W. MEREDITH.

ELECTRIC CURLING IRON HEATER.

APPLICATION FILED SEPT. 25, 1907.

900,292. Patented Oct. 6, 1908.

Fig. 1.

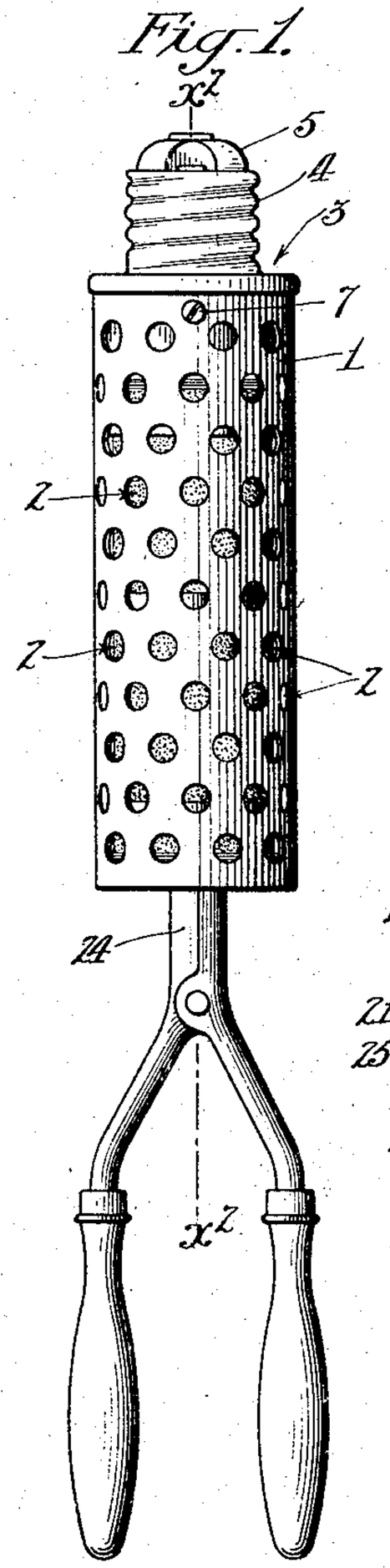


Fig. 2.

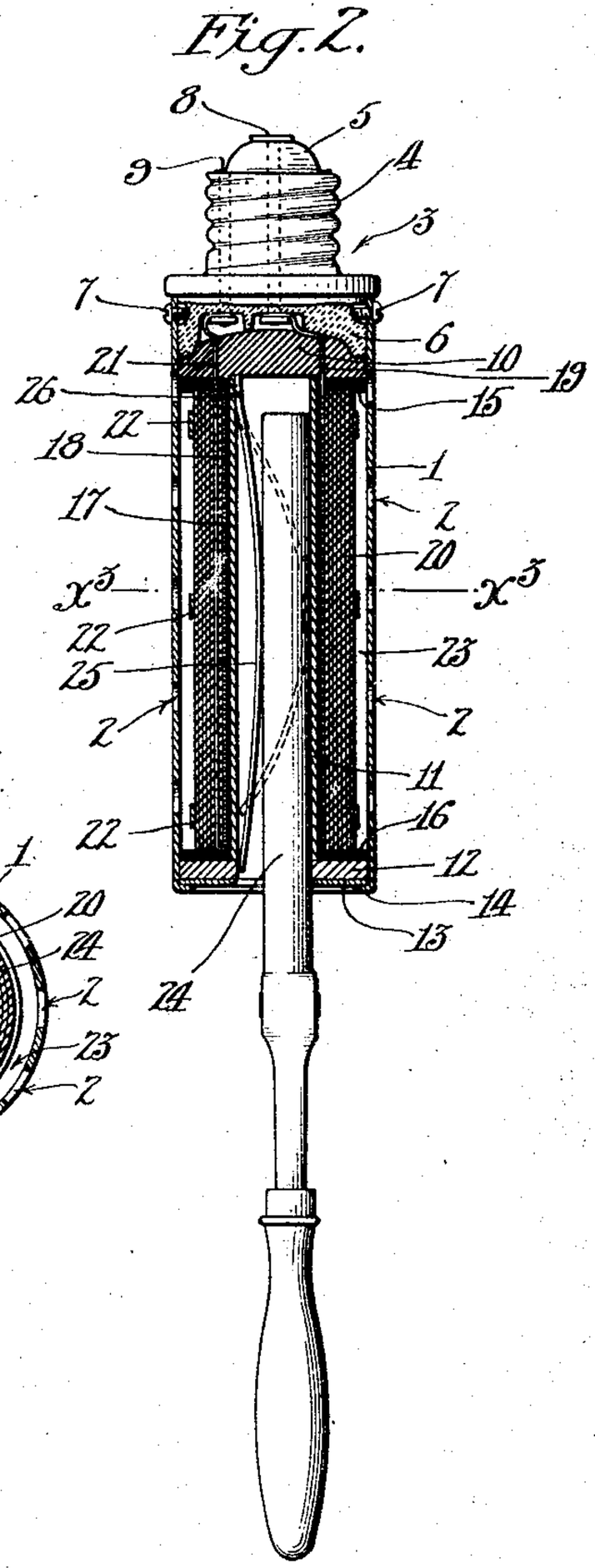
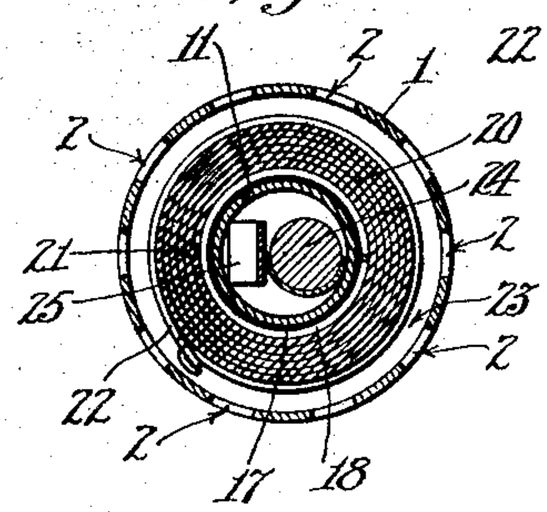


