March 29, 1927. 1,622,834

F. R. MARCEL

CURLING IRON

Filed June 12, 1924

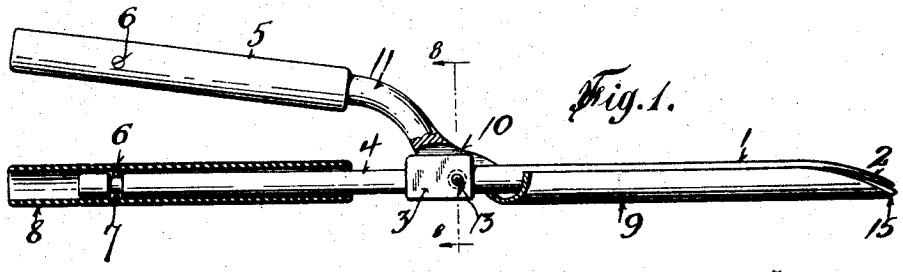


Fig. 1.

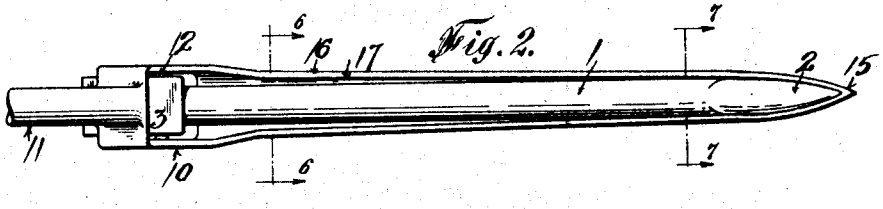


Fig. 2.

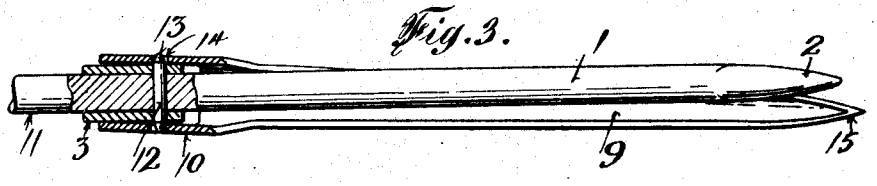


Fig. 3.

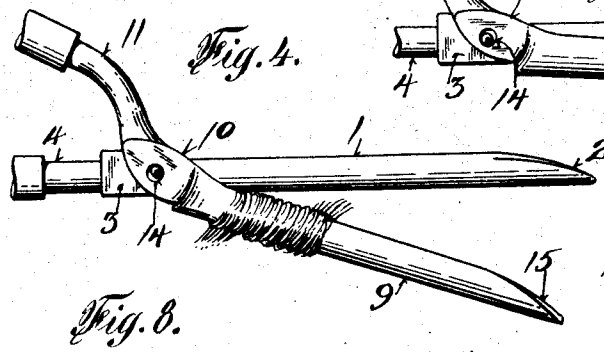


Fig. 4.

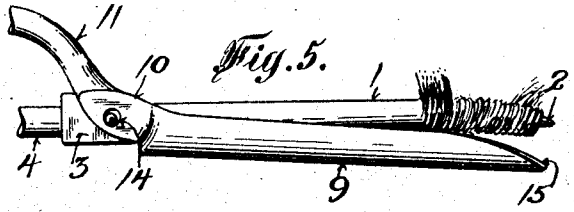


Fig. 5.



Fig. 6.



Fig. 7.

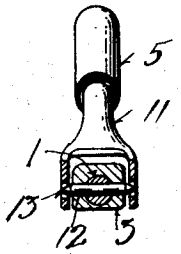


Fig. 8.

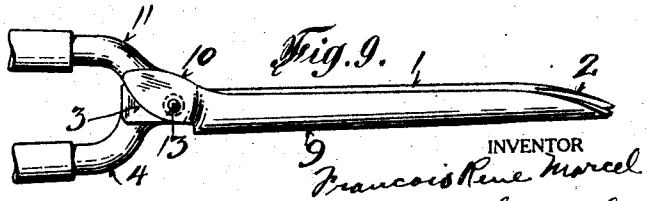


Fig. 9.

