

No. 782,400.

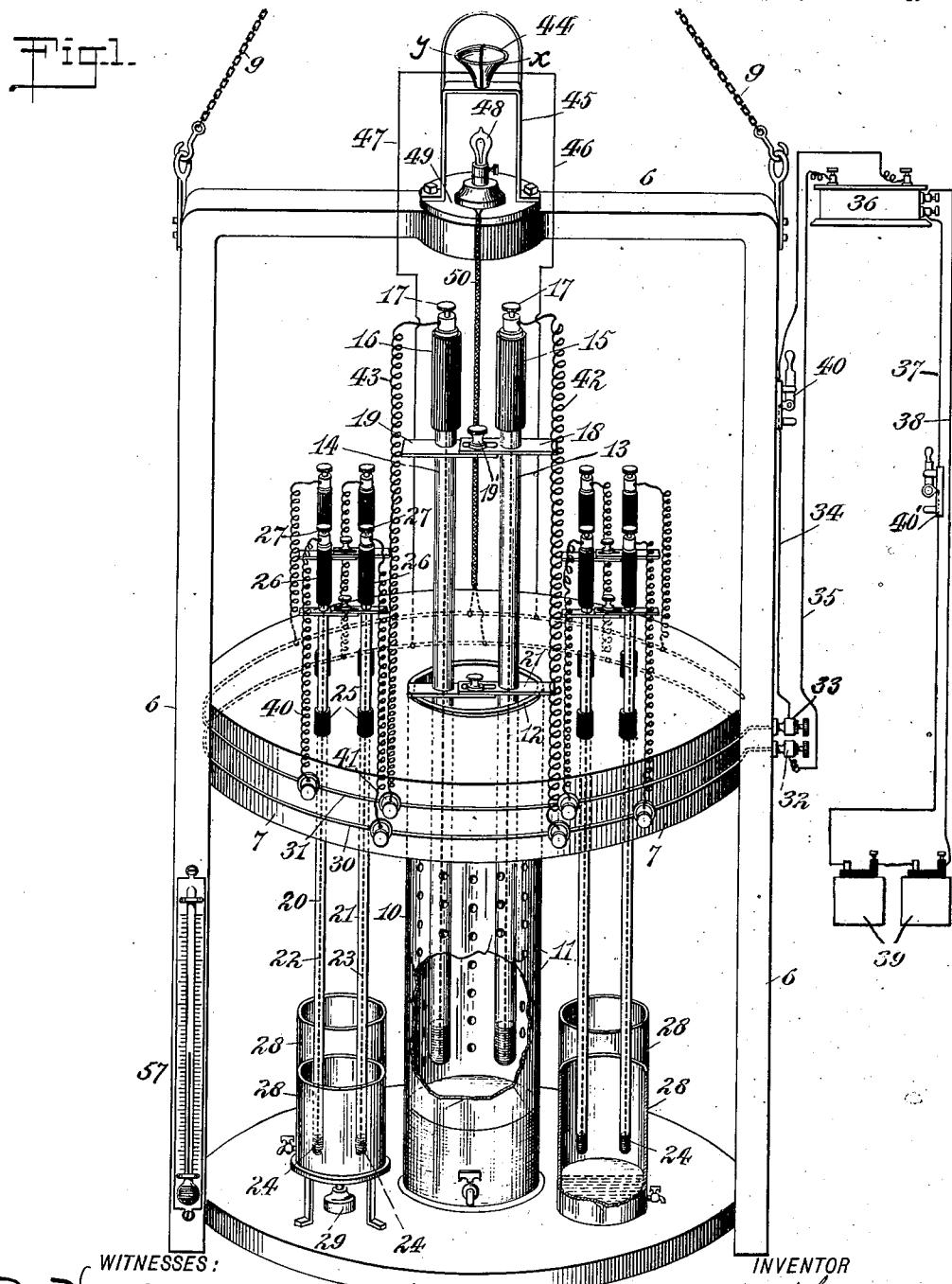
PATENTED FEB. 14, 1905.

J. M. A. LACOMME.

## APPARATUS FOR HYGIENIC AND THERAPEUTICAL PURPOSES.

APPLICATION FILED SEPT. 3, 1903.

2 SHEETS—SHEET 1.



**WITNESSES:**

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2 SHEETS—SHEET 2.

Fig. 2.

