

[54] **NEW HAIR-CURLING DEVICE**

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[58] Field of Search.....132/40, 41, 39, 41 B, 41 C

[56] **References Cited**

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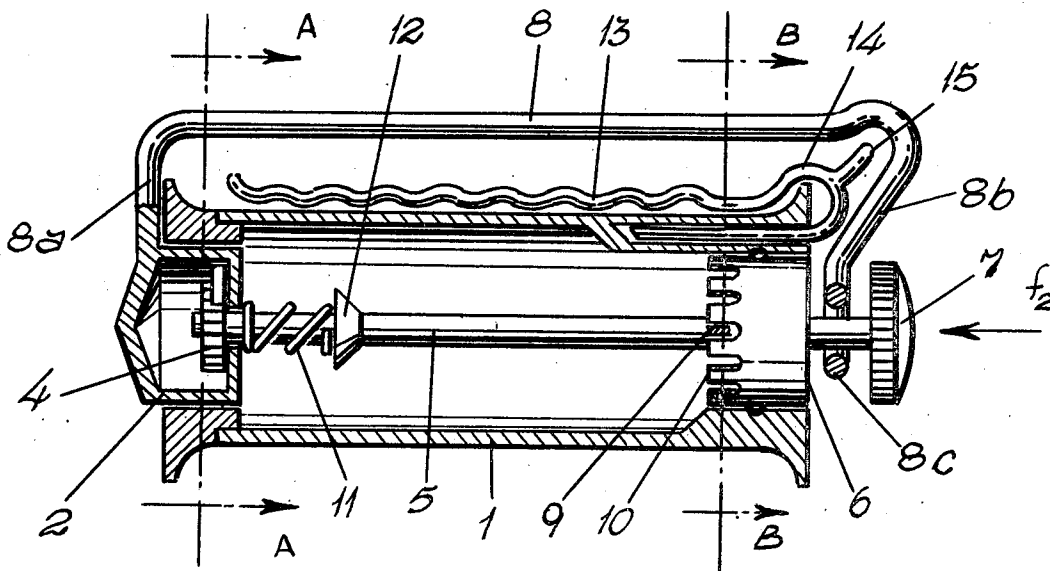
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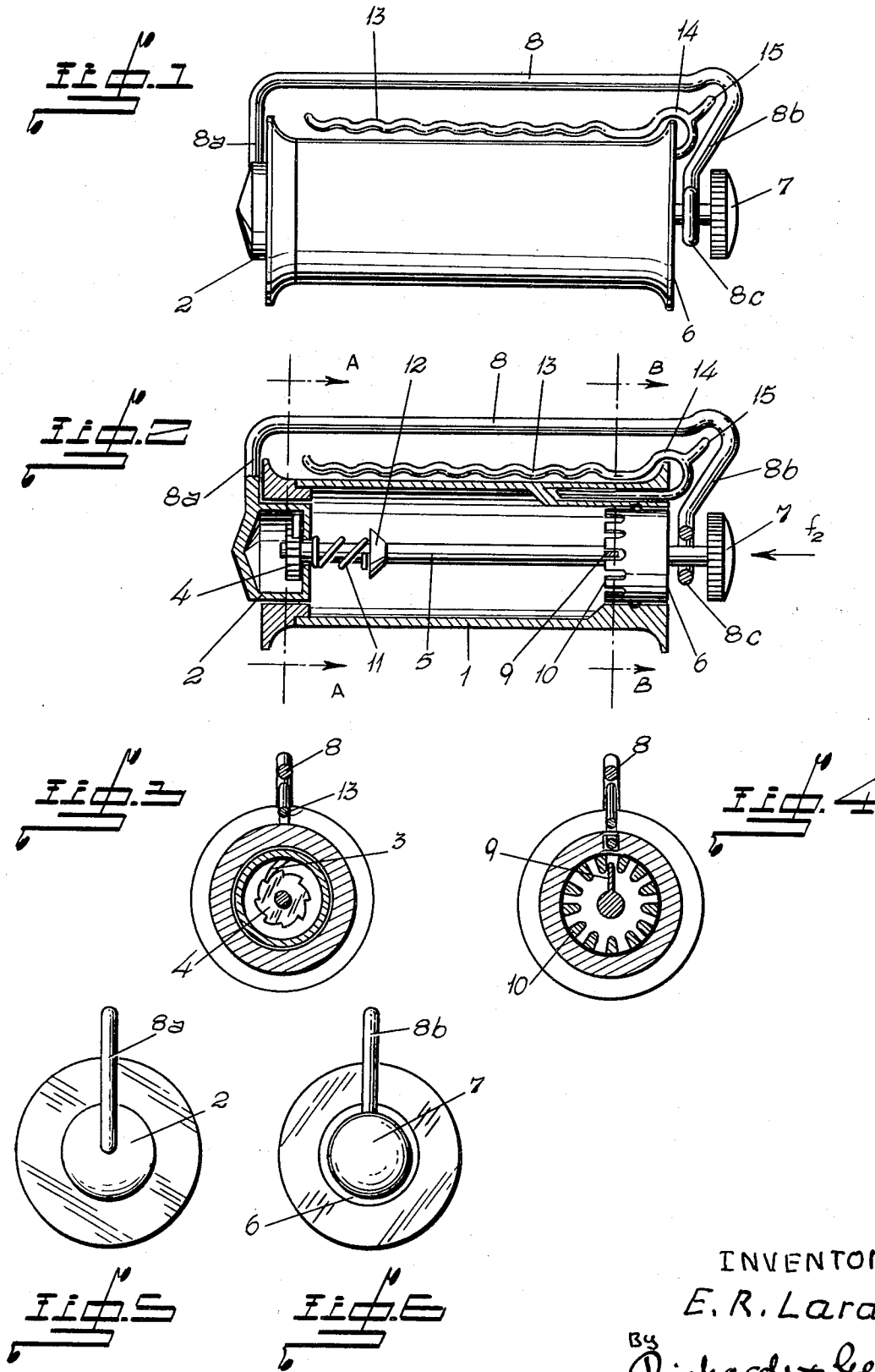
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ABSTRACT

