March 16, 1937. N. L. SOLOMON 2,073,815

HAIR WINDER

Filed Nov. 11, 1935 2 Sheets-Sheet 1

Fig. 1.

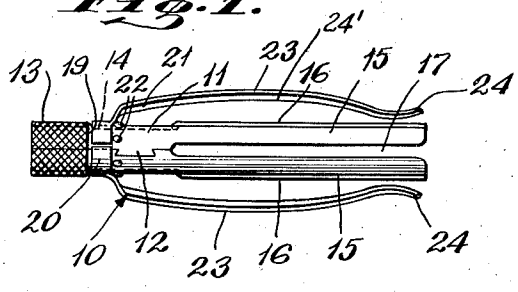


Fig. 2.

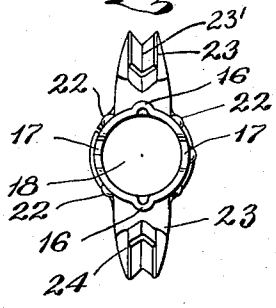


Fig. 3.

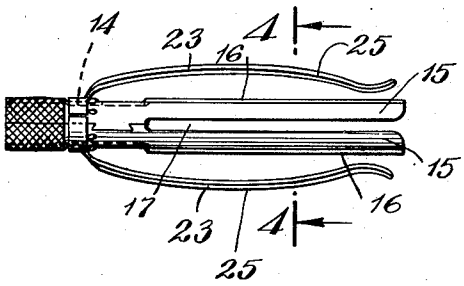


Fig. 4. Fig. 5.

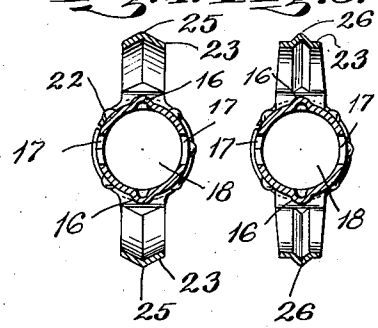


Fig. 6.

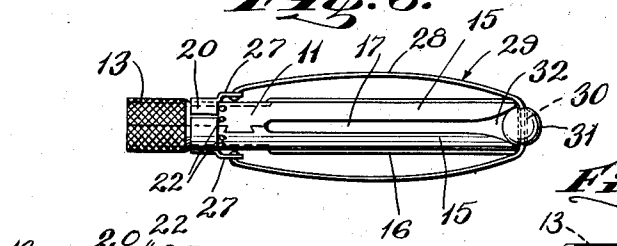
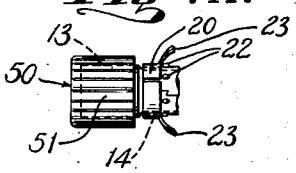


Fig. 7A.



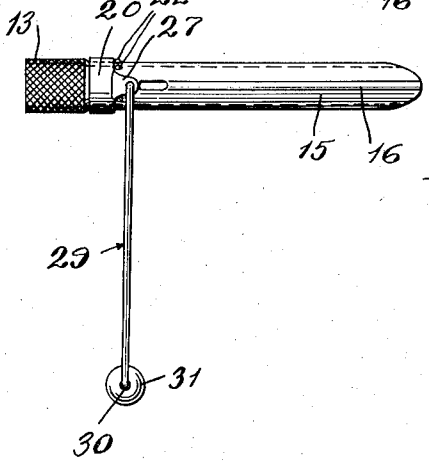


Fig. 7.

N. L. Solomon
INVENTOR

BY

Palmer
ATTORNEY

March 16, 1937. N. L. SOLOMON 2,073,815

HAIR WINDER

Filed Nov. 11, 1935 2 Sheets-Sheet 2

Fig. 8.

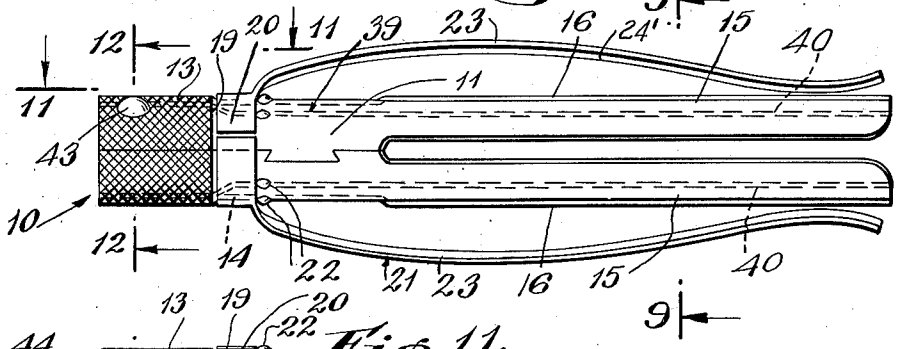


Fig. 11.

