July 30, 1957 R. SEYFFARTH 2,800,910

HAIR-CURLING DEVICE

Filed July 20, 1955 2 Sheets-Sheet 1

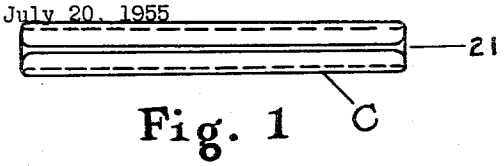


Fig. 1

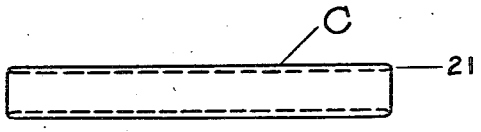


Fig. 2

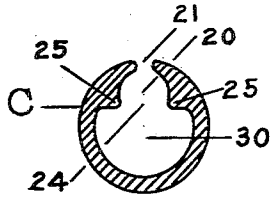


Fig. 3

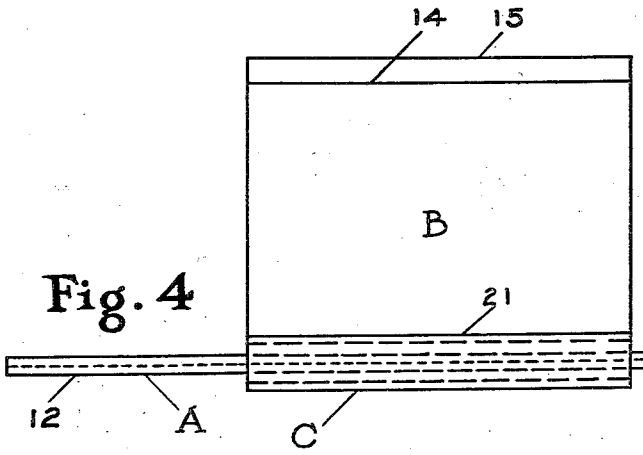


Fig. 4

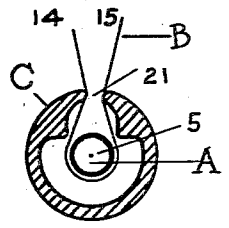


Fig. 6

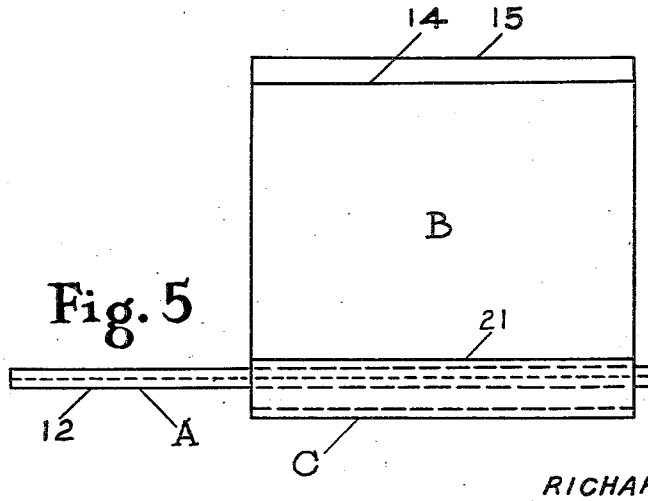


Fig. 5

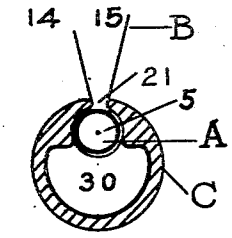


Fig. 7

RICHARD SEYFFARTH
INVENTOR

BY Henry J. Hornidge
ATTORNEY

July 30, 1957 R. SEYFFARTH 2,800,910

