March 4, 1941. J. D. LA VISTA 2,234,050

HAIR CURLER

Filed April 12, 1940

Fig. 1.

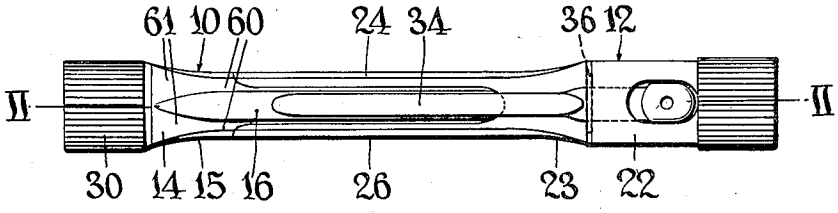


Fig. 2.

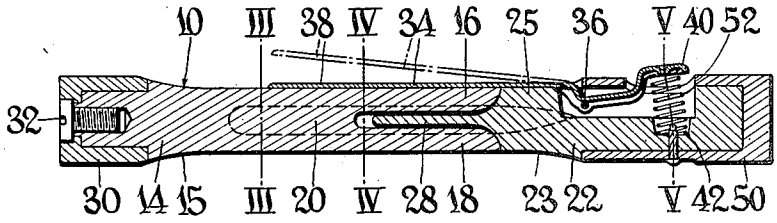


Fig. 3.

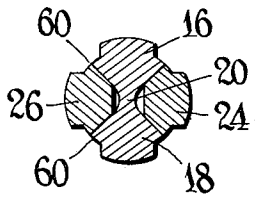


Fig. 4.

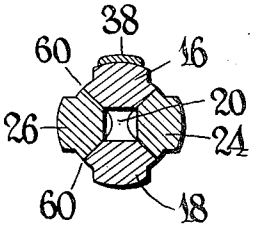


Fig. 5.

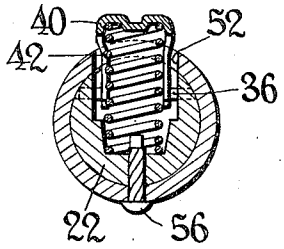


Fig. 6.

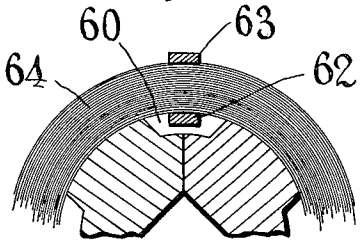
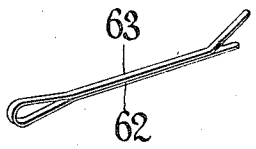


Fig. 7.



INVENTOR

Joseph D. LaVista,

BY

Beau, Brooks, Buckley & Beau.

ATTORNEYS

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HAIR CURLER

Joseph D. La Vista, Buffalo, N. Y.

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6 Claims. (Cl. 132—33)

This invention relates to hair curling devices, and has for its primary object the provision of an improved form of manually operable hair curler capable of forming more perfect curls with utmost ease and convenience to the user.

Other objects and advantages of the invention will appear from the specification herein.

In the drawing:

Fig. 1 is an elevation of a curler of the invention;

Fig. 2 is a longitudinal section thereof taken substantially along lines II—II of Fig. 1;

Fig. 3 is a transverse section, on an enlarged scale, taken substantially along line III—III of Fig. 2;

Fig. 4 is a transverse section on an enlarged scale taken along line IV—IV of Fig. 2;

Fig. 5 is a transverse section on an enlarged scale taken along line V—V of Fig. 2;

Fig. 6 is a fragmentary section similar to Fig. 3 showing a portion of a curl mounted upon the device and a curl clamp thereon; and

Fig. 7 is a perspective of a curl clamp device of the invention.

The curler of the invention is illustrated in the drawing as comprising essentially a pair of bifurcated body members 10 and 12. The body member 10 comprises a head portion 14 and a pair of extending spaced parallel fingers 16 and 18. A web portion 20 extends between the fingers 16 and 18 adjacent the head 14 and throughout a portion of the longitudinal range of the fingers. Similarly, the body portion 12 comprises a head portion 22 from which extend a pair of parallel spaced fingers 24 and 26, and a similar web member 28 extends between and connects the fingers 24 and 26 throughout a portion of their lengths.

