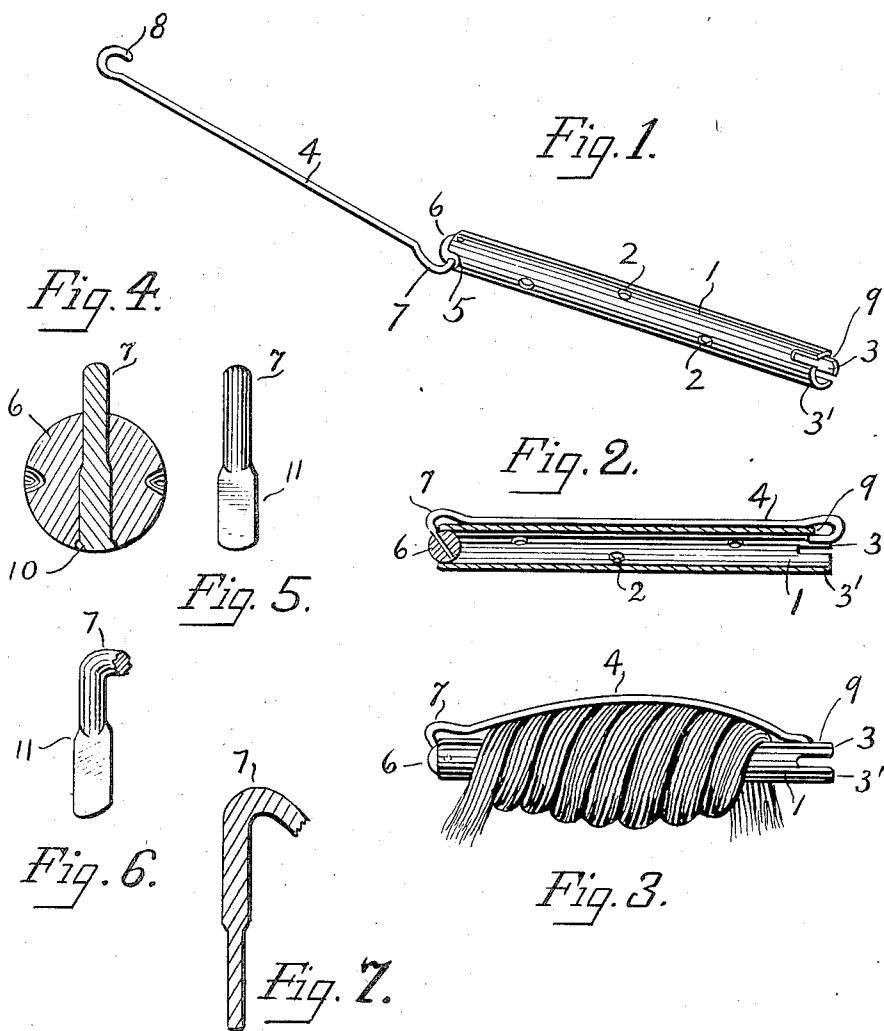


A. A. WEST & W. H. GATCHELL.
HAIR CURLER.

APPLICATION FILED JUNE 5, 1912.

1,077,897.

Patented Nov. 4, 1913.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AUGUSTUS ALBERT WEST, OF BROOKLYN, NEW YORK, AND WILLIAM H. GATCHELL,
OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO SAID WILLIAM H. GATCHELL.

HAIR-CURLER.

1,077,897.

Specification of Letters Patent.

Patented Nov. 4, 1913.

Application filed June 5, 1912. Serial No. 701,750.

To all whom it may concern:

Be it known that we, AUGUSTUS ALBERT WEST, of the borough of Brooklyn, county of Kings, State of New York, and WILLIAM H. GATCHELL, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hair-Curlers, of which the following is a specification.

10 In our patent issued February 14th, 1911, and numbered 984,331 we have shown a ventilated hair curler having a cylindrical tubular and perforated member and a ball secured in one end thereof, a spring member
15 is arranged in operable relation with the cylindrical member. This construction was found to have many advantages but it was also found that there were certain features which forbid a complete and satisfactory
20 working of the whole device, and it is to overcome these objections, to cheapen and otherwise improve the construction, and to produce a curler that after long and continued experiment has proven highly efficient, that we have devised the improvements set forth herein and for which we are now making an application for Letters Patent.

