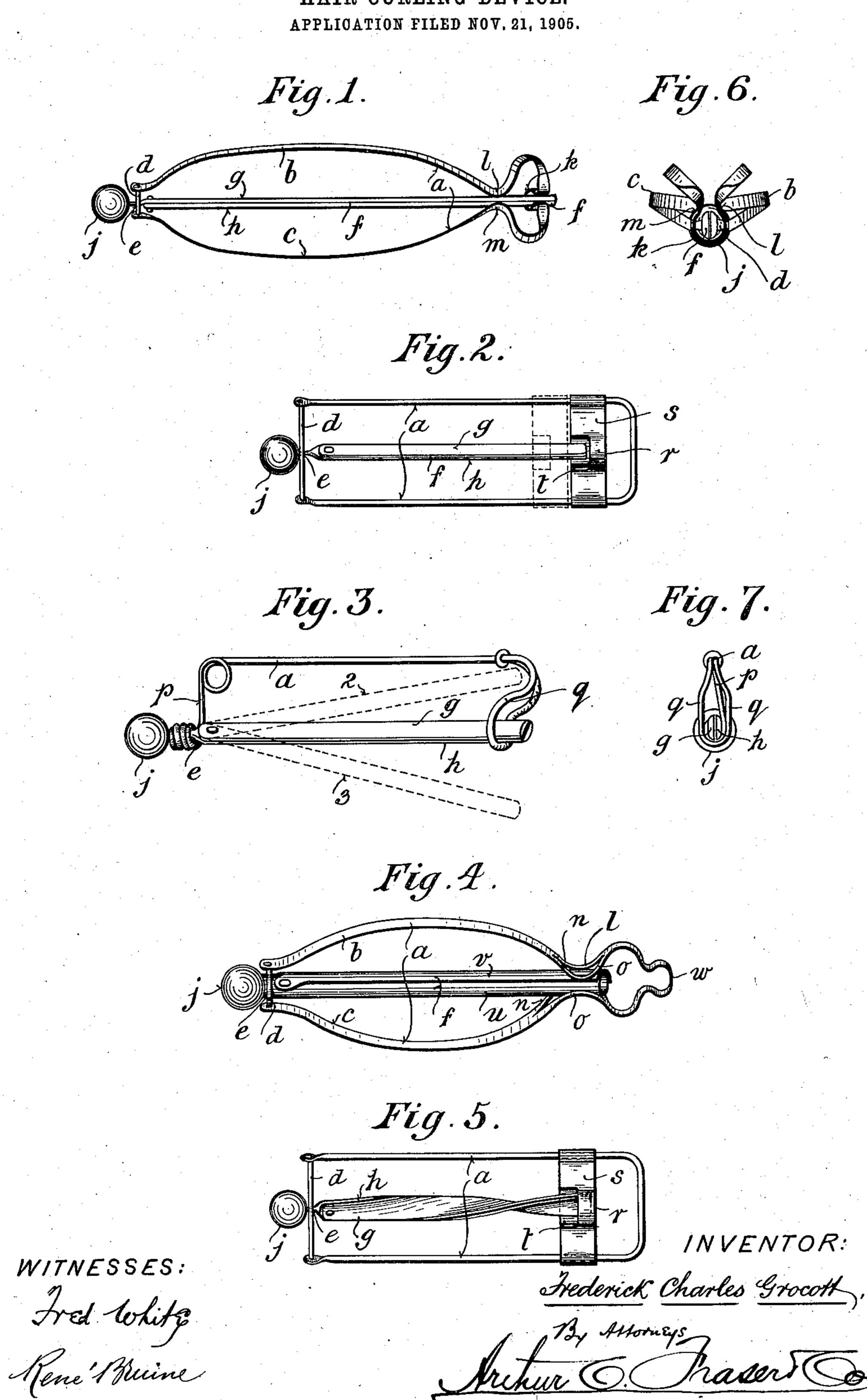
## F. C. GROCOTT. HAIR CURLING DEVICE. APPLICATION FILED NOV. 21, 1905



## UNITED STATES PATENT OFFICE.

FREDERICK CHARLES GROCOTT, OF WALTHAMSTOW, ENGLAND.

