

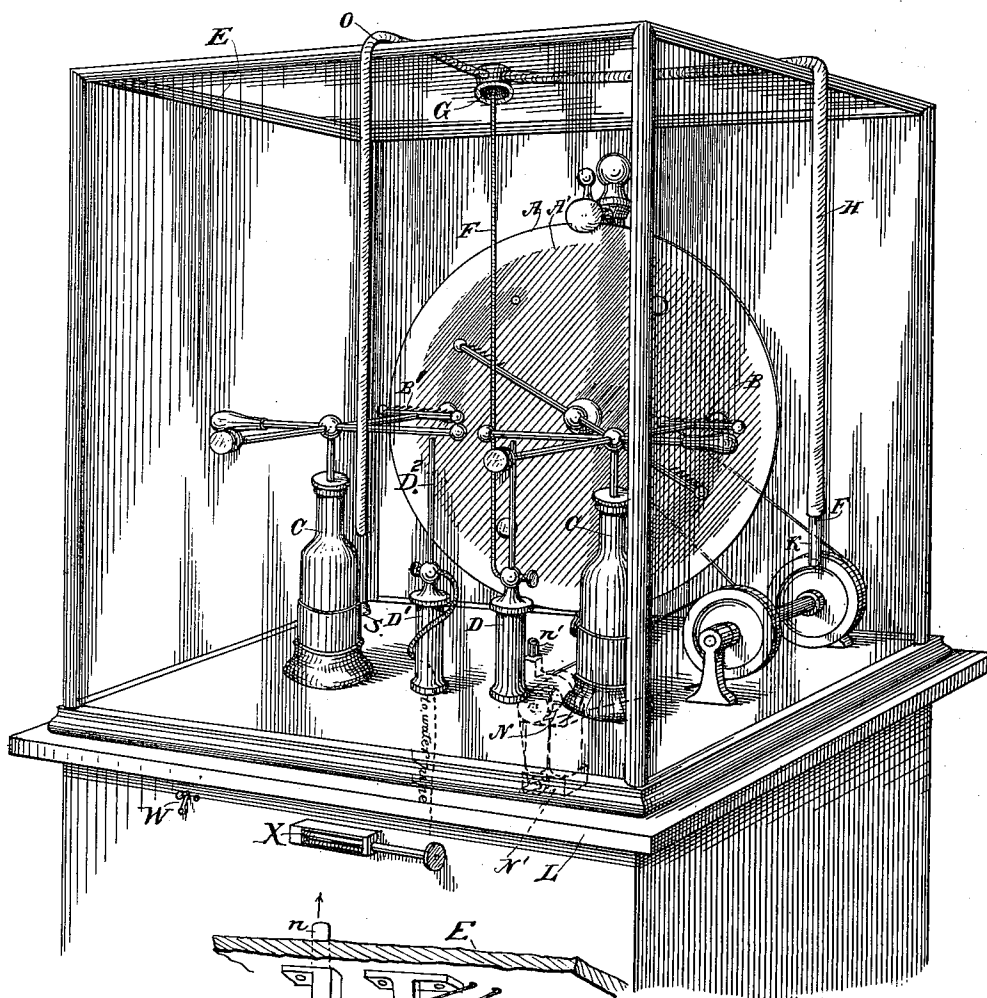
(No Model.)

J. W. MOLIÈRE.  
ELECTRO THERAPEUTICAL INSTRUMENT.

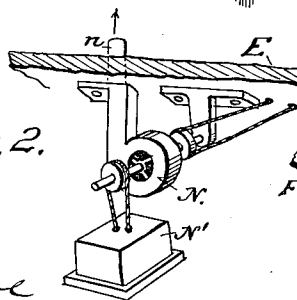
No. 483,745.

Patented Oct. 4, 1892.

*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses,  
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# UNITED STATES PATENT OFFICE.

JAMES W. MOLIÈRE, OF SAN FRANCISCO, CALIFORNIA.

## ELECTRO-THERAPEUTICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 483,745, dated October 4, 1892.

Application filed September 14, 1891. Serial No. 405,693. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. MOLIÈRE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Electro-Therapeutical Instruments; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel apparatus which is especially designed for the treatment of diseases; and it consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my instrument. Fig. 2 is a detail showing in perspective a portion of the case with its fan-blower N and adjunctive parts. Fig. 3 is a detail showing a stopper in the end of the tube.

The object of my invention is to provide an apparatus for the production of ozone and a means whereby it may be directly inhaled by the person desiring to use it and in conjunction therewith of a means for applying directly a current of electricity.

It is well known that ozone is readily developed or generated by the action of static electricity, and that it may be thus developed by machines constructed for this purpose. The ozone is, however, to a great extent wasted in the ordinary arrangement of such machines, and my apparatus is designed to overcome this difficulty.

