May 28, 1929. F. W. RENWICK 1,714,693

FACIAL HEAT APPLICATOR

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Fig. 1.

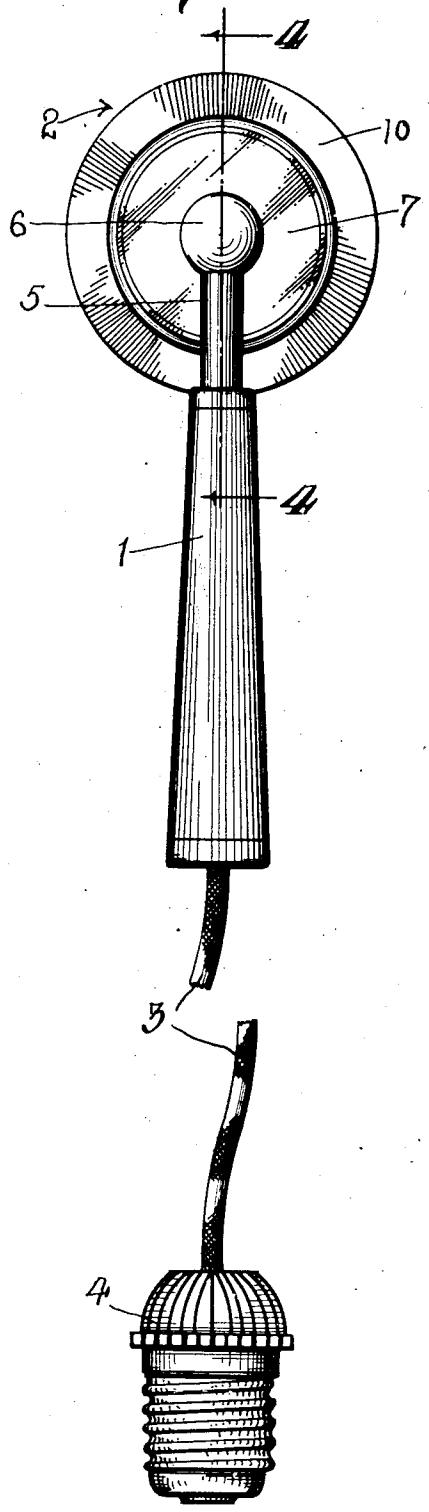



Fig. 2.

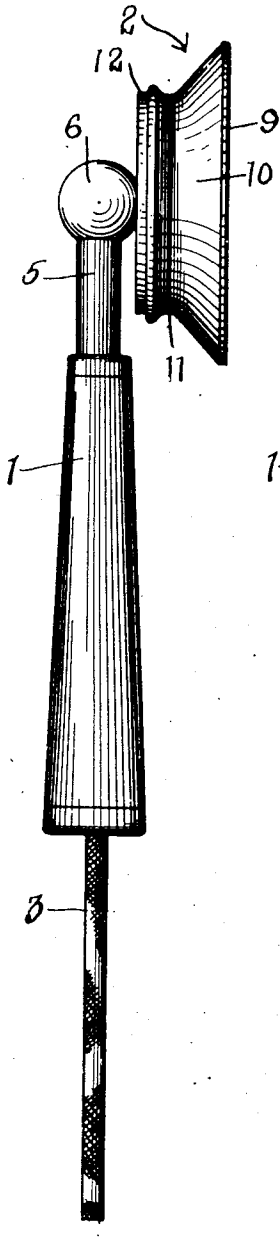
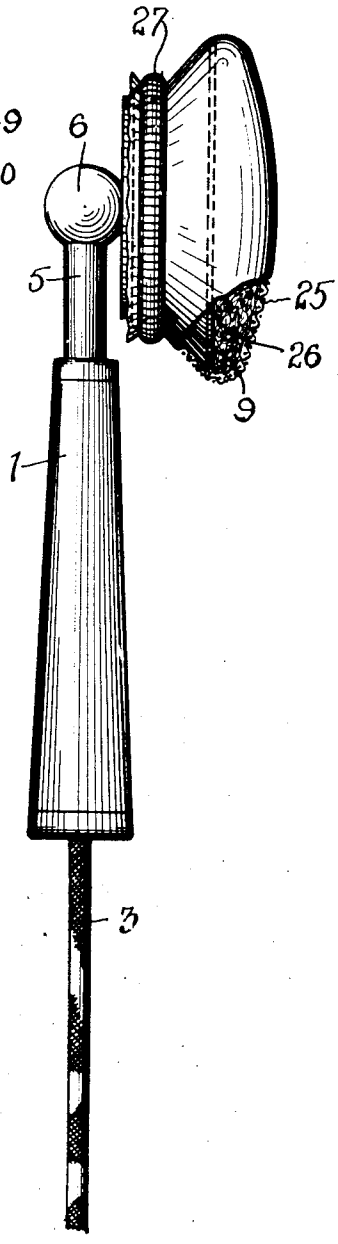



Fig. 3.