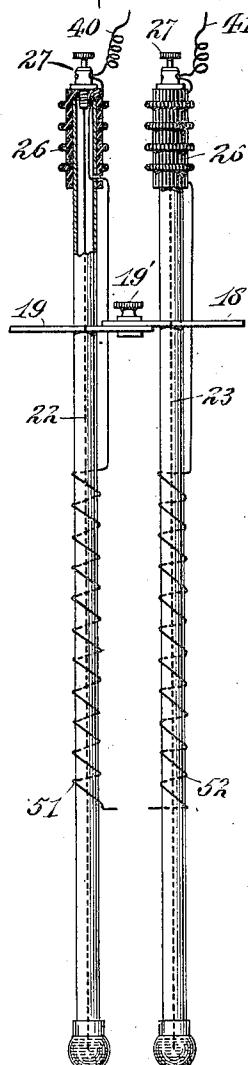


Fig. 3.

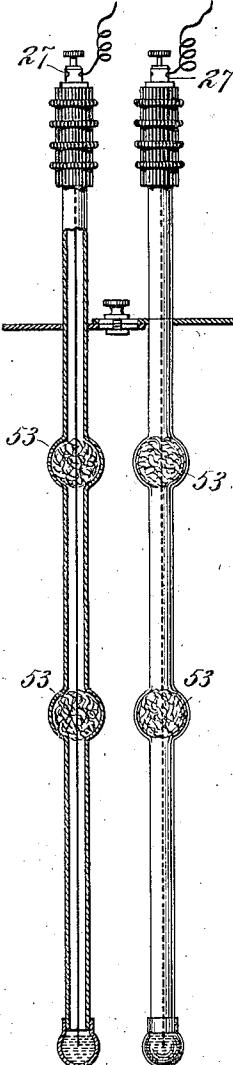


Fig. 4.

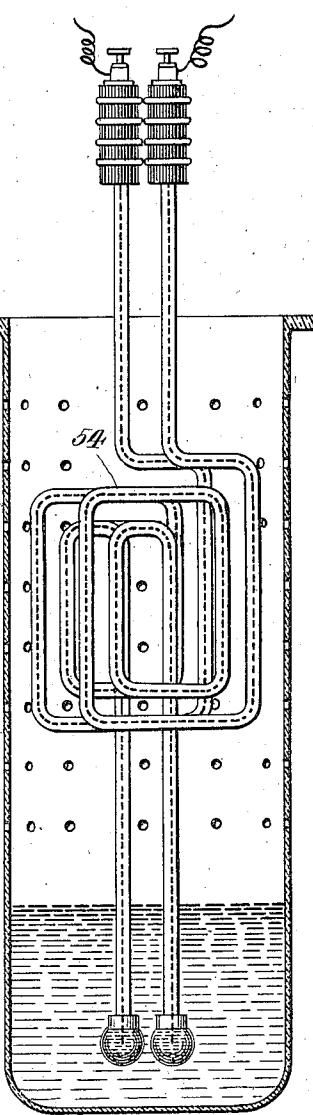
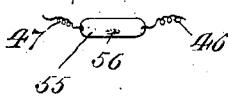


Fig. 5.



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## UNITED STATES PATENT OFFICE.

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## APPARATUS FOR HYGIENIC AND THERAPEUTICAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 782,400, dated February 14, 1905.

Application filed September 3, 1903. Serial No. 171,723.

*To all whom it may concern:*

Be it known that I, JEAN MARIE AUGUSTE LACOMME, a citizen of the Republic of France, and a resident of New York, borough of Brooklyn, in the county of Kings and State of New York, have made and invented certain new and useful Improvements in Apparatus for Hygienic and Therapeutical Purposes, of which the following is a specification.

10 My invention relates to an apparatus designed for hygienic and therapeutical purposes, the object being to provide a device constructed and arranged to transform, vary, modify, or change the atmosphere in such manner that its action upon the human system through pulmonary breathing will be beneficial to health, conducive to longevity, and also capable of purifying and preserving solid or liquid food substances.

20 With these and other ends in view the invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

25 In the accompanying drawings, Figure 1 is a view in perspective of my improved device. Figs. 2, 3, and 4 are views of modified forms of electrodes; and Fig. 5, a view of a modified form of holder for the fluorescent sub-

30 stance.

