March 20, 1928.

1,663,291

P. C. P. BOOTY

HAIR CURLER

Filed Nov. 11, 1927

Fig. 1.

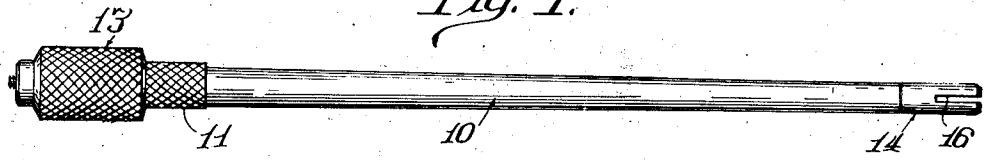


Fig. 2.

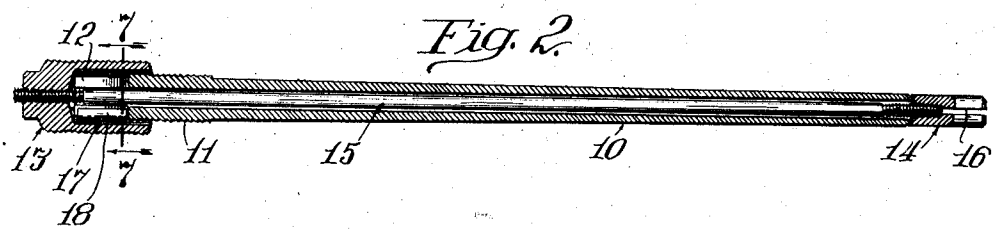


Fig. 3.

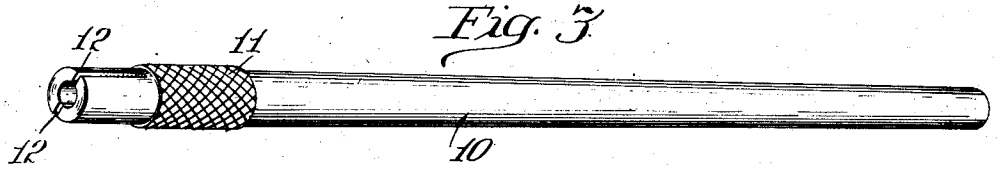


Fig. 4.

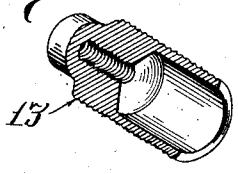


Fig. 5.

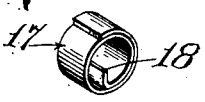


Fig. 6.

Fig. 7.

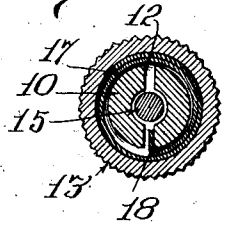
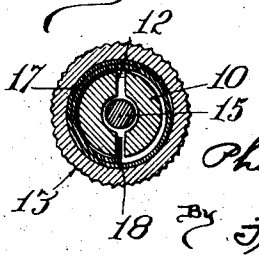


Fig. 8.



Inventor:
Philip C. P. Booty
By Price & DeBurn
Attorneys

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UNITED STATES PATENT OFFICE.

PHILIP C. P. BOOTY, OF CHICAGO, ILLINOIS, ASSIGNOR TO INNOVATION SPECIALTIES CO., INC., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

HAIR CURLER.

Application filed November 11, 1927. Serial No. 232,628.

My invention relates to hair curlers of the general type disclosed by United States Letters Patent to Agostini, No. 1,463,028, of July 24. 1923, in which the tubular member upon which the hair is wound for the curling effect is capable of being rotated with respect to the end portions of the device, and it is one of the objects of my invention to provide an improved form of means for preventing rotation of the tubular member with respect to the end portions of the device in the direction for unwinding the hair therefrom, while at the same time permitting free rotation of the tubular member in the direction for tightening the winding of the hair without any change in the position of the end members longitudinally of the tubular member.

