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2,145,693

HAIR CURLER

Filed Nov. 14, 1935

Fig. 1

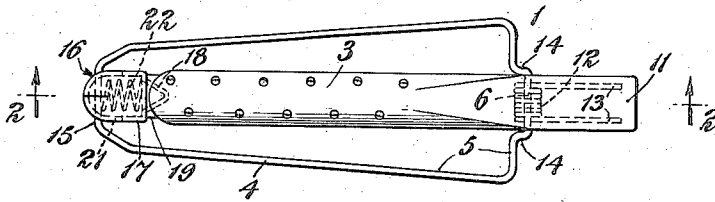


Fig. 2

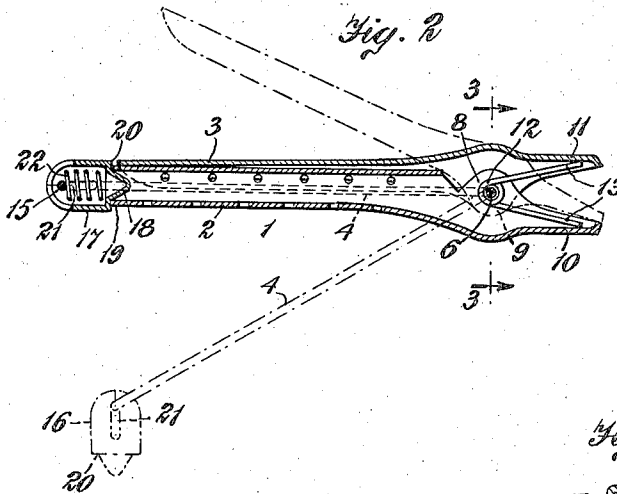


Fig. 4

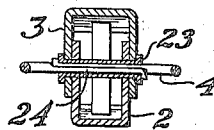


Fig. 3

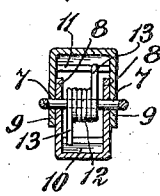


Fig. 5

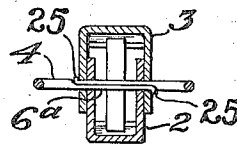


Fig. 6

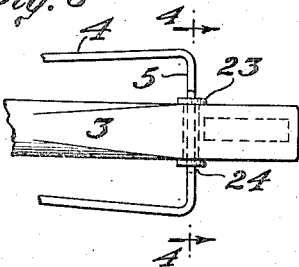


Fig. 7

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HAIR CURLER

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2 Claims. (Cl. 132—41)

This invention relates to hair curlers, and particularly to the type wherein a bar, arm, and frame are cooperatively hinged to allow curling of the hair around the bar and arm, and retain it in curled state.

The principal object of the invention is to provide a conveniently and economically manufacturable, conveniently utilizable, efficient, and improved hair curling device of the above type.

Another object is to provide a hair curler of the above type with improved means for positively and efficiently engaging its hair retaining frame to its hair curling bar, for improving the operation and resulting performance of the hair curler.

A further object is to provide a hair curler of the above type with improved means for hingedly connecting its hair curling bar and arm with its hair retaining frame.

Other objects and advantages will hereinafter appear.

In the accompanying drawing,—

Fig. 1 is a plan view of the hair curler of this invention.

Fig. 2 is a longitudinal cross-sectional side elevation of the hair curler shown in Fig. 1.

Fig. 3 is a transverse-sectional end elevation of the hair curler, taken on line 3—3 of Fig. 2.

Figs. 4, 5 are views similar to Fig. 3, showing modifications of the improvements.

Fig. 6 is a plan view of the portion shown in Fig. 4.

Fig. 7 is a cross section of the shaft shown in Fig. 4.