HAIR-CURLING DEVICE

Filed July 20, 1955 2 Sheets-Sheet 2

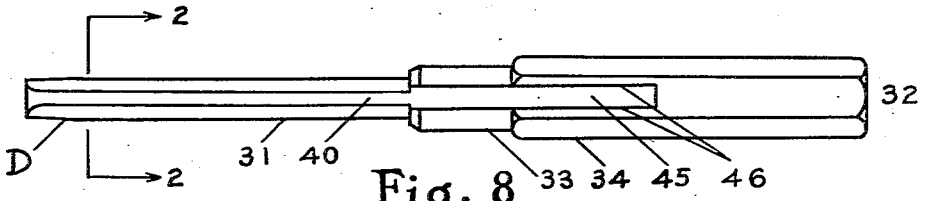


Fig. 8

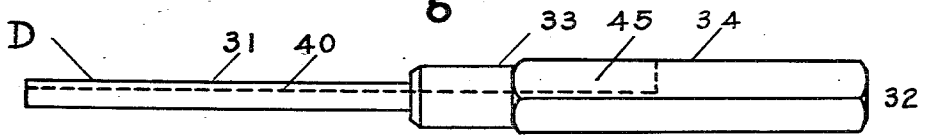


Fig. 9

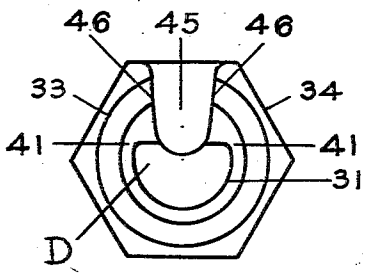


Fig. 10

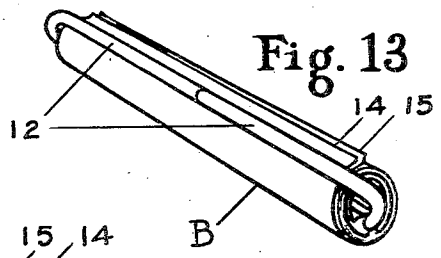


Fig. 13

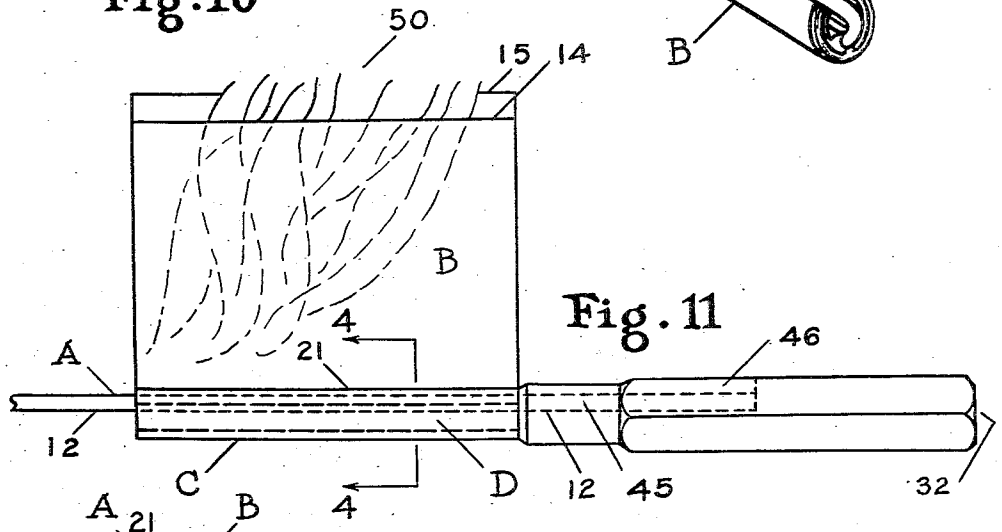


Fig. 11

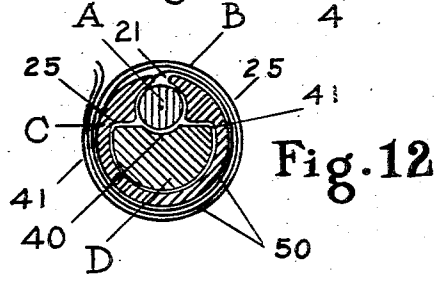


Fig. 12

RICHARD SEYFFARTH
INVENTOR

BY Hlleyl. Horridge
ATTORNEY

United States Patent Office 2,800,910 Patented July 30, 1957

2,800,910

HAIR-CURLING DEVICE

Richard Seyffarth, Bedford Village, N. Y.

