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SPLIT CYLINDER HAIR CURLERS

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Fig. 1.

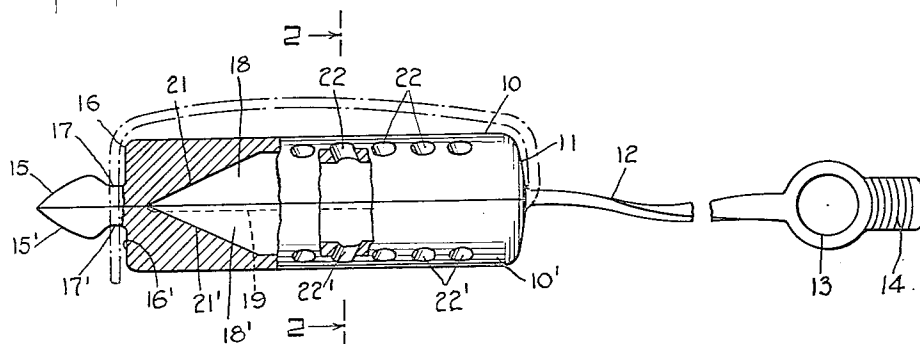


Fig. 2.

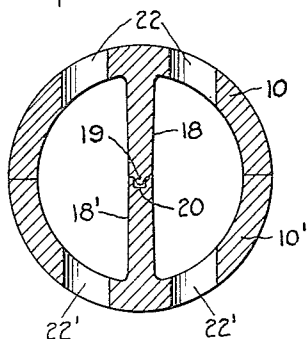
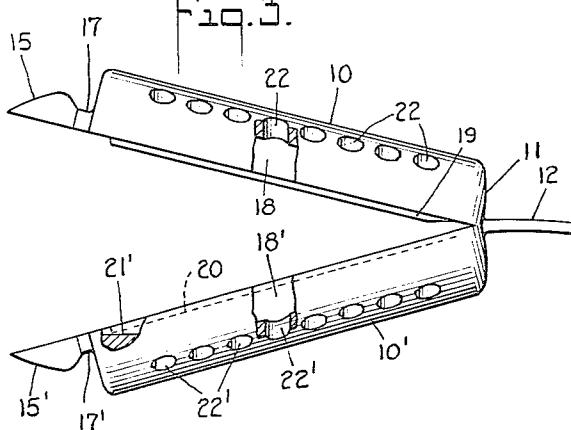


Fig. 3.



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SPLIT CYLINDER HAIR CURLERS

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5 Claims. (Cl. 132-42)

This invention relates to hair curlers and, particularly, to devices of this type and kind which may be termed split cylinder curlers, wherein the curler is moulded in an open V form and the cylinder halves are brought together and held in closed position by a retaining strap when the curler is in use.

Still more particularly, the invention deals with a curler of the character described, including a central longitudinal reinforcing rib having tongue and groove engagement for resisting the strain of winding a swatch of hair thereon, as well as in retaining the cylinder halves against relative lateral movement, when in abutting engagement with each other.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

Fig. 1 is a side view of a curler made according to my invention, with parts of the construction broken away and in section and indicating a strap part in operative position in dotted lines.

Fig. 2 is an enlarged section on the line 2-2 of Fig. 1; and

Fig. 3 is a diagrammatic view showing the cylinder parts of the curler in the normal moulded position thereof, with part of the construction broken away.

My improved curler comprises a single moulded unit in the form of two similar half cylinders 10, 10', joined in an end wall portion 11, the latter having an integrally extending strap 12, having a ring or loop end 13 with a projecting roughened fingerpiece tab 14. The other end of each cylinder half has a half bullet-shaped head 15, 15' materially less in diameter than the diameter of the cylinder halves and joining the end wall 16, 16' of each cylinder half in a neck portion 17, 17'.

