Oct. 10, 1950 L. SPENCER 2,525,750

HAIR CURLER

Filed March 4, 1947

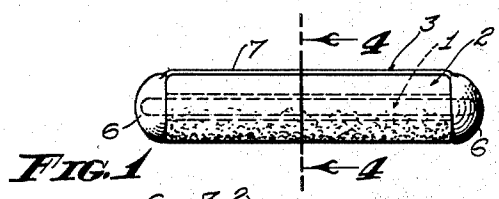


FIG. 1

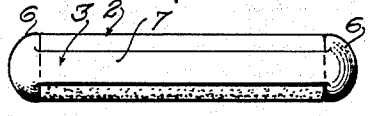


FIG. 2

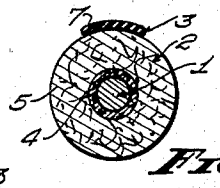


FIG. 4

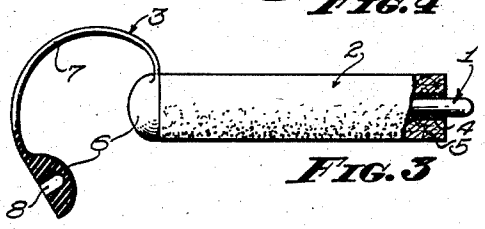


FIG. 3

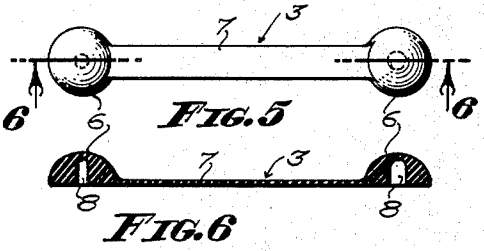


FIG. 5

FIG. 6

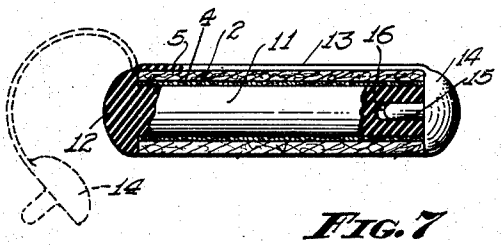


FIG. 7

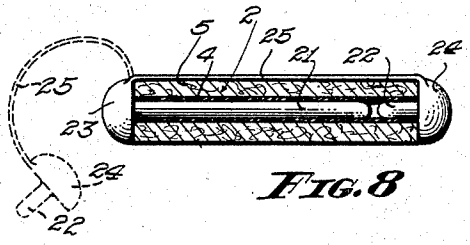


FIG. 8



FIG. 9

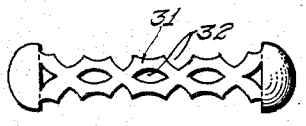


FIG. 10

INVENTOR

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HAIR CURLER

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Application March 4, 1947, Serial No. 732,303

11 Claims. (Cl. 132—42)

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My invention relates to hair curlers, and included in the objects of my invention are:

First, to provide a hair curler which may be worn with a minimum of discomfort in bed for the reason that the curler is in the form of a padded cylinder with rounded cushioned ends and avoids the use of exposed metal or rigid parts so that no sharp ends or folds contact the scalp irrespective of the position of the curler or by reason of pressure of external objects.

Second, to provide a hair curler which employs a replaceable cartridge around which the hair is wrapped and which may be formed of absorbent material impregnated with a hair curling compound or hair treatment fluid.

Third, to provide a hair curler which is particularly easy to use both in the process of setting the hair in curlers and in removing the curlers from the hair, when desired, but which does not accidentally unfasten.

With the above and other objects in view as may appear hereinafter, reference is directed to the accompanying drawings, in which:

Figure 1 is a side view of my curler assembled.

Figure 2 is a view at right angles to Figure 1.

Figure 3 is a side view, partially in section, of my curler as it appears when about to be wrapped with a lock of hair.

Figure 4 is an enlarged transverse sectional view thereof taken through 4—4 of Figure 1.

Figure 5 is a plan view of the strap member.

Figure 6 is a longitudinal sectional view of the strap member taken through 6—6 of Figure 5.

Figure 7 is a partial elevational, partial sectional view showing a modified form of my curler.

Figure 8 is a similar view of another form of my curler.

Figure 9 is a plan view of a modified form of strap, in its normal position.

Figure 10 is a similar view thereof showing the strap stretched as it appears in use.

My hair curler, as shown in Figures 1 through 6, includes a mandrel 1, a replaceable cartridge or shell 2 and a holder 3.

The mandrel 1 is in the form of a rod of uniform diameter, preferably rounded at its ends. The cartridge 2 comprises a tubular core 4 of paper or similar inexpensive material around which is formed a cylindrical body or padding 5 of absorbent material, such as cotton or paper or cloth. The body of the cartridge is impregnated with oil or other hair treatment fluid, or may contain a hair waving compound.

The holder 3 comprises a pair of end or cap members 6, of approximately hemispherical form

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and a connecting strap 7. The holder is preferably formed of an elastomer, such as rubber, or if the cartridge be impregnated with an oil, an oil proof "synthetic" rubber is preferred. The holder may be molded in the form shown in Figure 5, with the flat sides of the cap members in a common plane with the connecting strap. The cap members are provided with sockets 8 entering from their flat sides. One socket is smaller than the other so one end of the mandrel 1 may be forced therein to provide a fixed connection. The larger socket slidably fits the other end of the mandrel.