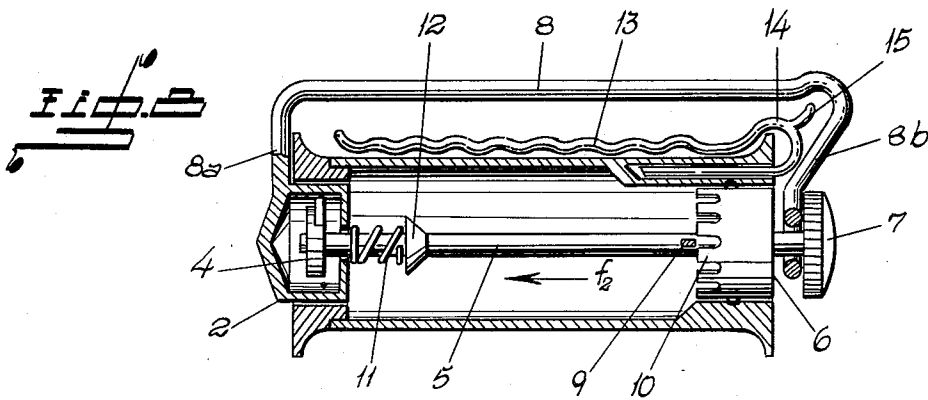
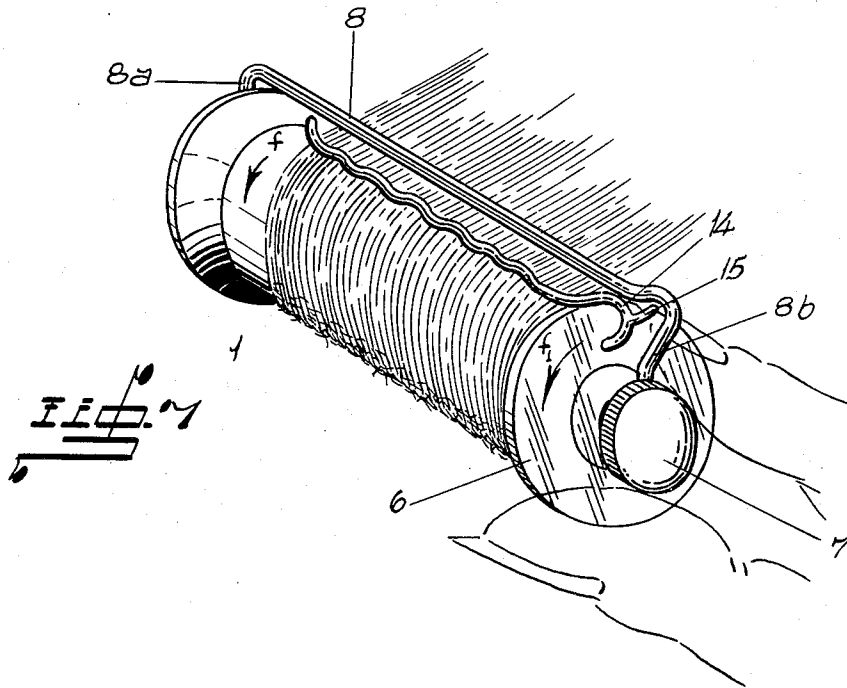
A hair curling device, which consists of a tubular body with a cylinder hollow head mounted rotatably in one end of the body. A cap rotatably mounted in the opposite end of the tubular body. A central rod, which extends axially within the tubular body and has one end rotatably and slidably mounted within the hollow head and another end rotatably and slidably mounted within the cap. A sprocket wheel is mounted upon one end of the central rod and located within the hollow head. A pawl is carried by the hollow head and is adapted to engage the sprocket wheel. A substantially U-shaped rigid member having a central portion extending outside of the tubular body parallel to the central rod is also provided. A U-shaped elastic lamellar clip having a portion removably clamped to the tubular body and another portion extending elastically and longitudinally along an outer surface of the tubular body is also included to hold the hair in place. The parts are interconnected with one another in operative relationship to curl hair.