Noting Fig. 2 of the drawing, it will appear that the cylinder halves are semi-circular in form and of relatively thin walled structure. Centrally of inner surfaces of the halves are inwardly extending reinforcing ribs 18, 18' which extend the major portion of the length of each cylinder half. Said ribs divide each cylinder half into side chambers. The rib 18 has a projecting bevelled tongue 19; whereas, the rib 18' has a longitudinal groove 20 for receiving the tongue 19, as noted in Fig. 2 of the drawing, to maintain the cylinder halves in alignment with each other and to prevent lateral shifting movement of the halves one upon the other, particularly at the head end portions of said cylinder halves.

The ribs 18 and 19 have abutting surfaces, which form collectively the split rib, which reinforces the cylinder halves against crushing strains in the operation of winding a swatch of hair around the curler when the parts are in the position shown in Fig. 1 of the drawing.

When the swatch of hair is wound on the curler or the cylinder portion thereof, the strap 12 is moved over

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the swatch of hair and the ring 13 is coupled with the head 15, 15' in holding the curler and wound swatch of hair in assembled relationship to each other.

It will be apparent, from a consideration of Fig. 1 of the drawing, that the cylinder halves, adjacent the head end portions thereof, have bevelled walls or webs 21, 21' and that the ribs merge into these bevelled walls. The bevelled wall structure gives strength and rigidity to the outer head end portion of the curler.

The walls of the cylinder halves 10, 10' have, at each side of the ribs 18, 18', circulating apertures 22, 22' to provide circulation of air through the chambers of the curler to facilitate drying of the hair.

Considering Fig. 1, it will appear that the apertures are inclined which is occasioned primarily by the moulding operation, the apertures being perpendicularly straight to the cylinder halves 10, 10', while the cylinder halves are in the moulding position, as noted in Fig. 3 of the drawing. In this figure, the primary halves are diagrammatically shown in their normal moulded position, facilitating a free draw of the cores from the cylinder halves in forming the interior hollow structure thereof and also in forming the apertures 22, 22'. It will be apparent that the wall 11 forms what might be termed a hinged wall, facilitating movement of the cylinder halves 10, 10' toward and from each other. The parts normally assume the position shown in Fig. 3 and are moved into position, shown in Fig. 1 of the drawing, in winding a swatch of hair on the curler.

The entire device is formed from flexible plastic material, which facilitates the hinge movement above referred to and the free movement of the strap into the operative and inoperative positions, indicated in Fig. 1 of the drawing.

In the use of applicant's curler, the terminal end portions of a swatch of hair are positioned between the ribs 18, 18' in closing the cylinder halves, preparatory to winding the swatch of hair around the curler which operation is performed with the strap 12 in the full line position of Fig. 1; whereupon, the strap is moved to the operative position indicated in dot-dash lines of Fig. 1 in retaining the curler against displacement from the wound swatch of hair. In the foregoing operation, the fine ends of the swatch of hair do not interfere with the tongue and groove engagement between the ribs 18, 18'. It will also appear, from a consideration of Fig. 2, that each cylinder half, while being semi-circular in cross-sectional form, is modified to the extent of including the integral ribs 18, 18', so that the resulting cross-section of each half is substantially W-shaped in form.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A curler comprising a unitary body of flexible material, comprising two similar hollow half cylinders integrally joined at one end in an end wall portion, outer walls of said half cylinders being semi-circular in cross-sectional form, said end wall portion flexibly coupling the half cylinders for movement toward and from each other, a strap extending from said end wall portion, the other end of each cylinder half having a projecting head joining the other end of the cylinder in a neck portion, said strap having means engaging the neck portions of said cylinder halves to retain the cylinder halves in coupled relationship with each other at the second named end thereof, the outer walls of the cylinder halves having, centrally thereof, longitudinal reinforcing ribs extending the major portion of the length thereof and dividing the cylinder halves into side chambers, said ribs, in conjunction with the outer walls of the cylinder halves, forming a substantially W cross-sectional form in each cylinder half, and said ribs abutting when the cylinder halves are in abutting engagement with each other.

