Jan. 6, 1942. E. W. McELWAIN 2,268,952

HAIR CURLER

Filed Dec. 9, 1940

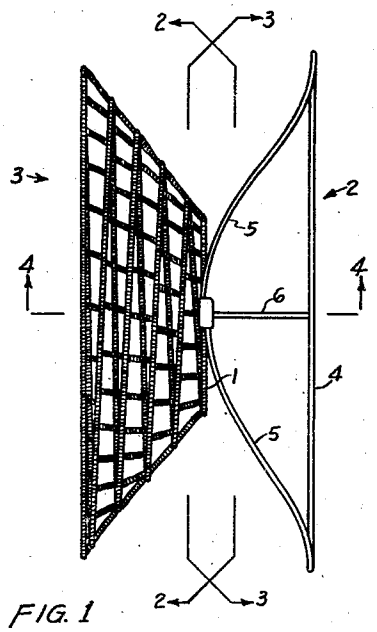


FIG. 1

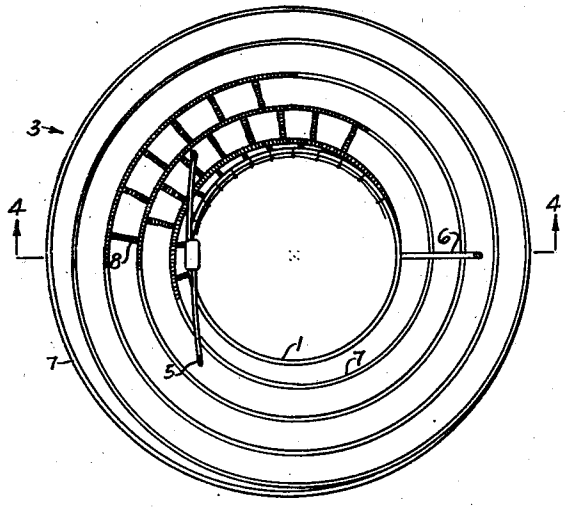


FIG. 2.

FIG. 3

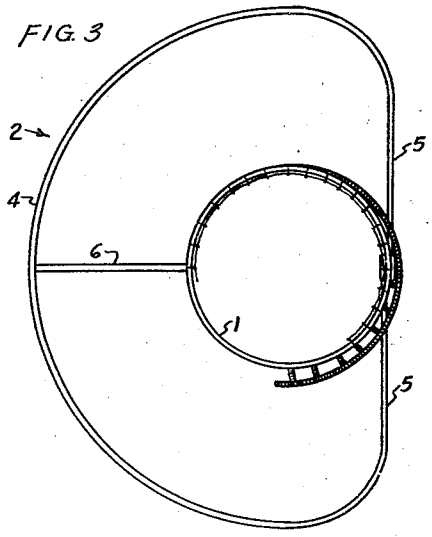
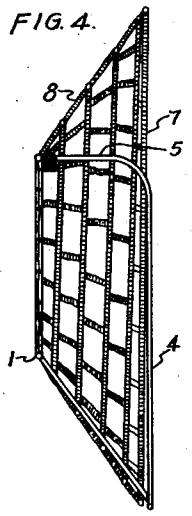


FIG. 4.



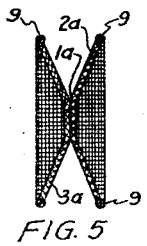


FIG. 5

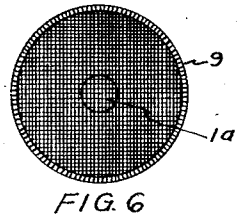


FIG. 6

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HAIR CURLER

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4 Claims. (Cl. 132—40)

This invention relates to hair curlers and has, for its principal object, the provision of a simple and inexpensive form of curler which is easy to operate and effective in operation.

Another object is to provide a curler having a hub about which hair may be readily wound or wrapped and on which it may be axially clamped to hold the hair in the form of a flat spiral curl.

The invention is illustrated in the accompanying drawing wherein:

Figure 1 is a side elevation of a curler embodying my invention, the curler being shown in the position it is placed when a curl of hair is to be wound upon, or released from, it;

Figure 2 is a section along line 2—2 of Figure 1, the spiral turns of the left member of Figure 1 being shown but the connecting network being partially omitted for the sake of clearness;

Figure 3 is a section along line 3—3 of Figure 1;

Figure 4 is a section along line 4—4 of Figures 1 and 2 but showing the curler in the curl-clamping position; and

Figure 5 is a transverse section, and Figure 6 a front elevation, of a modified form of curler embodying my invention.