The hair curler 1, Fig. 1, comprises a tubular bar 2, a concave arm 3, and a retaining frame 4 made of an endless ring of wire 5. Said bar, arm, and frame are hingedly connected to each other by a portion 6 of said wire constituting an axle which passes through openings 7 of ears 8, 9 forming parts of the bar 2 and arm 3, as shown, whereby the bar and arm are swingable about axle 6 relatively to each other, and the frame 4 is swingable about both of them, as illustrated in Fig. 2 by the dash and dot lines. The bar 2 and arm 3 are provided with finger-pieces 10, 11, and a spring 12 is wound around the axle 6 and its ends 13 bear against said finger-pieces, whereby the bar 2 and arm 3 are normally impelled to bear pressingly against each other as shown, while when the finger-pieces 10, 11 are pressed toward each other the arm 3 is swung away from the bar 2 to the position shown by the dash and dot lines, Fig. 2. At the places 14 where the axle-portion 6 protrudes from the ears 9 of arm 3 the

wire 5 is bent rightangularly to prevent longitudinal movement of said axle-portion relatively to bar 2 and arm 3, and from said places the wire 5 is formed as a loop to extend around and beyond the terminal of the bar 2, as shown.

The end portion 15 of the frame 4 is formed straight and rightangularly to the bar 2, and it carries a device 16 wherewith to engage the band to the arm, as required for the hair curler. Said device consists of a cylindrical member 17, the end 18 of which is formed as a plug adapted to enter the extremity 19 of tubular bar 2, and providing a ledge 20 for seating against said extremity. In the cylinder 17 are formed opposing elongated slots 21 that serve as bearings for mounting the cylinder upon the band-end 15, the wire penetrating said slots and permitting the cylinder to revolve transversely around the end 15 as well as to move longitudinally and slidably toward and away therefrom. Within the cylinder 17 is located a helical spring 22 adapted to bear against the wire portion 15 and also against the plugged end 18 of the cylinder, maintaining the latter normally in the projected position shown, but permitting yieldable retraction of the cylinder and its plugged end toward the band-end 15. When it is desired to engage the frame 4 with the bar 2, therefore, the band is swung over toward the bar, the cylinder 17 is drawn contrary to the tension thereupon toward the band-end 15, and as the cylinder is released it is impelled by its spring 22 to plug into the extremity 19 to thereby engage the band with the bar. Disengagement of the latter is performed by opposite actuation of the said parts. When utilizing the hair curler, the arm 3 is first disposed to the open inoperative position, shown by the dash and dot lines, Fig. 2, the end of the hair is then placed between it and the bar 2, then said end is gripped by releasing the arm to the spring-pressed position shown against the hair and bar 2, and then the curling of the hair is continued around the closed arm and bar, after which the frame 4 is swung into engagement with the bar to maintain the hair in the curled condition as required.

According to the modification shown in Figs. 4, 6, 7, the bar 2 and arm 3 are hingedly joined by an eyelet 23 passing therethrough and constituting the axle, and the frame 4 is bent out of a piece of wire 5 the end portions 24 of which are flattened into semi-circular forms, Fig. 7. In assembling the device, the portions 24 are driven longitudinally through the eyelet axle 23 and their terminals 25 are formed as shown to prevent their

displacement. In Fig. 5 the eyelet 23 is not used, and the portions 24 form the axle 6a.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

5 Having thus described my invention, I claim:—

1. A hair curler having the combination a hair winding bar, a hair retaining frame hinged to said bar having its end located opposite to the extremity of said bar, a member mounted upon said end of the frame to swing rotatably about said end of the frame and also to move in a motion of translation relatively to said end and toward and away from said extremity of the bar, a spring bearing upon said end of the frame pressing said

member toward said extremity of the bar, and said member and said extremity of the bar having means for engaging each other.

2. A hair curler having the combination of a hair winding bar, a hair retaining frame comprising a wire bent as a loop, the ends of said wire overlapping each other and said overlapping portions thereof passing through said bar to constitute an axle to permit said frame to swing hingedly about said axle and the bar, and each of said overlapping portions being thinner than the wire so that the combined thickness of said portions is equal to that of said wire.

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