Fig. 3.



Witnesses:—
Frank L. Graham.
Louis W. Gratz.

Inventor;
Wynn Meredith.
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his attys.

UNITED STATES PATENT OFFICE.

WYNN MEREDITH, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO PACIFIC ELECTRIC HEATING COMPANY, OF ONTARIO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

ELECTRIC CURLING-IRON HEATER.

No. 900,292. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed September 25, 1907. Serial No. 394,582.

To all whom it may concern:

Be it known that I, WYNN MEREDITH, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Electric Curling-Iron Heater, of which the following is a specification.

This invention relates to electric curling iron heaters, and the main objects of the invention are to provide an electrically heated curling iron heater which can be readily attached to an electric light socket, and to enable the curling iron to be readily slipped into place in the heater, a further object being to provide means for detachably retaining the curling iron while in the heater so that the heater may be attached to the socket in any position, whether the heater projects up above the socket or extends below the socket either at an angle or vertically, the curling iron being firmly held in place even when the heater is attached to a socket in such a position that the heater extends down from the socket and occupies a vertical position.

Other objects and advantages relate to details of construction which will be hereinafter pointed out.

Referring to the drawings:—Figure 1 is a side elevation of the device, showing a curling iron in position in the heater. Fig. 2 is a longitudinal vertical section on line x^2—x^2 Fig. 1, the screw plug of the heater and the curling iron being shown in elevation. Fig. 3 is a cross section on line x^3—x^3 Fig. 2.

The heater comprises an outer cylindrical shell 1 having numerous perforations 2, as shown, which permit a circulation of air within the walls of the shell 1 externally of the heating elements proper, the shell 1 serving as a support for the heating elements to be described, and also acting as a shield therefor. Inserted in the upper end of the shell 1 is a screw plug 3, constructed in a well known manner, comprising a threaded metal thimble 4 which is attached to a porcelain stud 5, the latter having a flange 6 which projects into the upper end of the shell 1, screws 7 passing through the shell into recesses in the porcelain flange 6, as shown, to attach the same in position. One terminal 8 extends through the center of the porcelain stud 5 in well known manner and the other terminal 9 extends along just inside the thimble 4 and makes contact with the thimble. Fitting below the porcelain stud 5 is an insulating cap 10 formed preferably of asbestos, and below the cap 10 and extending through the center of the shell 1 is a hollow core or tube 11 formed of a good conducting material such as copper or brass. The lower end of the tube 11 rests upon a ring of asbestos 12, which in turn is supported by a metal plate 13, the latter resting on an inturned flange 14 formed on the lower edge of shell 1. At the upper end of the tube 11 just below the cap 10 is a series of mica washers 15 which fit the bore of the shell 1 and which closely fit the outer wall of the upper end of the tube 11 so that the tube is firmly held concentrically within the shell 1. Resting upon the asbestos ring 12 at the bottom is a similar series of mica washers 16 which encircle the lower end of tube 11 and serve a similar purpose, that of holding the lower end of tube 11 concentric with the shell. Encircling the tube 11 are one or more mica layers 17 shown by heavy black line, around which is wound the heating wire 18. One end 19 of the heating wire is connected to the inner end of terminal 8. Wound around the heating wire are several layers of asbestos 20 and, as clearly shown in Fig. 2, the end 21 of the heating wire is carried back longitudinally between the two inner layers of asbestos 20 and connected to the terminal 9. The asbestos layers 20 are secured in place by three straps or belts 22, one belt being at the top, another at the bottom and the third at an intermediate point as shown. These belts hold the heating element and insulation in a compact cylindrical roll thus forming an air space 23 around the same inside the shell 1. The bore of the tube 11 is greater than the size of the curling iron 24 and a flat bowed spring 25 is arranged within the tube 11, the upper end of the spring being attached at 26 to the upper end of the tube and its lower end being free from the tube.

