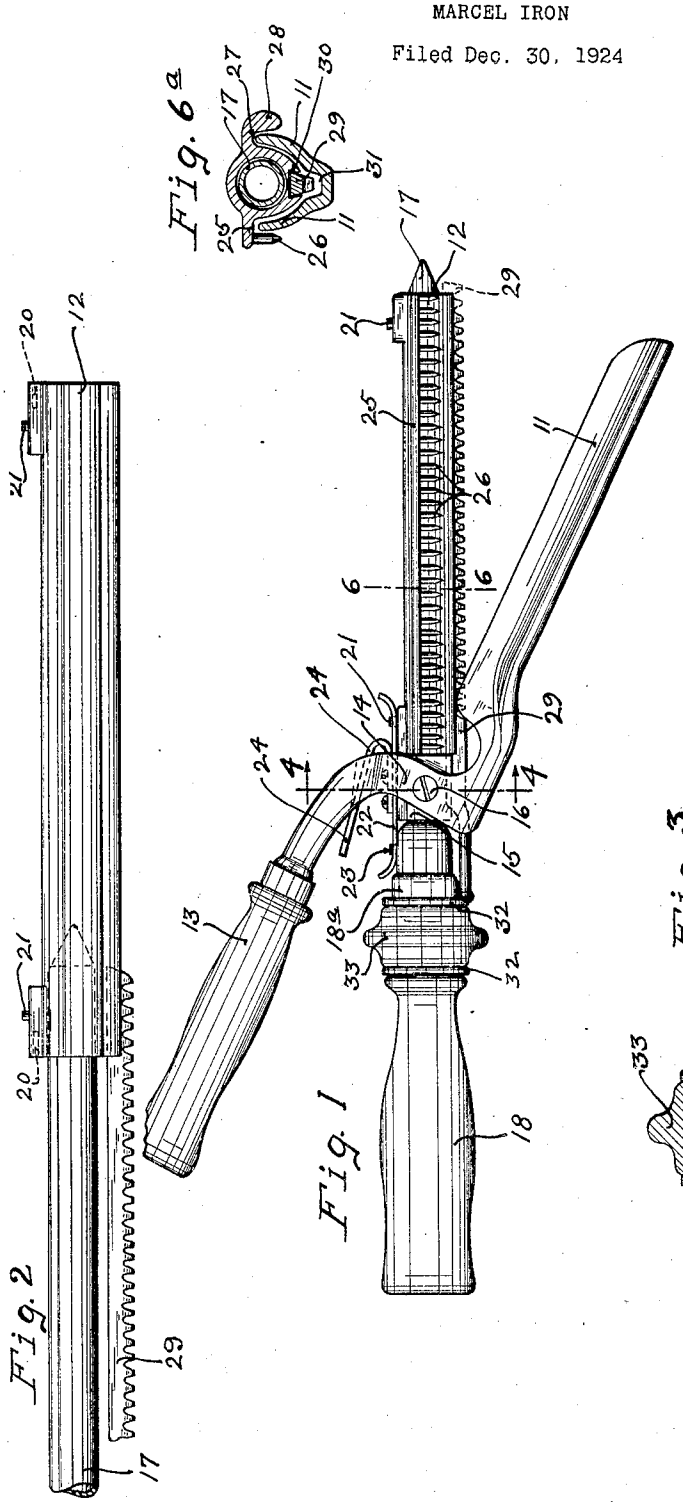
Nov. 2, 1926. 1,605,540

J. J. GIBNEY

MARCEL IRON

Filed Dec. 30, 1924 2 Sheets-Sheet 1



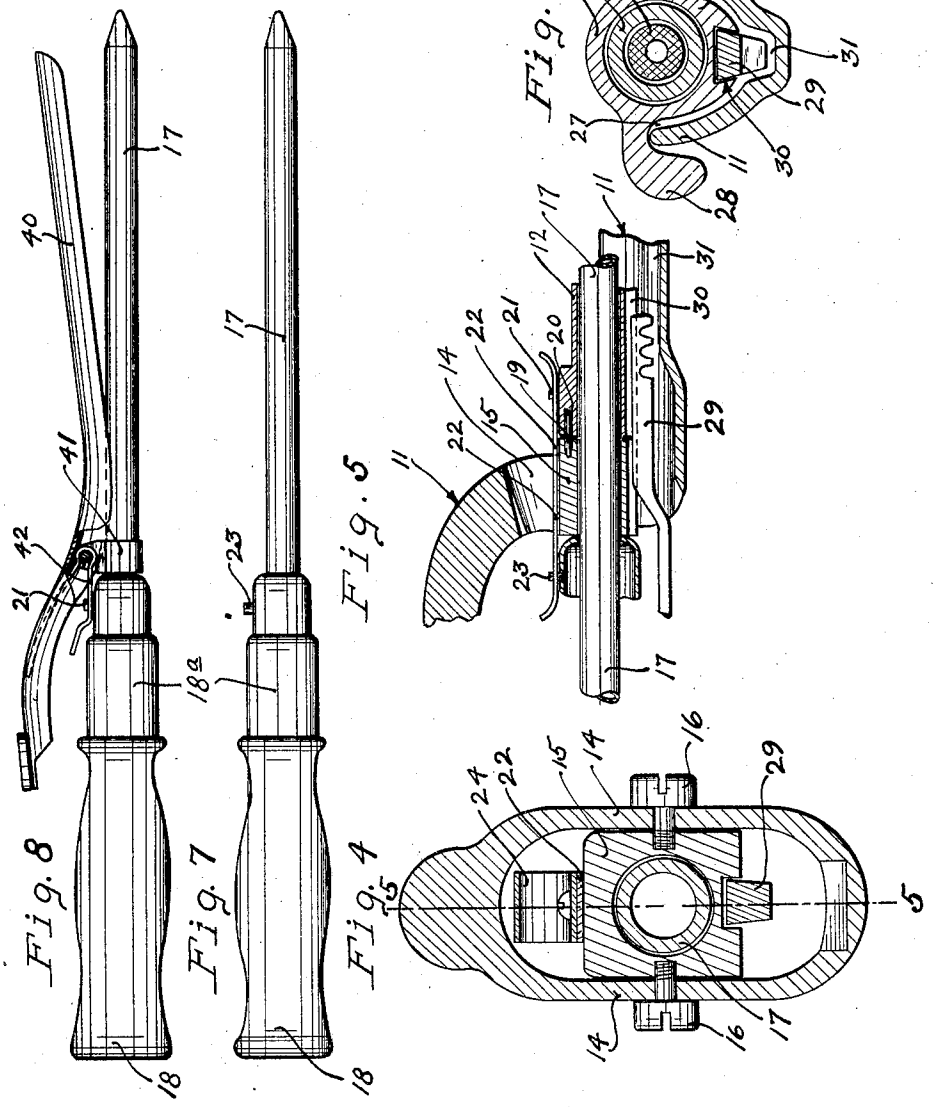
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Patented Nov. 2, 1926. 1,605,540

UNITED STATES PATENT OFFICE.

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MARCEL IRON.

Application filed December 30, 1924. Serial No. 758,825.

My invention provides an improved hair curler of the character especially adapted for use in producing what is known as a "Marcel" wave and, generally stated, the invention consists of the novel devices, combinations of devices and arrangement of parts hereinafter described and defined in the claims.

In its preferred embodiment, the improved curler involves various novel features, which adapt the iron for use in producing various different kinds of curl or wave in hair and it includes reversible and interchangeably usable elements whereby substantially all of the different kinds of hair wave or curl may be produced by the use of the iron in the one or the other of its adjustments.

In the accompanying drawings, which illustrate the preferred form of the improved iron, like characters indicate like parts throughout the several views.

Referring to the drawings:

Fig. 1 is a right side elevation showing the improved curling iron;

Fig. 2 is a fragmentary right side elevation, some parts being broken away and the reversible convex wave-producing former or member being applied in reverse position from that shown in Fig. 1;

Fig. 3 is a fragmentary view partly in elevation and partly in axial section, showing the wave shifter removed from the tool;

Fig. 4 is an enlarged transverse section taken approximately on the line 4—4 of Fig. 1;

Fig. 5 is a fragmentary axial section taken on the line 5—5 of Fig. 4;

Fig. 6 is an enlarged transverse section taken on the line 6—6 of Fig. 1, but showing the convex and concave wave formers pressed together;

Fig. 6ª is a view corresponding to Fig. 6, but on a smaller scale and showing the reversible convex wave former reversed or turned end for end in respect to the arrangement illustrated in Figs. 1 and 6;

Fig. 7 is a plan view showing an element that is adapted to be used as the primary heating element and one of the levers or handle members of the complete curling iron or, when detached, to be used as an ordinary curling iron; and

Fig. 8 shows the element of Fig. 7 combined with a channel-like clamping lever of an ordinary curling iron.