A A' are the generating-plates of any machine for developing static electricity. In the present case I have shown the apparatus known as the "Toeppler-Holtz," having the brushes or collectors B B' and the Leyden jars or accumulators C C and the dischargers D D', the latter having an insulated wire coiled around it, one end of which may be disposed in any well-known manner to provide a perfect ground and constant supply of electricity. The vertical rod D<sup>2</sup> from the top of the post D' connects the wire with the negative pole and supply-brushes B', and from these brushes the generating-plate turns to the collecting-brushes B at the opposite side. This apparatus I inclose in an air-tight glass case E, having an outlet-opening at G. From this opening a non-conducting flexible tube H extends to any desired length.

F is a conductor through which the current from the discharger D is conveyed to the outlet-passage G, passing through it and through the pipe H to within a short distance of the end of the mouthpiece K. This mouthpiece is made of glass to be as nearly a perfect non-conductor of electricity as possible.

The whole apparatus is preferably set upon a table or base L, which is also insulated from all surrounding parts. Beneath the table or in any suitable relation with the machine is a fan-blower N, (see Fig. 2,) through the discharge-tube n of which a current of air is delivered directly into the inclosing case of the apparatus. This fan-blower is driven by an electric or any other suitable or convenient motor N', and power may also be derived from the same to drive the electrical machine within the case. Air being forced by the blast apparatus into the case, the electrical machine is also set in operation, and by the action of the machine a strong body of ozone is produced, and this is led through the discharge-passage G and pipe H to the mouthpiece K. If it is desired to use the ozone only, a branch pipe may lead outwardly from the discharge-passage G, as shown at O, having a mouthpiece through which the person can inhale the ozone discharged from the machine. A stopper S, (see Fig. 3,) consisting of an ordinary cork or plug, may be employed to close either of the discharge-passages and prevent the exit of ozone from the tube thus closed. The pressure supplied by the fan or blast apparatus acts as an aid to inhalation, and if the lungs are contracted or obstructed the pressure thus supplied aids in the expansion of the lungs and to respiration. When it is desired to also employ electrical action in conjunction with the inhalation, the mouthpiece K of the main tube H is employed, and as the conducting-wire within the tube terminates a short distance from the end of the mouthpiece a current of electricity will pass through the conductor and directly into the person of the patient. For this purpose the patient may be seated in a chair which is insulated from surrounding objects, and the current thus introduced may be discharged from any portion of the body at will by presenting a receiving-conductor to that part.

The negative pole B' of the machine is con-

connected by a wire or chain with any gas or water pipe or other good conductor which connects directly with the ground, thus forming a perfect ground connection for the apparatus  
5 at all times, and by reason of its being hermetically sealed within the glass inclosing case it is not affected by any changes of atmosphere which would ordinarily prevent the perfect action of such a machine. This inclosing case also enables me to generate ozone within the apparatus in any desired quantities and of any desired strength or intensity. At the same time a certain pressure is generated within the case by means of the air-blast, which assists in the operation of breathing and the expansion of the lungs of the patient.  
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It will be manifest that any desired form of electrical apparatus which is capable of generating ozone may be employed, such as an induction-coil or any other form of static machine.  
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The inclosing case not only enables me to confine the ozone, but also to administer, either with or without it, or the electrical current, other substances which may be vaporized in connection with the apparatus and directed through the mouthpiece.  
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W is a well-known form of switch to control the current to the motors, and X is a well-known form of resistance-coil to regulate the speed of the motor.  
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Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—  
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1. An apparatus for the simultaneous application of an electrical current and the inhalation of ozonized air, consisting of an electrical machine inclosed in an air-tight insulated casing, an inlet-passage and an air-forcing device whereby air is delivered into the case, an outlet-passage and a flexible non-conducting pipe and mouthpiece exterior thereto, and a conductor leading from the dischargers of the machine through the interior of the inhalation-tube and terminating within the non-conducting mouthpiece, substantially as herein described.  
40 45

2. An electric machine, an air-tight insulated inclosing case within which it is contained, an air-blast apparatus connecting with an inlet-opening, through which air is forced into the case, an outlet-passage, and a main non-conducting tube and mouthpiece, a conductor leading from the dischargers of the apparatus through said tube into the mouthpiece, and a supplemental tube and mouthpiece connecting with the discharge-opening, said supplemental tube having no electrical conductor within it, and a stopper or plug adapted to be fitted in either of said tubes to close the same and prevent the exit of ozone from the tube containing said stopper or plug, substantially as herein described.  
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In witness whereof I have hereunto set my hand.  
65

JAMES W. MOLIERE.

Witnesses:

S. H. NOURSE,  
GEO. H. STRONG.