2 Claims, 8 Drawing Figures





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NEW HAIR-CURLING DEVICE

This invention relates to a new hair-curling device of the type used at hair dressing shops and particularly at home, and the main object of the invention is to provide a hair-curling device having a mechanism which will allow the user to easily remove it from the hair with the hair-curl already formed and which, at the same time, not only simplifies the curling operation but guarantees a reliable permanence of the hair-curling device in its operated position while the curl is being formed.

Many embodiments of hair-curling devices are known in the previous art comprising a cylindrical body around which a head of hair is coiled and secured thereto by different means, that is, through a simple rubber band, an elastic clip acting as a hairpin and so forth. All these hair fastening means, however, require certain practice from the user as far as coiling the hair around the cylindrical body is concerned. On the other hand, these hair-fasteners do not provide a reliable fixing of the head of hair to the hair-curling device particularly when the user rests the head over a pillow as when sleeping.

The various objects and advantages, and the novel details of construction of the commercially practical embodiment of the invention, will become more apparent as this description proceeds, especially when considered in connection with the accompanying drawings, in which:

FIG. 1 is an elevational view of a hair-curling device embodying this invention.

FIG. 2 is a view similar to FIG. 1, partly in section, of the hair-curling device in question.

FIG. 3 is a sectional view taken substantially on the plane indicated by line A—A in FIG. 2.

FIG. 4 is a sectional view taken substantially on the plane indicated by line B—B in FIG. 2.

FIG. 5 is and end view of the hair-curling device as it will be seen from its rear end.

FIG. 6 is and end view of the hair-curling device embodied by the invention and as it will be seen from its front end.

FIG. 7 shows in perspective the hair-curling device of the invention as being associated with a head of hair to be curled.

FIG. 8, similar to FIG. 2, shows the hair-curling device with its central rod in the released position.

In connection with the above figures wherein same references have been used to designate similar or equivalent parts, it is apparent that the invention comprises a tubular shaped body 1 an end of which is closed by a cylindrical hollow head 2 capable to rotate around the axis of said body, this cylindrical hollow head providing a housing for a pawl 3 and a sprocket-wheel 4 mounted on a central rod 5 which goes through the already mentioned cylindrical hollow head 2 and extends within the tubular shaped body 1 towards the opposite end thereof which is closed by a cap 6 the internal edge of which is provided with a plurality of regularly spaced notches while the external portion of rod 5 ends in a hand knob 7, as it is clearly shown in FIGS. 2 and 8.

