Dec. 9, 1941. M. C. JONES 2,265,733

HAIR CURLER

Filed Feb. 29, 1940

Fig. 1.

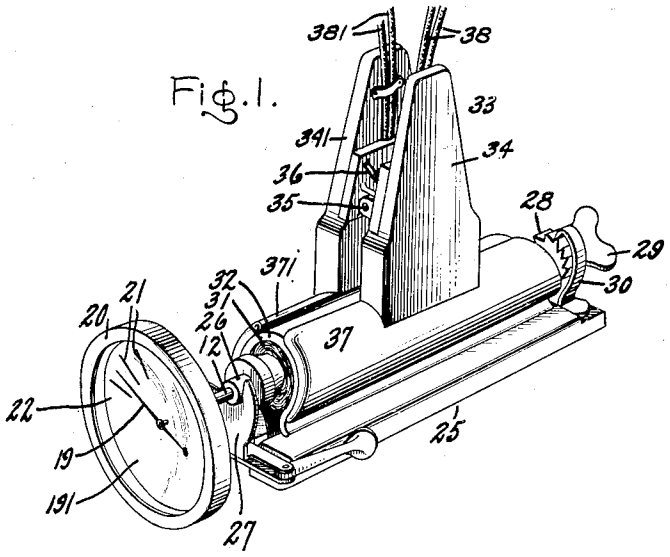


Fig. 2.

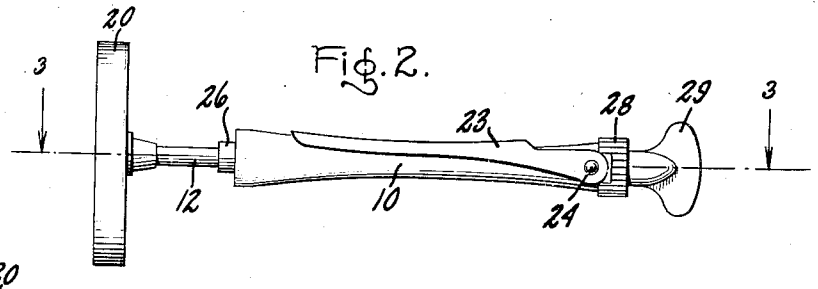


Fig. 3.

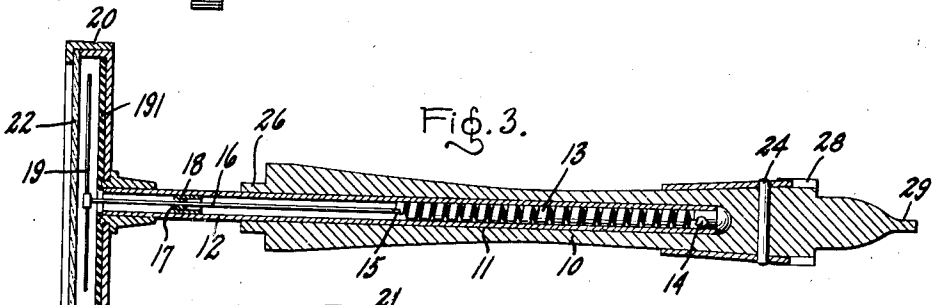
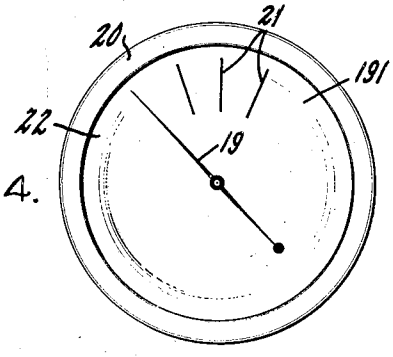


Fig. 4.



Inventor
Maynard C. Jones
by Dawn L. Wood
His Attorney.

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2,265,733

UNITED STATES PATENT OFFICE

2,265,733

HAIR CURLER

Maynard C. Jones, Burnt Hills, N. Y., assignor to Jones Instruments, Inc., Ballston, N. Y., a corporation of New York

Application February 29, 1940, Serial No. 321,370

3 Claims. (Cl. 132—36)

My invention more particularly relates to a hair curling device provided with means for furnishing a reliable indication of the temperature of the hair which is in the process of being curled and which in turn indicates when the hair has been properly and sufficiently curled.

It has hitherto been proposed to provide a hair curler in which the hair is wound on a glass tube and comprising a thermometer having a body of mercury enclosed in said glass tube and which is of the usual form. In other words, the body of mercury which is intended to respond to the heat of the hair is comparatively short. In case an opening or fissure occurs in the hair in the region of the body of mercury, the temperature is higher than that of the hair for the reason that the hot vapor from the heated pad passes directly to the bulb of the thermometer and the thermal indicator gives a false reading which is higher than it should be.

One of the objects of my invention is the provision of a combined hair curler and thermal indicator which gives the average temperature of the bar on which the hair is wound and of the hair itself which is wound on the bar.

A further object of my invention is the provision of a bar on which the hair is wound and which is formed of good heat conducting material, preferably aluminum.

Other novel features of my invention will appear in the specification and will be particularly pointed out in the claims.