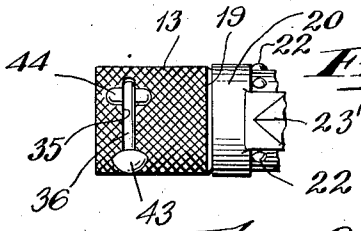


Fig. 10.

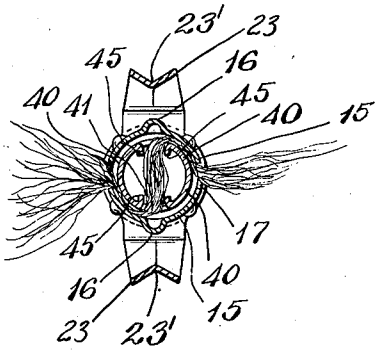


Fig. 9.

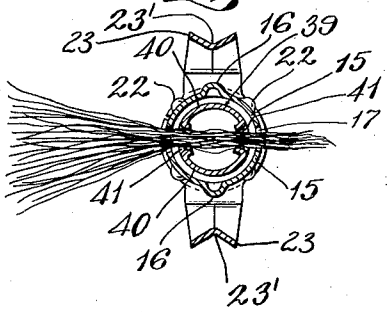


Fig. 13.

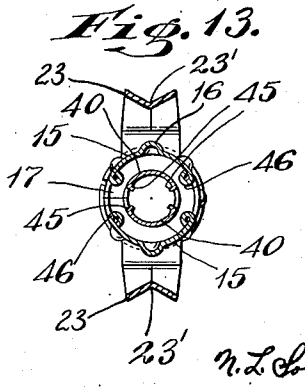
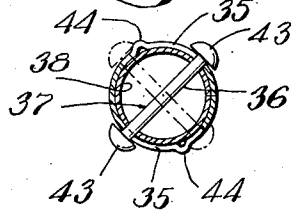


Fig. 12.



N. L. Solomon
INVENTOR

BY

ATTORNEY

Patented Mar. 16, 1937 2,073,815

UNITED STATES PATENT OFFICE

2,073,815

HAIR WINDER

Nathan L. Solomon, Brooklyn, N. Y.

Application November 11, 1935, Serial No. 49,181

22 Claims. (Cl. 132—33)

The subject matter of this invention is a hair curler of the type having means for winding the hair longitudinally thereof.

Specifically, however, the invention has as an object the provision of a hair curler comprising a forked tubular body defining spaced tines between which a portion of the hair to be wound is initially twisted or gripped and including rotatable means comprising a one piece expandible and contractible annular collar having opposed resilient and elongated arms constituting means for compactly confining the hair longitudinally of and during rotation of the body relative to the annular collar.

More particularly, the invention has as a further object the provision of a simplified and conveniently manipulatable hair curler having a forked body and rotatably disposed hair confining member comprising an expandible and contractible collar having longitudinally disposed resilient and reinforced arms adapted on rotation of the body relative to the collar to closely hold the hair wound about and against the body of the curler.

The invention has as a further object the provision of an improved curler comprising a forked body characterized by an annular shoulder and spaced detents constituting means cooperating with a resilient collar of a hair distributor member to prevent longitudinal displacement of the body during rotation thereof relative to the distributor member.

The invention contemplates as a further object the provision of a novel hair curler comprising a hair distributor rotatably sustaining a cylindrical forked shaped member and embodying hinged loop means adapted to swingably straddle the forked shaped member, the loop means comprising spheroidal stay means disconnectably associated with the spaced tines of the forked shaped member.

The invention comprehends as a further object the provision of a hair curling device comprising telescopically associated forked shaped members adapted on relative rotation thereof in one direction to permit the insertion of a portion of the hair into the curling device and adapted upon reverse or counter relative rotation to clamp or twist the inserted portion to prevent removal of the latter from the curling device.