It is one of the objects of my invention to provide a construction so arranged that the parts may be assembled in operative form with a minimum of labor and trouble, that the device can be taken apart readily and easily for access to any of the parts as may be desired, that the size of the tubular member may be kept within a certain predetermined minimum, and that the device may have such certainty of action and strength of parts as to make it effective through a long period of use. To this end, I have provided a structure of the general type disclosed by Letters Patent of the United States No. 1,641,205, to Shelton, comprising a coiled spring of the clock-spring type for holding the tubular member against rotation in one direction with respect to a central rod which is held in stationary position in use by reason of being secured by a suitable end piece or end piece portion to the tress of hair adjacent to the scalp, in which structure I have employed an improved construction and arrangement of parts for rendering the spring effective for preventing rotation of the tubular member in one direction with respect to the central rod without the necessity for having the spring either connected with the central rod or mounted within the tubular member.

It is another object of my invention to provide a construction of this type which can be very readily and quickly reversed in its action for changing the direction of rotation permitted, such change being effected preferably without the necessity for disconnecting any parts.

It is another object of my invention to improve devices of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the accompanying drawing and are hereinafter specifically described. That which I believe to be new and desire to cover by Letters Patent is set forth in the claims.

In the drawing,—

Fig. 1 is a side view of the preferred form of my improved device.

Fig. 2 is a central vertical section through the device of Fig. 1.

Fig. 3 is an enlarged perspective view of the elongated tubular member of the device shown in Fig. 1.

Fig. 4 is an enlarged detail view, principally in section, showing the part constituting the head of my improved device.

Fig. 5 is a perspective view of my improved spring.

Fig. 6 is a view, partly in section, showing the form of end piece employed.

Fig. 7 is a cross section taken at line 7—7 of Fig. 2; and

Fig. 8 is a view similar to Fig. 7 but showing the spring in reversed position.

Referring now to the several figures, in which corresponding parts are indicated by the same reference characters,—10 indicates an elongated tubular member preferably formed of metal, forming the body of my improved device. At one end, the tubular member 10 is provided with an enlarged knurled portion 11, and at the end beyond the knurled portion there is a longitudinally extending slot 12 which in the construction shown is open at the extreme end of the tubular member.

The head 13 of my improved device is in the form of a sleeve at one end, as is clearly shown in Figs. 2 and 4, such sleeve being of a size to fit loosely about the end of the tubular member 10. The head 13, mounted upon one end of the tubular body 10 is connected with the end piece 14 of my device at the other end of the tubular member by means of a central rod 15 which is connected with such parts 13 and 14 by means of screw threads, as is best indicated in Fig. 2. The arrangement is such that the head 13 may be turned down into working engagement with the end of the tubular body 10, and the end piece 14 brought to bear against the op-

posite end of the tubular body, the end piece and the end portion of the tubular body being bevelled for causing the parts to be centered readily with respect to each other. The end piece 14 is provided with a longitudinally extending slot 16 open at its outer end.

For holding the tubular member 10 against rotation in one direction with respect to the end portions of the device, comprising the head 13 and the end piece 14, while at the same time permitting free rotation of the parts with respect to each other in the opposite direction, I have provided a coiled spring 17 of the clock-spring type adapted to be inserted between the outer face of the tubular body 10 and the inner face of the sleeve portion of the head 13. The spring 17 is held against rotation with respect to the tubular member 10 by means of an inwardly turned end portion 18 which is brought into releasable engagement with the slot 12 at one side of the tubular body, as is best shown in Fig. 7. The spring is of such a size as to have a light frictional bearing against the inner face of the sleeve portion of the head 13.

With the spring 17 slipped loosely into position within the sleeve portion of the head, and with the tubular member 10 inserted into the sleeve, with the portion 18 engaging the slot 12, the spring acts to permit free rotation of the tubular member 10 in clockwise direction in Fig. 7 with respect to the head 13. The arrangement is such, however, that when an attempt is made to rotate the tubular member 10 in counter-clockwise direction in Fig. 7 with respect to the sleeve the spring has a tight gripping engagement with the sleeve for preventing such rotation.