## HAIR-CURLING DEVICE.

No. 854,884.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed November 21, 1905. Serial No. 288,393.

To all whom it may concern:

Be it known that I, Frederick Charles GROCOTT, of Myriam Villa, 4, Queen's road, Hoe street, Walthamstow, Essex, England, 5 gas engineer, have invented certain new and useful Improvements in or Relating to Hair-Curling Devices, of which the following is a specification.

This invention relates to hair curling de-10 vices and has for its object to provide an

improved construction thereof.

According to this invention I employ a member having means adapted to clamp the hair and also adapted to be rotated in re-15 gard to or within another member or frame so that by rotation of such clamping member the hair will be rolled or curled thereon.

The accompanying drawings illustrate several forms of my invention, Figures 1, 2, 3, 20 4 and 5 being plan views partly in perspective, Fig. 6 is an end view of Fig. 1, and Fig.

7 is an end view of Fig. 3.

In the forms of the invention shown in 25 suitable length is employed having two side members b, c and an end member d pivoted to the side members b c and formed at its center with a hole e adapted to receive the reduced end of a bar f which is prefer-30 ably formed in two parts gh pivoted together just within the end member d of the frame. The end of the bar f at the outer side of the end member is formed into or fitted with a knob j by which the bar f together with its 35 divided portions g h can be rotated in the hole e. The ends of the member f g h opposite the knob j are adapted to be fastened to the adjacent end of the frame a and this can be accomplished in any suitable man-40 ner. The drawings show four means of accomplishing this fastening.

In Fig. 1 the free end of the bars g h are received in a contracted portion of the frame a which is also extended beyond the 45 contraction and bent at right angles into a loop in which the ends of the split bar g h rest and are secured by the resiliency of the metal from which the frame is made which allows of the bar f g h being sprung into and 50 out of position in the loop k past the con-

tracted portions lm, Figs. 1 and 6.

Fig. 4 shows a similar construction to Fig. 1 wherein instead of a loop such as  $k \mid$ the contracted portion l of the frame a is 55 split as indicated at Fig. 4 so that the two parts no of the divided frame embrace or grip

the ends of the rods uv. This construction provides a contracted portion at each side of the frame while holding the bars in central position and allowing of insertion or with- 60 drawal from either side of the frame instead of it being only possible to insert the bars g h from one side as in Figs. 1 and 6.

In Fig. 4 the frame is suitably extended as at w to insure resiliency for the con- 65

tracted portion l.

In Fig. 3 the frame a is shown as in the form of a safety pin the dividing member g h being sprung into position in a loop q in a similar manner to the well known safety 70 pin except that the divided member f g his rotatively mounted in a resilient end extension p of the frame a which resilient portion is coiled sufficiently around the part fto prevent its lateral movement otherwise 75 than under the resiliency of said member p and the frame a, thus when the rotary divided member f g h is in the position indicated by solid lines in Fig. 3 it will be re-Figs. 1, 2, 4 and 5 an elongated frame a of | tained in the loop q by the resiliency men- 80 tioned and will when released by movement in the direction indicated by the dotted line 2 naturally assume a position 3 indicated by the dotted lines.

It would be obvious that a similar con- 85 struction to that shown in Fig. 3 may be employed by forming a loop such as q with a contracted entrance similar to Fig. 1 or 4 in which case the member f g h may be quite free pivotally and not subject to the restraint 90

of the resilient mounting w.

