

July 20, 1943.

F. C. WALLACE

2,324,607

CURLING DEVICE

Filed Nov. 25, 1941

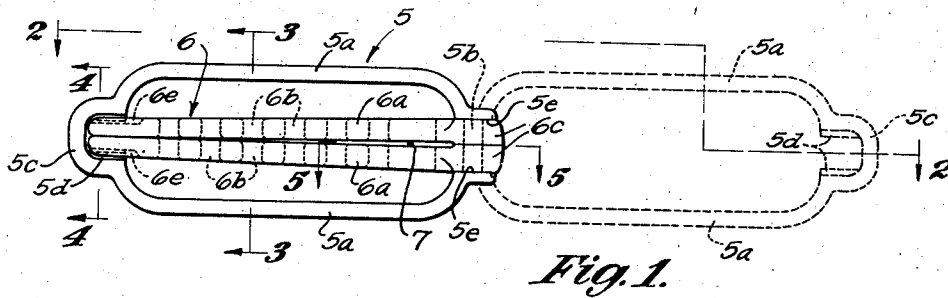


Fig. 1.

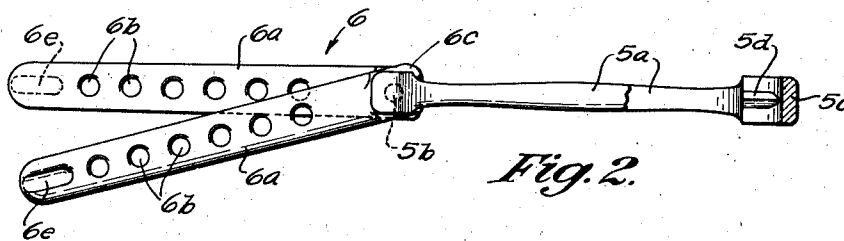


Fig. 2.

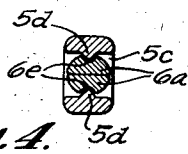


Fig. 4.

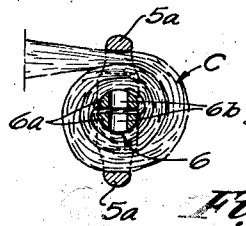


Fig. 3.

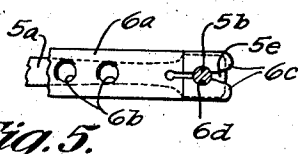


Fig. 5.

Inventor
Frank C. Wallace.

W. H. Army
Attorney.

UNITED STATES PATENT OFFICE

2,324,607

CURLING DEVICE

Frank C. Wallace, Los Angeles, Calif., assignor to
Monogram Manufacturing Co., Los Angeles,
Calif., a corporation of California

Application November 25, 1941, Serial No. 420,380

1 Claim. (Cl. 132—41)

My invention has to do with curling devices and, more particularly, it relates to hair curlers on which the curl is formed and secured and allowed to remain until the curl has set or dried.

In using curlers of this type, the hair is first wound on a mandrel and then, after the winding has been completed, the device is secured on the curl and allowed to remain in that position until the curl has set before it is removed. Therefore, each user must necessarily employ a large number of curling devices—one for each curl—and consequently such curlers must be produced very cheaply.

A shortcoming of conventional curlers of this type has been that they are of a structure which renders them relatively costly to manufacture and assemble and awkward to use; even then they readily become sprung and distorted or broken and they tend to catch and break the hair.

It is among the objects of my invention to provide a curler which is extremely economical of manufacture; which is durable, which is handy to use; which provides a novel and effective curling mandrel and means for mounting it on the retaining element; and which eliminates objectionable parts and surfaces which might catch on or break the hair strands.

Still further objects and advantages are inherent in my invention and how those as well as the foregoing are attained will be best understood from the following detailed description of a presently preferred adaptation thereof, for which purpose I shall refer to the accompanying drawing, in which:

Fig. 1 is a plan view of the device in closed or curl clamping position, the position which the clamping frame occupies when in open position being shown in dotted lines;

Fig. 2 is a longitudinal view, partly in section and partly in elevation, showing the dotted line position taken on line 2—2 of Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 1;

Fig. 4 is a section on line 4—4 of Fig. 1; and

Fig. 5 is a fragmentary view taken on line 5—5 of Fig. 1.