By reason of the construction and arrangement as above described, the device can be very quickly and easily assembled into its complete operative form. The spring 17 is first inserted in the sleeve of the head, the sleeve is then inserted without resistance over the end of the tubular member with the end portion 18 of the spring in the slot 12, and the rod 15 and end piece 14 are slipped into position and rotated for bringing the rod into operative engagement with the head 13, whereupon the device is ready for use. Whenever it is desired to reverse the direction in which the tubular member 10 is permitted to rotate with respect to the head 13, this can be effected by inserting the spring 17 into the sleeve in inverted position, as shown in Fig. 8, whereupon the tubular member is permitted to rotate in counter-clockwise direction in said figure with respect to the head but is held against rotation in clockwise direction.

In use, the end piece 14 is secured to a tress of hair adjacent to the scalp, being preferably secured in such position by means of a cord tied about the tress and secured in the slot 16. The tress of hair is then wound about the tubular body in spiral form, being tied securely thereto near the end portion of the tress of hair. The operator then grasps the head 13 of the device for holding the rod 15 and the end piece 14 in stationary position and with the other hand rotates the tubular body 10 and the tress of hair thereon in the direction for tightening the winding of the hair upon the tubular body, the spring 17 being arranged in position for permitting rotation of the tubular body in the desired direction to suit the convenience of the particular operator. The spring 17, of course, holds the tubular body from rotation in the reverse direction. After the treatment of the tress of hair in the approved manner for impressing the desired curl therein, the device is removed from the hair by being drawn longitudinally out of position, the device being tapered slightly toward the end piece 14 for facilitating such release of the device.

While I prefer to employ the form of construction as illustrated in the drawing and as above described, it will be understood that my invention is not to be limited with respect to the details of construction illustrated except so far as the claims may be so limited by the prior art.

I claim:—

1. A hair curler comprising in combination an elongated tubular member, a head revolubly mounted at one end of said tubular member, an end piece revolubly mounted on the opposite end of the tubular member, means for causing said head and said end piece to rotate together with respect to said tubular member, and a coiled spring removably mounted about said tubular member adapted by engagement with said tubular member to rotate therewith in one direction with respect to said head and adapted by engagement with said head to prevent rotation of the tubular member in the opposite direction with respect to the head.

2. A hair curler comprising in combination an elongated tubular member, a head in the form of a sleeve revolubly mounted about one end of the tubular member, an end piece revolubly mounted at the opposite end of the tubular member, means for causing said head and said end piece to rotate together with respect to said tubular member, and a coiled spring removably mounted about said tubular member within said sleeve adapted by engagement with said tubular member to rotate therewith in one direction with respect to the head and adapted by frictional engagement with the inner face of the sleeve to prevent rotation of the tubular member in the opposite direction with respect to the head.

3. A hair curler comprising in combina-

tion an elongated tubular member, a head in the form of a sleeve within which one end of said tubular member is revolubly mounted, means at the opposite end of said tubular member connected with said head and adapted to hold the head against rotation with respect to a tress of hair attached thereto, and a spring of the clock-spring type loosely mounted in said sleeve about said tubular member with its inner end portion engaging a longitudinal slot in the end portion of the tubular member and adapted to rotate freely with said tubular member in one direction with respect to the head but to prevent rotation of the tubular member in the opposite direction with respect to said head.

4. A hair curler comprising in combination an elongated tubular member, a head in the form of a sleeve within which one end of said tubular member is revolubly mounted, means at the opposite end of said tubular member connected with said head and adapted to hold the head against rotation with respect to a tress of hair attached thereto, and a spring of the clock-spring type removably and reversibly mounted in said sleeve about said tubular member with its inner end portion engaging a longitudinal slot in the end portion of the tubular member and adapted to rotate freely with said tubular member in one direction with respect to the head but to prevent rotation of the tubular member in the opposite direction with respect to said head.

PHILIP C. P. BOOTY.