March 24, 1959 L. L. LERNER 2,878,818

HAIR CURLER

Filed May 6, 1957

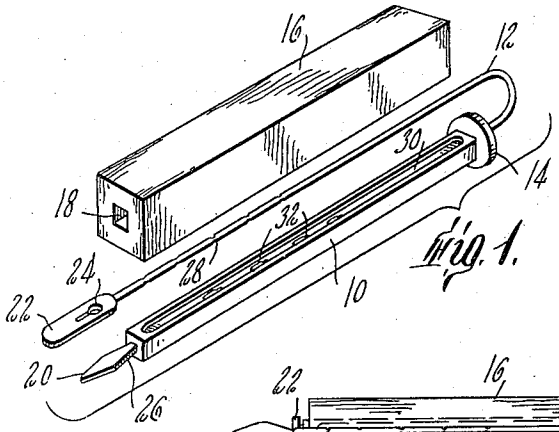


Fig. 1.

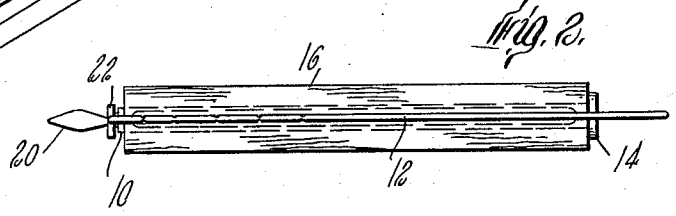


Fig. 2.

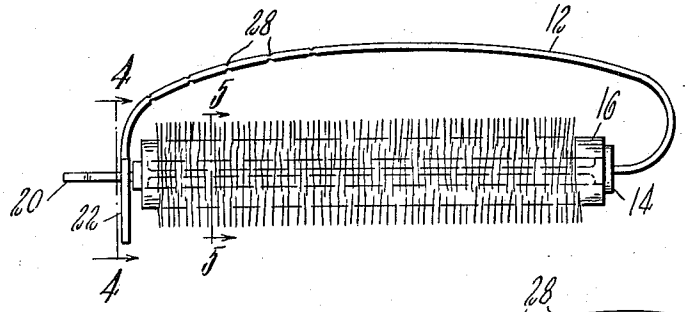


Fig. 3.

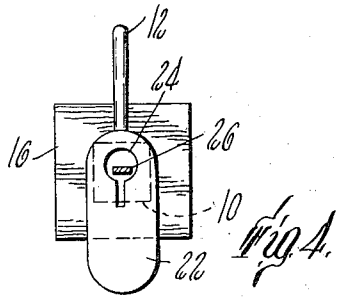


Fig. 4.

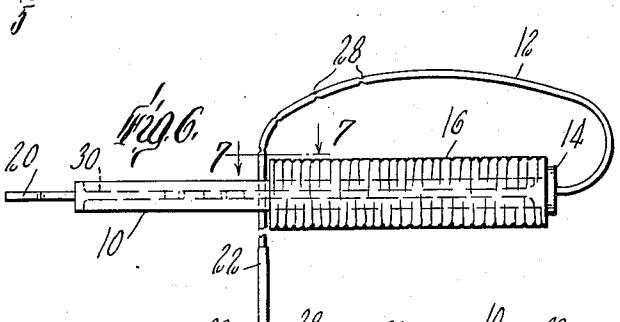


Fig. 6.

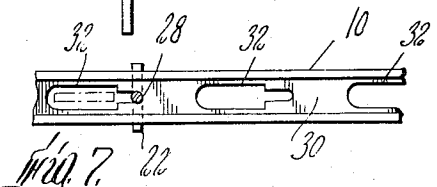


Fig. 7.

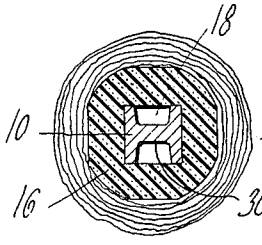


Fig. 5.

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2,878,818

HAIR CURLER

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4 Claims. (Cl. 132—41)

This invention relates to a hair curling device and pertains more specifically to a hair curling device which is adjustable in length to accommodate wider or narrower hair tresses.

One object of the present invention is to provide a hair curling device of the type having a winding member on which the hair tress may be wound and a clasp member or keeper serving to retain the hair in wound condition, both the winding member and the clasp member being adjustable in their effective length.

Another object is to provide a hair curling device having a winding member and a clasp member joined together in end-to-end relation with a yieldable sponge element mounted on the winding member in sliding frictional engagement therewith whereby the sponge element may be expanded or contracted in length.

Another object is to provide a hair curling device having a yieldingly compressible sponge element of rectangular cross-sectional configuration with sharp corners mounted on the winding member, the sponge element being uniformly compressible to a round cross-sectional configuration under the pressure of a hair tress wound thereon even when the winding tension is uneven.

A further object is to provide a hair curling device of the type described in which the winding member is in the form of a beam providing a plurality of keyhole slots while the clasp member has a plurality of zones of reduced diameter for engaging in the keyhole slots.

Still a further object is to provide a hair curling device of the type described in which the sponge element is readily removable from the winding member by a sliding movement endwise thereof.

Other and further objects will be apparent from the drawing and from the description which follows.

In the drawing:

Fig. 1 is an isometric view showing the several parts of one embodiment of the hair curling device of the present invention in their disassembled form;

Fig. 2 is a view in side elevation showing the embodiment of Fig. 1 assembled with the clasp member having its free end secured in place at the remote end of the winding member;

Fig. 3 is a plan view of the device shown in Fig. 2;

Fig. 4 is a view in cross-section taken along line 4—4 of Fig. 3;

Fig. 5 is a view in cross-section taken along line 5—5 of Fig. 3;

Fig. 6 is a view corresponding to Fig. 3 showing the sponge element contracted in length; and

Fig. 7 is a view on an enlarged scale taken along line 7—7 of Fig. 6.