Application July 20, 1955, Serial No. 523,312

8 Claims. (Cl. 132—31)

My invention relates to a hair-curling device of the type shown in my U. S. Letters Patent No. 2,652,063, dated September 15, 1953.

My device comprises a flexible rod and a wrapper folded about it forming two flaps, a tube within which the flexible rod is seated, the flaps extending outwardly through a slot in the tube, the tube also seating a key the rotation of which causes the tube to rotate, thus winding the tress of hair between the flaps around the tube, on completion of which the wrapping is partially secured to the tube by bending back the outer projecting end of the flexible rod, the key is withdrawn, and the other end of the projecting rod is bent back against the tube which remains within the wrapping until the curl has set.

The device disclosed herein has several important advantages over my said prior device, including the following:

Its use uniformly produces tight and neat curls;

It permits a full set of the tubes, one for each curl to be formed, to be assembled in advance of the curling operation, with the flexible rod properly mounted therein, with the wrapper extending through the slot of the tube, and the flexible rod adjusted in its seat to a snug fit against the slot, eliminating any further adjustment of the rod or the wrapper, thereby greatly facilitating the task of forming the curls.

The cost of its manufacture is materially less than that of my said prior device.

It is an object of my invention to provide a hair-curling device which insures the uniform production of well formed, tight and neat curls.

It is a further object of my invention to provide such a hair-curling device which will enable the pre-assembly of the tubes about which the curls will be formed and the flexible rods and wrappers used therewith.

It is a further object of my invention to provide such a hair-curling device which is more economical in cost.

In the drawings:

Fig. 1 is a plan view of the tube.

Fig. 2 is a front elevation of the tube.

Fig. 3 is an enlarged cross-section of the tube.

Fig. 4 is a front elevation of the tube, flexible rod and wrapper, loosely assembled.

Fig. 5 is a front elevation of the members shown in Fig. 4, snugly assembled.

Fig. 6 is a cross-section of the assembly as shown in Fig. 4.

Fig. 7 is a cross-section of the assembly as shown in Fig. 5.

Fig. 8 is a plan view of the key.

Fig. 9 is a front elevation of the key.

Fig. 10 is a cross-section through the key taken at line 2—2 of Fig. 8.

Fig. 11 is a front elevation of the assembly of the

wrapper, tress of hair between its flaps, flexible rod, tube and key, in position ready for wrapping.

Fig. 12 is a cross-section taken at line 4—4 of Fig. 11, of the flexible rod, wrapper, tress of hair between its flaps, tube and key, after completion of the wrapping, the tress of hair 50 being indicated by the spacing of the flaps.

Fig. 13 is a perspective view of the tube, flexible rod, wrapper and tress of hair, on completion of the wrapping, the ends of the flexible rod being bent back, securing the wrapping to the tube, the key having been withdrawn.

Referring to the drawings:

A is a flexible rod. A flexible plastic tube having a flexible wire center 5, is suitable. A wrapper B comprising a strip of thin paper or other suitable flexible material to absorb the liquid applied to the hair in order to maintain the form of the curls, is folded about rod A, forming two opposed flaps 14, 15, one of which is preferably longer than the other for ease in separating them. C is a tube of circular or other suitable cross-section, made of a resilient plastic or other suitable material. A seat 20 for rod A extends through tube C and a seat 30 for key D extends through tube C.

Slot 21 extending lengthwise of tube C is cut through the outer wall of seat 20 normal to the axis of seat 20 to accommodate flaps 14, 15 of wrapper B when rod A and wrapper B folded about it are inserted in tube C.

Seat 20 is arcuate in cross-section, forming slightly more than a semi-circle, having a diameter approximately equal to the diameter of rod A, providing a sliding fit therewith. The entrance 24 of seat 20 is slightly less than its diameter for the purpose later explained. Seat 20 has shoulders 25, with slightly rounded corners.

Key D comprises a shank 31 and a handle 32. Shank 31 is a rod, incompletely circular in cross-section, as shown in the drawings, but may be of other suitable cross-section. Key D may be made of plastic or other suitable material, with shank 31 and handle 32 formed integrally or detachably.

An arcuate groove 40 extends lengthwise of shank 31 having shoulders 41 which are opposed to shoulders 25 of seat 20 and engage therewith when key D is rotated, shoulders 41 and 25 preventing relative rotation of shank 31 and tube C.