In Fig. 2 another form is shown wherein the mounting of the member fgh is as before described while the ends of the divided parts are received in a socket r in a cross bar s 95 formed to slide upon the frame a which in this case is made with parallel sides. The cross bar is shown as made of sufficient width to allow of one side of the socket being extended as at t to form a loop in which the bars 100 g h may be placed before sliding the cross bar s to the dotted position shown in Fig. 2 where the ends of the bars gh will be covered by the slide socket r and all lateral movement prevented. The sliding movement of the cross 105 bar s will preferably be made as stiff as possible to prevent accidental displacement thereof. A similar construction is shown in Fig. 5.

The divided portions g h of the bar f may be plain flat portions as in Figs. 1, 6, 2, 3 and 110 7 or the bars of similar section may be twisted as in Fig. 5 or fluted, waved or corrugated

or the bars may be comprised by a round member covered by corresponding curved concentric members as indicated respectively at u and v in Fig. 4. Any other type of bar which is capable of initially engaging the hair so that it may be rolled thereon may be employed, such bars being included in the

term "divided bar" as used herein.

Referring now to the use of the device, this is the same with all the modifications shown. The divided bars fgh are first detached, and the hair to be curled is clamped therein, and the ends of the bar fgh are again fastened in the retaining loop k or equivalent portion.

The knob j is now rotated while the frame a is held and the hair is wound upon the bar fgh and when wound sufficiently the parts are left in the same position until it is required to unwind the hair which is simply accomplished by winding the knob j and bars f in a reverse direction and then unfastening same.

It will be seen that the tightness of the winding may be regulated to a nicety as the winding can be stopped as soon as the frame is as close to the head as desired, and moreover the whole operation can be accomplished much more easily and satisfactorily than when the frame and divided bar as a whole is rotated as has hitherto been the case and in which devices the bar was clamped

after winding.

What I claim as my invention and desire

to secure by Letters Patent is:-

1. A hair curling device comprising a frame-like part, a divided bar adapted to receive and clamp the hair between its members, and having one end permanently connected to said frame and capable of axial rotation therein, means for receiving and securing the free end of said divided bar in said frame-like part while permitting independent axial rotation thereof, and a handle fixed to said divided bar and extending beyond said frame-like part, said part and said bar having a sufficient space between them to permit the hair to be rolled or wound upon said bar by rotating said handle when both ends of said bar are connected to said part.

2. A hair curling device comprising a frame-like part, a divided bar adapted to receive and clamp the hair between its members and having one end permanently connected to said frame and capable of axial ro-

tation therein, and having a handle fixed at such end, and means for receiving and securing the free end of said divided bar in said frame-like part while permitting independent axial rotation thereof, the divided bar being capable of pivoting as a whole about its point of permanent connection when its free ends 60 are released from the frame part, said part and said bar having a sufficient space between them to permit the hair to be rolled or wound upon said bar by rotating said handle when both ends of said bar are connected to 65 said part.

3. A hair curling device comprising a frame-like part, a divided bar adapted to receive and clamp the hair between its members and having one end permanently connected to said frame and capable of axial rotation therein and a sliding member on the frame adapted to engage and secure the free end of said divided bar while permitting in-

dependent axial rotation thereof.

4. In a hair curling device, a bar and a frame within which said bar is mounted to rotate, said frame having means at each end of said bar for preventing the hair from slipping therefrom, and said bar having a handle so fixed thereto for rotating it, said frame and said bar having a sufficient space between them to permit the hair to be rolled or wound upon said bar by rotating said handle when both ends of said bar are connected to said 85 frame.

5. In a hair curling device, a frame-like part, and a bar capable of rotation relatively to said part, said bar having a pivotal connection with said part whereby it may swing 90 relatively thereto, and a handle fixed thereto and extending outwardly of such connection, whereby the bar may be rotated, said part and said bar having a sufficient space between them to permit the hair to be rolled or 95 wound upon said bar by rotating said handle when both ends of said bar are connected to said part.

In witness whereof, I have hereunto signed my name in the presence of two subscribing 100

witnesses.

FREDERICK CHARLES GROCOTT.

Witnesses:

FREDK. L. RANDS,
ROBERT M. SPEARPOINT.