The tubular shaped body 1 and the central rod 5 can rotate relative to each other and since the latter is connected to a stiff filiform member 8 through a first portion 8a thereof, perpendicular to the virtual axis of said

tubular shaped member 1, and which ends in a second portion 8b substantially parallel to the first one and provided with a loop 8c which surrounds rod 5 in its portion external to the tubular shaped body 1, it is obvious that said filiform member 8 will only be allowed to rotate in a single direction through the action of the sprocket wheel and also on account of a projection 9 provided at the rod 5 susceptible to engage in any of the notches 10 formed over the internal edge of cap 6.

An expansion spring 11 is placed between a stopping skirt 12 formed on the central rod 5 and the inside wall of the hollow head 2 thus urging rod 5 to the position wherein said projection 9 engages with a notch 10.

A slightly undulated lamellar sheet 13, as shown in FIG. 2, having a forked shaped gripping end is placed against the tubular shaped body 1 and serves the purpose of securing the head of hair to be curled to said tubular shaped body 1, the releasement of which is accomplished by pressing its lug 15 provided at the forked shaped end thereof.

From the foregoing it will be realized that the user of the hair-curling device will proceed in the following manner: by pushing down lug 15 in the undulated lamellar sheet 13 this will be set apart from tubular shaped member 1 thus allowing a head of hair to be placed over its external surface to firmly press it. Then, by taking the whole assembly from the filiform member 8, the hand knob 7 will be rotated in the direction shown by arrow f_1 in FIG. 7 whereby the tubular shaped body 1 will rotate in the same direction inasmuch as rod 5, through 9 and 10, will be rigidly connected to it while the sprocket wheel and its pawl will force the hollow head 2 to rotate relative to 1. This operation will coil the head of hair around the tubular shaped body 1, as shown in FIG. 7, in the sense indicated by arrow f .

When the hair-curling device is to be withdrawn from the head of hair, the user will merely press knob 7 inward, as shown by arrow f_2 in FIG. 1, thus releasing the projection 9 from the engaging notch and allowing rod 5 to move to the position illustrated in FIG. 8 so the tubular shaped body 1 will be free to rotate around rod 5, the hair-curling device being then pulled out from its filiform member 8 with the head of hair uncoiling accordingly. No need to say that when the end of the head of hair is reached a slight pressure exerted on lug 15 will provide the final releasement.

It is also obvious that when knob 7 is released, the device will return to the position shown in FIG. 2, that is to say, it will be ready to be used again.

While it will be apparent that the preferred embodiment herein illustrated is well calculated to fulfill the objects above stated, it will be appreciated that the invention is susceptible to modification, variation and change without departing from the proper scope of fair meaning of the subjoined claims.

What I claim is:

1. A hair-curling device, comprising in combination, a tubular body, a cylindrical hollow head rotatably mounted in one end of said tubular body, a cap rotatably mounted in the opposite end of said tubular body and having an inner edge with uniformly spaced notches, a central rod extending axially within said tubular body and having an end rotatably and slidably mounted in said hollow head and another end rotatably and slidably mounted in said cap and extending beyond

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said cap outside of said tubular body, a sprocket wheel mounted upon said one end of the central rod and located within said hollow head, a pawl carried by said hollow head and adapted to engage said sprocket wheel, a projection carried by said central rod and adapted to engage any one of said notches, means engaging said rod and resiliently pressing it in the direction toward said cap, a knob carried by said other end of the central rod and located outside of said tubular body, whereby said knob may be actuated to move said central rod from an operative position in which said pawl engages said sprocket wheel and said projection engages a notch into an inoperative position, a substantially U-shaped rigid member having a central portion extending outside of said tubular body parallel to

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said central rod, an end portion rigidly connected to an outer surface of said hollow head and another end portion enclosing with play a part of the central rod located outside of said tubular body between said cap and said knob, and a U-shaped elastic lamellar clip having a portion removably clamped to said tubular body and another portion extending elastically and longitudinally along an outer surface of said tubular body.

2. A hair-curling device in accordance with claim 1, wherein said means comprise a stop carried by said central rod and a coiled spring enclosing said central rod and having one end engaging said stop and another end engaging said hollow head.

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