The wave in the hair is produced by the cooperation of two elongated wave formers 11 and 12, the former of which is concave or of trough-like form, and the latter of which is of convex form. The member 11 constitutes part of a lever and is provided with an offset handle 13 of wood or other heat-insulating materials and, between its handle and body, with a transversely extended bifurcated portion 14, within which is located a pivot block 15 pivotally connected thereto by screws 16 or other suitable means.

The numeral 17 indicates what may be considered an ordinary curling iron provided with a handle 18, of wood or other heat-insulating material. The pivot block 15 and the convex wave former 12 are formed with axial passages through which the primary curling irons 17 are adapted to be freely telescoped, as best shown in Figs. 1 and 5. As shown, the block 15 has a dowel pin 19 that engages a seat 20 in the adjacent end of the convex wave producer 12. As will hereinafter appear, the said member 12 is reversible end for end on the curling iron 17 and, hence, is provided with the dowel pin seats 20 at both ends and, also, near its ends, with upstanding latch pins or lugs 21, the purpose of which latter will presently appear.

To hold the above noted elements 12, 15 and 17 cooperatively assembled, as shown in Figs. 1 and 5, a latch 22, shown in the form of a flat spring, is intermediately secured to the pivot block 15 and, near its front and rear ends, has perforations to receive, respectively, the rear end latch pin 21 of the member 12 and a similar latch pin or lug 23 on the primary heating iron 17. By the means just described, the three elements 12, 15 and 17 are not only held against axial separation but against rotation, the one in respect to the other, and said primary heating iron is thus combined with the wave former 12 to afford one of the levers of the complete curling iron. A U-shaped spring 24, applied to the pivot block 15 and operating on the handle portion of the member 11, tends to hold the two lever members of the iron opened up or separated substantially as shown in Fig. 1.

On one side, the reversible convex wave former 12 has an outstanding flange 25 equipped with a comb 26, and on its other side, it has an outstanding flange that forms a clamping channel 27 and an externally rounded and preferably approximately semi-

cylindrical surface 28. The comb 26 may be formed or provided in any suitable way, but it is offset from the rounded body of the member 12 so as to leave space for the adjacent flange of the trough-like member 11. The flange 28 is offset from the body of the member 12, so that the opposite flange of the trough-like member 11 may freely enter the channel 27 to hold the hair against endwise movements through the said channel 27 while a certain important action presently to be described is produced. By reference particularly to Fig. 6, it will be noted that the flange 25 of the member 12 is slightly raised so that the flange of the member 11 will engage the channel 27 when there is still large clearance between said flange 25 and the adjacent side flange of the member 11. This relation of clearance between the flange 25 and the adjacent flange member 11 will be maintained also when said member 12 is reversed, side for side and end for end, in respect to Fig. 6. The purpose of this action will presently appear.

The device so far described will produce in the hair an approximately semi-circular wave, but to make a Marcel wave requires that such a semi-circular curl be flattened or axially tipped over; and for producing this result, I have provided an extremely simple and efficient device herein designated as a wave shifter, shown in detail in Fig. 3. This device is in the form of a notched or toothed bar 29 that is arranged to detachably slide in a groove 30 extended longitudinally through the bottom portion of the wave former 12, (see particularly Figs. 1, 4, 5 and 6, by reference to which it will also be noted that the concave wave former 11 is provided with a longitudinal channel 31 into which the toothed portion of the member 29 works with ample clearance). At its stem end, the toothed bar 29 is rigidly attached to a collar 32 that is telescoped and freely slidable on a cylindrical portion 18^a of the handle 18 of the primary heating iron 17. The collar 32 is preferably made of metal and provided with a surrounding band 33 of wood or other heat-insulating material.

For use in connection with the curling iron 17, when the latter is removed from the complete curling iron or marcel-producing device, I preferably provide a channel-like clamping lever 40 pivoted to a sleeve 41 that is slidable onto the body of iron 17 and is provided with a spring latch 42 perforated to engage the latch pin 21 of the said iron.

Operation.

