

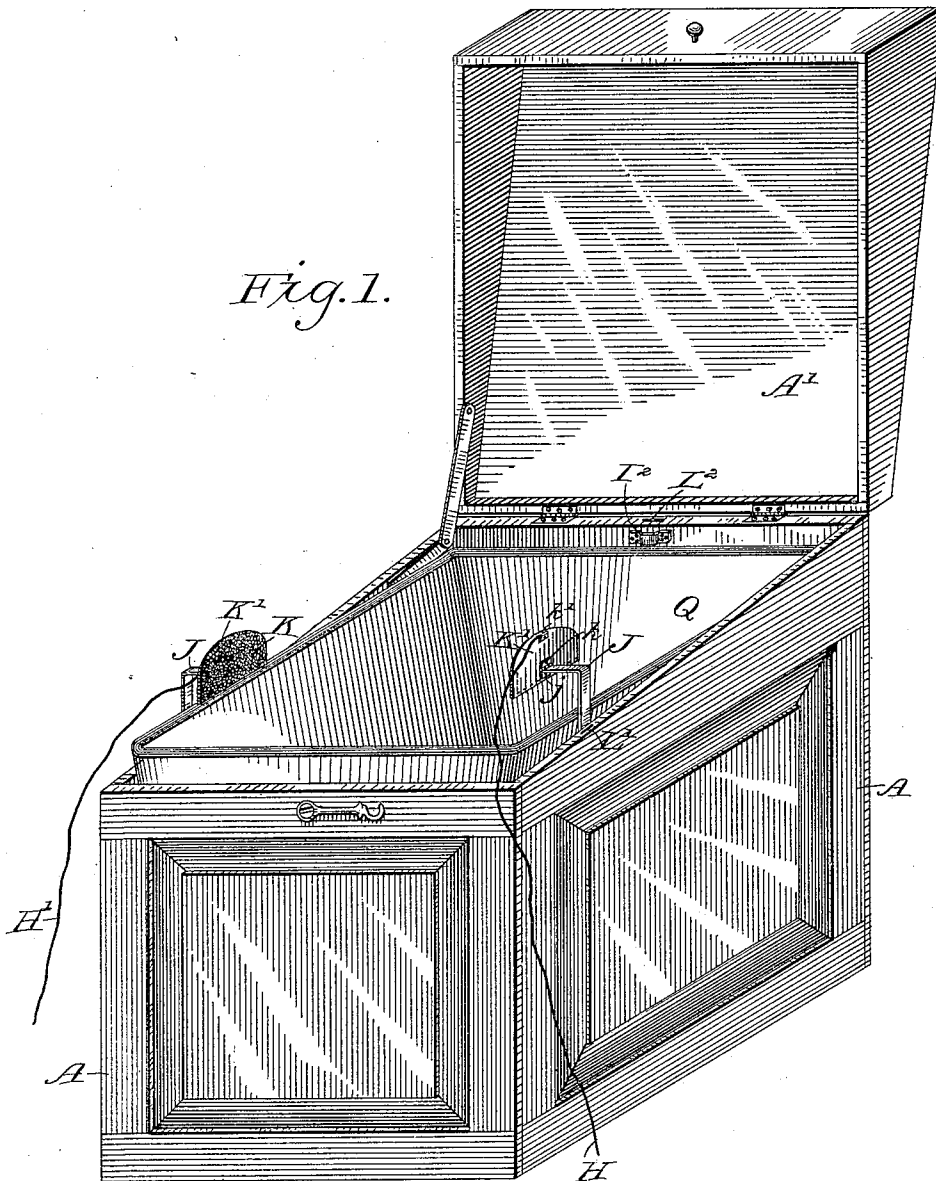
(No Model.)

3 Sheets—Sheet 1.

N. LYKE.
ELECTRICAL AND VAPOR FACE BATH.

No. 443,580.

Patented Dec. 30, 1890.



WITNESSES

Wm. H. Muzzey
Wm. H. Muzzey

INVENTOR

Nathaniel Lyke.

by *Wm. H. Babcock*
Attorney

(No Model.)