Rod A with its folded wrapper B is initially inserted in seat 30 before key D is inserted therein, flaps 14, 15 extending through slot 21, as shown in Fig. 4. After rod A is so inserted, an upward pull on flaps 14, 15 will snap rod A into seat 20, due to the resilience of tube C, wherein it will be held snugly, as shown in Fig. 5.

Groove 40 in shank 31 enables shank 31 to clear the portion of rod A which protrudes from seat 20, when shank 31 is inserted in seat 30.

Handle 32, as shown, has a cylindrical portion 33 and hexagonal portion 34. Slot 45 extends through handle 32.

Rod A is longer than the width of wrapper B, its ends 12 protruding from the fold of wrapper B about it, the outer end protruding from tube C and the inner end entering slot 45 of handle 32.

Sides 46 of slot 45 diverge upwardly towards and to the top of handle 32, slot 45 extending longitudinally for the length of projecting end 12 of rod A.

Slot 45 of handle 32 provides space for a distortion of rod A, resulting from its prior bending in use of the device.

The use of the hair-curling device disclosed herein is simple.

As a preliminary step, the user assembles a set of tubes

C, one for each curl, usually 32 in number, with rods A and their wrappers to be inserted therein. First, wrapper B is folded about rod A, making two flaps 14, 15, one longer than the other. Rod A with its said fold of wrapper B is then inserted in key seat 30 of tube C, flaps 14, 15 passing through slot 21. After this insertion, shown in Fig. 4, is completed, flaps 14, 15 are given an upward pull, which snaps rod A and its fold of wrapper B into close engagement with the sides of seat 20 and slot 21, where it is snugly held without need for any further adjustment, as shown in Fig. 5.

After tubes C, rods A and wrapper B have thus been assembled, shank 31 of key D is inserted in seat 30 of a tube C, flaps 14, 15 are separated, the tress of hair 50 selected for the curl to be formed is inserted between them which are manually held together while tube C is rotated by key D sufficiently to secure them to tube C, the rotation then continuing until the wraper and tress are completely wound around tube C without further manual holding. When the winding is completed, the outer projecting end of rod A is bent back, partially securing the wrapping to tube C, key D is withdrawn from tube C, the other end of rod A is bent back, fully securing the wrapping to tube C which is left in place within the curl.

This operation is continued successively with the tube assemblies until all curls have been formed. After the curls have been set, tube C, rod A and wrapper B are withdrawn from the curls, and are disassembled, the wrapper being discarded.

Modifications and changes of the embodiment shown may be made without departing from the invention.

I claim:

1. A hair-curling device comprising a flexible rod, a thin strip of moisture-absorbent material folded about said rod forming two opposed separable flaps, the ends of said rod projecting beyond the ends of said flaps, a key, a tube having a seat formed within its bore integrally with its inner wall receiving said rod and a slot formed through the wall of said tube longitudinally bisecting said seat receiving said flaps, said seat and slot extending from end to end of said tube, said seat having a concave surface substantially fitting the periphery of said rod and enclosing said rod to an extent in excess of one-half of said periphery when said rod is pulled into said seat by said wrapper, said tube having a second seat formed therein lengthwise thereof slidably receiving said key, said second seat constituting stop means within said tube co-acting with said key preventing relative rotation of said tube and key upon rotation of the latter.

2. A hair-curling device comprising a flexible rod, a strip of moisture-absorbent material folded about said rod forming two opposed separable flaps, a key, a tube of resilient material having a seat formed within its bore integrally with its inner wall receiving said rod, and a slot formed through the wall of said tube longitudinally bisecting said seat slidably receiving said flaps, said seat having a longitudinal mouth defined by the sides of said seat extending for its entire length opposite to said slot, said sides of said seat opening under pressure exerted upon said rod against them at said mouth and admitting said rod through said mouth to full occupancy of said seat, and closing about said rod when such entry is made, the ends of said rod projecting beyond the ends of said flaps and tube, said tube having a second seat formed within its bore slidably receiving said key, said second seat co-acting with a portion of the key to prevent relative rotation of said tube and key upon rotation of the latter.

