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Mar. 27, 1923. 1,449,632

E. R. TALBOT

ELECTRIC WAVING IRON

Filed Mar. 6, 1922

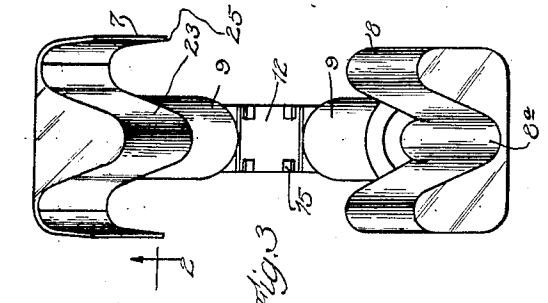


Fig. 3

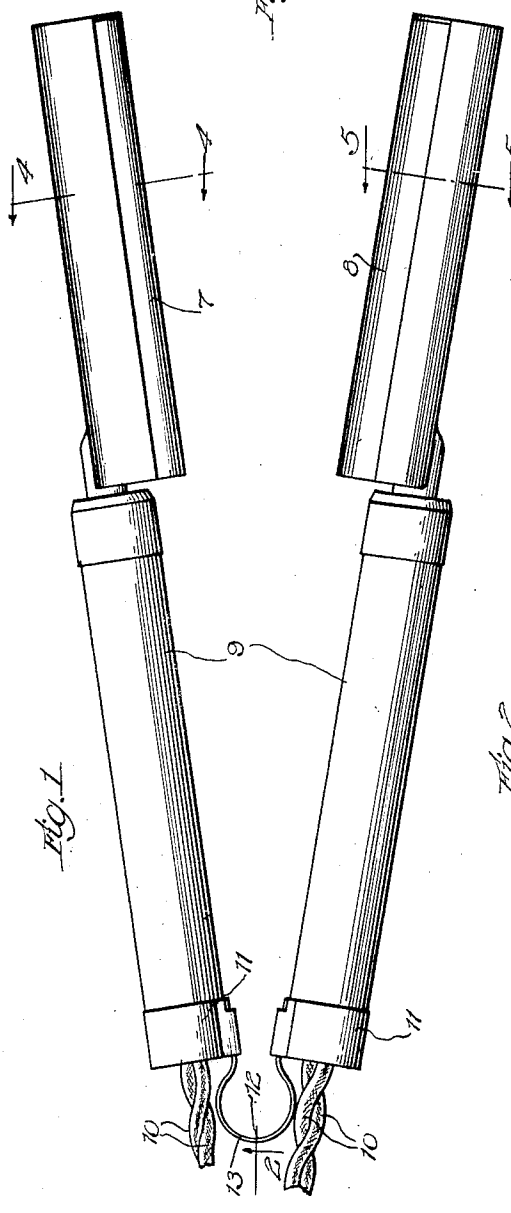


Fig. 1

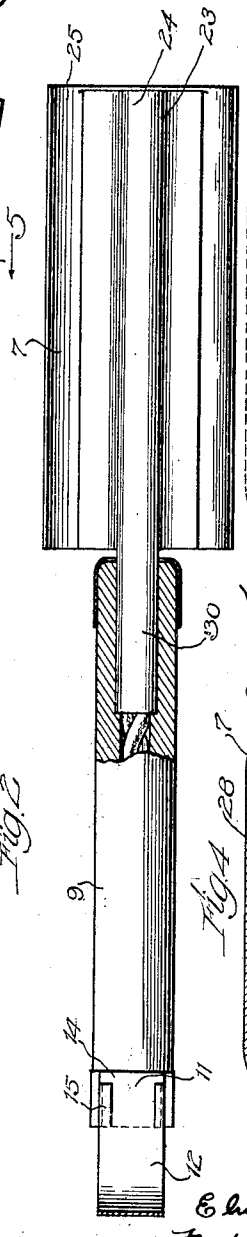


Fig. 2

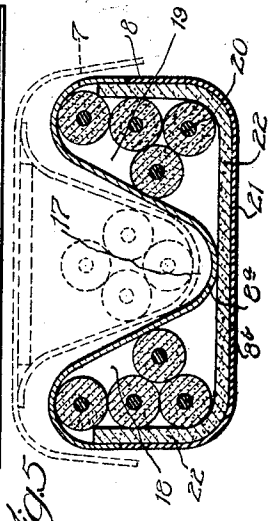


Fig. 5

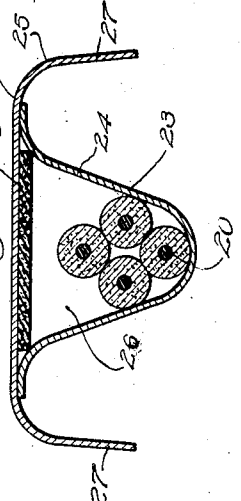


Fig. 4

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By Fred Gerlach his Atty

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# UNITED STATES PATENT OFFICE.

ELMER R. TALBOT, OF CHICAGO, ILLINOIS.

## ELECTRIC WAVING IRON.

Application filed March 6, 1922. Serial No. 541,327.

*To all whom it may concern:*

Be it known that I, ELMER R. TALBOT, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Waving Irons, of which the following is a full, clear, and exact description.

The invention relates to electrically heated waving irons. One of its objects is to provide an improved device of this character in which provision is made for permitting the coacting or opposed faces of the connected hair clamping members to be self-adjusting to any irregularities in the arrangement of the strands of the hair, so that, notwithstanding these irregularities, the pressure upon the hair between the members will be substantially equalized. Another object of the invention is to provide an electrically heated waving iron of improved construction and by which the hair will be held so that it will be properly waved.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is a side elevation of a curling iron embodying the invention. Fig. 2 is a central section, a portion of one handle being broken away. Fig. 3 is an end elevation. Fig. 4 is a section on line 4—4 of Fig. 1. Fig. 5 is a section on line 5—5 of Fig. 1.