When the curling iron is not in place in the heater, the spring 25 occupies a position indicated by dotted lines in Fig. 2, in which the central convex portion of the spring 25 bears against the opposite side of the tube to which the spring is attached and thus leaves a wedge shaped opening at the bottom of the tube 11 which permits an easy insertion of the curling iron. The curling iron is inserted by simply pushing it up into the tube 11, the spring 25 yielding to permit of this movement, and thus when thrust in the curling

iron is frictionally held by the spring 25 and prevented from falling out.

It will be readily seen that this construction enables the heater to be screwed into a socket and project down from the socket, as the curling iron is held against slipping out from the heater, no matter what the position of the heater is, and the spring 25 while having sufficient strength to retain the curling iron readily permits the same to be withdrawn when desired, after the same has been heated. The iron having been thrust into place in the heater and the circuit closed, the heat developed in the heating wire quickly heats up the tube 11 and heat is imparted from the tube 11 to the curling iron. It is obvious also that the air space within the tube 11 is highly heated which heat is, of course, also imparted to the curling iron.

An important feature of this construction is that the heating wire lies close to the tube 11 which greatly promotes transmission of the heat from the wire to the tube and heat is prevented from passing out from the wire by reason of the thick cylinder of asbestos layers 20 which surround the tube 11, and thus the heat is conserved and compelled to be transmitted inwardly toward the curling iron. Another very important feature is that the curling iron is held in close intimate contact with the tube 11 and thus the transmission of heat to the curling iron is greatly facilitated. The perforations 2 in the shell permit air to circulate around the asbestos tube 20 within the shell and thus the shell is prevented from becoming heated so that all exposed parts of the device are cool and burns are prevented.

What I claim is:—

1. An electric curling iron heater comprising a tube adapted to receive a curling iron, a heating wire wound close to the tube, a thin electric insulation between the wire and tube, a thick heat insulation around the heating wire, a perforated shell surrounding the latter insulation with an air space between the shell and said insulation, a ring of insulation supported at the lower end of the shell, an insulating cap at the other end of the shell at the inner end of the tube, and washers encircling the tube at each end and fitting the shell for holding the tube concentrically in the shell.

2. An electric curling iron heater comprising a tube adapted to receive a curling iron, a heating wire wound close to the tube, a thin electric insulation between the wire and tube, a thick heat insulation around the heating wire, a perforated shell surrounding the latter insulation with an air space between the shell and said insulation, and belts around said thicl insulation.

3. An electric curling iron heater comprising a tube adapted to receive a curling iron, a heating wire wound close to the tube, a thin electric insulation between the wire and tube, a thick heat insulation around the heating wire, a perforated shell surrounding the latter insulation with an air space between the shell and said insulation, a ring of insulation supported at the lower end of the shell, an insulating cap at the other end of the shell at the inner end of the tube, washers encircling the tube at each end and fitting the shell for holding the tube concentrically in the shell, the lower end of the shell having an inturned flange, a perforated plate resting on said flange and supporting the adjacent ring of insulation.

4. An electric curling iron heater comprising a shell having one end open and the other end provided with an inturned flange, a porcelain plug in the open end of the shell having its inner end flanged and recessed, screws through the shell into said recesses, a metal cap on the plug, terminals in the plug, one of which engages with said cap, a perforated plate in the other end of the shell resting against said flange, a layer of insulating material in each end of the casing, a heating tube located concentrically within the shell adapted to receive a curling iron and having its ends in engagement with said insulating material, washers around the ends of the tube, a thin layer of insulating material around the tube, a heating wire around said thin layer, the ends of which engage with said terminals, a thick layer of insulating material around said wire with its periphery at a distance from the shell, and bands around said thick layer.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this fourteenth day of September 1907.

WYNN MEREDITH.

In presence of—
J. W. FERGUSON,
ALLAN J. WAGNER.