

P. H. THOMAS.
 STARTING DEVICE FOR ADJUSTABLE VAPOR APPARATUS.
 APPLICATION FILED APR. 12, 1904.

950,709.

Patented Mar. 1, 1910.

Fig. 1

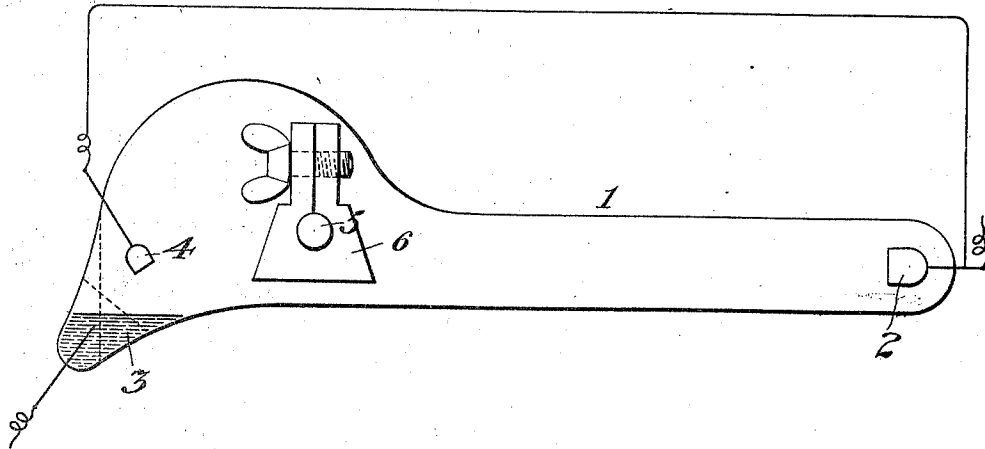
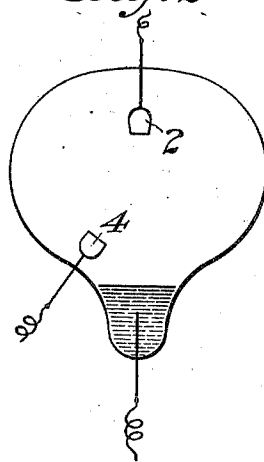


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

PERCY H. THOMAS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO COOPER HEWITT ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

STARTING DEVICE FOR ADJUSTABLE VAPOR APPARATUS.

950,709.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed April 12, 1904. Serial No. 202,785.

To all whom it may concern:

Be it known that I, PERCY H. THOMAS, a citizen of the United States, and resident of East Orange, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Starting Devices for Adjustable Vapor Apparatus, of which the following is a specification.

It is found convenient to operate vapor electric apparatus, particularly lamps, such as mercury vapor lamps, in various positions, either horizontally or vertically or inclined. Moreover, it is the practice with some types of such apparatus to perform the act of starting by bringing about a momentary contact between the main negative electrode and a supplemental positive electrode, the starting of the apparatus taking place when this contact is interrupted. A familiar form of the apparatus is one in which the main negative electrode is of mercury and the supplemental positive electrode is of some solid conducting material. Heretofore, however, the matter of providing for the easy starting of such apparatus in any position which it is contemplated that it should occupy has been overlooked.

The present invention provides convenient means for starting the apparatus whether it is located at the time of starting in a horizontal position or in any other position in which it is likely to be used.

The main feature of the invention consists in so locating the supplemental electrode that it is within operating distance of the main electrode at all times, whatever position of the apparatus.

The invention will be clearly understood by reference to the accompanying drawings, in which—

Figure 1 is an elevation of a mercury vapor lamp embodying the invention; and Fig. 2 is a similar view of a vapor converter having the invention applied to it.

In the drawings, 1 is the container of a mercury vapor apparatus, 2 is an electrode of iron or other suitable material, and 3 is the main negative electrode of mercury.

At 4 I locate a supplemental positive electrode which is so located as to be near the mercury of the negative electrode in every position of the apparatus. To start the apparatus into operation, it is only necessary to jar the mercury of the negative electrode into contact with the supplemental electrode 4, after which, on the return of the mercury by gravity to its operating position, the current will flow through the apparatus between the main positive electrode 2 and the negative electrode 3. The apparatus shown in Fig. 1 may be pivoted upon trunnions, one of which is shown at 5 supported in clamp bearing 6, and may be turned to a vertical, horizontal or inclined position at the will of the operator. The converter illustrated in Fig. 2 may also be turned upon trunnions and may occupy a variety of positions without removing the mercury so far from the supplemental electrode 4 as to be beyond easy striking distance.

I claim as my invention:—

In a vacuum electric apparatus including an exhausted container, and electrodes therefor, including a cathode, the combination with supporting means adapted to permit the movement of said container into and to support said container in vertical, horizontal and intermediate positions, of a supplementary anode adapted to cooperate with said cathode in all of said positions.

Signed at New York, in the county of New York, and State of New York, this 6th day of April A. D. 1904.

PERCY H. THOMAS.

Witnesses:

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