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Fig. 4.

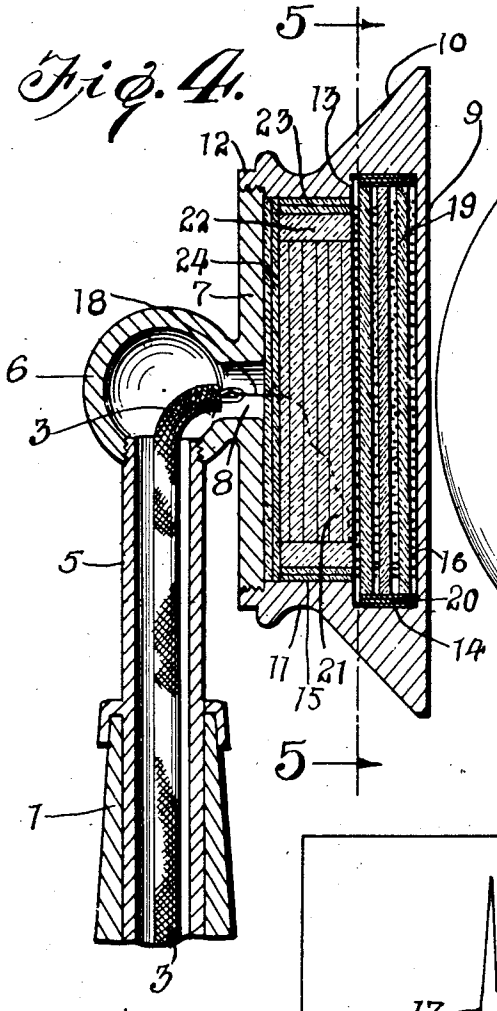



Fig. 5.

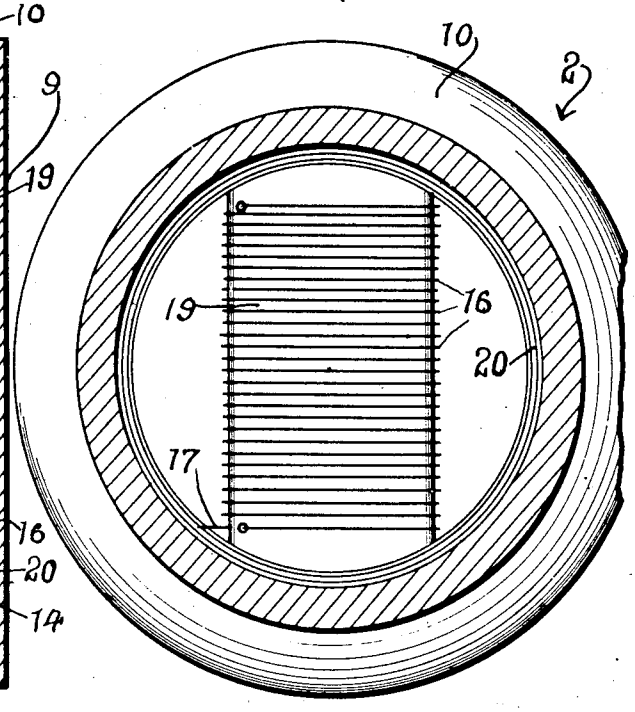
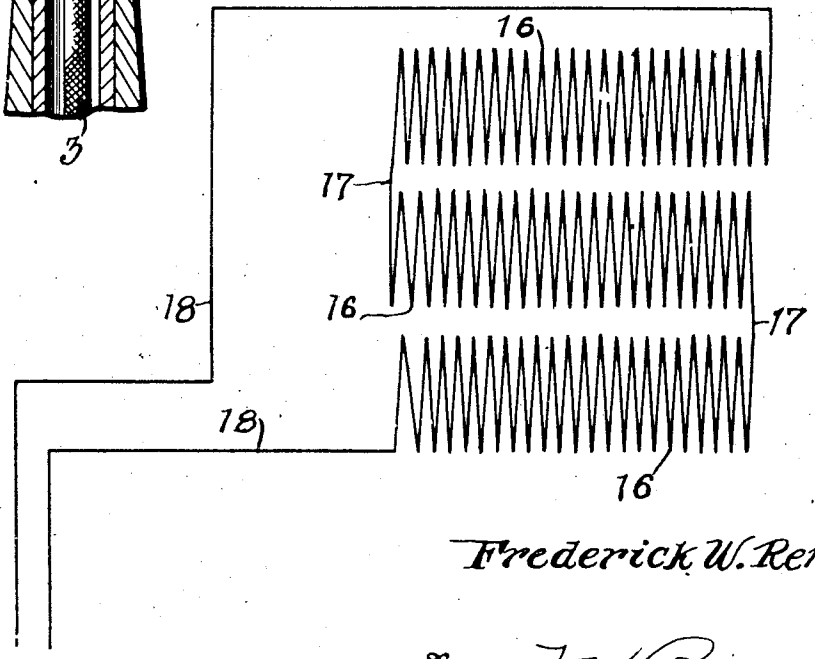



