Oct. 17, 1939. R. M. McFADDEN 2,176,351

HAIR CURLER

Original Filed Oct. 6, 1937

Fig. 1

Fig. 2

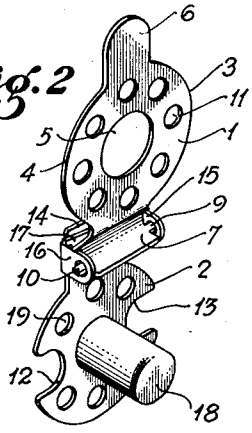


Fig. 10

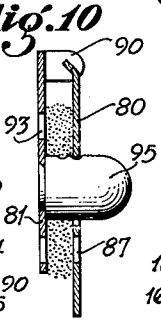


Fig. 8

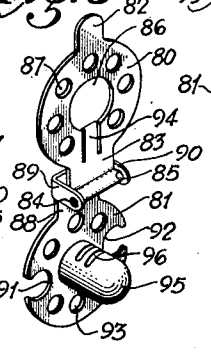


Fig. 3

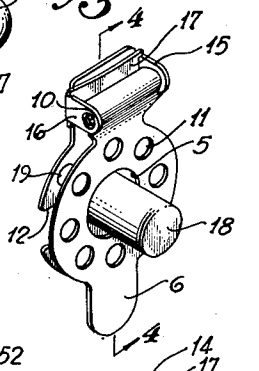


Fig. 9

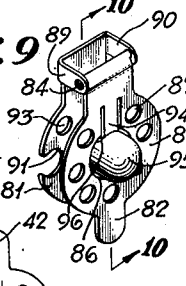


Fig. 5

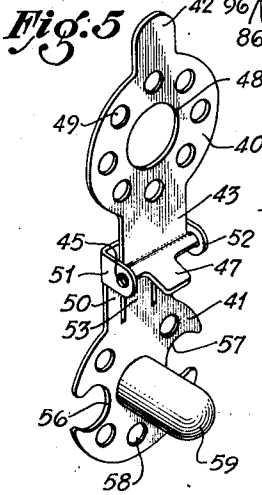


Fig. 6

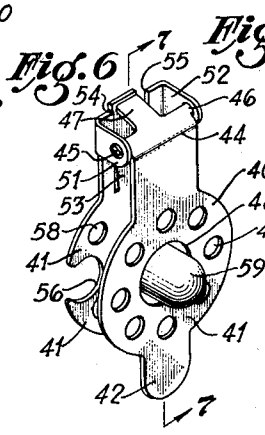


Fig. 7

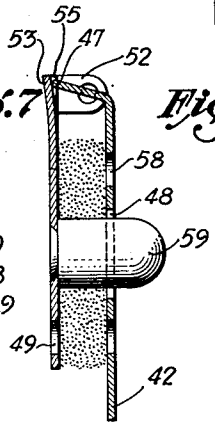
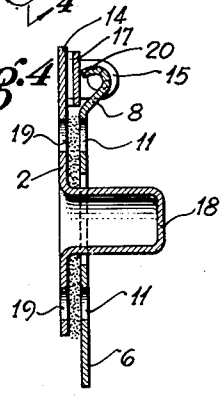


Fig. 4



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BY

ATTORNEY

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2,176,351

UNITED STATES PATENT OFFICE

2,176,351

HAIR CURLER

Ross M. McFadden, Los Angeles, Calif.

Original application October 6, 1937, Serial No. 167,588. Divided and this application January 9, 1939, Serial No. 249,927

2 Claims. (Cl. 132—40)

This invention relates to curlers, and has for an object the provision of a device so constructed and arranged that a tight ringlet type of curl may be formed in the hair.

This application is a dvision of my copending application for Hair curler, filed October 6, 1937, Serial No. 167,588.

The present curler is so constructed as to permit the forming of a ringlet hair curl through the simple expedient of moistening a small lock of hair and then wrapping it about a stud. The body of the hair when so wrapped is then compressed between two jaws, which tend to flatten the ringlet of hair and hold it in position until the hair has dried.

