

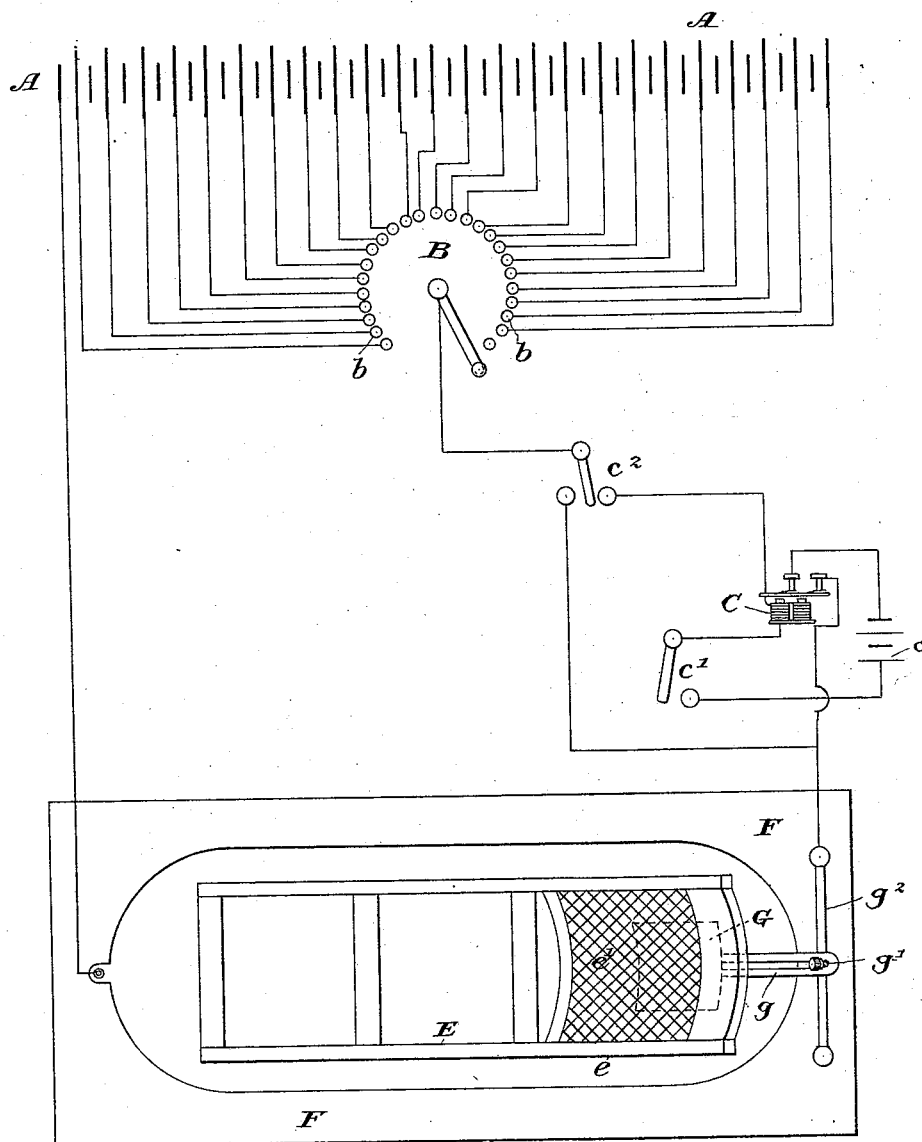
G. H. BETHEL.

APPARATUS FOR ADMINISTERING ELECTRICITY.

No. 455,981.

Patented July 14, 1891.

Fig. 1.



WITNESSES:

*E. B. Bolton**G. L. Richards*

INVENTOR

George Henry Bethel

BY

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ATTORNEYS

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Fig. 2.

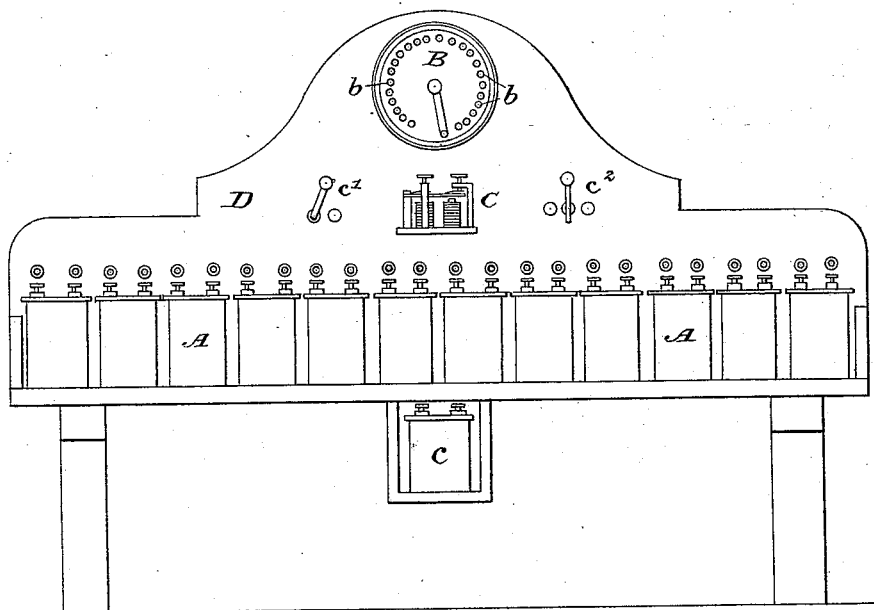
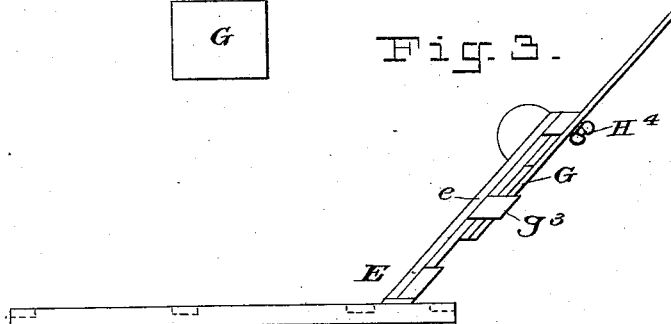