In the use of the device as a marcelling iron, the parts are assembled as best illustrated in Figs. 1 and 5. Figs. 1 and 6 show the device properly adjusted for use on the hair at the left side of the head, for in the proper use of the device, the flange 28 should be next to the head and the comb 26 should be on the outer side of the device and, moreover the smooth-edge wave former 11 should be at the bottom of the device, so that it may be freely run through or under the hair. When the hair has been properly positioned between the forming members, the handles 13 and 18 will be pressed together, thereby closing the wave-forming formers or members 11 and 12 and causing the hair to be bent into semi-circular wave. Moreover, when the two members are closed together, the hair of the wave will be pinched against the channel 27 by the adjacent flange of the member 11, and the teeth of the comb 26 will be forced through the hair of the wave but the hair will not be gripped at that side of the device and, hence, while it will be held against endwise movements on that side adjacent to the head, will be free for endwise movements through the comb. Of course, the hair of the wave, at its intermediate portion, will be passed over the teeth of the wave-shifting bar 29. If the said wave-shifting bar 29 be not given a sliding movement, a "round" wave or semi-circular wave will be formed. However, the formation of a flattened wave known as a "Marcel" is one of the main objects of this invention and this type of wave may be produced, that is, the wave just noted may be shifted axially and turned over and flattened simply by moving the bar 29 while the wave is clamped between the members 11 and 12, as above described. The shifting of the bar 29 is a very simple matter and may be quickly and easily accomplished simply by forcing the collar 32—33 from the position shown in Fig. 1 to a position in which it will just engage with the upturned inner end of the latch spring 22. If the said collar be forced further outward than just stated, it will have a cam action on the engaged end of the latch spring 22 and will release the same from the latch pin 23 and thereby uncouple the primary curling iron 17 from the other elements of the complete or marcelling iron. This quick release permits the primary curling iron to be quickly detached for use as an ordinary curling iron.

When the device is to be used on the hair at the right side of the head, the convex wave former 12 should be reversed end for end and side for side, and this may be quickly done simply by lifting the front end of the latch spring 22 so as to disengage the same from the co-operating latch pin 21, and then turning the said member 12 end for end and re-applying the same in the reversed relation illustrated in Fig. 6. Attention is called to the fact that Figs. 6 and 6^a are viewed from the handle toward the tip end of the tool, and when applied to the hair,

they will be reversed, side for side, for the reason that the tool will be held by its handles 13 and 18 and will be turned rearward when applied to the hair. As already indicated, when switch 39 is open the complete heating element 36 will be thrown into action and the relatively high resistance will then produce the relatively low heat required for use when the iron is used as an ordinary curling iron; while on the other hand, when switch 39 is closed the relatively high temperature required for use in the complete marcelling iron will be afforded.

In actual practice, this improved device has been found highly efficient for the several purposes had in view.

What I claim is:

1. A device of the kind described comprising cooperating relatively movable concave and convex wave formers arranged to clamp the hair at one side and to hold the same with freedom for endwise movements at the opposite side, and an endwise movable wave-shifting member operative on the hair wave between the two members to shift the engaged hair and thereby form a Marcel or flattened wave.

2. The structure defined in claim 1 in which the convex wave former is reversible end for end and side for side.

3. The structure defined in claim 1 in which said wave formers are pivotally connected and operate as levers.

4. The structure defined in claim 1 in which said wave formers are pivotally connected and operate as levers, and in which said convex wave former is reversible end for end and side for side.

5. In a device of the kind described, the combination with a lever comprising a handle and a channel-like concave wave-forming blade, a pivot block pivotally connected to said lever between its handle and blade, a primary curling iron insertable through said pivot block and detachable therefrom, said primary iron having a handle and operating as a lever, and a convex wave former telescoped onto said primary curling iron and cooperating with the blade of said first noted lever to form a hair wave.

6. In a device of the kind described, two pivotally connected lever-acting members, the one having a convex wave-forming body portion and the other having a concave wave-forming blade, and a toothed endwise movable wave-shifting bar operative between said body portion and blade.

7. The structure defined in claim 6 in which said wave-shifting bar has a collar slidably on the lever-acting member having said convex wave-forming body portion.

8. The structure defined in claim 6 in which said convex wave-forming body portion is detachably latched to the lever-forming member of which it forms a part.