The present invention has for a further object the provision of a curler of the type stated, which is efficient in operation, easily manipulated by an operator, inexpensive in cost of manufacture, performs the function required of it in an efficient manner, and which is generally durable and foolproof in operation.

With the above mentioned and other objects in view, the invention consists in the novel and useful provision, formation, construction, association, and relative arrangement of parts, members and features, all as shown in certain embodiments in the accompanying drawing, described generally, and more particularly pointed out in the claims.

In the drawing:

Figure 1 is illustrative of types of the curler applied to hair for the purpose of forming a ringlet,

Figure 2 is a perspective view of one form of the curler, the jaw members of which are swung apart,

Figure 3 is a view similar to Figure 2, the jaw members being in cooperative relationship,

Figure 4 is a sectional view on the line 4—4 of Figure 3, and showing hair included between the jaws when the inner faces of said jaws are in contiguous relationship,

Figure 5 is an open position of the jaws of a curler of the type contemplated by the invention, and being a modification of the type shown in Figure 2,

Figure 6 shows the curler of Figure 5 with the jaw members cooperating and in contiguous relationship,

Figure 7 is a sectional view on the line 7—7 of Figure 6, with hair included between the jaws,

Figure 8 is a further modified form of the curler, the jaws being separated,

Figure 9 is a view showing the jaws in contiguous relationship, and,

Figure 10 is a vertical sectional view on the line 10—10 of Figure 9.

Referring now with particularity to the drawings, that form of the invention disclosed in Figures 2, 3 and 4 will be described. In Figure 2, I have provided a pair of jaws 1 and 2, the jaw 1 being substantially annular, to-wit, having segmental rim portions 3 and 4, a central bore 5, and diametrically disposed members 6 and 7 extending radially outwardly from what would constitute the rim of the jaw. The member 6 constitutes a lug or finger piece, and the member 7 is a portion of a lock or catch. Referring to Figure 4, it will be observed that this catch appears in cross section as a segment of a cylinder 8 provided with end trunnions 9 and 10, Figure 2. The plane of the jaw 1 is formed with an annular series of spaced perforations 11. The second jaw 2 is substantially circular in form, but diametrically interrupted by the provision of cut-out portions or slots 12 and 13. A lug 14 extends beyond the periphery of the jaw 2. This lug is provided with two up-turned ears 15 and 16 provided with perforations adapted to receive the trunnions 9 and 10. Interposed between the ears 15 and 16 and adjacent the lug 14 is a leaf spring 17, the zone of greatest flexion of the leaf spring being substantially central of the two ears. Centrally secured to the jaw 2 is a stud 18. The jaw 2, as is the jaw 1, is provided with an annular series of perforations 19, which perforations are in registry when the jaws are in contiguous or closed position, as illustrated in Figures 3 and 4.

It will be observed, upon reference to Figures 3 and 4, that the stud 18 readily passes through the opening 5 of the jaw 1 when the jaws are swung together. The connection between the jaws is such that when the jaw 1 is moved relative to the jaw 2 through the hinge connection therebetween, the hinge connection being effected through the medium of the trunnions cooperating with the perforated ears, one edge of the member 7, to wit, the edge 20 will engage the surface of the spring 17 and tend to force it downwardly toward the inner surface of the lug 14. Thus, the two jaw members are held in substantially closed position and against separation. When it is desired to separate the jaws, the manipulator's finger may grasp the member 6 and by placing one finger against the end of the member 18, the jaw 1 is readily moved relative to the jaw 2.

