

No. 791,730.

PATENTED JUNE 6, 1905.

J. J. STANGER.
ELECTRICAL MOUTH BATH.
APPLICATION FILED JUNE 1, 1903.

Fig. 1.

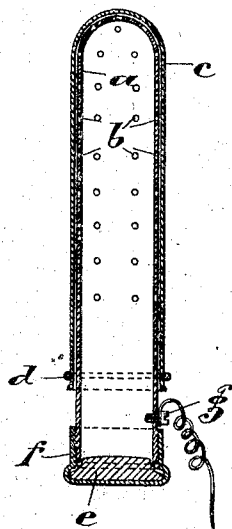


Fig. 2.

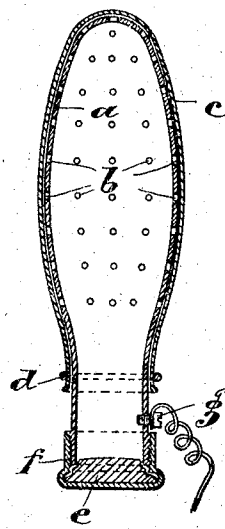
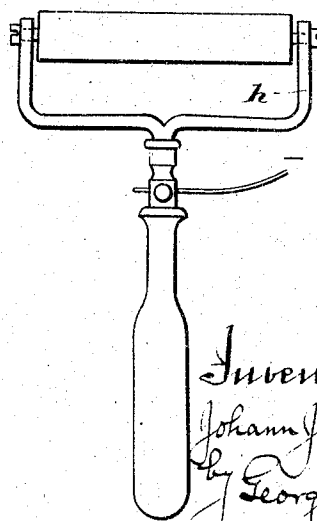


Fig. 3.



Fig. 4.



Witnesses:

Anton Glatzer.
Bertha M. Smith.

Inventor:

Johann Jacob Stanger
by Georgii Massie,
his attorney

UNITED STATES PATENT OFFICE.

JOHAN JAKOB STANGER, OF ULM, GERMANY.

ELECTRICAL MOUTH-BATH.

SPECIFICATION forming part of Letters Patent No. 791,730, dated June 6, 1905.

Application filed June 1, 1903. Serial No. 159,701.

To all whom it may concern:

Be it known that I, JOHAN JAKOB STANGER, a subject of the King of Württemberg, residing at Ulm, Kingdom of Württemberg, Germany, have invented certain new and useful Improvements in Electrical Mouth-Baths, of which the following is a full, clear, and exact description.

The object of my invention is a device for applying electricity to medical purposes by the drinking of an electrified liquid or by washing the mouth therewith.

The special purpose of my device is not only to introduce oxygen in the nascent state into the human system by drinking or using the liquid while the electric current is passing through it, but to transfer electrolytically the main ingredients of the liquid into the organic tissues by means of "kataphoresis" with a simultaneous electrification.

For this purpose the device consists of a drinking vessel serving as an electrode and connected with the positive pole of a suitable source of electricity. Said vessel is advantageously formed as a perforated casing covered by a porous substance which is a non-conductor of electricity. The circuit is completed by a second electrode connected with the negative pole, which might be made in any suitable form to suit particular parts of the body.

Figures 1 and 2 of the accompanying drawings show sections of two constructional forms of my device. Fig. 3 illustrates the mode of application. Fig. 4 shows a negative electrode.

My device consists of a cylindrical or slightly bulbous hollow body *a*, of electrically-conductive material, which is pierced by holes *b* and covered by a porous material *c* which is a non-conductor of electricity and which can be secured, for instance, by a ring *d*. The positive pole of the source of electricity is connected, by means of a binding-post *g*, with the vessel *a*, forming one electrode.

For use the whole is filled with a suitable liquid and closed by means of the screw-cap *e*. The patient then takes the suction vessel in his mouth and sucks the liquid through the

holes *b* and the porous cover *c*, a second electrode of suitable form being taken in the hand or being applied to any particular part of the body, as illustrated in Fig. 3. The suction-electrode can also be connected with a liquid-reservoir by means of a flexible tube, through which the liquid is drawn. The number of the holes *b* can be varied as desired.

By the described device an excessive quantity of liquid is prevented from entering into the human body, because by means of suction only predetermined quantities can be taken into the body.

The form of the vessel containing the curative liquid can be chosen as desired. Furthermore, the second electrode, connected, as stated, with the negative pole of the source of electricity, can be of any convenient shape.

In the drawings, Fig. 4 illustrates a so-called "massage-roller," instead of which, however, an electrode adapted for the arm, the neck, the foot, the ear, the urethra, or the like might be employed, according to the parts of the body through which it is desired that the electric current shall pass. If these two electrodes are applied, the current passes through the beverage or medicine to the tongue, mouth, and inner organs in the direction of the other pole. It is easy, if the operation is only desired through single internal organs, to use a single electrode of sufficient area placed upon the body in the location of these organs. By this means the action upon these parts is concentrated and localized. If, on the other hand, a general action is required, the entire lower body and the feet may be connected, by means of several applied electrodes, with the negative pole, or the patient may be partially submerged in a fluid which is connected to the negative pole, (the so-called "monopolar" bath.)

The liquid or medicine is naturally adapted to the complaint of the patient. The device described is particularly adapted for the treatment of diseases of the throat, tuberculosis, and the like.

A suitable form of my drinking vessel might be further used with good results for curing toothache.

What I claim, and desire to secure by Letters Patent, is—

1. A device of the character described, comprising a perforated vessel adapted to receive
5 a liquid and forming one electrode of an electric circuit, a porous covering about the vessel, and a second electrode arranged to be applied to any portion of the body.
2. A device of the character described, comprising a perforated vessel provided with a
10 closure and adapted to contain a liquid forming one electrode of the electric circuit, an absorbent covering about the vessel, and a second electrode arranged to be applied to any
15 portion of the body.
3. A device of the character described, comprising a perforated vessel adapted to receive a liquid, a porous non-conducting covering about the vessel, means for connecting the
20 vessel with a source of electricity constituting of the vessel one electrode of the circuit, and a second electrode arranged to be applied to any portion of the body.
4. A device of the character described, com-

prising a perforated cylinder provided with a
25 closure and adapted to contain a liquid, a porous non-conducting envelop about the cylinder, means for connecting the cylinder with a source of electricity constituting of the cylinder one electrode of the circuit, and a mas-
30 sage device connected with the source of electricity and forming the second electrode.

5. A device of the character described, comprising a perforated cylinder adapted to receive a liquid and to be closed by a screw-cap,
35 a porous non-conducting envelop about the cylinder, means for connecting the cylinder with the positive pole of a source of electricity, a massage device, and means for connecting the massage device with the negative pole
40 of the source of electricity.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JOHAN JAKOB STANGER.

Witnesses:

UDO HAASE,
ERNST ENTENMAN.