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1,487,998

M. WOOLF

ELECTRODE

Filed Dec. 26, 1922

Fig. 1.

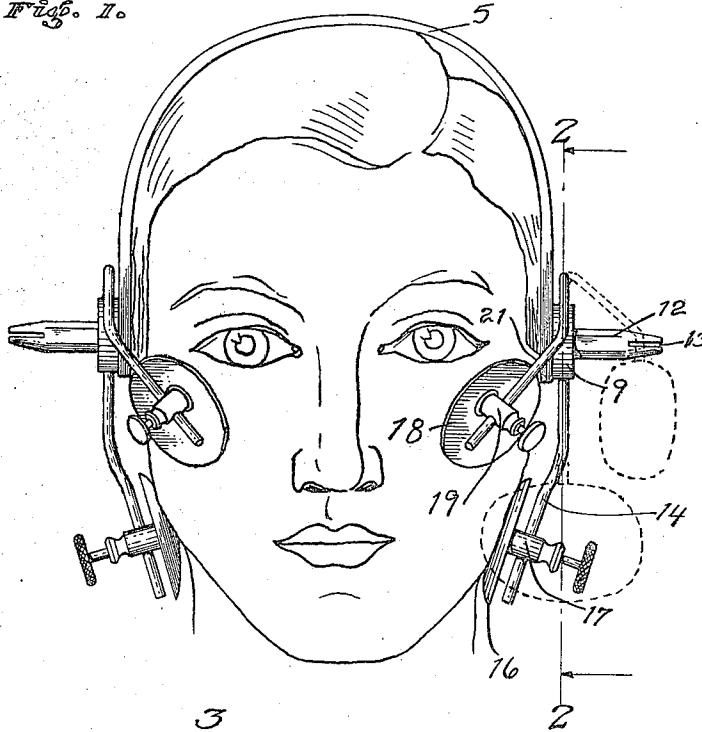


Fig. 2.

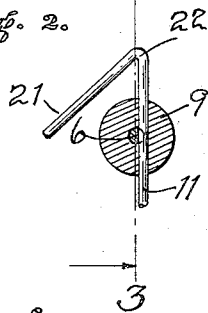


Fig. 4.

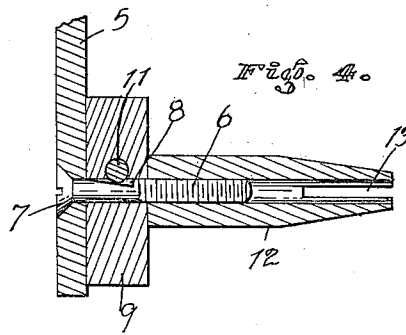
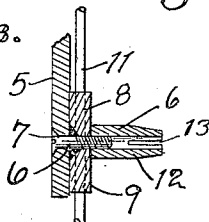


Fig. 3.



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ELECTRODE.

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To all whom it may concern:

Be it known that I, MILTON WOOLF, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Electrodes, of which the following is a specification.

This invention relates to improvements in electrodes, commonly employed for the application of electrical current to the body of a person.

The principal object of this invention is to provide an electrode and holder which will be comfortable, and one which may be adjusted so as to fit the contour of various shaped heads.

Another object is to provide a device of this character which is extremely cheap to manufacture, simple to construct, and one which is easily manipulated.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a front elevation of my device as applied to the head of the user,

Figure 2 is a fragmentary detail view taken on the line 2—2 of Figure 1,

Figure 3 is a fragmentary detail view taken on the line 3—3 of Figure 2, and

Figure 4 is an enlarged detail view in cross-section showing the manner of mounting my electrode on the head band.

Applicant is aware of the fact that electrodes have been used on the body for the application of electrical currents. These electrodes, however, have been inefficient in that it was necessary to have a different electrode for nearly every part of the body. I have therefore devised an electrode which is of such a shape and curvature that it will readily adjust itself to almost any curvature of part of the body.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a head band which is adapted to pass over the head from one side to the opposite side as shown in Figure 1. Secured to each end of this head band are electrodes, and as these electrodes are identical, but one will be described.

By referring to Figure 4, it will be noted

that a screw 6 is counter-sunk in the head band 5 and projects away from the head. This screw is provided with an inclined recess 8. The numeral 9 designates a circular fiber disc, through which an electrode supporting rod 11 passes. The outer extremity of the screw 6 is threaded so as to receive a nut 12, which nut has its outer end split as shown at 13 for the reception of a wire plug secured to the end of an electric cord (not shown). It will be noted by screwing the nut 12 toward the band, that it will contact with the disc 9, and as it pushes the disc 9 toward the band 5, it will result in the rod 11 clamping on the incline 8, thereby tightening the rod against rotary or vertical movement.

By now referring to Figures 1 and 2, it will be noted that the rod 11 extends downwardly as shown at 14, and is bent inwardly so as to conform to the contour of the face at a point below the ears. Upon this rod 11 is mounted an electrode 16, which electrode is secured by a binding post 17 to the rod 14. The outer surface of this electrode is convex and elliptical. This rod 11 may be rotated so as to swing the electrodes 16 and 18 out of contact with the face as shown in dotted lines in Figure 1.

A similar electrode 18 is secured by means of a binding post 19 to a portion 21 of the rod 11. This portion of the rod is bent downwardly upon a sharp angle as shown at 22 of Figure 2, and is then bent toward the face so as to bring the electrode into contact therewith.

The electrodes upon the opposite side of the face are constructed in the same manner, and are likewise mounted in the same manner.

It will thus be seen that I have provided a head band having four electrodes carried thereby, which electrodes may be adjusted to contact various parts of the face in order that electrical currents may be supplied thereto. When the head band has been adjusted to the face, as shown in full lines in Figure 1, conductors are attached by inserting a plug secured to the end of the conductor in the split nut 12. This means of attachment provides for the convenient removal of the conducting wires when making a connection or adjustment.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the

same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined
5 claim.

Having thus described my invention, I claim:—

10 In a device of the character described, a head band adapted to encircle a portion of the head from side to side, a screw projecting through each of the opposite ends of said

band, an inclined portion formed in each of said screws, a disc slidably held on said screws, a rod passing through said discs in such a manner as to contact with the inclined portions of said screws, and nuts
15 adapted to move said discs along said screws so as to cause said rod to contact with said inclined portion of said screws.

In testimony whereof I affix my signature.

MILTON WOOLF.