Fig. 4.



Fig. 3.



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E. B. Bolton

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UNITED STATES PATENT OFFICE.

GEORGE HENRY BETHEL, OF SYDNEY, NEW SOUTH WALES, ASSIGNOR TO
THE BETHEL ELECTRIC MEDICAL BATHS COMPANY, LIMITED, OF MEL-
BOURNE, VICTORIA.

APPARATUS FOR ADMINISTERING ELECTRICITY.

SPECIFICATION forming part of Letters Patent No. 455,981, dated July 14, 1891.

Application filed October 13, 1890. Serial No. 367,934. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY BETHEL, homeopathist and medical electrician, a subject of the Queen of Great Britain, residing at 38 Botany street, Moore Park, Sydney, in the British Colony of New South Wales, have invented a new and useful Improved Method of and Apparatus for Administering Electricity to the Human Body, of which the following is a specification.

This invention relates to what are generally known as "electric medical baths;" and it has been devised, chiefly, for the purpose of enabling electricity to be applied in large quantities to the human body without causing any shock to the system, while another object of this invention is to provide means whereby the current of electricity may be easily regulated according to requirements.

The essential feature of this improved method of administering electricity to the human body consists in conducting the current into and out of the water in which the patient to be operated upon is immersed, no actual connection being made with any part of such patient.

The apparatus which I have devised in order to enable me to conveniently carry my invention into practice consists, essentially, of a cradle or frame having an inclined back, together with a comparatively large plate, which can be arranged behind said inclined back, and may be connected to one pole of a battery or other source of electricity, while the other pole is connected to the metal of which the bath is constructed, preferably at a point as far removed as possible from said plate, as will be well understood from the following description, reference being had to the accompanying drawings, wherein—

Figure 1 is a plan of a bath and a diagram of the necessary connections for conducting a current of electricity into the water contained therein, as above mentioned, while Fig. 2 is an elevation of part of the apparatus, illustrating the arrangement of battery, switches, and contact-breakers, whereby I provide for conducting either a continuous or an intermittent current into the bath; and Fig. 3 is a side elevation of a cradle or support, which

is provided with an inclined back and upon which the patient rests while being operated upon, while Fig. 4 is a front elevation of the plate which, as hereinbefore mentioned, is placed in the water in the bath immediately behind the inclined back of the cradle upon which the patient reclines and which is connected to one pole of a battery or other source of electricity.

The electric generator which I prefer to use is a battery consisting of, say, twenty-four bichromate-of-potash cells, though I wish it to be understood that any generator which will give a steady flow and a sufficient amount of current will be suitable for my purpose. This battery is indicated at A, and each of its cells is connected up to a separate contact-piece *b* of a multiple switch B, whereby I am enabled to switch any number of cells into the circuit, and am thus enabled to regulate the amount of current passed into the water of the bath. I prefer to employ a contact-breaker C, which can be inserted in the local-circuit of a battery *c*. This said local-circuit includes a switch *c'*, whereby said circuit may be opened or closed at will. A two-way switch *c''* is also provided in order that the current from the battery A may be led either direct to the bath or be passed through said contact-breaker C, thus enabling me to employ either a continuous or an intermittent current at will.

I prefer to support the cells A, switches B *c'* *c''*, and contact-breaker C upon a framing D, as illustrated in Fig. 2, in such a manner as that said switches will be within convenient reach of the attendant in charge of the bath.

E represents a cradle or support which is placed within the bath F, and upon which the patient rests. This support or cradle E is provided with an inclined back *e*, which may be constructed with cane-work *e'*. Behind this inclined back *e* is arranged a comparatively large plate G, having a slotted upward projection *g*, through which is passed a clamp, bolt, or screw *g'*, which is screwed into a rod *g''* at the head of the bath, said rod being connected, as clearly illustrated in Fig. 1, to one of the poles of the battery. This plate G

slides through a guide g^3 , and may be adjusted so that it will project to any desired depth in the water in the bath and be clamped in such position by means of the bolt g' .

5 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

10 In an apparatus for administering electricity to the human body, the combination, with a cradle or support, such as E, provided with an inclined back, such as e , of a vertically-

adjustable plate, such as G, adapted to be inserted in the water behind said inclined back and connected with any convenient source 15 whence a supply of electricity may be obtained, substantially as and for the purposes herein described and explained, and as illustrated in my drawings.

GEORGE HENRY BETHEL.

Witnesses:

THOMAS JAMES WARD,
WILLIAM ARTHUR WILLIAMS.