

L. FREY.
ELECTRICALLY HEATED WAVING TONGS.
APPLICATION FILED AUG. 28, 1913.

1,095,392.

Patented May 5, 1914.

2 SHEETS—SHEET 1.

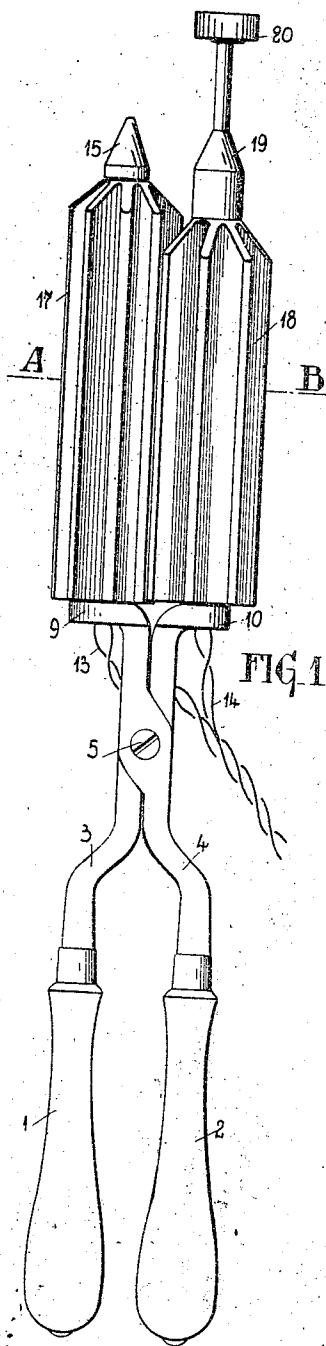


FIG. 1.

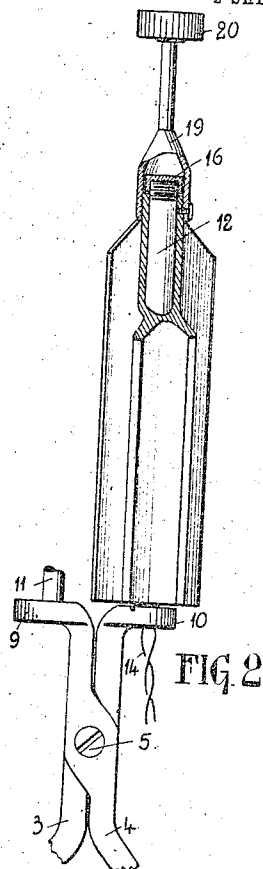


FIG. 2.

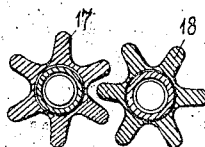


FIG. 3.

Witnesses:

S. L. Halton

Inventor:

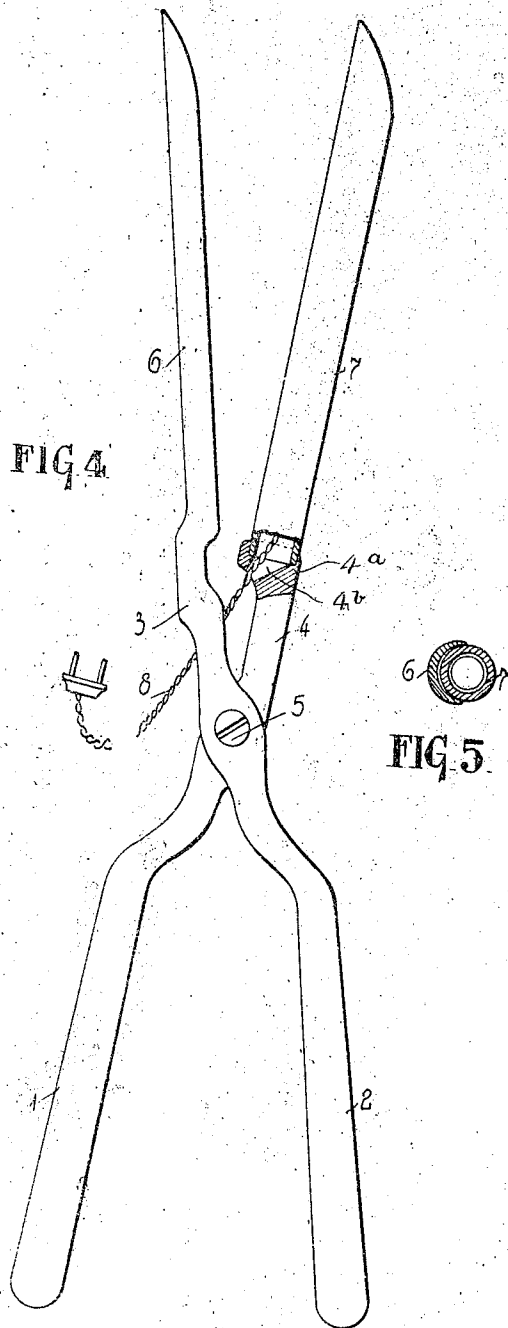
Luise Frey

by *A. B. Wilson & Co.*
Attorneys

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S. J. Hall
L. O. Halton

Inventor:

Luise Frey

by *A. B. Wilson & Co*
Attorneys

UNITED STATES PATENT OFFICE.