The invention is exemplified in a device comprising a pair of members 7 and 8, each of which is secured to a tubular handle 9 of heat insulating material such as fibre and is hollow to permit the conductor wires 10 leading to and from the resistance elements in the members to pass therethrough. A band 11 is extended around each of the handles 9 at their inner ends, that is, the ends which are farthest from the presser members. The handles are connected by a flat resilient strip 12 which is bowed, as at 13, and has its terminals 14 extended into grooved lugs 15 formed on the inner sides of the bands 11 respectively. This strip forms a connection between the handles which normally presses them apart approximately to the position shown in Fig. 1, so that the members will be normally spaced apart to receive hair to be treated. A characteristic of the bowed resilient strip 12 is that it forms a pivotal connection between the handles which is sufficiently yieldable to permit the coacting faces of the presser members to adjust themselves to any irregularities in the hair placed between them and so that the pressure upon all portions of the hair between the members will be substantially equalized and treated with equal pressure. Another characteristic of this strip-connection is that it is disposed as remote as possible from the presser members, so that when they are spread apart there will be considerable space between the inner members thereof, as well as their outer ends.

Member 8 comprises a casing formed of sheet metal strips $8^a$ and $8^b$. Strip $8^a$ forms the inner wall of the casing and is bent to form a longitudinal groove 17. Casing strip $8^b$ has its sides extended to meet the margins of strip $8^a$ to form chambers 18 and 19 at the sides of the grooved portion 17 and across the outer side of said members to form a closed back 21 for the chambers. Each of the chambers 18 and 19 contains a loop of suitably covered resistance wire 20 forming a resistance element in each of the chambers. These loops are connected to the conductors 10 entering through one of the handles 9 and which are connected to a suitable source of electrical energy. A lining 22 of insulating material, such as asbestos, extends across the inner face of wall 21 and the back of chambers 18 and 19 to prevent excessive heating of the outer portions of member 9. The other presser member 7 comprises a casing also formed of sheet metal strips 24 and 25. Strip 24 is bent to form a portion 23 which is adapted to substantially fit in the groove 17 of presser member 8, and strip 25, which is secured as by welding to the margins of the strip 24, is extended to form a back for the chamber 26 in the portion 23 and also bent, as at 27, to extend around the sides of the member 8 so that the hair will be held in a plurality of waves between the members. A loop of suitably covered resistance wire 20 is placed in the chamber 26 and is connected to one pair of conductors 10 which supply energy to the resistance elements. A strip 28 of asbestos is placed in chamber 26 to prevent the outer wall of said chamber from becoming excessively heated. The casing of each of the members is extended, as at 30, to form a socket extending into one of the handles 9. It will be understood that the ends of the chambers 18, 19 and 26 are closed.

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In operation the hair to be waved is laid and distributed across the member 8. The handles 9 are then pressed together to cause the members 7 and 8 to press the hair between them. When this is done, the coacting faces of the members 7 and 8 will relatively adjust themselves to equalize the pressure upon the different portions of hair placed between them, the connecting strip 12 permitting such relative self adjustment as pressure is applied to the handles 9. The construction of the members is such that the hair will be waved and heated between the members without excessively heating the outside of the members.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a waving iron, the combination of a pair of longitudinally extending presser members having coacting interfitting faces formed to press the hair between them, heating elements in the members, handles on the members respectively, and a spring connection between the members formed to leave them free for relative self-adjustment to any unevenness of the hair between them when they are pressed together, the handles being rigid with the members respectively so that they may be pressed together thereby.

2. In a waving iron, the combination of a pair of longitudinally extending presser members having coacting interfitting faces formed to press the hair between them, heating elements in the members, handles on the members respectively, and a bow-spring forming a flexible connection between the handles and permitting the members to adjust themselves to any unevenness of their hair between them when they are pressed together, the handles being adjacent the members and adapted to press them together.

3. In a waving iron, the combination of a pair of longitudinally extending presser members having coacting interfitting faces formed to press the hair between them, heating elements in the members, handles on the members respectively, and a bow-spring forming a flexible connection between the handles and permitting the members to adjust themselves to any unevenness of the hair between them when they are pressed together, the handles being adjacent the members and adapted to press them together, the bow spring being disposed adjacent the outer ends of the handles.

4. In a waving iron, the combination of a pair of longitudinally extending members each having a casing, handles on the members connected together, the casing of one member having its inner face formed with a longitudinal groove, chambers at the sides thereof and an enclosing back for the chambers, the other casing being formed to fit in said groove with a chamber therein and with a closed back for the chamber and resistance elements in said chambers.

5. In a waving iron, the combination of a pair of longitudinally extending members each having a casing, handles on the members connected together, the casing of one member having its inner face formed with a longitudinal groove, chambers at the sides thereof and an enclosing back for the chambers, the other casing being formed to fit in said groove with a chamber therein and with a closed back for the chamber, and resistance elements in said chambers and insulations for the backs of the chambers to prevent the back walls from becoming excessively heated.

6. In a waving iron, the combination of a pair of longitudinally extending members each having a casing, handles on the members connected together, the casing of one member having its inner face formed with a longitudinal groove, chambers at the sides thereof and an enclosing back for the chambers, the other casing being formed to fit in said groove with a chamber therein, and with a closed back for the chamber and extended to fit around the outer wall of the grooved member, and resistance elements in said chambers.

Signed at Chicago, Illinois, this 17th day of February, 1922.

ELMER R. TALBOT.