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UNITED STATES PATENT OFFICE.

FRANÇOIS RENÉ MARCEL, OF BROOKLYN, NEW YORK.

CURLING IRON.

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My invention relates to curling irons for waving or curling hair and it includes a number of features adapted to be embodied in the same device for the purpose of providing a curling iron of greatest efficiency. One object of the invention is to construct a curling iron the waving members of which may be heated to the desired degree for proper waving and in which the heat will not be conducted to any great extent to the handle members so that the latter will not be so heated as to be uncomfortable for the operator. Another object is to provide a simple form of revolving handles which will readily revolve on the curling iron and at the same time will not entangle the hair.

Another object is to construct the iron in such a manner that when the lock of hair is gripped between the waving members consisting of the rod and the grooved member, all portions of the lock of hair lying between these members will be efficiently waved. This branch of the invention involves two features which co-operate to give the desired result. Another object of my invention is to so shape the edge of the grooved member that the wave will be more perfectly formed in the hair. Another object is to so construct the members of the curling iron that there will be a slight lateral play as between the two heating members in order to permit the iron to be manipulated to secure the desired results.

In the drawing forming part of this application,

Figure 1 is a side elevation of a curling iron constructed according to my invention, parts being broken away to show the details of construction,

Figure 2 is a plan view thereof on a larger scale the handles being broken away,

Figure 3 is a view similar to Figure 2 showing the curling members partly opened and showing some of the parts broken away,

Figure 4 is a side elevation of the curling members about to close onto a lock of hair placed well up toward the pivotal point of these members,

Figure 5 is a similar view showing the lock of hair engaged near the outer ends of the curling members as when working close to the head,

Figure 6 is a sectional view taken on the line 6—6 of Figure 2,

Figure 7 is a sectional view taken on the line 7—7 of Figure 2,

Figure 8 is a sectional view taken on the line 8—8 of Figure 1, and

Figure 9 is a side elevation showing a modified shape of handle.

In the drawings I have shown the hair engaging members consisting of the round rod 1 which is preferably of uniform diameter throughout except that at the extreme end this rod is chamfered off at 2 to provide a pointed end for quick insertion into the hair. This rod member extends through a bearing block 3 here shown as in rectangular shape and having a tight or permanent fit on the rod member 1. The rod is extended on the opposite side of the block 3 to form one of the handle members 4 of the curling iron. On this handle member 4, I provide a grip member consisting of a tube 5 which may be composed of fibre and it is adapted to revolve freely upon the handle member 4, and to retain the grip member in place I have shown a set screw 6 which is screwed through the grip member 5 and it extends into the circumferential groove 7 formed in the handle member 4. This set screw is adapted to turn freely in the groove 7 so that it holds the grip member upon the handle member 4 and at the same time allows the grip to revolve freely. This form of grip and its retaining means is very simple in construction and there is nothing to entangle with the hair. The grip member 8 corresponds with and operates the same as the grip member 5.

The second hair engaging member consists of the grooved or spoon-shaped member 9 which partially surrounds the circular rod 1 and this grooved member spreads out in the shape of a yoke 10 extending around the bearing block 3 and continuing from this yoke there is a curved handle member 11 which lies in cooperative relation to the handle member 4 and carries the grip member 5. The means forming the pivotal connection between the hair engaging members consists of a pin 12 which passes through the bearing block 3 and through the rod 1 and the reduced or pointed ends 13 of this pin which project beyond the bearing block 3 engage in the apertures 14 in the opposite members of the yoke 10. The yoke is spread or made wider than the width of the block

3 and the apertures 14 in which the ends of the pin 12 engage are larger than the pins in order that the block 1 and the yoke 10 may rock in relation to each other sideways and in order that the angle of the rod member 1 in relation to the grooved member 9 may be slightly altered during the manipulation of the iron. The grooved member 9 is also chamfered at the outer end, as shown at 15 corresponding with the chamfered end of the rod 1. The grooved member 9 is not of uniform curvature throughout but it is tapered, so that as shown in Figure 6 the arc of crosswise curvature of this member is relatively larger at the point nearest the pivot 12, and it tapers gradually towards the outer or pointed end; and in Figure 7 this member is shown as curved on the smaller arc, than where the sectional view Figure 6, is taken. The taper is more exaggerated in the drawing in order to make the same more apparent to the eye. In practice the taper may be very slight.