My invention will best be understood by reference to the accompanying drawing in which I have illustrated the preferred embodiment thereof and in which

Fig. 1 is a perspective view of a hair curling device embodying my invention;

Fig. 2 is a front elevation of the bar on which the hair is wound and the parts associated therewith;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2, and

Fig. 4 is a front elevation of an indicating dial associated with the thermometer.

Like reference characters indicate like parts throughout the drawing.

Referring to the drawing and first to Figs. 2, 3, and 4, 10 is an elongated bar which is formed of good heat conducting material, preferably aluminum, on which the hair to be curled is wound. The bar is provided with an axially extending, elongated opening 11 in which is received a hollow cylindrical stem 12 of a thermally responsive device. The stem 12 is formed of metal and, in the embodiment illustrated, a bi-metallic spiral actuating element 13 is anchored at one end, as at 14, to the wall of the stem 12 near one end thereof while the opposite end 15 thereof is free to rotate. To the free end of the spiral coil is attached a shaft or spindle 16 having its bearing at 17 in a metallic member 18 secured in the stem 12. A pointer 19 is attached to the outer end of the shaft 16 and moves over a dial 191 which is enclosed in a casing 20 which is, in turn, secured to the outer end of the stem 12, the dial being suitably calibrated as at 21. The bar 10 is provided with a clip 23 of usual form for retaining the hair in position on the bar 10 for winding. The front of the casing is preferably closed by a glass plate 22. The clip 23 is pivotally mounted as at 24 on the bar 10. Referring now to Fig. 1, 25 is a clamping device comprising two sections pivotally connected together, only one of such sections being clearly shown in Fig. 1. Such clamping device is of well known form and as the same constitutes no part of my invention, the same is not fully illustrated.

In using the device embodying my invention, a wisp or lock of hair is selected, and the clamping device 25 is placed over such lock close to the scalp of the patron, the end of the lock is then wound around the bar 10 and the clip 23 is then placed over the lock. As soon as the bar with the clip is turned, the hair is secured in position on the bar by the clip, and the hair also secures the clip in position. When the lock of hair is completely wound around the bar and the clip, the bar with the hair wound thereon is attached to the clamping device 25 by placing an extension 26 of the bar 10 in a support 27, the opposite end of the bar being provided with a ratchet 28. By turning a handle 29 on the bar, the winding of the hair is completed, a pawl 30 mounted on the clamping device 25 engaging said ratchet and retaining the bar in position in an obvious manner.

It will be understood that the hair indicated at 31 is now surrounded by a pad 32. It will also be understood that the pad is treated with a well known curling solution which assists in perfecting the curling operation.

Heat is now applied to the pad 32 and in the embodiment of my invention illustrated an electric heater indicated generally at 33 and comprising clamping bars 34 and 341 are pivotally connected together as at 35 and a spring 36 interposed between the two bars tends to force two segments 37 and 371 towards each other and against the pad 32. It will be understood that

the segments 37 and 37' are provided with electric heaters to which are connected respective leads 38 and 38', the heaters extending along substantially the entire pad and bar 10 in Fig. 1.

When the segments are disposed as illustrated in Fig. 1 and current applied to the electric heater, the heat is transmitted to the pad 32, to the hair and from the hair to the bar 10. In turn heat is conducted from the bar to the bi-metallic spiral coil and as the bar is formed of good heat conducting material, it is rapidly and evenly transmitted throughout the entire bar, and as the bi-metallic spiral coil is disposed in good heat conducting relation to the bar, the latter is subjected to the average temperature of the entire bar and is not affected by local conditions such for example as a fissure or opening in the hair as would be the case in the device above referred to.

By noting when the pointer reaches the desired calibration on the dial, the operator knows that the curling operation is complete.

While I have described my invention in its preferred embodiment, it is to be understood that the words which I have used are words of description rather than of limitation. Hence, changes within the purview of the appended claims may be made without departing from the true scope and spirit of my invention in its broader aspects.

What I claim is:

1. In a hair curler of the character described a metallic bar formed of good heat conducting material on which hair may be wound, said bar being provided with a longitudinally extending elongated opening, means for applying heat to said bar along substantially the entire length thereof, an elongated heat actuated element receivable in said opening and extending throughout a substantial portion of the length thereof, said element being anchored at its inner end and rotatable at its outer end, and means connected to the rotatable end of said element for indicating the position of the outer end of said element and thereby indicating the average temperature of said bar.

2. In a hair curler of the character described, a metallic bar formed of good heat conducting material on which hair may be wound, said bar being provided with a longitudinally extending elongated opening, means for applying heat to said bar along substantially the entire length thereof, a bi-metallic spiral actuating element disposed in said opening and anchored at one end to said bar and rotatable at its opposite end, and means connected to the free end of said coil for indicating the average temperature of said bar.

3. In a hair curler of the character described, a metallic bar formed of good heat conducting material on which hair may be wound, said bar being provided with a longitudinally extending elongated opening, means for applying heat to said bar along substantially the entire length thereof, a bi-metallic spiral actuating element disposed in said opening and anchored at one end to said bar, the opposite end of said element being rotatable, a rotatable shaft connected at one end to said actuating element, a dial, and a pointer connected to said shaft and movable over said dial.

MAYNARD C. JONES.