In use, the cartridge 2 is slipped on the mandrel 1. The fixed cap member is held between the fingers of one hand with the free cap member and strap in the palm of the hand. The end of a lock of hair is wrapped about the cartridge with the other hand. The cartridge is then rotated on the mandrel until the hair is wound tight. Thereupon, initially free cap members are fitted over the protruding end of the mandrel to hold the hair.

Reference is now directed to Figure 7. The construction here illustrated is particularly suitable for curlers of larger diameter. The cartridge 2 may be essentially the same as in the first described structure, except that the bore of the core 4 is proportionally larger. The mandrel and holder, however, may be formed integrally. The mandrel 11 is provided at one end with a head 12, corresponding to the fixed cap member of the first described structure. The head 12 is connected by an elastic strap 13 to a removable end member 14. In this case, the end member is shown as provided with a pin 15 which fits a corresponding socket 16 formed in the extended end of the mandrel 11.

Reference is now directed to Figure 8. Here, the curler is depicted as including a complementary mandrel 21 and pin 22 adapted to fit into opposite ends of the core of the cartridge. The mandrel and pin are provided with heads 23 and 24 respectively connected by a strap 25.

Reference is now directed to Figures 9 and 10. Here, is shown an elastic strap 31 which may be incorporated with any of the preceding structures. The strap 31 is, in this case, relatively wide and provided with transverse slits 32 arranged in a pattern so that when the strap is stretched, a lattice or network connects the cap members or head members as the case may be. Initially, the slits may not penetrate through the strap but break open when the strap is stretched.

The cap members or heads of the several

holder structures shown, are relatively yieldable to form cushions which, with the soft character of the cartridge, provide a curler which is particularly soft and comfortable to wear.

It should be observed, that the axes of the sockets or the pins associated with the cap or head members may be angularly disposed. The amount of angular deflection is calculated to be such that when the strap is stretched, the turning moment thus induced in each cap or head member will cause such cap or head member to occupy a substantially right angular relation with the axis of the cartridge and fit snugly against the ends thereof.

Many other embodiments of the invention may be resorted to without departing from the spirit of the invention.

I claim:

1. A hair curler, involving: a mandrel; a cylindrical cartridge of yieldable material rotatably mounted thereon; and a holder including cushion ends covering the ends of said cartridge, and a stretchable strap connecting said cushion ends.

2. A hair curler, involving: a cylindrical cartridge of yieldable material; means for journalling said cartridge; and a holder connected to said means and including cushion ends covering the ends of said cartridge and a stretchable strap connecting said cushion ends.

3. A hair curler, involving: a cartridge including a tubular core and a covering of yieldable absorbent material; means for journalling said cartridge; and a holder including a yieldable strap and end cushions adapted to overlie the ends of said cartridge, one of said cushions being secured to said journal means to form a handle while rotating said cartridge, the other cushion being adapted for removable connection over its end of said cartridge.

4. A hair curler, involving: a body of yieldable absorbent material; cushion elements covering the ends of said body; and a yieldable strap joining said cushion elements, at least one of said cushion elements being removably connected with its end of said body, whereby said strap may be extended over a lock of hair wound on said body and reconnected to said end, thereby to secure said lock of hair against unwinding.

5. A hair curler, involving: a body of yieldable absorbent material; cushion elements covering the ends of said body; a yieldable strap extending over said body and joining said cushion elements; and pin and socket means associated with at least one end of said body and incorporating at least one of said cushion elements to permit stretching of said strap over a lock of hair wrapped on said body and securing of said cushion element to restrain said lock of hair against unwinding.

6. A hair curler, involving: a mandrel; a tubular cylindrical cartridge of soft material journalled thereon; a holder including dome-shaped cushions adapted to cover the ends of said cartridge and a yieldable connecting strap, said mandrel being secured to one of said cushions to locate said cushion over the corresponding end of said cartridge; and pin and socket means incorporating said mandrel and the other of said cushions to permit stretching of said strap over a lock of hair wrapped on said cartridge and removably secure the remaining cushion over the remaining end of said cartridge.

7. A hair curler, involving: a radially yieldable, longitudinally rigid tubular cartridge adapted to be wrapped with a lock of hair; and a holder including cushion ends, a yieldable strap connecting said ends for extension over a lock of hair wrapped on said cartridge, and pins adapted to enter the extremities of said tubular cartridge.

8. A hair curler, involving: a mandrel; an interchangeable cylindrical cartridge rotatably mounted thereon; and a holder including cushion ends adapted to fit on the ends of said mandrel and cover the ends of said cartridge; and a stretchable strap connecting said cushion ends.

9. A hair curler, involving: a mandrel; a holder, including a pair of cushion ends and a stretchable strap connecting said ends; an interchangeable tubular cartridge adapted to be rotatably mounted on said mandrel; said cushion ends adapted to be secured over the ends of said cartridge, with said strap extending over said cartridge.

10. A hair curler, involving: a mandrel; an interchangeable cylindrical cartridge rotatably mounted thereon; and a holder including cushion ends adapted to fit on the ends of said mandrel and cover the ends of said cartridge; and a stretchable strap having staggered transverse slits connecting said cushion ends and adapted when stretched to form a foraminous network.

11. A hair curler in the form of a cylinder adapted to receive a removable shell and having dome-shaped cushion ends of larger diameter than said cylinder to hold said shell on said cylinder, a stretchable strap extending over said cylinder between and joined to said ends, and pin and socket means for removably mounting at least one of said cushion ends relative to said cylinder, said strap being provided with staggered transverse slits adapted when said strap is stretched to form a foraminous network.

LLOYD SPENCER.

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