As appears in Fig. 1 of the drawing, the hair curling device of the present invention comprises a winding member **10** connected in end-to-end relation with a clasp member **12** which is integral with the winding member but which is thinner and more flexible than the latter.

The device preferably is molded of a suitable resilient flexible plastic material such as a vinyl resin, polyethylene, or the like. A flange **14** is provided at the end of winding member **10** adjacent its connection to clasp member **12** to serve as a stop against which sponge element **16** may seat when it is slid endwise onto winding member **10** as shown in Figs. 2 and 3. Sponge element **16** may be formed of any soft resilient material which has sufficient elasticity so that it will readily regain its original size and shape after having been compressed. Particularly satisfactory results have been obtained with polyurethane sponges and with vinyl resin sponges.

Sponge element **16** is of rectangular or square cross-sectional configuration, as seen in Fig. 4, and is provided with sharp corners, as well as having a hollow passageway or core **18** extending axially along its center for reception of winding member **10**.

Inasmuch as winding member **10** and clasp member **12** are both formed of the same plastic material, it is desirable, in order that winding member **10** may have sufficient rigidity to perform its intended function, that it be relatively thick as compared to clasp member **12** and/or that it be in the form of an I-beam in cross-section, as appears in Fig. 5. It will be obvious that other cross-sectional shapes such as are found in an L-beam, a T-beam or a U-beam would also be satisfactory for providing stiffness.

Extending from the end of winding member **10** remote from clasp member **12** is a key **20**, while at the corresponding end of clasp member **12** is provided a tab **22** in which is cut a keyhole slot **24** which is of such size and shape that it may be forced over key **20**, the sides of slot **24** expanding because of the resilient flexibility of the material from which it is made and releasably engaging key **20** about its base **26** which is of restricted diameter.

Core passageway **18** in sponge element **16** is slightly smaller in dimension than the outer dimensions of winding member **10**, so that when the resilient sponge element **16** is slid endwise onto winding member **10**, the two are held together by frictional interengagement. Furthermore, because of the resilient, flexible and elastically compressible nature of sponge element **16**, it may readily be contracted lengthwise to the position shown in Fig. 6, and it will be found that the sponge element will be held in this contracted position by its frictional interengagement with winding member **10**, thus adapting the curling device for use with small or narrow hair tresses when desired.

In order that clasp member or keeper **12** may hold the hair tress closely engaged upon sponge element **16** when the latter is in its contracted position as shown in Fig. 6, clasp member **12** is provided with a plurality of spaced zones **28** of restricted or reduced diameter, and the central web **30** of the beam which forms winding member **10** is provided with a plurality of spaced keyhole slots **32**, **32** of a size sufficient to permit the passage therethrough of tab **22**. After tab **22** has been passed through the appropriate aperture **32**, one of the zones of reduced diameter **28** in clasp member **12** may be seated in the narrow throat of the keyhole slot so that the clasp member is releasably engaged to winding member **10** adjacent the end of sponge element **16** in its contracted position, as appears in Figs. 6 and 7.

In use of the device, sponge element **16** is mounted on winding member **10** by sliding it endwise thereon until it seats against flange **14**. Sponge element **16** is then adjusted to the desired length for accommodation of the selected hair tress and the tress is wound upon sponge element **16**. As the hair is wound up, the corners of the sponge element are compressed radially in-

wardly so that the sponge element assumes a generally round cross-sectional shape, as shown in Fig. 5. Surprisingly enough, this round shape is remarkably uniform even when the tension applied to the hair tress during the winding operation varies considerably, as is frequently the case in such operations. Furthermore, the yieldingly compressible nature of sponge element **16** ensures that the hair is firmly but yieldingly held securely in position without risk of slipping.

If desired, the sponge element **16** may be saturated with any desired hair treating liquid before or during the step of winding the hair tress thereon.

Although specific embodiments of the invention have been described herein, it is not intended to limit the invention solely thereto, but to include all of the obvious variations and modifications within the spirit and scope of the appended claims.

I claim:

1. A hair curling device comprising an elongated winding member and clasp member joined together in end-to-end relation, means on said winding member and clasp member for releasably securing together said members at a location spaced from said joined ends, and an elongated yieldable sponge element slidably mounted on said winding member in frictional engagement therewith, said sponge element being longitudinally expansible and contractible, said frictional engagement serving to hold said sponge element in selected positions of expansion and contraction on said winding member.

2. A hair curling device as defined in claim 1 in which said winding member and clasp member are integrally joined together and said sponge element is removable from said winding member by sliding movement.

3. A hair curling device comprising an elongated winding member and a clasp member integrally joined together in end-to-end relation, said clasp member being thinner and more flexible than said winding member, a plurality of spaced keyhole slots through said winding member disposed along the length thereof, a plurality of spaced zones of reduced diameter in said clasp member along the length thereof, each zone being adapted to be releasably engaged in a slot, and an elongated yieldable sponge element slidably mounted on said winding member in frictional engagement therewith, said sponge element being longitudinally expansible and contractible, said frictional engagement serving to hold said sponge element in selected positions of expansion and contraction on said winding member.

4. A hair curling device comprising an elongated winding member and a clasp member, and slidably mounted on said winding member in frictional engagement therewith a yieldably compressible elongated sponge element of rectangular cross-sectional configuration having sharp corners, said sponge element being mounted in axial alignment with said winding member and being longitudinally expansible and contractible, said frictional engagement serving to hold said sponge element in selected positions of expansion and contraction on said winding member.

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