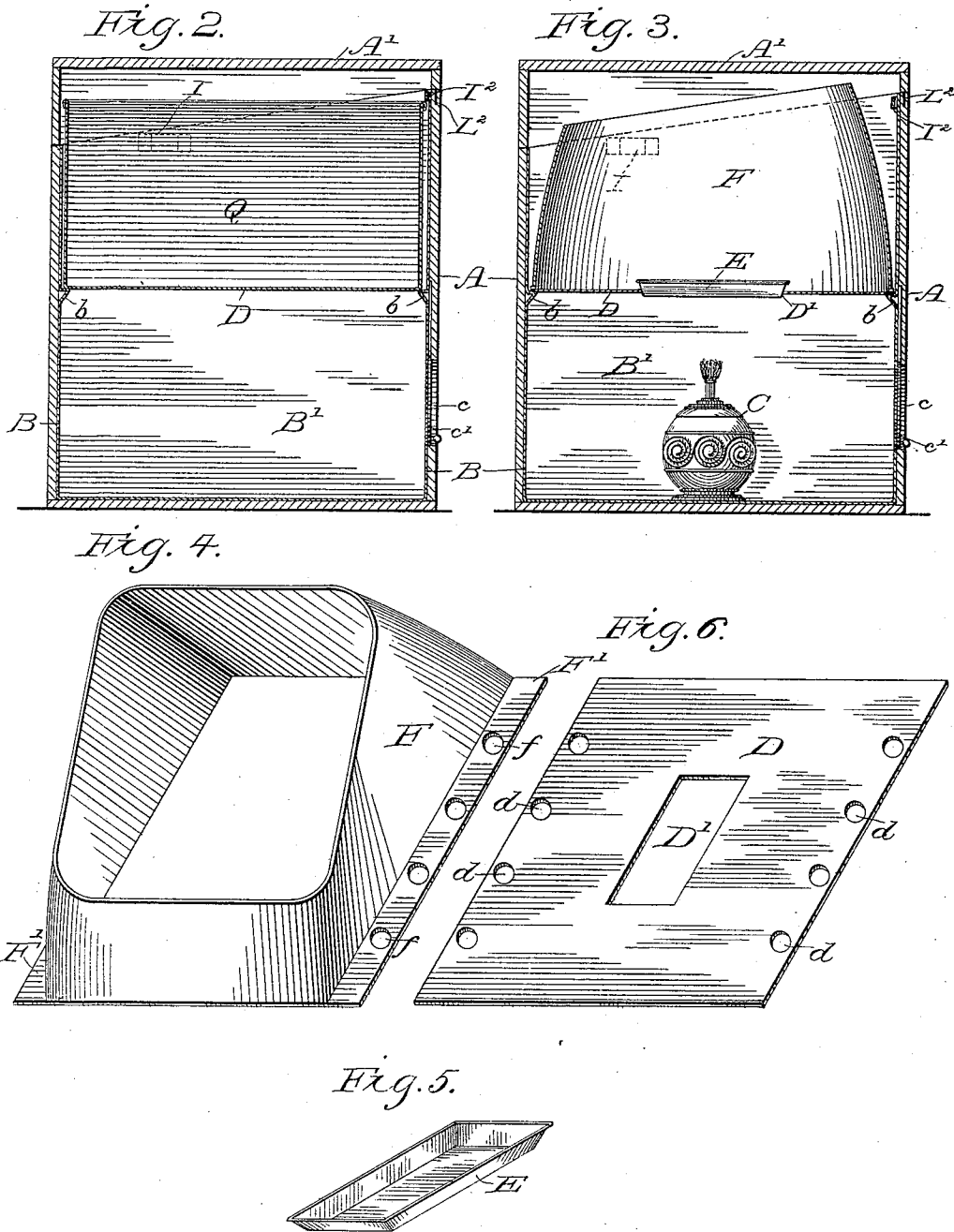
3 Sheets—Sheet 2.

N. LYKE.

ELECTRICAL AND VAPOR FACE BATH.

No. 443,580.

Patented Dec. 30, 1890.



WITNESSES

Wm. Mussel.
W. H. Muzzy

INVENTOR

Nathaniel Lyke.

by

W. H. Babcock

Attorney

(No Model.)