LUISE FREY, OF MUNICH, GERMANY.

ELECTRICALLY-HEATED WAVING-TONGS.

1,095,392.

Specification of Letters Patent.

Patented May 5, 1914.

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To all whom it may concern:

Be it known that I, **LUISE FREY**, a citizen of the German Empire, and residing at Munich, Germany, have invented certain new and useful Improvements in Electrically-Heated Waving-Tongs, of which the following is a specification.

My invention relates to electric waving-tongs for the hair.

Waving-tongs known heretofore have been fitted with electric heating devices comprising handles which either contain the electric heating devices or at least wires leading to these devices. The handles are consequently of unduly large dimensions, and this prevents the tongs being properly operated. For this reason electrically-heated tongs have heretofore not been largely used.

A primary object of my invention is to obviate this defect, and to this end I arrange the heating resistances in the operative legs of the tongs and supply the current to these resistances by leads which run outside the handles, so that the handles can thus be operated freely and without inconvenience.

In one embodiment of my invention one or both of the heated legs carries removable, hollow tubes which contain the electric resistance, and on these tubes the members of various shape for waving the hair are mounted either exchangeably and rigidly, or rotatably in the known manner.

Two illustrative embodiments of my invention are represented by way of example in the accompanying drawing, wherein:—

Figure 1 is a side elevation showing one form of my improved tongs, Fig. 2 is an elevation, partly in section, showing the internal construction of one of the legs thereof, and Fig. 3 is a section taken on the line A—B in Fig. 1; Figs. 4 and 5 are elevation and cross-section, respectively, showing a somewhat simpler form of tongs.

Referring first to Figs. 4 and 5, this form of tongs externally resembles the known, simple, externally-heated curling tongs with respect to the shape of the handles 1, 2, of the legs 3, 4, of the pivotal joint 5 and of the two operative blades 6, 7. The round blade 7, I now however make hollow and insert therein the wires and insulation which constitute the electric resistance. The current is supplied to the blade 7 by means of a supply lead 8 which enters the appliance at a point beyond the joint 5. In order that the leading-in wires may not be in the way when

the tongs are in use, a guide may be provided, as shown, above the joint 5 and comprises a lateral extension 4^a with a bore 4^b communicating with the interior of the hollow blade 7. The leading-in wires are provided with a plug as shown for insertion into a corresponding socket. Referring now to Figs. 1 to 3, the legs 3, 4 of these tongs terminate above the joint 5 in two seats 9, 10. On these seats are fastened, preferably detachably, two cylindrical tubes 11, 12. Into each of the lower open ends of the tubes passes an electric lead 13, 14, which supplies the current to the electric resistances located in the tubes themselves. The leads 13, 14 are also provided with a plug for insertion into a socket as in the form described above. The tubes 11, 12 are closed above by means of screw-caps 15, 16. The tubes serve as carriers for the waving-tools proper which both in their form and mode of operation may differ much one from another. The waving-tools may, for example, be rigidly fastened to the tubes 11, 12. In this case the tongs will be operated in the usual manner, *i. e.* the hair is first clamped and the tongs then rotated. These tools can of course have a large variety of forms to give such waves to the hair as best suit the appearance or the taste of the person concerned. The waving-tools may however be rotatably mounted on the tubes 11, 12. They may then have the special form shown in the drawing, and resemble pinions 17, 18 meshing together. One of these pinions or, generally speaking, one of the rotatable waving-tools, is then provided with a manipulating device 19 whose rotatable knob 20 is heat-insulated. This manipulating device is preferably arranged, as shown, in line with the axis of the tube.

When employing freely rotatable waving-tools, the tongs are firmly held, and the hair, after being gripped between the two operative portions of the tongs, is drawn through by rotating the tools, and is thus formed into waves. The waves formed depend on the form of the two waving-tools. The pressure applied to form the waves can be increased or diminished according to the nature of the hair under treatment by pressing the two tools together with a corresponding degree of pressure.

I claim:—

1. In waving-tongs, the combination of two pivotally connected members each hav-

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ing a handle and an operative portion, one of the operative portions containing a chamber having an inlet located outside the handle, an electric resistance in said chamber, and a lead passing through said inlet to said resistance.

2. In waving-tongs, the combination of two pivotally connected members each having a handle and a seat provided with an aperture, a tube attached to each seat and opening into the aperture, a waving tool detachably mounted on each of said tubes, an electric resistance in each tube, and leads passing through each aperture to the resistances.

3. In waving-tongs, the combination of two pivotally connected members each having a handle and a seat provided with an aperture, a tube attached to each seat and opening into the aperture, a waving tool detachably and rotatably mounted on each of said tubes, an electric resistance in each tube, and leads passing through each aperture to the resistances.

In testimony whereof, I affix my signature in the presence of two witnesses.

LUISE FREY.

Witnesses:

HENRY HASPER,

ARTHUR SCHROEDER.