30 The details of the construction and the advantages to be derived therefrom will be set forth as the specification progresses.

The following is what we consider the best means of carrying out this invention.

35 The accompanying drawings form a part of this specification, in which—

Figure 1 is a perspective view of our completed curler. Fig. 2 is view in horizontal section. Fig. 3 shows the device in use. Fig. 4 shows the method of inserting the
40 spring member, this view and the remaining views are on a larger scale. Fig. 5 is an end elevation of one end of the spring member. Fig. 6 is a side elevation of the same member. Fig. 7 is a sectional view of the
45 same part shown on a still larger scale.

Similar reference numerals indicate like parts in all the figures where they appear.

50 The main body member of this device is the tubular member 1 upon which the hair is to be rolled. This tubular member may be made of any suitable material but in our experiments we have formed it from an aluminum sheet or tube which is provided with a series of perforations 2. One end of
55 this tube, which we may call the forward end

is longitudinally slitted for a limited extent in such a manner as to allow and form the projecting parts 3 and 3'. Operable with this tube is a spring member 4 formed of round wire and secured in a ball 6, this ball
80 may be of metal and we produce it by mold casting a soft lead and tin composition. The ball is provided with a plurality of counter sunk recesses arranged directly opposite each other and is secured in the back end of the
85 tube 1 by having a portion of the adjacent sides of the tube forced into these recesses and so that it and the spring member 4 may have the proper amount of movement we cut away a portion of one side of the tube as
70 shown at 5.

In operation the spring member 4 should assume a position approximately parallel to the tube 1 for its full operative length and to accomplish this we produce a raised or
75 deflected portion 7 adjacent to the ball 6. A hook 8 at the free end of the spring member 4 is engaged through the longitudinal slit in the forward end of the tube 1, and passing over the projection 3 produces therewith
80 a locking that cannot be disengaged by ordinary movements. We have found however that accidental disengagement of the hook 8 is not impossible and we have also found
85 that it is impractical, with this simple arrangement to provide sufficient movement of the spring 4 and the hook 8 to accommodate a large quantity of hair. We have therefore provided a second notch 9 in the part 3, into
90 which the hook 8 will pass when a quantity of hair has been placed on the cylindrical member 1.

It will be seen then that the notch 9 performs two important functions, first allowing an increased quantity of hair to be
95 placed upon the cylindrical member 1, and second making accidental dislodgment impossible.

Another important feature of our invention is the construction of the spring member 4 and the parts adjacent thereto. It has
100 been found desirable to make this spring member of round wire and yet difficulty was experienced in securing this member firmly in the ball 6, we have therefore flattened a
105 portion of one end of the member 4 and we drill through the ball 6 a hole of about the diameter of the round part of the spring member 4, and force the flattened end
110 through the hole in the ball 6 causing it to

cut a groove into the walls of the hole through which it is passing. To complete the securing we rivet over the flattened end as shown at 10. We have found this method
5 of securing the spring member to be entirely satisfactory holding the spring in the desirable position and preventing a turning or twisting of the spring that would be decidedly objectionable.

10 Modification may be made within the scope of the appended claim without departing from the principle or sacrificing the advantages of this invention.

The hook 8 may be elongated to any desirable extent, and the longitudinal slit and the slot 9 may be deepened. We may also
15 increase the number of perforations 2, but we prefer the whole as shown.

Having carefully and fully described our

invention what we claim and desire to secure by Letters Patent is:— 20

A device of the character described comprising a tubular and perforated body having a longitudinal slot at one end thereof, a flexible member pivotally engaged at one
25 end with said body and provided with an inwardly turned hook at its free end which is adapted to be drawn into said slot by the arching of said pivotal member as herein
30 specified.

Signed at New York city, in the county and State of New York this 17 day of May, 1912.

AUGUSTUS ALBERT WEST.
WILLIAM H. GATCHELL.

Witnesses:

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