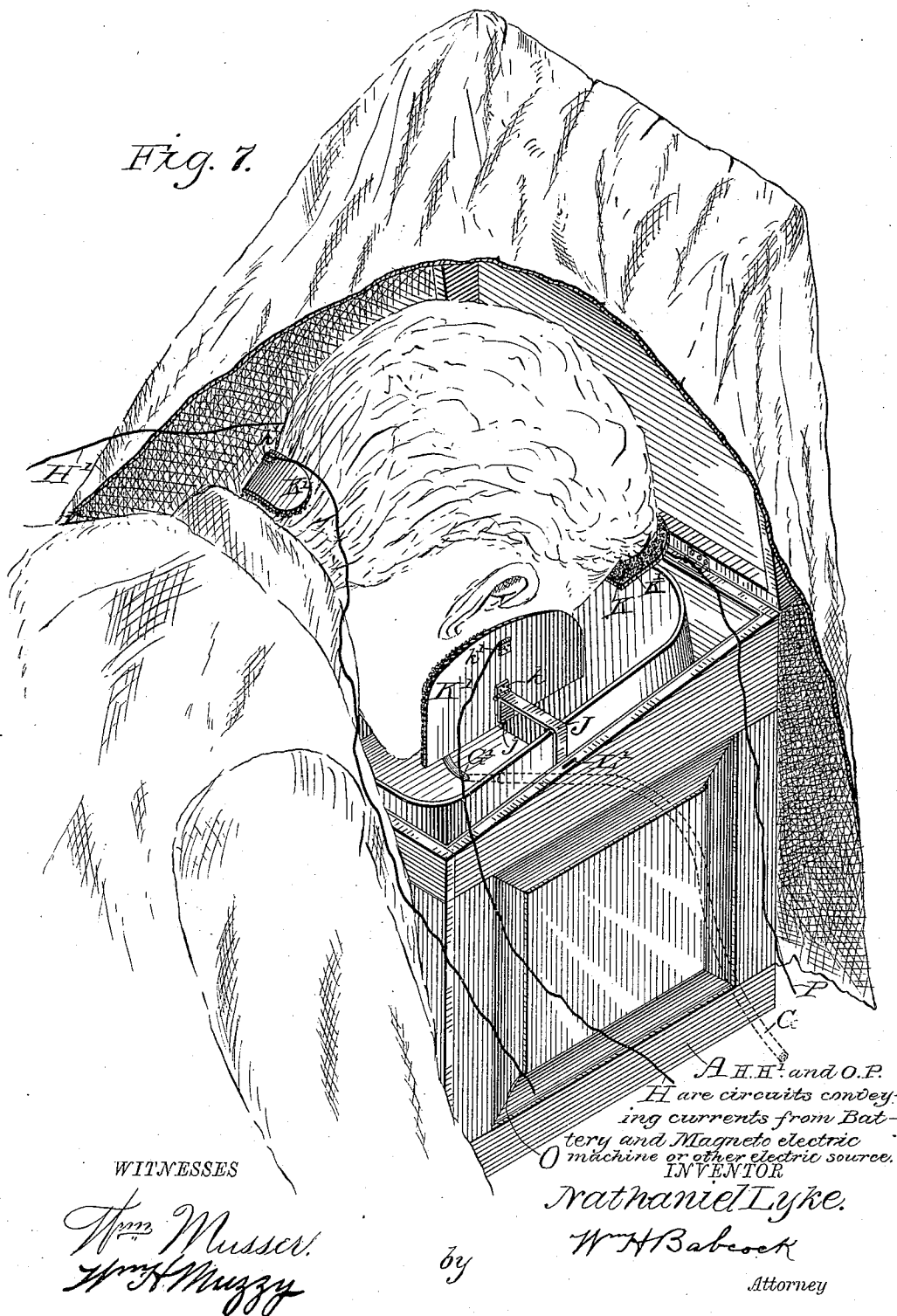
3 Sheets—Sheet 3.

N. LYKE.
ELECTRICAL AND VAPOR FACE BATH.

No. 443,580.

Patented Dec. 30, 1890.

Fig. 7.



WITNESSES

Wm. Musser.
Wm. Muzzy

by

Nathaniel Lyke.

W H Babcock

Attorney

UNITED STATES PATENT OFFICE.

NATHANIEL LYKE, OF WILLIAMSPORT, PENNSYLVANIA.