The invention further contemplates as an object the provision of a hair curling device having telescopically associated forked shaped members each comprising juxtapositioned and spaced tines, the tines of the forked shaped members adapted to be disposed in alinement to permit a portion of the hair to be inserted into the body of the curling device and adapted to be arranged upon relative rotation thereof in a counter direction to grip the inserted portion of the hair, and locking means to preclude relative rotation of the superimposed forked shaped members when set to grip the inserted hair.

The invention has as a further object the provision of a hair curler comprising rotatably and telescopically associated lockable forked shaped members adapted to removably receive and clamp a portion of the hair to be processed or wound about the body of the curler and hair distributing means rotatably supported by the body of the latter embodying a resilient split collar having spaced and longitudinally disposed resilient arms serving as means for closely distributing the hair about and longitudinally of the body of the curler during rotation of the body relative to the distributing means.

For a clearer understanding of the invention attention is directed to the preferred embodiments shown in the accompanying drawings in which:—

Fig. 1 is a plan view of a hair curling device according to my invention.

Fig. 2 is a side view of Fig. 1 on a larger scale.

Fig. 3 is a view similar to Fig. 1 but illustrating a slightly modified form.

Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

Fig. 5 is a view similar to Fig. 4 showing a slightly modified form.

Fig. 6 is a plan view of another form of curler according to my invention and wherein the hinged loop is disconnectably locked to the body of the curler.

Fig. 7 is a view of the curler shown in Fig. 6 but illustrating the loop disengaged from the body.

Fig. 7A is a fragmentary view of a curler according to the invention but having a rubber jacket or casing applied to its head to facilitate manipulation thereof.

Fig. 8 is a plan view of another form according to the invention.

Fig. 9 is a section taken on the line 9—9 of Fig. 8 illustrating the telescopically associated forked members arranged to permit the insertion of the hair therein.

Fig. 10 is a view similar to Fig. 9, showing the telescopically associated forked member disposed to clamp or twist the hair inserted into the body of the curler.

Fig. 11 is a fragmentary view of Fig. 8 showing

the inner forked member in a non-locked relation in respect to the outer forked member.

Fig. 12 is a section on the line 12—12 of Fig. 8 and

Fig. 13 is a sectional view of another form of the invention.

In the form according to Figs. 1 and 2, the curler 10 comprises a forked one piece tubular body 11 formed from sheet metal and having its adjacent ends appropriately interconnected by a dove tail joint 12. The hollow body 11 comprises an enlarged hollow head 13 from which annular portion 14 extends. Spaced and substantially semi circular tines or legs 15 project from annular portion 14 and each of the tines is provided with a longitudinally disposed stiffening and reinforcing rib 16, the spaced tines 15 constitute a fork or bifurcation defining diametrically spaced and longitudinal slots or gaps 17 in communication with the bore 18 of the cylindrical body 11.

The annular portion 14 together with hollow head 13 form an annular stop shoulder 19 adapted to prevent longitudinal displacement of the split expandible and contractible collar or ring 20 of a hair confining or distributing member generally denoted 21 rotatably mounted on the neck portion 14. To prevent longitudinal displacement or slippage of the hair confining member 21 in a direction away from head 13, the body of the curler includes a plurality of spaced and annularly arranged projections or outwardly struck detents 22. It follows therefore that collar 20 is rotatably retained on the annular portion 14 and between shoulder 19 and the spaced detents 22.

Integral with collar 20 are the spaced arcuately or bow shaped and diametrically disposed relatively wide resilient arms 23 having their free outwardly curved diverging lips or terminals 24 close to but spaced from the spaced tines 15 of the tubular body 11, the arms 23 each being longitudinally grooved at 23' to provide an inwardly facing stiffening bead or rib 24' cooperating to compress the hair during or after winding thereof to bodily hold the curler on the hair and even close to the scalp.

In operation, the hair to be wound about the body 11 has a terminal portion thereof first inserted within the tube to be disposed across the alined slots 17 after which head 13 is grasped by the fingers of the operator and rotated, thus causing the tube 11 to bodily rotate relative to collar 20. As the tube 11 rotates, the hair is coiled about the outer surface thereof and lengthwise thereto, the resilient arms serving to guide the distribution or winding of the hair longitudinally of the tube and further resiliently cooperate to compactly or closely confine the hair longitudinally wound about the tube against the outer surface of the latter.

According to the form illustrated in Figs. 3 and 4, the curler therein is identical in construction to the form shown in Figs. 1 and 2 except that each of the resilient spaced arms 23 has been longitudinally creased to define a relatively wide outwardly facing stiffening rib 25 while in the form according to Fig. 5 each of the arms 23 includes a relatively hollow bead 26 facing outwardly.