Referring to the drawings, 6 represents a frame or holder, to the vertical sides of which are secured the disks 7 and 8, located one above the other and preferably made of hard rubber or other suitable insulating material, to the top of which frame are secured the chains 9, by which the device may be suspended from the ceiling or other suitable portions of the room or compartment in which it is to be

40 operated. Upon the lower disk 8 is supported a glass tube or cylinder 10, the upper portion of which is provided with the perforations 11, the lower end of the cylinder or tube being imperforate in order to receive and contain a suitable quantity of water or other liquids to be hereinafter referred to, the extreme upper edge 12 of the tube 10 being preferably flanged over and supported on the upper surface of the disk 7, through which the

tube passes. Into the glass tube 10 are extended the lower portions of the electrodes 13 14, consisting of glass or metal tubes, platinum preferred, each having a wire or electric conductor passing down through the same and containing at the lower end a small quantity of mercury or graphite or other suitable material in which the wires terminate, the upper ends of the electrodes being covered or protected by insulating material, forming handles 15 16, and provided with the binding-posts 17, by means of which connection is made with the wires for supplying the current to the electrodes. For the purpose of separating and holding in their proper positions the electrodes 13 14 I provide adjustable plates 18 19, through which the electrodes pass, one plate sliding upon the other and held by the screw 19', and also a similar device 21, resting upon the upper end of the glass tube 10. Through the upper disk 7 also pass one or more pairs of electrodes, the number thereof depending upon the results to be obtained, and as each is a duplicate of the other the description of one pair will suffice for all. Each pair consists of the glass tubes 20 21, the former containing the wire or electric conductor 22 and the latter the wire or electric conductor 23, said wires or conductors terminating in a small quantity of mercury 24, contained in the lower end of the tube. These electrodes pass through sleeves 25, contained in the disk 7, allowing them to be raised or lowered, as desired, the upper ends of said electrodes 22 23 being covered with insulating material, forming handles 26, and provided with the binding-posts 27 for securing the ends of the wires or conductors conveying the electric current thereto.

Upon the lower disk 8 are supported the cups or vessels 28, made of glass, platinum, sandstone, or other material, to hold or contain chemical solutions or preparations, oils, medical culture, perfumes, insecticides, &c., and into which the terminals of the electrodes may be lowered when desired, a lamp 29 being placed under one or more of the vessels to raise the temperature of its contents when desired.

Passing around the upper disk 7 are the wires or conductors 30 31, the ends being connected to the binding-posts 32 33, the opposite ends being free and insulated one from the other. From the binding-posts 32 33 lead the wires or conductors 34 35 to an induction-coil 36, from which lead the wires 37 38 to the battery 39 or other suitable source of electricity, one of said wires being connected with the positive pole of the battery and the other the negative in order to complete the circuit, a switch 40 being provided at some suitable place in order to make and break the circuit in the ordinary way. The several pairs of electrodes 15 are connected to the wires 30 31—as, for instance, to the binding-post 27 of the electrode 20 21 is secured one end of the wire or conductor 40, the opposite end being electrically connected with the wire 31, passing around 20 the disk 7, and to the binding-post 27 of the electrode 21 23 is secured one end of the wire 41, the opposite end of the latter being electrically connected to the wire 30. In other words, one electrode of a pair will receive current from the negative pole and the other electrode of the pair the current from the positive pole of the battery, the circuit being completed through the atmosphere between the electrodes or through the liquid into which 25 the lower ends or terminals of the electrodes are inserted when in their lowered adjustment. The central pair of electrodes is connected up as follows: To the binding-post 17, forming the upper end of the electrode 13, is secured one end of the wire or conductor 42, the lower end of said conductor 42 being electrically connected with the wire or conductor 30. To the binding-post 17, forming the upper end of the electrode 14, is secured one end of the 30 wire or conductor 43, the lower end of such wire or conductor 43 being electrically connected with the conductor 31, the circuit being completed through the atmosphere between the electrodes 42 43 or through the liquid contents of the lower end of the tube 45 10 when the electrodes are lowered therein.

In practice when the circuit is completed at the switch 40 the current will flow through the wires 30 31 into the electrodes electrically connected therewith, a series of sparks passing between the electrodes constituting each pair, the result being that the atmosphere is ionized and ozonized with other modifications and purifying or cleansing the same, destroying organic germs, and neutralizing the noxious matters which are held in suspension in the atmosphere, as well as diseased-skin emanations.