ELECTRICAL AND VAPOR FACE-BATH.

SPECIFICATION forming part of Letters Patent No. 443,580, dated December 30, 1890.

Application filed April 25, 1890. Serial No. 349,429. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL LYKE, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Electrical and Vapor Face-Baths; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The chief object of this invention is to provide a simple and convenient face-bath in which medicated vapor and electrical currents may be used either separately or together, these currents being either homogeneous or heterogeneous in their nature and applied wherever needed.

In the accompanying drawings, Figure 1 represents a perspective view of a face-bath embodying my invention, the cover being raised and the water-pan in place. Fig. 2 represents a transverse vertical section through the same. Fig. 3 represents a similar section from front to rear, the water-pan being removed and the vapor-pan substituted, the deflector also in place. Fig. 4 represents a detail view of the deflector for concentrating the vapor on the face. Fig. 5 represents a detail view of the small pan for holding the solutions which give off the medicated vapor. Fig. 6 represents a detail view of the tray on which this pan is supported; and Fig. 7 represents the bath and appliances in side elevation, partly broken away to show the patient with the sponges in contact with his forehead, cheeks, and neck to provide for the passage of the two currents and the fresh-air-inhaling tube in his mouth.

In said drawings, A designates the wooden casing of the bath, in structure and form resembling a commode (though these may be varied at will) and provided with a hinged cover A'. The body of this casing has an interior sheet-metal lining B, from which a ledge b extends inwardly, running around the interior of said casing at about the middle of the height thereof. The back of said casing is provided with an opening c, through which a lamp C may be introduced into the space B' below said ledge. A door c' closes the said opening, except while the lamp is being thus

put in place. A removable horizontal partition or tray D, of sheet metal, rests on said ledge and supports in turn the small pan E, also removable, which contains the liquid used for giving off the medicated vapors when acted on by the heat of said lamp. The partition or tray D has a large central opening D' to allow the heat of the lamp direct access to the bottom of the said pan E, which sets into and fills said opening, and said tray is further provided with openings d, arranged in series along its sides, for allowing the air heated by the lamp to pass upward and escape at the top of the bath. This tray D is not indispensable, but makes it easier to set the tank or pan accurately and securely in place. Of course a support or suspending device of some kind would be needed.

F designates a sheet-metal deflector, open at the top and bottom, with upwardly and inwardly inclined sides, arranged above the said pan E, and provided with lateral flanges F', which extend from its bottom over the outer part of the tray D as far as the lining B. These flanges are provided with draft-openings f, registering with openings d, through which the ascending heated air makes its escape, as stated. The lower draft-opening may be made by partly sliding back the door c'.

The patient holds his face above the tank or pan E (a cloth covering being preferably spread over his head and shoulders) and allows the medicated vapors to act on the cuticle. In many instances these vapors are of such a nature that to inhale them would be highly injurious. I therefore provide an inhaling-tube G, which extends to the air outside of said covering, and has an inward extension G' of glass to be held in the patient's mouth. This is the part most exposed to the vapors and needs to be proof against their chemical action. The remainder of said tube is preferably of rubber. To provide for the use of electricity with or without said vapors, I make use of the following devices: On the inner face of the said lining B are formed sockets II' I² at the sides and back, as shown, or wherever may be most convenient, each socket being composed of a strip or plate of metal attached to said lining and set out in the middle. These sockets are adapted to receive the supporting-brackets J of sponges

K, which serve as electrodes. Each bracket consists of a flat plate bent twice at right angles, and thereby providing, besides the main vertical part which fits in the socket, a horizontal inwardly-extending part with a short wall *j* extending downward from its inner end. At the second bend, where this wall begins, the sponge-plate *K'* is connected to said bracket by hinge *k*, allowing it to turn over backward into an inclined position. The said wall *j* acts as a stop to prevent it from turning too far forward. The sponge-plate in each instance is only a flat plate of metal to which the sponge is suitably secured. The hinged attachment to the bracket allows the sponge to be applied in such manner as to conform approximately to the surface of the face or head. Each sponge-plate is provided with a transverse sleeve *k'* for the attachment of a circuit-wire.