With the forms illustrated in Figs. 6 and 7, the hair distributor consists of a rotatable split collar 20 of the type illustrated in the earlier views but provided with diametrically spaced offset lugs 27 to which are hinged the spaced sides 28 of a swingable loop 29 having an intermediate portion 30 rotatably carrying a spheroidal stay 31 which may be of rubber or metal.

In Fig. 6 loop 29 is shown locked, to wit, stay 31 is engaged with the sides of the flared mouth 32 defined by the terminals of the hollow semi cylindrical spaced tines 15. To wind the hair longitudinally of the body of the fork constituted by the spaced tines, the hair is first placed in the alined slots 17 as in the case of the form according to Fig. 1, the loop is swung to a closed position, stay 31 is yieldingly snapped into mouth 32 and head 13 is rotated relative to the split collar 20. Hence the hair is wound about the body 11 and longitudinally thereof, the spaced arcuate arms 28 serving to distribute the hair longitudinally of the tube 11.

Coming now to the form illustrated in Figs. 8–12 inclusive in which the knurled hollow head 13 includes diametrically disposed slots 35 adapted to slidably and rotatably guide shank 36 of rivet 37 bodily carried by hollow head 38 of an inner telescopically associated hair gripping device or tube 39 including curved and spaced hollow tines 40 defining a fork having longitudinally disposed slots or gaps 41 adapted to register or line up with corresponding slots 17 of the outside fork defined by the spaced tines 15.

For preparing the hair to be wound about the curler, the inner fork is rotated relative to the outside fork to permit corresponding elongated slots 17 and 41 to be disposed in alinement. Subsequently a terminal portion of the hair to be processed is inserted within the alined gaps and thereafter the inner tube 39 of which the spaced inner tines 40 are a part, is rotated in a counter direction permitting the terminal heads 43 of rivet 37 to ride or snap over detents or hollow projection 44 struck out of head 13 of the outer fork. Projections 44 serves as means cooperating with the heads of the rivet to prevent relative and accidental or partial rotation of the telescopically associated forks 11 and 39 after the inner fork has been rotated to grip the hair (see Fig. 10) preparatory to winding the hair about and longitudinally along the outer fork.

Where the inner fork has been first rotated to hold or anchor the hair, the operator now grasps and rotates the knurled outer head 13 relative to collar 19 and the resilient hair distributing arms 23 straddling the outside fork, and since both of the forks are locked both of the forks bodily rotate together and relative to the hair distributor 21.

In the form according to Figs. 10 and 13 each of the spaced inner tines 40 is provided with an inwardly turned longitudinal lip or flange 45 presenting an outside smooth and curved contour to prevent cutting of the hair inserted into the curler.

With the form according to Fig. 13 each of the tines or legs of the outside fork embody spaced longitudinal and inwardly curved beads 46 serving as complementary gripping means to anchor the hair inserted into the curler, the contour of the beads being such to prevent cutting of the hair.

In accordance with the several forms disclosed, collar 19 is shown split although the invention is not limited to this construction. For instance, the collar may be a continuous unbroken ring. For purposes of manufacture, however, the collar is split to permit ease of assembly. The hair distributing member is a one piece member although comprising a collar and spaced arms integrally formed from spring metal.

To mount the distributing member, the collar is slightly and manually spread apart as to clear either the enlarged head 13 or the detents 22 after which the pressure is removed and due to the resiliency of the collar the latter contracts and closely but rotatably surrounds its associated fork shaped member.

Where it is desired to unlock the forks from their position illustrated in Fig. 10 the inner fork is manually grasped at the rivet heads 43 and rotated relative to the outer fork, thus causing the shank or the rivet to ride over protuberances or detents 44 and upon further rotation corresponding slots of the forks may be placed in longitudinal alinement (Fig. 9) preparatory to insertion of hair therein.

If desired the forks, according to the several embodiments may be made of relatively light metal such as spring sheet metal, aluminum or the like although the invention is not limited to any particular material or metal. Furthermore although each of the outer forks illustrated include stiffening ribs it is to be understood that the invention is not restricted to this structural expedient and if desired a rubber cylindrical pocket 50 (Fig. 7A) may be removably mounted on the enlarged head of the several curlers to facilitate gripping and turning of its fork relative to the companion collar, and to further facilitate finger gripping jacket 50 includes a plurality of spaced longitudinally disposed ribs 51.