In connection with my improved device I also utilize the effects of fluorescent bodies which possess a radioactivity or energy more or less penetrating and more or less visible—such as radium, uranium, polonium, octinium, thallium, &c.—influenced by an electric current and simultaneously with the resultant

ozone and the various gases generated by the chemical or therapeutic and hygienic preparations contained in the several receptacles. For containing the fluorescent bodies I provide a cup or receptacle 44, supported on the auxiliary frame 45, secured to the upper portion of the main frame 6, and to which cup or receptacle are secured the wires or conductors 46 47, said wires at their opposite ends being electrically connected to the wires 30 31, said cup or receptacle 44 consisting of two insulated sections X Y, whereby the circuit will be completed through the fluorescent material contained therein.

When desired, one or more pairs of electrodes may be lowered until their terminals are immersed in the liquids contained in the several cups below them, the circuit between the electrodes in such instances being completed through the water or chemical preparations contained in the cups, the water or chemical preparations being thereby decomposed and the atmosphere charged with the resultant gases. If desired, also the outer surfaces of one pair of electrodes may be wound or partially wound with the wires or conductors 51 52, as illustrated in Fig. 2, the upper ends of these wires passing through the insulated handles and connected to the binding-posts 27 at the upper ends of the electrodes and the lower ends of said wires or conductors becoming terminals, approaching each other a greater or less distance. If the intensity of the sparks or current passing between the electrodes is to be decreased or diminished, one of the external wires—as, for instance, the wire 51—will be disconnected from its binding-post 27, the result being that the disconnected external wire 51 will become charged with electricity from the wire 22 by induction through the glass tube and the spark or current thereby decreased. If the intensity of the spark or current is to be increased, both of said outer wires 51 52 will be directly connected to the binding-post, so that the wires or conductors will be directly charged from the binding-post instead of by induction and the spark thereby increased or intensified. Again, if desired, the glass tubes forming part of the electrodes may be enlarged at certain points in their length, as illustrated at 53, Fig. 3, forming receptacles for containing fine platinum wire or any other suitable metallic substance, these bulbs or receptacles acting as reservoirs for the electric current. To increase the surface of the central pair of electrodes, the latter may be shaped or formed as illustrated in Fig. 4—that is, of spiral form, the spirals 54 of each electrode being placed directly opposite those of the other electrodes in order that the sparks may pass from one to the other throughout the entire length of the electrode. Again, instead of the open cup 44 for containing the fluorescent bodies I may em- 130

ploy the tube 55, Fig. 5, the fluorescent body 56 being contained therein, and in some instances utilize a vacuum-tube for increasing or diminishing the radio activity of the fluorescent material.

5 If desired, a thermometer 57 may be secured to the frame of the device in order to indicate at all times the temperature of the room.

The device may be employed with beneficial 10 results in any and all places where it is desired to change or modify the atmosphere, especially in sick-rooms, hospitals, operating-rooms, in schools, barracks, theaters, &c., and also in storage-rooms employed for the purpose of preserving meats and vegetables.

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

1. In a device of the character described, 20 the combination with a frame having two disks supported therein and located one above the other, of one or more pairs of electrodes movably supported in said upper disk and adjustable toward each other, and receptacles supported by said lower disk immediately below the ends of said electrodes and adapted to contain liquids into which the lower ends of said electrodes may be lowered, substantially as described.

2. In a device of the character described, 30 the combination with a frame having two disks secured thereto and located one above the other, of a tube supported on and by said disks and having its upper portion perforated, and 35 pairs of electrodes supported on said upper disk and extending downwardly within said tube, and means for adjusting the electrodes toward and away from each other, substantially as described.

3. In a device of the character described, 40 the combination with a frame, of one or more pairs of electrodes supported therein and connected with a suitable source of electricity, each of said electrodes consisting of a glass tube having a wire or conductor contained 45 therein and the outer surface of said glass tube being wound or wrapped with a wire or conductor and also connected to a suitable source of electricity, substantially as described.

4. In a device of the character described, 50 the combination with one or more pairs of electrodes, each consisting of a glass tube containing a wire or conductor surrounded by an insulating-tube, the lower end of the latter being filled with mercury in which the said wire terminates, and the upper end with a binding-post, to which said wire is secured by means of electrically charging said electrodes, substantially as described.

5. In a device of the character described, 55 the combination with a frame, of one or more pairs of electrodes removably held therein and adjustable toward each other, each of said electrodes consisting of a conductor surrounded by a glass tube, the lower end of the latter containing mercury in which said conductor terminates, and receptacles supported on and by said frame and below the ends of said electrode into and out of which the latter may be moved, substantially as described.

Signed at New York, borough of Manhattan, in the county of New York and State of New York, this 1st day of September, A. D. 1903.

JEAN MARIE AUGUSTE LACOMME.

Witnesses:

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