The wooden casing *A* is recessed to form sockets *L L' L²*, which are also adapted to receive said brackets, the latter being then insulated from each other by the wood of said casing. Either one or any one of the circuit-wires may be attached to a movable sponge or other hand-electrode. By means of these devices the current may be directed and applied in divers ways. If one of the side sponge-brackets be in the socket *I* of the lining *B* and the other side sponge be in the opposite socket *L'* of the wood-work, the circuit-wires *H H'* being connected to their respective sponge-plates in the manner described, the two sponges will be respectively the anode and cathode, and the patient's face pressed in between them will complete the circuit. Again, if both side brackets be left in the lining-sockets *I I'* and the third bracket be set in the socket *L²* at the rear of the wood-work the two former will be anodes or cathodes and the latter will be the other electrode, as the case may be. The patient presses his forehead against the sponge at the rear of the casing and his cheek against one of the others, an electric current accordingly passing through his face in an oblique direction. By attaching the wire *II'* to a free electrode, as stated, any part of the person of the patient may be brought into the circuit. Thus if this electrode be pressed against his heel and both of the side sponges against his cheeks, their brackets being in the lining-sockets, there will be an electrical current set up through the whole length of his leg and body, dividing finally to reach the cheeks. It is also practicable to apply simultaneously a galvanic and magneto-electric or frictional current. Thus let the two side sponges be in a galvanic circuit, one bracket being in the socket of the lining and the other bracket in the wooden socket, as described, then let the third bracket be in the wooden socket *L²* and both it and the free electrode connected to the wires *O P* of a faradic or magneto circuit. It is obvious that if the patient presses his cheeks and

forehead against the three socketed sponges and holds the free sponge against the back of his head a galvanic current will pass through from cheek to cheek and a magneto-electric current from forehead to occiput. Of course their directions may be reversed or the currents transposed, or they may be applied to other parts or in other directions; also, frictional electricity, thermo electricity, or any other form of electrical action may be substituted or used in addition.

It has not been deemed necessary to illustrate an ordinary galvanic battery, magneto-electric machine, frictional machine, or thermoelectric battery, inasmuch as the construction of any or all of these has nothing to do with my invention.

The number and arrangement of sockets for the sponge-brackets may be varied at will.

It is often desirable to use water as one of the electrodes, for it covers a wide surface and adapts itself to the features better than any more solid substance. To this end I employ a larger water-pan *Q*, which rests on the ledge *b* or tray *D* after the removal of pan *E*, and of course is in electrical communication with one of said circuit-wires, preferably by immersing its terminal in the liquid in the aforesaid pan *Q*. The other electrode of the circuit may be held to the patient's neck, or to any part of his person, or merely grasped in either one of his hands, electrical connection being made through the water and wire either directly or by contact of the latter with the sides of pan *E*. Of course any or all of these electrical arrangements may be used with the vapor-bath or without it, except that the water bath and vapor-bath, requiring different pans, which are substituted the one for the other, cannot be used simultaneously.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The pan of a vapor face-bath, in combination with detachable electrodes, applied substantially as set forth.

2. A face-bath provided with two sets of sockets, one set being in electrical communication with each other and the second set insulated each from the other, in combination with electrodes having supports that are interchangeable in said sockets, and circuit-wires making connection with said electrodes, substantially as set forth.

3. A face-bath having electrodes on opposite sides, in order that the patient's face being introduced between them may complete the circuit.

4. A face-bath having on each side sponges constituting electrodes, the said sponges having a hinged connection to their supports, in order that they may conform approximately to the patient's face introduced between them, substantially as set forth.

5. In combination with a vapor face-bath,

an air-inhaling tube which extends out of the same and is provided with a glass part at its inner end, substantially as set forth.

5 6. In a face-bath, a detachable water-pan, in combination with electrical connections, a vaporizing pan and tray, and a casing provided with a lining having a ledge for supporting either said water-pan or said vaporizing pan and tray, substantially as set forth.

10 7. A bath having a series of sockets formed in its wood-work and provided with a metallic lining which has another series of sockets

formed therein, in combination with a series of electrodes having supports which are movable from one socket to another, and electrical 15 connections which bring said electrodes into the circuit whichever sockets may be occupied, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

NATHANIEL LYKE.

Witnesses:

FRED VAN FLEET,
JONATHAN H. ULMER.