Without further analysis, the foregoing disclosure will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting certain features, that from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspect of the invention and therefore such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims.

I claim:—

1. A hair curler comprising a forked tubular member, hair confining means rotatable relative to said member and comprising a collar having spaced arms longitudinally straddling and spaced from the forked portion of said member, said member, and spaced stop means cooperating with spaced portions of said collar to prevent longitudinal displacement of said arms in respect to said tubular member.

2. A hair curler comprising a forked member including a head, hair confining means comprising a collar rotatably mounted on said head and having spaced stiffened arms longitudinally straddling said member, and spaced annularly arranged stop means cooperating with said collar to prevent longitudinal displacement of said hair confining means relative to said head.

3. A hair curler comprising a forked member having an enlarged head constituting with the body of said member a shoulder, hair confining means comprising a split resilient collar rotatably mounted on said member adjacent said shoulder, and projecting means extending from said member, said shoulder and projecting means adapted to prevent longitudinal displacement of said confining means relative to said member.

4. A hair curler comprising a forked member having an enlarged head constituting with the body of said member a shoulder, hair confining means comprising a split resilient collar rotatably mounted on said member adjacent said head, spaced arms integrally extending from said collar and longitudinally disposed relative to the body of said member, and a plurality of projections extending from said member and cooperating with said shoulder to prevent longitudinal displacement of said hair confining means.

5. A hair curler comprising a cylindrical forked member having an enlarged knurled head constituting with the body of said member an annular shoulder, hair confining means comprising a one piece element having a split resilient collar rotatably mounted on said member adjacent said head and spaced arcuate and resilient arms integrally extending from said collar and longitudinally straddling the body of said member, and a plurality of struck out detents extending from said member and cooperating with said collar to prevent longitudinal displacement of said hair confining means.

6. A hair curler comprising a cylindrical forked member having an enlarged knurled head constituting with the body of said member an annular shoulder, hair confining means comprising a one piece element having a split resilient collar rotatably mounted on said member adjacent said head and including means integrally extending from said collar and longitudinally of the body of said member, and a plurality of struck out detents extending from the said member and cooperating with said collar to prevent longitudinal displacement of said confining means.

7. A hair curler comprising a tubular forked member having a head comprising a stop shoulder, a collar rotatably mounted on said member adjacent said shoulder, a loop swingably connected to said collar, stay means mounted on said loop and disconnectably associated with one end of said forked member, and means projecting from said member and cooperating with said collar to prevent longitudinal displacement of the latter relative to said member.

8. A hair curler comprising a tubular forked member having an enlarged head defining with the body of said member a stop shoulder, an expandible and contractible split collar rotatably mounted on said member adjacent said shoulder, a loop hingedly connected to said collar, resilient stay means mounted on said loop, and means projecting from said body and cooperating with said collar to prevent longitudinal displacement of the latter relative to said member.

9. A hair curler comprising a tubular member provided with an enlarged head and spaced tines, said head and member defining a stop shoulder, said tines constituting longitudinally disposed gaps to receive a portion of the hair to be wound about said member, hair confining means rotatable relative to said member and comprising a split expandible and contractible collar and a swingable loop having a closed end and spaced sides including terminals hingedly connected to said collar, projections carried by said member to prevent longitudinal displacement of said collar and loop relative to said member, said collar and loop being bodily rotatable relative to said member, and a resilient stay mounted on a closed end of said loop and adapted to be disconnectably received by said spaced tines.

10. A hair curler having rotatable associated inner and outer forked members each including spaced tines defining longitudinally disposed gaps adapted when in registration to receive a portion of hair to be wound about said outer member, said tines upon relative rotation of said members

cooperating to grip said portion, means for locking said members to permit bodily rotation thereof, and means rotatably retained on said outside member and adapted upon bodily rotation of said members to closely confine the hair wound about and against said outer member.

11. A hair curler having rotatable associated inner and outer forked members each including spaced tines defining longitudinally disposed spaced gaps adapted when in registration to receive a portion of hair to be wound about said outer member, said tines upon relative rotation of said members cooperating to grip said portion, means for disconnectably locking said members to permit bodily displacement thereof, a collar rotatably mounted on said outer member and including spaced resilient arms, said arms upon bodily rotation of said members cooperating to retain said hair about and against said outer member, and means to prevent longitudinal displacement of said arms relative to said members.