The fingers 16, 18, 24 and 26 are sectionally shaped and dimensioned so as to be adapted to interfit as illustrated in Figs. 3 and 4; their inside face portions being radially disposed and complementary to one another to enable the parts to fit together as shown to form a substantially solid mandrel device of generally circular sectional form. The head portions 14 and 22 are formed with gradually tapering outer faces as at 15 and 23, respectively, so that when the two body portions are arranged in assembled relation as illustrated in Figs. 1 and 2 the tapering face and finger portions thereof provide a curl winding mandrel of generally cylindrical form but with gradually expanding end portions. The fingers are tapered at their outer ends to facilitate sliding interengagement thereof into telescoped nested relation as illustrated in Figs. 1 and 2. The fingers are also slightly tapered longitudinally thereof and inwardly toward the longitudinal axis of the device so as to provide gradually increasing shrinkage of the sectional size of the mandrel device during disassembly processes.

The body member 10 is provided with a finger grip device in the form of a cap 30 which encloses the outer end of the head 14 and is rotatably mounted thereon by means of a screw 32, as shown in Fig. 2. A spoonbill 34 is pivotally mounted upon the body member 12 by means of a pivot pin 36, the extending end portions of which engage in the head 22. The spoonbill 34 comprises generally a hair clamping arm portion 38 and a finger press portion 40 at opposite sides of said pivot pin means, whereby manual pressure upon the finger press 40 will cause the clamp portion 38 to raise away from the mandrel portion of the device. A compression spring 42 is disposed within the head 22 and so arranged as to press at one of its ends against the head 22 and at the other of its ends upwardly against the finger press portion 40 so as to normally maintain the clamping portion 38 against the mandrel portion of the device. The spoonbill device 34 is positioned radially upon the body member 12 in such manner as to center the clamping portion 38 between the fingers 24 and 26, thus disposing the clamping portion 38 in lapped relation with respect to the finger 16 of the body member 10 when the parts are assembled, as illustrated in Fig. 4. However, it will be understood that the parts of the device are symmetrical and that therefore the body members may be relatively rotated through 180° whereby the finger member 18 will be disposed in the position occupied by the finger member 16 in the drawing.

A sleeve 50 is rigidly mounted upon the body portion 22 by means of a pin 56 and encloses the outer end thereof and the spring and pivot mechanism of the spoonbill. The sleeve 50 is apertured at 52 to enable the finger press 40 to extend therethrough for manual operation by the user in the manner hereinabove described.

The sloping body portions 15 and 23 and the complementary finger portions 16, 18, 24 and 26 are longitudinally grooved as at 60 to provide channels for longitudinal sliding of arm portions of curl clamp devices therein. For example, as illustrated in Fig. 6, an arm portion 62 of a bobby pin is illustrated as being slidably inserted in a groove 60 and under a coil of hair 64

which has been previously wound upon the mandrel portion of the device for resiliently clamping the coiled hair between the arms 62 and 63 of the bobby pin. As illustrated in Fig. 1, the grooves 60 are preferably funnel-shape as at 61 adjacent their outer ends to facilitate insertion of the curl clamping members therein.

To operate the device of the invention the body members 10 and 12 are first assembled in interfitted relation as illustrated in Figs. 1 to 5. The spoonbill clamping portion 38 is then raised away from the adjacent finger portion as illustrated by broken lines in Fig. 2, by manual pressure upon the finger press portion 40. The end of a tress of hair to be curled is then placed under the spoonbill clamp and the latter released to clamp the hair to the device. The body member 12 is then rotated by one hand of the user. As the rotational movement proceeds the tress of hair is coiled about the mandrel portion of the device; the finger cap 30 at the opposite end of the device being held in the other hand of the user. When the curl winding process is completed a bobby pin or other spring clamp device may be conveniently clamped upon a portion of the curled hair by sliding one of the jaws 62 thereof into one of the grooves 60 of the mandrel and through the opening provided thereby between the coiled hair and the bottom of the groove. The opposite jaw 63 has a sloping end portion for sliding up over the top of the curl when the open end of the clamp is forced against the curl. The curl is then ready to be removed from the curler. To perform this latter operation the spoonbill clamp need not be released because of the tapered form of the fingers, and the body portions 10 and 12 are simply simultaneously withdrawn from the curl with opposite directions of movement therefrom until the parts of the device are disassembled and free from the curl. The device may then be reassembled in preparation for repetition of the process in connection with the formation of another curl.