3. A hair-curling device comprising a flexible rod, a strip of moisture-absorbent material folded about said rod forming two opposed separable flaps, a key comprising a shank and handle, a tube of resilient material having a seat formed within its bore integrally with its inner wall receiving said rod, and a slot formed through the wall of said tube longitudinally bisecting said seat, receiving said flaps, said seat and slot extending from end to end of said tube, said seat having a concave surface substantially fitting the periphery of said rod and enclosing said rod to an extent in excess of one-half of said periphery, said seat having a longitudinal mouth defined by the sides of said seat extending for the entire length of said seat opposite to said slot, said sides of said seat opening under pressure exerted upon said rod against them at said mouth and admitting said rod through said mouth to full occupancy of said seat, and closing about said rod when such entry is made, the ends of said rod projecting beyond the ends of said flaps and the ends of said tube, said shank extending into the bore of said tube for the entire length thereof, a side thereof opposing and spanning said mouth in proximity thereto, said side having a longitudinal slot formed therein for the entire length of said shank and continuing into said handle having a concave surface substantially fitting the periphery of said rod, the portion of said slot situated in the handle receiving the inner end of said rod projecting from said tube, and means within the bore of said tube co-acting with said shank preventing relative rotation of said tube and shank upon rotation of the latter.

4. A hair-curling device according to claim 3 in which said slot in said handle for its entire length is extended upwardly through the top of said handle.

5. A hair-curling device comprising a flexible rod, a strip of moisture-absorbent material folded about said rod forming two opposed separable flaps, a tube having a seat formed within its bore integrally with its inner wall, and a slot formed through the wall of said tube longitudinally bisecting said seat receiving said flaps, said seat and slot extending from end to end of said tube, the ends of said rod projecting beyond the ends of said flaps and tube, said seat having a concave surface substantially fitting the periphery of said rod and partially enclosing said rod, said seat having a longitudinal mouth extending for its entire length, open to said seat and the bore of said tube, a key extending into said bore from end to end thereof, having a side opposing and spanning said mouth in proximity thereto, said side having a longitudinal concave slot formed therein opposing said mouth, said slot having a surface substantially fitting the periphery of said rod, said seat and said slot in said key receiving said rod and together substantially completely enclosing it.

6. A hair-curling device according to claim 5, having a handle to said key, said handle having a longitudinal concave slot formed therein in continuation of said longitudinal concave slot in said key, said slot in said handle receiving the inner end of said rod projecting from said tube.

7. A hair-curling device comprising a flexible rod, a strip of misture-absorbent material folded about said rod forming two opposed separable flaps, a tube having a seat formed within its bore integrally with its inner wall, and a slot formed through the wall of said tube longitudinally bisecting said seat receiving said flaps, said seat and slot extending from end to end of said tube, the ends of said rod projecting beyond the ends of said flaps and tube, said seat having a concave surface substantially fitting the periphery of said rod and partially enclosing said rod, said seat having a longitudinal mouth extending for its entire length, open to said seat and the bore of said tube, a key in cross-section substantially fitting the bore of said tube extending into said bore from end to end thereof, having a side opposing and spanning said mouth, said side having a longitudinal concave slot formed therein opposing said mouth, the concave surface of said slot complementing the concave surface of said seat, said seat and said slot in said key enclosing said rod.

8. A hair-curling device according to claim 7, having a handle to said key, said handle having a longitudinal concave slot formed therein in continuation of said longitudinal concave slot in said key, said slot in said handle

receiving the inner end of said rod projecting from said tube.

References Cited in the file of this patent

UNITED STATES PATENTS

909,079	Goldner et al.	Jan. 5, 1909
1,084,776	Woodward	Jan. 20, 1914
1,631,991	Tabb	June 14, 1927
1,653,229	Scherer et al.	Dec. 20, 1927
1,956,661	Tansey	May 1, 1934
2,162,081	Hall	June 13, 1939
2,163,375	De la Garza	June 20, 1939
2,325,316	Haberman	July 27, 1943
2,456,645	Norin et al.	Dec. 21, 1948
2,601,428	Bonneau	June 24, 1952
2,652,063	Seyffarth	Sept. 15, 1953