(No Model.)

E. F. DAVIS.

ELECTRODE FOR APPLYING ELECTRIC CURRENTS.

No. 548,777. Patented Oct. 29, 1895.

Fig. 1.

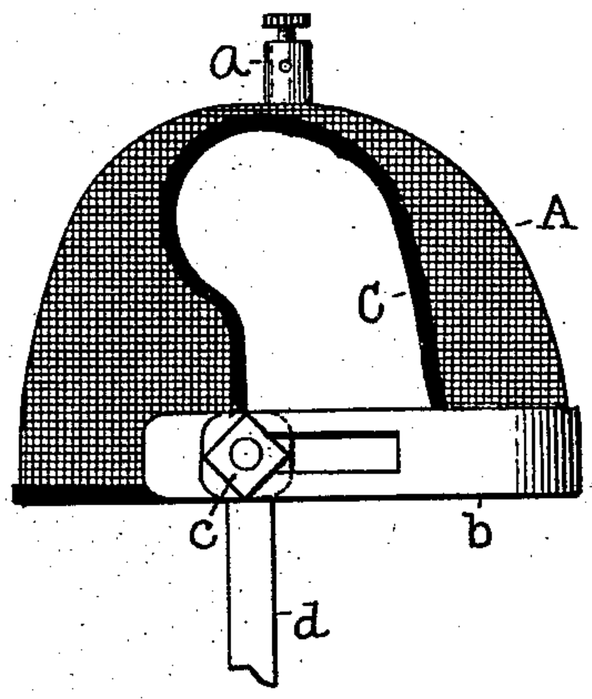


Fig. 2.

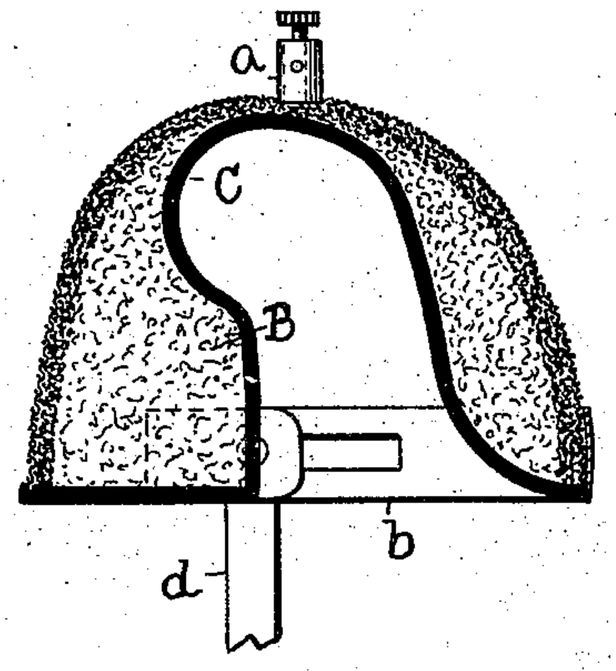


Fig. 3.

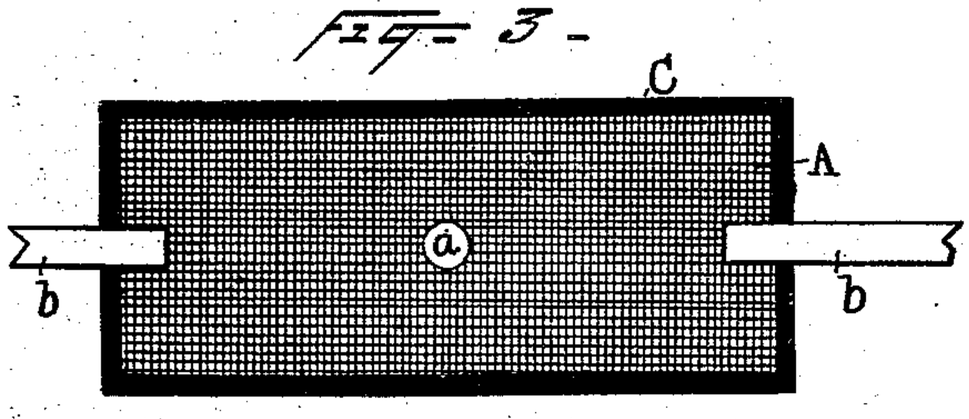
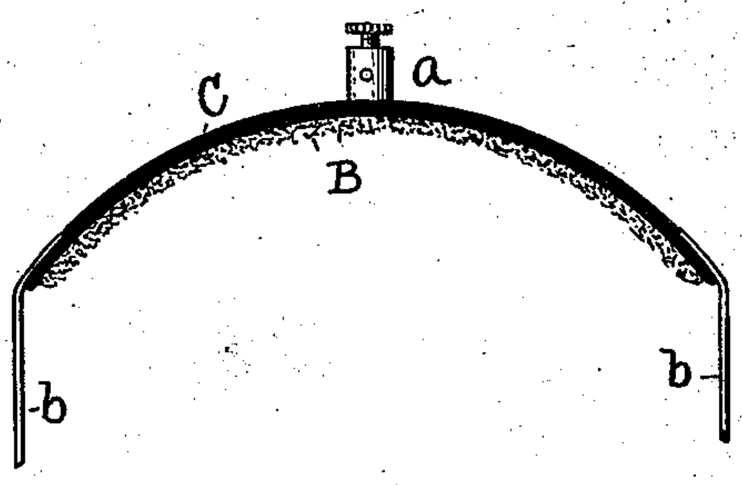