Fig. 6.




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# UNITED STATES PATENT OFFICE.

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## FACIAL HEAT APPLICATOR.

Application filed May 13, 1926. Serial No. 108,960.

This invention relates to certain new and useful improvements in facial heat applicators and has for its primary object to provide a heating device for the treatment of the skin of the face of a person and is especially designed either for home use or for use in such establishments known as beauty parlors where a specialty is made of facial treatment.

A further object of the invention is to provide a facial heating device in the form of an implement embodying a metallic head that is adapted to be electrically heated and with which a moistened pad or towel is associated for the generation of steam for use in treating the skin of the face and insures a constant and even application of heat as contrasted with the ordinary method of applying hot towels or the like.

A still further object of the invention is to provide a device of the type above set forth in the form of a comparatively small implement that may be readily handled and be also used for the treatment of certain ailments, such as toothache, earache etc. and where it is desirous to specifically apply heat at a particular point.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists of the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing, wherein like reference characters designate corresponding parts throughout the several views,

Fig. 1 is a rear elevational view of the heating device constructed in accordance with the present invention, showing the lamp socket plug having its cord extending through the handle of the device,

Fig. 2 is a side elevational view of the device,

Fig. 3 is a side elevational view with a pad to be heated and partially broken away in position upon the heating head of the device and so retained by a spring ring,

Fig. 4 is a fragmentary longitudinal sectional view showing the heating head and a portion of the handle showing the heating element confined within the head,

Fig. 5 is a cross sectional view taken on line 5—5 Fig. 4 showing one of the resistant heating elements in plan view, and

Fig. 6 is a diagrammatic view of the electric wiring for the heat resistance elements.

Referring more in detail to the accompanying drawings, and particularly Figs. 1, 2 and 3, there is illustrated an electric heating device for facial treatment including a tubular handle 1 provided at its outer end with a heating head 2 that contains a plurality of electric heat resistance elements associated with a source of electric energy through the medium of the cord 3 passing through the tubular handle 1 and with an ordinary lamp socket plug 4 upon its other end.

The detailed construction of the heating head 2 is shown more clearly in Fig. 4, the end extension 5 of the handle 1 being externally threaded at its outer end for threaded reception in a side opening of the hollow spherical block 6 carried by the rear wall 7 of the head 2, the spherical block 6 communicating with the interior of the hollow heating head 2 by means of the passage or central opening 8 in the rear wall 7. The electric cord 3 passing through the hollow handle 1 leads through the opening 8 for association with the heat resistance elements within the hollow head.

The heating head 2 is of truncated cone formation and includes an outer flat wall or face 9 of disk shape with an inclined side wall 10 constructed to form an angular groove 11 in the side wall and with a ring flange 12 at its extreme inner end that is internally threaded for engagement with the threaded peripheral edge of the rear wall 7 of the head, this construction being clearly shown in Fig. 4. The head 2 is of hollow formation as illustrated for housing the heat resistance elements with the inner annular wall thereof provided with a shoulder 13 intermediate the front and rear sides of the head to provide an annular chamber 14 adjacent the forward wall 9 and a reduced annular chamber 15 at its rear side.