Referring to the form of the invention illustrated in Figures 5 to 7, inclusive, as before I have provided a pair of jaw members 40 and 41. The jaw member 40 is substantially annular in form,

save and except that it has diametrically disposed lugs 42 and 43. The lug 42 acts as a finger piece, and the lug 43 is so constructed as to provide one part of a hinge, and one portion of locking means. In this regard, the lug 43 is angularly bent relative to the plane of the jaw, as shown at 44, and ends of said lug are provided with trunnions 45 and 46. A portion of the lug where it is bent is cut-away to provide a tongue 47. The jaw 40 is formed with a central opening 48 and with a series of annularly arranged, spaced perforations 49. The other jaw 41 comprises an annular member formed with a lug 50 and this lug is provided with two upstanding perforated ears 51 and 52 adapted to receive the trunnions 45 and 46 of jaw 40. The lug 50 is formed with a resilient tongue 53, which tongue is formed by cutting the lug at two points, as indicated at 54 and 55.

The jaw 41 is provided with two diametrically disposed slots 56 and 57, and with a series of perforations 58. Centrally of the jaw is a stud 59 and when the jaws are swung together about their hinge connection, the fixed tongue 47 engages the movable tongue 53 and the stud 59 is passed through the opening 48. Thus, the jaws may be resiliently secured in working relationship and held in this relationship, as depicted in Figure 7, due to the fact that the central pivotal or hinge connection therebetween is at an angle to the point of engagement between the fixed jaw and the movable jaw. This relationship is such as to constantly urge the jaws together, as is self-evident.

Referring to Figures 8 to 10, inclusive, I have as before, provided two jaw members 80 and 81. The jaw 80 is made substantially annular in form and provided with two diametrically disposed lugs 82 and 83, the lug 82 acting as a finger piece, and the lug 83 being formed to provide a pair of trunnions 84 and 85. The body of the jaw is provided with a central opening 86 and with a series of annularly arranged, spaced perforations 87. The second jaw 81 is substantially annular in form and provided with a lug 88 having two upstanding perforated ears 89 and 90 to receive the trunnions 84 and 85. This jaw is provided with two diametrically disposed slots 91 and 92, and with a series of annularly arranged perforations 93. The jaw 80 is provided with a resilient tongue 94 extending into the opening 86. The jaw 81 is provided with a central stud 95 formed with one or more kerfs 96. When the jaw 80 is swung relative to the jaw 81 about its hinge point, the resilient tongue will engage one of several of the kerfs 96, as depicted in Figures 9 and 10. In this manner, the jaws may be held in contiguous working relationship.

The operation, uses and advantages of the inventions disclosed, are as follows:

Assume that any one of the three forms of curlers is to be used. The jaws are swung apart as depicted in Figures 2, 5 and 8. A small strand of hair is wetted and passed through one of the slots 12 or 13; 56 or 57; 91 or 92. The curler is held by the operator with one hand and the strand is then wrapped around the central stud secured to one of the jaws. The other jaw is then swung so as to be positioned over the hair just wound upon the stud. By pressing upon the two jaws, the hair will be compressed therebetween, as shown in Figures 4 and 7. The lock will maintain the jaws closed until such time as the hair may be deemed to be dry. Air is permitted contact with the curled hair through the perforations in the jaws.

To release the hair, one of the jaws, usually the one carrying the finger-piece such as 6, 42 or 82, is moved relative to the other jaw and the ringlet removed from the central stud carried by the other of said jaws. The hair will then have the appearance depicted in Figure 1 at 100.

The drawing depicts three forms of curlers which I have found to operate expeditiously, and produce what may be termed a professional type ringlet.

I claim:

1. In a hair curler, a pair of jaws, hinge means therebetween, one of said jaws provided with a central stud, and the other of said jaws provided with an opening through which said stud is passed when the jaws are swung into contiguous relationship, and means received in part within the opening of one of said jaws for engagement with the stud of the other jaw for locking said jaws together when in contiguous relationship.

2. In a hair curler, a pair of jaws, one of said jaws provided with a stud and the other of said jaws provided with an opening through which said stud is passed to position said jaws in contiguous working relationship, and a resilient finger carried by one jaw for engagement with the stud for locking the two jaws in closed working relationship.

ROSS M. McFADDEN.