The body member 22 is preferably provided with an abutment portion 25 disposed below the spoonbill clamp and adapted to suspend the latter in a predetermined position of maximum downward movement, whereby during disassembly of the mandrel device the longitudinally tapered form of the fingers of the device will provide gradual withdrawal of the finger next adjacent the spoonbill clamp and therefore the pressure of the clamp upon said finger will gradually diminish as the disassembly proceeds.

It will be understood that an important feature of the invention is provided by the method of withdrawal of the mandrel from the finished curl. Because of the fact that the opposed body portions of the device are simultaneously withdrawn from the curl in opposite directions of movement therefrom the frictional forces upon the curl due to sliding movement of the mandrel devices are completely offset and neutralized, and there is therefore no tendency to disrupt the finished curl during the mandrel removing process such as is the case in connection with the use of prior forms of curling devices. Also, because of the tapered form of the fingers and the presence of the abutment 25 under the spoonbill clamp, the mandrel disassembly process automatically causes the spoonbill clamping pressure upon the inner end of the curl to be relinquished, and consequently the spoonbill does not tend to pull the inner end of the curl out of position; and this effect is provided without attention by the user or manual adjustment of the spoonbill to a raised position. Thus, the invention functions perfectly without the use of additional complicated and/or otherwise undesirable accessory abutment devices, or the like, for preventing the formed curl from following the movement of the mandrel when being retracted therefrom, and it will be understood that therefore a more perfect curl will be formed with utmost ease and convenience to the user.

Although only one form of the invention has been shown and described in detail it will be apparent to those skilled in the art that the invention is not so limited but that various changes may be made therein without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to adapt said body members to slidably interfit to provide, when assembled, a substantially solid hair curling mandrel of generally cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movements in opposite directions therefrom whereby said curl is substantially undisturbed by the effects of frictional forces thereon during said withdrawing movements.

2. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to adapt said body members to slidably interfit to provide, when assembled, a substantially solid hair curling mandrel of generally cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movements in opposite directions therefrom whereby said curl is substantially undisturbed by the effects of frictional forces thereon during said withdrawing movements, one of said body members being provided with a spoonbill for releasably clamping a tress of hair upon said device.

3. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to adapt said body members to slidably interfit to provide, when assembled, a substantially solid hair curling mandrel of generally cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movement in opposite directions therefrom whereby said curl is substantially undisturbed by the effects of frictional forces thereon during said withdrawing movements, at least one of said finger portions being longitudinally grooved at an outer face thereof to provide a recess extending beneath a curl of hair wound upon said device for sliding insertion thereunder of an arm of a curl clamping device.

4. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to adapt said body members to slidably interfit to provide, when assembled, a substantially solid hair curling mandrel of generally cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movements in opposite directions therefrom whereby said curl

is substantially undisturbed by the effects of frictional forces thereon during said withdrawing movements, said fingers being longitudinally grooved along the outer surface lines of juncture therebetween to provide recesses for reception of curl clamping members therein.

5. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to adapt said body members to slidably interfit to provide, when assembled, a substantially solid hair curling mandrel of generally cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movements in opposite directions therefrom, said finger portions being longitudinally tapered and of gradually reducing sectional form toward the free ends thereof, whereby the diameter of said mandrel in the region of the center thereof automatically reduces during disassembly movements of said body members, whereby said curl is undisturbed by the effects of frictional forces thereon during said withdrawing movements.

6. A hair curler comprising a pair of bifurcated body members each of which has a pair of parallel spaced extending finger portions of such sectional form as to be adapted to complement and interfit to provide, when assembled, a substantially solid hair curling mandrel of cylindrical form, said body members being adapted to be withdrawn from a curl formed thereon by simultaneous movements in opposite directions therefrom, said finger portions being longitudinally tapered and of gradually reducing sectional form toward the free ends thereof, whereby the diameter of said mandrel in the region of the center thereof automatically reduces during disassembly movements of said body members, whereby said curl is undisturbed by the effects of frictional forces thereon during said withdrawing movements, one of said body members being provided with a spoonbill pivotally mounted thereon for releasably clamping a tress of hair upon said device, spring means resiliently urging said spoonbill into clamping relation against one of said body members, and abutment means operatively associated with said spoonbill for limiting the movement of the latter in response to action of said spring means, whereby during disassembly of said mandrel the pressure of said spoonbill upon said hair curl gradually diminishes as the disassembly movement proceeds.

JOSEPH D. LA VISTA.