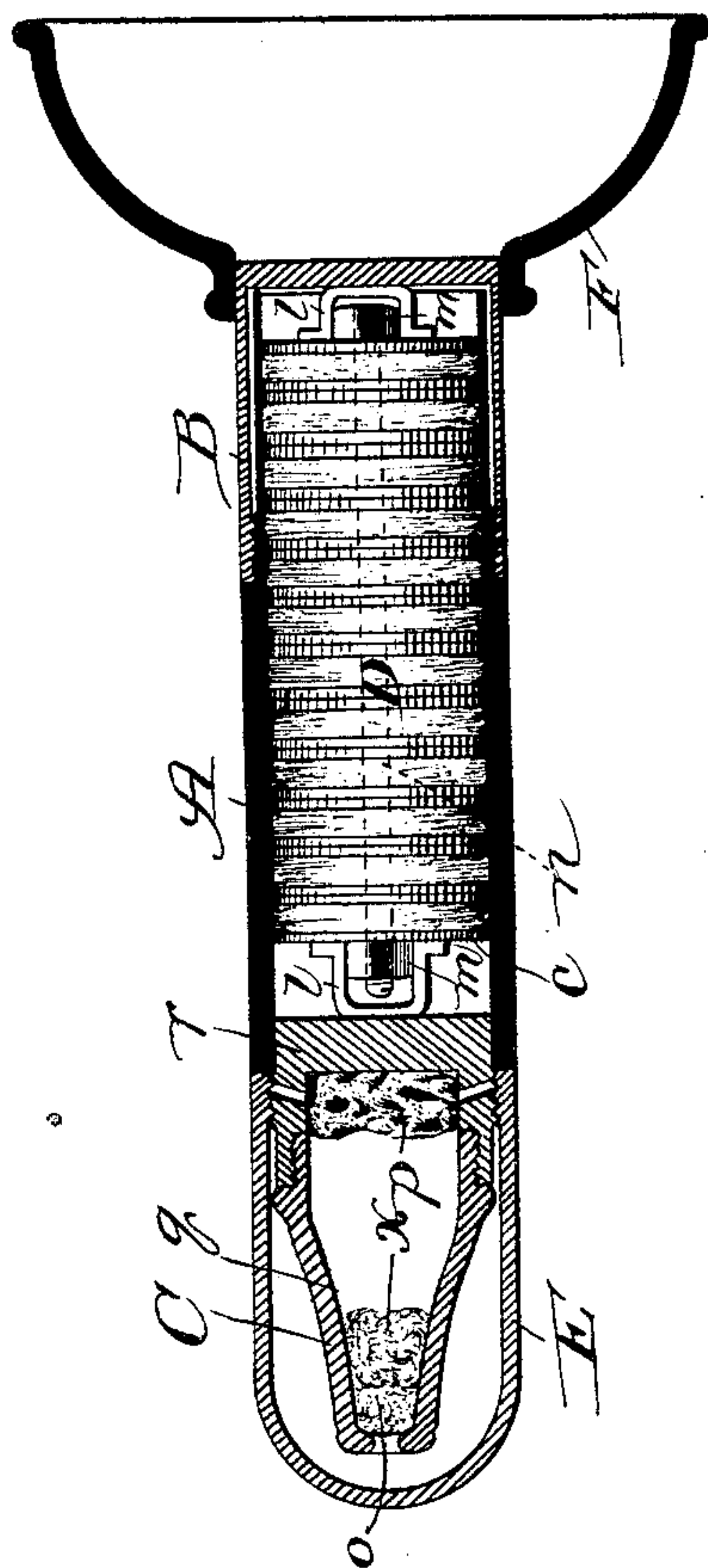


(No Model.)

H. P. PRATT.
ELECTRO THERAPEUTIC DEVICE.

No. 407,116.

Patented July 16, 1889.



Witnesses:
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UNITED STATES PATENT OFFICE.

HARRY P. PRATT, OF CHICAGO, ILLINOIS.

ELECTRO-THERAPEUTIC DEVICE.

SPECIFICATION forming part of Letters Patent No. 407,116, dated July 16, 1889.

Application filed May 7, 1889. Serial No. 309,912. (No model.)

To all whom it may concern:

Be it known that I, HARRY P. PRATT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Electro-Therapeutic Devices, of which the following is a specification.

The object of my invention is to provide a device adapted, as to size and form, to be readily carried in the hand and held for application to the body, as to the nose, in the use of the device as an inhaler for the treatment of nasal catarrh, and which shall operate, when so held and applied, to close an electric circuit through the body and cause the current generated to pass through the inhalent substance or medicament with which the device may be supplied.