9. The structure defined in claim 5 in which said primary curling iron and convex wave former are detachably latched to said pivot block.

10. The structure defined in claim 5 in which said primary curling iron and convex wave forming are detachably latched to said pivot block, the said convex wave former being reversible end for end and side for side on said primary curling iron.

11. In a device of the kind described, the combination with a lever comprising a handle and a channel-like concave wave-forming blade, a pivot block pivotally connected to said lever between its handle and blade, a primary curling iron insertable through said pivot block and detachable therefrom, said primary iron having a handle and operating as a lever, a convex wave former telescoped onto said primary curling iron and cooperating with the blade of said first noted lever to form a hair wave, and a toothed wave-shifting bar slidable on said convex wave former and operative to shift the hair and form a Marcel or flattened wave.

12. In a device of the kind described, the combination with a lever comprising a handle and a channel-like concave wave-forming blade, a pivot block pivotally connected to said lever between its handle and blade, a primary curling iron insertable through said pivot block and detachable therefrom, said primary iron having a handle and operating as a lever, a convex wave former telescoped onto said primary curling iron and co-operating with the blade of said first noted lever to form a hair wave, and a toothed wave-shifting bar slidable on said convex wave former and operative to shift the hair and form a Marcel or flattened wave, the said toothed bar having a collar slidable on the handle portion of said primary curling iron.

13. The structure defined in claim 5 in further combination with latch devices applied to said pivot block and operative on said primary curling iron and convex wave former to detachably connect the said three elements.

14. The structure defined in claim 5 in further combination with latch devices applied to said pivot block and operative on said primary curling iron and convex wave former to detachably connect the said three elements, and in further combination with a toothed wave-shifting bar slidable on said convex wave former.

15. The structure defined in claim 5 in further combination with latch devices applied to said pivot block and operative on said primary curling iron and convex wave former to detachably connect the said three elements, and in further combination with a toothed wave-shifting bar slidable on said convex wave former, said toothed shifting

bar having a collar slidable on the handle of said primary iron and by an extreme movement operative to release the latch that connects said primary iron to said pivot block.

16. A device of the kind described comprising co-operating relatively movable convex and concave wave formers arranged to clamp the hair at one side, one of said elements on the other side having a comb operative to hold the hair against lateral shifting movements while free for endwise drawing movements, and a toothed wave-shifting member operative on the intermediate portion of the hair waver to shift the hair wave and thereby form a Marcel or flattened wave.

17. The structure defined in claim 1 in which the means at one side of the device for clamping the hair is a channel on one of the members and a flange on the other member, and the means at the other side of the device for holding the hair against lateral shifting movements but for endwise drawing movements is a comb.

18. In a device of the kind described, the combination with a lever comprising a handle and a channel-like concave wave-forming blade, a pivot block pivotally connected to said lever between its handle and blade, a primary curling iron insertable through said pivot block and detachable therefrom, said primary iron having a handle and operating as a lever, and a convex wave former telescoped onto said primary curling iron and co-operating with the blade of said first noted lever to form a hair wave, said concave wave former and co-operating wave-forming blade at one side of the device having hair-clamping means and at the other side of the device one of said members having a comb for holding the hair against lateral shifting movement but free for endwise drawing movement.

19. In a device of the kind described, two pivotally connected lever-acting members, the one having a convex wave-forming body portion and the other having a concave wave-forming blade, and a toothed endwise movable wave-shifting bar operative between said body portion and blade, said concave wave former and co-operating wave-forming blade at one side of the device having hair-clamping means and at the other side of the device one of said members having a comb for holding the hair against lateral shifting movement but free for endwise drawing movement.

20. In a device of the kind described, the combination with a lever comprising a handle and a channel-like concave wave-forming blade, a pivot block pivotally connected to said lever between its handle and blade, a primary curling iron insertable through said pivot block and detachable therefrom, said primary iron having a handle and operating as a lever, a convex wave former telescoped anto said primary curling iron and co-operating with the blade of said first noted lever to form a hair wave, and a toothed wave-shifting bar slidable on said convex wave former and operative to shift the hair and form a Marcel or flattened wave, said concave wave former and co-operating wave-forming blade at one side of the device having hair-clamping means and at the other side of the device one of said members having a comb for holding the hair against lateral shifting movement but free for endwise drawing movement.

In testimony whereof I affix my signature.

JAMES J. GIBNEY.