Referring now to the drawing, I show generally at 5 a curl retaining frame whose elements are preferably integrally molded of plastic or non-metallic material, although of course metal may be used if desired. This frame comprises sides 5a which are connected at the inner end by a spindle 5b and at the opposite end by a U-shaped portion 5c. Portion 5c has on its

inner surface opposite inwardly disposed lugs 5d for the purpose to be described.

The curling mandrel 6 is comprised of two parallel elongated segments 6a having transverse registering air-passing perforations 6b to provide free circulation of air through the curl to facilitate drying. Each of these segments 6a has a bifurcated inner end portion 6c presenting, intermediate the ends of the bifurcations, a bearing recess 6d to rotatably receive the spindle 5b, and each member 6a has, in its outer side face adjacent its outer end, an elongated recess 6e adapted to receive the respective lugs 5d in order to resiliently lock the frame in position longitudinally encircling the mandrel, the material of the U-shaped frame portion 5c being sufficiently resilient for this purpose. The bifurcations 6c and bearing recess 6d in each mandrel segment not only render it feasible to mold the spindle 5b integral with the frame, thus eliminating the necessity of exposed heads on the outer ends of the spindle, which might provide hair-catching projections, but said construction greatly reduces cost of assembly, renders the mandrel easily detachable, and provides a firm joint at all times since the spindle is resiliently clamped between the mandrel bifurcations 6c. Each of the segments 6a has its inner face slightly cut away whereby to provide a longitudinal slot or space 7 between the segments throughout the major portion of their length when they are clamped together in the frame 5, this slot being for the purpose of preventing wedging or catching of the hair between the segments at the inner end, to prevent crushing or breaking of the hair between the segments and to enable the outer ends to be clamped together. Although the space 7 is wide enough to prevent crushing the hair between the segments medially between their ends when the outer ends are resiliently clamped together by the frame portion 5c, said space, being substantially of the order of a hair thickness (see Fig. 3), is narrow enough to permit the initial hair strand to be effectively held between the mandrel segments during the initial part of the curl winding operation. End 5b of the frame presents abutment surfaces 5e at the respective ends of the spindle, which surfaces serve as guides for the relative swinging or rotative movement of the frame and mandrel.

In using my improved curler, the frame 5 is first swung into the dotted line position of Fig. 1, in which position it functions as a handle for manually rotating the mandrel. The initial

strand of hair used to start the curl is then placed between the segments 6a and as these segments are held together between the fingers of one hand, the operator uses the other hand to rotate the frame 5 and the mandrel to wind the curl about the mandrel. When the curl is thus fully wound, the frame 5 is swung into position longitudinally encircling the mandrel (full line position of Fig. 1) and the outer ends of the mandrel segments are forced into the socket provided by the U-shaped end 5c of the frame, the lugs 5d being snapped into the recesses 6e, in which position the device is resiliently held until the lugs are manually disengaged from the recesses. When the device is in that position, it occupies, with respect to the curl C, the position best illustrated in Fig. 3, the frame 5 holding the curl wound about the mandrel. After the curl has sufficiently set, the lugs 5d are manually disengaged from the recesses 6e and the frame is then swung again into the dotted line position of Fig. 1 and the mandrel longitudinally withdrawn from the curl.

While I have resorted to considerable detail

for the purpose of making my invention understood, I wish it understood that within the broader scope of my invention, as defined by the appended claim, various modifications and adaptations may be made without departing from the spirit of the invention.

I claim:

A hair curler comprising a frame consisting of side members and transverse end members, a curl winding mandrel comprised of two parallel segments pivotally mounted at their inner ends on one of the end members and means associated with the other end member for resiliently clamping the outer ends of the segments together, the inner opposed faces of the segments being cut away from a point adjacent their inner ends to provide therebetween a narrow enough to permit said opposed faces to receive and hold against longitudinal escape a strand of hair therebetween, but wide enough to prevent said hair strand from being crushed therebetween when the outer ends of the segments are clamped together.

FRANK C. WALLACE.

CERTIFICATE OF CORRECTION.

Patent No. 2,324,607.

July 20, 1943.

FRANK C. WALLACE.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, second column, line 17, before the word "narrow" insert --space--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 26th day of September, A. D. 1944.

Leslie Frazer

Acting Commissioner of Patents.

(Seal)