While curlers, embodying this invention, may be constructed of various materials, including rubber, and fashioned in any suitable way, excellent results have been secured with a curler composed largely of wire and fashioned in the form illustrated in Figures 1 through 4. This curler comprises a member made generally in the form of a spool having a hub section 1 and a pair of opposed face sections 2 and 3 extending outwardly from the hub and arranged for relative axial movement from one position, in which they are laterally separated to permit hair to be curled about the hub, to another position, in which they are brought together in face-to-face relation in order to clamp and hold the hair axially between them in the form of an axially thin spiral curl.

The hub section 1 is composed of a single turn of wire.

The face section 2 is composed of a peripheral convolution of wire forming a rim 4 which is connected to the hub 1 through a pair of tangentially directed spokes 5 and an outwardly directed spoke 6. The rim 4 may, of course, be made to form a complete circle, in which event, it preferably would be connected to the hub by a symmetrical series of outwardly directed spokes. Preferably, however, it is made to extend through a partial circle only and its ends connected to the hub through the tangential spokes in order to flatten one side of the face member 2, as a whole, and thereby permit the hub on the flattened side of the curler, to be placed very close to the head. The spokes preferably do not extend radially outward but are inclined at an angle between the radial and axial directions in order to provide the face member 2 with a generally conical shape.

The face section 3 is composed of a series of spiral turns 7 of wire connected at one end to the hub and increasing in diameter in a direction proceeding away from the hub. In other words, the face section 3 and hub 1 are made of a single strand of wire bent to provide a series of spiral turns. These turns are flexibly connected together by a crocheted network of threads 8. The conically shaped face section 3 may be easily moved from one position in which it is separated from the face section 2 to another position in which it extends over and fits against the face section 2. Obviously, it will maintain itself in either position.

In operation, the face sections are separated and a wisp of hair curled about the hub. This may be done either by placing the outer ends of the wisp on the hub and holding it in place as the curler is rotated along the wisp and toward the head, or by placing the curler adjacent the head and winding the wisp about the hub. In either case, the hair may be wound tightly or loosely as desired, and, when wound, may be readily clamped in the form of a flat spiral curl simply by moving the conical member to the hair-clamping position. I have found that the hair will remain firmly clamped until the conical face section 3 is manually returned to the separated position.

A much simpler form of curler embodying my invention is illustrated in Figures 5 and 6. In this embodiment, the hub 1*a* is formed by securing together the central portion of two discs of cloth or other suitable openwork material leaving the outer portions of each disc unsecured to form the face sections 2*a* and 3*a*. The rim of each section preferably should be reenforced or suitably stiffened, as by securing it to a wire ring 9. With this arrangement, the face sections may be manually separated, to permit the hair to be wound about the hub, and then brought together to clamp the hair between them in the form of a flat spiral curl. The face sections may be held in the hair-clamping position by any suitable means as, for example, by means of a hairpin piercing both sections in one direction adjacent one side of the curler and in the opposite direction at the opposite side thereof.

It will be obvious that a curler embodying my

invention may be inexpensively manufactured and easily and quickly operated by the user to form and clamp a flat spiral curl of hair. It enables the entire wisp of hair, including the outer ends, to be curled in one direction and clamped, and thus avoids the unsightly appearance occasioned when the end portion of the hair remains straight and uncurled. With this curler, it is possible to produce a tight hard curl or a loose soft curl, since the curler will hold the curl in the loose or tight condition in which it is wound. It thus has the advantage over those curlers which require the hair to be wound more or less tightly over a surface of small diameter, since they necessarily produce a hard curl, the strands of which, when combed, are apt to separate causing the hair to fluff out and produce what is known as a "frizzy" appearance.

Having described my invention, I claim:

1. A hair curler comprising: a hub about which hair may be curled; and means for releasably clamping the hair axially, said means presenting opposed face sections extending outwardly from the hub with their hub ends permanently secured to the hub, the hair being clamped axially between the adjacent faces of said section which faces are axially separable to permit the hair to be curled about or removed from the hub.

2. A hair curler comprising: a hub about which hair may be curled; and means presenting opposed face sections extending outwardly from the hub with their hub ends permanently secured to the hub, said sections being relatively movable from one position, in which they are axially separated with their adjacent faces diverging outwardly from the hub, to another position, in which their adjacent faces are brought together in close face-to-face relationship to clamp between them the hair curled about the hub.

3. A hair curler comprising: a hub about which hair may be curled; and means presenting opposed face sections extending outwardly from the hub with their hub ends permanently secured to the hub, said sections being arranged for relative axial movement from one position, in which they are axially separated with their adjacent faces diverging outwardly from the hub to permit hair to be curled between them about the hub, to another position, in which their adjacent faces are brought together in sufficiently close face-to-face relationship to clamp and hold the curled hair.

4. The curler of claim 3 wherein the adjacent faces of both sections in the axially separated position are of convex outline in cross-section while the face of one section in the clamping position is of concave outline in cross-section.

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