The grooved member at least at one side, preferably the left side, in an iron adapted for use by a right-handed operator, is reduced by being cut or slanted off at an acute angle as shown at 16 in order to provide a comparatively sharp edge 17 at the inside or near the rod member 1. The purpose of this is to produce a sharp turn in the hair at this line when the iron is rolled with the lock of hair clamped between the rod and the grooved member and the result is a more definite and permanent wave in the hair. When the rod member 1 moves down toward the grooved member 9, the members may be so manipulated that the rod 1 may press close to the edge 17 and grip the hair.

When the iron is in use, the grip members 5, 8 may revolve freely to facilitate manipulation of the iron. When the pointed end of the iron is inserted into the hair to engage a lock of the hair the iron may be inserted to bring the lock of hair well up toward the pivot 12 as shown in Figure 4, when the iron is being used a sufficient distance from the scalp, whereas, when the waving takes place very close to the head it is often necessary to insert the iron in the hair to a lesser degree as is shown in Figure 5. Where the hair is moved into the iron as in Figure 4, if the pivotal point 12 were rigid, that is to say, if there were no play at the pivot, the hair would be gripped tightly near the pivot and the portion lying further from the pivot would hardly be gripped at all and therefore this portion would not receive sufficient pressure and heat to set the wave. This is further accentuated by the fact that the lock of hair is generally thicker at a point nearest the pivot when the iron is first inserted to engage the hair. In the present device there is a space in the apertures 14 for movement of the ends of the pivot pin 12 so that when the rod and grooved member are closed upon the lock of hair the actual pivotal point may change so that the degree of divergence of the rod and grooved members may vary to accord with the lock of hair which is gripped between them and thus press all portions of the lock of hair which is engaged between these members. As a result of this action a more perfect and permanent wave is produced. The tapering shape of the spoon member also assits in this action because the space between the member 9 and the rod 1 is slightly greater near the pivotal point and it gradually decreases toward the pointed end of these members. When the rod and grooved member are moved toward each other to engage the lock of hair it is possible to rock these members in lateral relation as shown in Figure 3 in order that the rod member 1 may hug closely to the sharp edge 17 of the member 9. It will be observed that the bearing block 3 is relatively large in bulk and I have found that this prevents the heat from the rod member 1 passing along to the handle member 4 so that even if the rod 1 is heated continually to the temperature necessary to wave the hair, the handle member 8 remains comparatively cool and it can be handled directly even without the grip member 8. Without this block 3 of relatively large mass the heat would be quickly conducted to the handle member 4 and it would become too hot to be handled comfortably. All of these features combine to provide a curling iron of greatest efficiency both for professional use and for home use.

Having described my invention, what I claim is:

1. A curling iron comprising a rod member, and a concave member pivotally connected and cooperating to engage the hair between them and wave the hair, said members each having handle members for operating them, and a block of comparatively large cubical content disposed between said rod member and its handle for reducing the conduction of heat from said rod member to said handle.

2. A curling iron comprising a rod member and a handle therefor, a block of comparatively large cubical content between said rod and its handle for reducing the conduction of heat from said rod to its handle, a concave member cooperating with said rod whereby the hair is engaged between the rod and concave members to be curled, said concave member having an operating handle and having an intermediate divided portion surrounding and pivoted to said block.

3. A curling iron comprising a rod member of substantially uniform diameter and a concave member pivoted to swing in relation to each other, and cooperating to engage the hair between them to curl it, and

operating handles for said rod and concave members, the concave surface of said concave member being curved on a larger arc near one end of said member and decreasing in curvature toward the other end of said member.

4. A curling iron comprising a rod member and a grooved member pivoted to swing in relation to each other, extensions on said members forming handle portions and grips on said handle portions comprising tubular members revolvable on the handle portions, held thereon by screws engaging in said circumferential grooves in said handle portions.

Signed at New York in the county of New York and State of New York, this 27th day of May, 1924.

FRANÇOIS RENE MARCEL.