitate factory assemblage of the loop **25** by placement of the balls in the sockets and, thereafter, detachment of the loop would be difficult.

The free mounting of the member on the ball ends facilitates quick operation in not only the formation of the curl but also the quick detachment of the curler from the hair in the manner previously described.

In Fig. 4 of the drawing, I have indicated at **26'** the central portion of the bar of a modified form of loop, such as shown at **25**, **25'** and, on the inner surface of the bar **26'**, that is to say, the surface which would be adjacent to the member which is employed, a plurality of transverse teeth or projections **33** are employed. These teeth or projections would serve several purposes, namely to part and distribute the hair as it is wound on the member, thus tending to spread the hair to form a curl of more uniform external diameter and, further, as the curl engages the bar **26'**, the teeth will engage the curl to centralize and position the curl on the member, thus preventing shifting longitudinally with respect to the axis of the member and, still further, will materially assist in retaining the curl against unravelling or displacement of the curler from the formed curl.

It will be understood that the longitudinal grooves or recesses **16** provide ventilation for the hair when wound around the member. This will facilitate drying of the hair when it has been dampened to facilitate formation of the curl. It will also be apparent that, with the structure, as shown in Fig. 3 where a detachable end is provided on the loop or bar, which might be termed a bale, the other anchored end is of such structure as to facilitate free swinging of the bar into a position at least at right angles to the member.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A curler of the character described, comprising an elongated member having a central contracted portion with conical ends, said ends having sockets opening outwardly therethrough, a loop for supporting said member, said loop comprising a bar substantially paralleling the axis of the member, the bar having inwardly curved end portions terminating in ball-like ends fitting in the sockets of said members, said sockets enveloping more than half of said ball ends and said ball ends providing free rotation of the member on said loop.

2. A curler of the character described, comprising an elongated member having a central contracted portion with conical ends, said ends having sockets opening outwardly therethrough, a loop for supporting said member, said loop comprising a bar substantially paralleling the axis of the member, the bar having inwardly curved end portions terminating in ball-like ends fitting in the sockets of said member, said sockets enveloping more than half of said ball ends said ball ends providing free rotation of the member on said loop, and said member having means for engaging the end of a swatch of hair, preparatory to winding hair on said member.

3. A curler of the character described, comprising an elongated member having a central contracted portion with conical ends, said ends having sockets opening outwardly therethrough, a loop for supporting said member, said loop comprising a bar substantially paralleling the axis of the member, the bar having inwardly curved end portions terminating in ball-like ends fitting in the sockets of said member, said sockets enveloping more than half of said ball ends said ball ends providing free rotation of the member on said loop, said member having longitudinal recesses, the member intermediate the recesses having longitudinal ribs, and one of said ribs being notched and recessed to form a hair engaging and holding means.

4. A curler of the character described, comprising an elongated member having a central contracted portion with conical ends, said ends having sockets opening outwardly therethrough, a loop for supporting said member, said loop comprising a bar substantially paralleling the axis of the member, the bar having inwardly curved end portions terminating in ball-like ends fitting in the sockets of said member, said sockets enveloping more than half of said ball ends said ball ends providing free rotation of the member on said loop, said member having longitudinal recesses, the member intermediate the recesses having longitudinal ribs, one of said ribs being notched and recessed to form a hair engaging and holding means, and end portions of the member having roughened annular surfaces facilitating rotation thereof.

5. A curler of the character described, comprising an elongated member having a central contracted portion with conical ends, said ends having sockets opening outwardly therethrough, a loop for supporting said member, said loop comprising a bar substantially paralleling the axis of the member, the bar having inwardly curved end portions terminating in ball-like ends fitting in the sockets of said member, said sockets enveloping more than half of said ball ends said ball ends providing free rotation of the number on said loop, said member having longitudinal recesses, the member intermediate the recesses having longitudinal ribs, one of said ribs being notched and recessed to form a hair engaging and holding means, end portions of the member having roughened annular surfaces facilitating rotation thereof, and one of said ball ends being split for detachable mounting in the socket of the member.

6. A curler of the character described, comprising a loop and an elongated member, means at the end portions of the loop for rotatably supporting the member thereon, said member having means for engaging a swatch of hair, preparatory to winding hair on said member, and said first named means at one end portion of the loop being in the form of a split ball.

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