As shown in Fig. 6, the electric wiring for the heating device and the heat resistance elements thereof that are confined within the hollow head 2 comprises, as illustrated, three or more resistance coils 16 connected in series as in 17 with the terminals 18 thereof leading to the electric cord 3, the resistance coils 16 being supported upon the mica sheets 19 that are substantially rectangular in plan view and spaced from each other as shown in Fig. 4 with the several resistance elements 16 positioned within the angular chamber 14 in the hollow head. The opposite ends of the mica plates 19 are spaced from the wall of the chamber 14 by the inclosing copper band 20 intended for the conduction of heat to the metal head 2. The frictional engagement between the opposite ends of the mica plates 19 and the copper band 20 operates to hold the resistance elements in spaced relation as shown in Fig. 4.

To cause the heat radiating from the resistance elements 16 to be absorbed by the forward wall 9 of the head, the chamber 15 in the head receives a plurality of asbestos discs 21 of a diameter less than said chamber and to be surrounded by an asbestos ring 22 while mica rings 23 inclose the asbestos ring 22 and mica discs 24 space the asbestos discs 21 from the rear wall 7 of the head. As shown in Fig. 4, the wire terminals 18 extend to the lamp cord 3. It will therefore be seen that the heat is concentrated within the hollow head 2 and radiated directly to the outer flat wall 9.

It is intended that an absorbent pad or towel be placed in overlying relations with respect to heating head, and as shown in Fig. 3, a gauze sheet or covering 25 incloses a wad 26 of absorbent material, the sheet 25 inclosing the side wall 10 of the head and being retained in position by the coiled spring ring 27 that is retained by resiliency thereof in the annular groove 11. In lieu of the pad shown in Fig. 3, a portion of a towel or the like may be placed in inclosing relations with respect to the head 2 and when moistened to the desirous degree, the moisture therein is converted into steam when the head 2 is heated for effective treatments of the face, such as a massage or the like. With a device of this character, the heat remains constant and renders the heater more efficient in use. The device is also serviceable in the treatment of a toothache or earache or the like where the application of heat to a particular point is desired.

While there is herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What is claimed as new is:—

1. An electrical hand instrument for applying heat to portions of the face and the like, including a relatively thick hollow disk-like head having a rigid front wall to be heated, an electrical resistance element disposed in said head at the inner side of said front wall, said head having an open rear end provided with a removable rear closure wall, a heat insulation in the head between the resistance element and said removable rear wall, feed wires for the resistance element leading through said rear wall, and a laterally extending handle attached to said removable rear wall of the head.

2. An electrical hand instrument for applying heat to portions of the face and the like, including a relatively thick hollow disk-like head having a rigid front wall to be heated, an electrical resistance element disposed in said head at the inner side of said front wall, said head having an open rear end provided with a removable rear closure wall, a heat insulation in the head between the resistance element and said removable rear wall, feed wires for the resistance element leading through said rear wall, a rearwardly projecting hollow block centrally of and rigid with said rear wall, and a laterally extending hollow handle having one end fixed to a side of said block, said feed wires extending through said block and said handle.

3. An electrical hand instrument for applying heat to portions of the face and the like, including a hollow disk-like head composed of separable front and rear sections, an electrical resistance element disposed in said head at the inner side of the front wall of the latter, a heat insulation in the head between the rear wall of the latter and the resistance element, feed wires for the resistance element leading through the rear wall of the head, and a laterally extending handle attached to said rear head section.

4. An electrical hand instrument for applying heat to portions of the face and the like including a relatively thick hollow disk-like head having a front wall to be heated, an electrical resistance element disposed in said head at the inner side of said front wall, a heat insulation in the head between the rear wall of the latter and the resistance element, feed wires for the resistance element leading through the rear wall of the head, and a handle attached to said rear wall, said head being tapered smaller from front to rear and having an annular peripheral securing band receiving groove near its rear side to facilitate attachment of a fabric covering thereto.

5. An electrical hand instrument for applying heat to portions of the face and the like, including a relatively thick hollow disk-like head having a rigid front wall to be heated, a flat electrical resistance element disposed in said head parallel with and at

the inner side of said front wall, a relatively thick heat insulation in the head between the rear wall of the latter and the resistance element, said rear wall of the head embodying a disk removably threaded into the body of the head and having a laterally projecting handle rigidly attached to the central portion thereof, feed wires for the resistance element leading through the handle and the rear wall of the head, and a fabric covering having its margin secured about the periphery of the head.

In testimony whereof I affix my signature.

FREDERICK W. RENWICK.