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2. A curler comprising a unitary body of flexible material, comprising two similar hollow half cylinders integrally joined at one end in an end wall portion, outer walls of said half cylinders being semi-circular in cross-sectional form, said end wall portion flexibly coupling the half cylinders for movement toward and from each other, a strap extending from said end wall portion, the other end of each cylinder half having a projecting head joining the other end of the cylinder in a neck portion, said strap having means engaging the neck portions of said cylinder halves to retain the cylinder halves in coupled relationship with each other at the second named end thereof, the outer walls of the cylinder halves having, centrally thereof, longitudinal reinforcing ribs extending the major portion of the length thereof and dividing the cylinder halves into side chambers, said ribs, in conjunction with the outer walls of the cylinder halves, forming a substantially W cross-sectional form in each cylinder half, said ribs abutting when the cylinder halves are in abutting engagement with each other, said ribs dividing the assembled cylinder halves into two chambers extending the major portion of the length of the curler, and the cylinder halves having apertures opening into the two chambers for circulating air through said chambers.

3. A curler comprising a unitary body of flexible material, comprising two similar hollow half cylinders integrally joined at one end in an end wall portion, outer walls of said half cylinders being semi-circular in cross-sectional form, said end wall portion flexibly coupling the half cylinders for movement toward and from each other, a strap extending from said end wall portion, the other end of each cylinder half having a projecting head joining the other end of the cylinder in a neck portion, said strap having means engaging the neck portions of said cylinder halves to retain the cylinder halves in coupled relationship with each other at the second named end thereof, the outer walls of the cylinder halves having, centrally thereof, longitudinal reinforcing ribs extending the major portion of the length thereof and dividing the cylinder halves into side chambers, said ribs, in conjunction with the outer walls of the cylinder halves, forming a substantially W cross-sectional form in each cylinder half, said ribs abutting when the cylinder halves are in abutting engagement with each other, said ribs dividing the assembled cylinder halves into two chambers extending the major portion of the length of the curler, the cylinder halves having apertures opening into the two chambers for circulating air through said chambers, and the second named end of the cylinder halves having inwardly bevelled surfaces.

4. A curler comprising a unitary body of flexible material, comprising two similar hollow half cylinders integrally joined at one end in an end wall portion, outer walls of said half cylinders being semi-circular in cross-sectional form, said end wall portion flexibly coupling the half cylinders for movement toward and from each other, a strap extending from said end wall portion, the

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other end of each cylinder half having a projecting head joining the other end of the cylinder in a neck portion, said strap having means engaging the neck portions of said cylinder halves to retain the cylinder halves in coupled relationship with each other at the second named end thereof, the outer walls of the cylinder halves having, centrally thereof, longitudinal reinforcing ribs extending the major portion of the length thereof and dividing the cylinder halves into side chambers, said ribs, in conjunction with the outer walls of the cylinder halves, forming a substantially W cross-sectional form in each cylinder half, said ribs abutting when the cylinder halves are in abutting engagement with each other, said ribs dividing the assembled cylinder halves into two chambers extending the major portion of the length of the curler, the cylinder halves having apertures opening into the two chambers for circulating air through said chambers, and the apertures of one cylinder half being in diverging relationship to the apertures in the other cylinder half when the cylinder halves are in coupled relationship.

5. A curler comprising a unitary body of flexible material, comprising two similar hollow half cylinders integrally joined at one end in an end wall portion, outer walls of said half cylinders being semi-circular in cross-sectional form, said end wall portion flexibly coupling the half cylinders for movement toward and from each other, a strap extending from said end wall portion, the other end of each cylinder half having a projecting head joining the other end of the cylinder in a neck portion, said strap having means engaging the neck portions of said cylinder halves to retain the cylinder halves in coupled relationship with each other at the second named end thereof, the outer walls of the cylinder halves having, centrally thereof, longitudinal reinforcing ribs extending the major portion of the length thereof and dividing the cylinder halves into side chambers, said ribs, in conjunction with the outer walls of the cylinder halves, forming a substantially W cross-sectional form in each cylinder half, said ribs abutting when the cylinder halves are in abutting engagement with each other, and one of said ribs having a longitudinal groove and the other a tongue entering the groove of the first rib in keying the cylinder halves against lateral movement one with respect to the other.

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