Fig. 4.



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ELECTRODE FOR APPLYING ELECTRIC CURRENTS.

SPECIFICATION forming part of Letters Patent No. 548,777, dated October 29, 1895.

Application filed June 10, 1895. Serial No. 552,272. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. DAVIS, a citizen of the United States, residing at West Caton, in the county of Steuben and State of New York, have invented a certain new and useful Improvement in Electrodes for Applying Electric Currents, of which the following is a specification.

The object of my invention is to improve electrodes for applying the electric current in electrocution. The electrodes heretofore employed were made of sheet metal lined with sponge or other absorbent material. Such electrodes are objectionable, because they do not conform sufficiently to the body when applied, resulting in uneven contact and preventing the proper application of the electric current. I have also discovered that the electric current jumps or discharges from the edges of the electrodes to the parts of the body adjacent thereto, resulting in the scorching or charring of the skin. I overcome these objections by making the electrodes from a woven material, preferably wire gauze or netting, lining the same with sponge or other absorbent material, and covering all edges of the electrodes with insulating material.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the helmet or head-electrode; Fig. 2, a central section of same, showing the lining of absorbent material; Fig. 3, an elevation of the body-electrode, and Fig. 4 an edge view of same.

Referring to the drawings, A is the wire gauze or netting. B is the lining of absorbent material, and C is the insulating material around the edges of the electrodes. Each electrode has a binding-post *a* for the current-conductor. The helmet or head-electrode is preferably formed so as to have front and back parts covering both lobes of the brain, and a metallic band or strap *b* and clamping-nut *c* are preferably provided to draw and secure the two parts closely about the head. The metallic band *b* is covered with a material which is a non-conductor of electricity and not readily affected by the solution with which the lining is saturated. Instead of the metallic band and clamping-nut, a leather strap and buckle may be employed; but leather is too readily affected by the solution. The head-electrode is also provided with a chin band or strap *d*, to assist in keeping the helmet in position. The second or body electrode is provided with a band or strap *b* similar to that employed for the head-electrode. The helmet or head-electrode formed as shown also permits better adjustment thereof to the head, as will be readily understood.

What I claim is—

1. An electrode for applying the electric current, having a conducting portion, a lining therefor of absorbent material, and an insulating covering around the edges of the conducting portion, substantially as set forth.

2. An electrode for applying the electric current, consisting of a conducting portion having a lining of absorbent material, a metallic band or strap, and a clamping device whereby the electrode is secured in position, said band or strap being covered with a material which is a non-conductor of electricity and not readily affected by the solution with which the lining is saturated, substantially as set forth.

3. An apparatus for the electrocution of criminals, comprising a helmet shaped head electrode made of wire-gauze or netting, and lined with absorbent material, said electrode being secured to the head of the criminal and to which one electrode connection is made, and a second electrode in contact with another portion of the criminal and to which the other electrode connection is made, substantially as set forth.

4. An apparatus for the electrocution of criminals, comprising a helmet shaped head electrode made of wire-gauze or netting, lined with absorbent material and with an insulating material secured to its edges, said electrode being secured to the head of the criminal and to which one electrode connection is made, and a second electrode in contact with another portion of the criminal and to which the other electrode connection is made, substantially as set forth.

5. An apparatus for the electrocution of criminals, comprising a helmet shaped head electrode made in two main portions connected together so as to lie over the lobes of

the brain when in place, said electrode being made of wire-gauze or netting lined with absorbent material, and being connected with one of the electric terminals, and a second electrode in contact with another portion of the criminal and to which the other electrode connection is made, substantially as set forth.

6. An apparatus for the electrocution of criminals, comprising a helmet shaped head electrode made of wire-gauze or netting and lined with absorbent material, a strap adapted to be passed around the head so as to hold the electrode in close contact with the head, a chin strap for said electrode, and a second electrode in contact with another portion of the criminal, substantially as set forth.

This specification signed and witnessed this 16th day of May, 1895.

EDWIN F. DAVIS.

Witnesses:
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