12. A hair curler having rotatable associated inner and outer forked members each including spaced tines defining longitudinally disposed spaced gaps adapted when in registration to receive a portion of hair to be wound about said outer member, said tines upon relative rotation of said members cooperating to grip said portions, means for disconnectably locking said members to permit bodily displacement thereof, and a split and resilient collar rotatably mounted on said outer member and including arcuate resilient arms longitudinally spaced from the outer member, said arms upon bodily rotation of said members cooperating to closely confine the hair wound about said outer member, the latter having a stop shoulder and spaced detents cooperating to prevent longitudinal displacement of said collar and arms relative to said members.

13. A hair curler comprising an inner tubular fork having a head carrying a rivet including portions overhanging said head, an outer fork rotatably mounted on said inner fork and movably guided by said overhanging portions, said overhanging portions each including an enlargement, said outer member having detents, said enlargements and detents cooperating to prevent accidental relative rotation of said members and resilient hair confining means rotatably mounted on said outer member.

14. A hair curler comprising an inner tubular fork having a head carrying a rivet including portions overhanging said head, an outer fork rotatably mounted on said inner fork and movably guided by said overhanging portions, said overhanging portions each including an enlargement, said outer member having detents cooperating with said enlargement to prevent accidental relative rotation of said members and a collar rotatably retained on said outer member and including spaced resilient arms longitudinally straddling said outer member.

15. A hair curler comprising an inner tubular fork having a head carrying a rivet including portions overhanging said head, an outer fork rotatably mounted on said inner fork and movably guided by said overhanging portions, said overhanging portions each including an enlargement, said outer member having detents, said enlargements and detents cooperating to prevent accidental relative rotation of said members, a contractible and expandible split collar rotatably mounted on said outer member and including spaced resilient arms longitudinally straddling said outer member, said outer member having stop means to prevent longitudinal displacement of said collar and said arms.

16. A hair curler comprising an inner tubular fork having a head carrying a rivet including portions overhanging said head, an outer fork rotatably mounted on said inner fork and movably guided by said overhanging portions, said overhanging portions each including an enlargement, said outer member having detents, said enlargements and detents cooperating to prevent accidental relative rotation of said members, a contractible and expandible split collar rotatably mounted on said outer member and including spaced resilient reinforced and arcuate arms longitudinally straddling said outer member, said outer member having stop means to prevent longitudinal displacement of said collar and said arms.

17. A hair curler comprising a forked shaped member having spaced tines and a head, hair confining means rotatably retained on said member, means to prevent longitudinal displacement of said confining means relative to said head, and a resilient jacket carried by the latter to facilitate rotating said member relative to said confining means.

18. A hair curler comprising a forked tubular member having a finger gripping portion including spaced struck out means defining longitudinally spaced shoulders, and hair confining means comprising a collar rotatably mounted on said member and between said struck out means and including spaced resilient arms integral with said collar and extending longitudinally of said tube.

19. A hair curler comprising a one piece tubular member having spaced tines defining a longitudinal gap adapted to receive a portion of the hair to be wound about said member, spaced stop means overhanging the body of said member and integral therewith, a collar rotatably mounted on said body between said stop means, and spaced arcuate arms integral with said collar and extending longitudinally of said tines and spaced therefrom.

20. A hair curler comprising a collar having spaced arms, a body rotatably carried by said collar, and stop means carried by said body and cooperating with the sides of said collar to prevent rectilinear displacement of said arms longitudinally of said body.

21. A hair curler comprising a collar, spaced arms integral with said collar, a tube rotatably supported by said collar, said tube having stop means cooperating with said collar to prevent longitudinal displacement of said tube relative to said arms, said tube having a longitudinally disposed gap adapted to receive terminal portions of hair, said tube upon rotation thereof relative to said collar adapted to wind said hair about said tube, said arms adapted to hold said hair wound about said tube thereagainst.

22. A hair curler comprising a collar, spaced resilient and reinforced arcuate arms integral with said collar, a one piece tube rotatably supported by said collar, said tube having spaced stop means cooperating with said collar to prevent longitudinal displacement of said tube relative to said arms, said tube having a longitudinally disposed gap for receiving terminal portions of hair, said tube upon rotation thereof relative to said collar adapted to wind said hair longitudinally of said tube, said arms gripping and supporting said hair wound about said tube thereagainst.

NATHAN L. SOLOMON.