My invention consists in the general construction of my improved device; and it also consists in details of construction and combinations of parts.

The accompanying drawing shows my improvement in the form of an electric inhaler in sectional elevation, and provided with attachments to adapt it for different purposes.

A is a chamber formed, preferably, of material either non-conductive of electricity—such as hard rubber—or of conducting material, properly insulated. On one end of the chamber is secured an end piece in the form of a cap B, of conducting material, (metal,) and on the other end is secured an end piece in the form of a nozzle C, also of conducting material, (metal,) and provided, for convenience, in two parts, as shown, one affording a coupling *r* and the other the tip *q* screwed into it, and the two affording a receptacle, closed except as to the perforation *o* in the end of the tip, and containing a desired inhalent substance, which I prefer to provide on a sponge *p*, or other suitable absorbent material, saturated with the inhalent.

Inside the chamber is an electric generator D, preferably in the form of a galvanic battery, which, the chamber being of tubular shape, I construct of disks of proper materials—as alternate layers of copper, felt, and zinc—with a copper element at one extremity of the battery and a zinc at the opposite extremity to constitute the opposite polarity of the

ends. The series of disks are connected together, as by a rod *n* of insulating material passed through their centers, and they are clamped together by metallic nuts *m* on the ends of the rod *n*, to which nuts metallic contacts *l* are applied, and confined, respectively, against the adjacent ends of the cap B and coupling *r*.

To prepare the device as thus described for use as an electric inhaler, the battery D is charged by soaking it in an exciting liquid—such as vinegar—(removing it for the purpose from the chamber A and replacing it) and the sponge *p* is moistened with the inhalent substance. By then applying the nozzle C to the nose, at the same time holding the device in the hand at the cap B, the circuit of the generator D is closed through the body, subjecting the part to be treated to the effect of the current and rendering the inhalent substance introduced at the same time into the nostril by inhalation the more active by the excitant effect of the current on the membrane; and, if desired, the fumes of the inhalent substance may be caused to pass, for the purpose of filtration, through absorbent cotton *x*, or the like, in the nozzle.

To protect the nozzle when the device is not in use as an inhaler and prevent escape of the fumes, it should be covered by means of a cap E, which I prefer to form of conducting material (metal) in order that with it the device may be used for other purposes than that of an electric inhaler, as for allaying pain or exciting the skin (depending upon which pole be in contact with the coupling *r*) by rubbing the cap E over the surface of the body to be affected while holding the device in the hand at the cap B. A further adjunct is provided in the form of a cup F, of rubber, metal, or other material, removably or permanently secured to the cap B, and of a shape adapting it for use as an eye-cup and to contain a suitable or medicated liquid for treating the eye, and through which the current from the battery passes when the cup is applied.

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

1. In an electro-therapeutic device, the combination of a chamber A, having its ends

- formed of conducting material, a cap E of conducting material covering one of said ends, and an electric generator D in the chamber having its poles in electrical connection with the said ends, whereby, when the device is held at one end in the hand and the cap on the other end is applied to the body, the circuit will be closed through the body, substantially as and for the purpose set forth.
2. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, and an electric generator D in the chamber, having contacts *l* at opposite ends in electrical contact with the parts B and C, substantially as and for the purpose set forth.
3. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, an electric generator D in the chamber, having contacts *l* at opposite ends in electrical contact with the parts B and C, and a cap E, of conducting material, removably secured over the nozzle, substantially as and for the purpose set forth.
4. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, the nozzle being formed with a coupling *r* and tip *q*, separably connected together, and an electric generator D in the chamber having metallic contacts *l* at opposite ends and respectively in contact with the cap B and coupling *r*, substantially as and for the purpose set forth.

5. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, and a galvanic battery D in the chamber having its elements connected by a rod *n* and clamped together on the rod, and contacts *l* on the projecting ends of the rod confined, respectively, against the cap B and nozzle C, substantially as and for the purpose set forth.

6. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, the nozzle being formed with a coupling *r* and tip *q*, separably connected together, absorbent material *p* in the nozzle moistened with an inhalent substance, and an electric generator D in the chamber, having contacts *l* confined against the parts B and C, substantially as and for the purpose set forth.

7. In an electro-therapeutic device, the combination of a chamber A, having at opposite ends a cap B and a nozzle C, both of conducting material, an electric generator D in the chamber, having contacts *l* at opposite ends confined against the parts B and C, a cap E, of conducting material, removably secured over the nozzle, and a cup F, extending from the cap B, substantially as and for the purpose set forth.

HARRY P. PRATT.

In presence of—

J. W. DYRENFORTH,
M. J. BOWERS.