

(No Model.)

J. A. H. LEYNEN-HOUGAERTS.

LAMP OR NIGHT LIGHT.

No. 397,011.

Patented Jan. 29, 1889.

FIG. I -

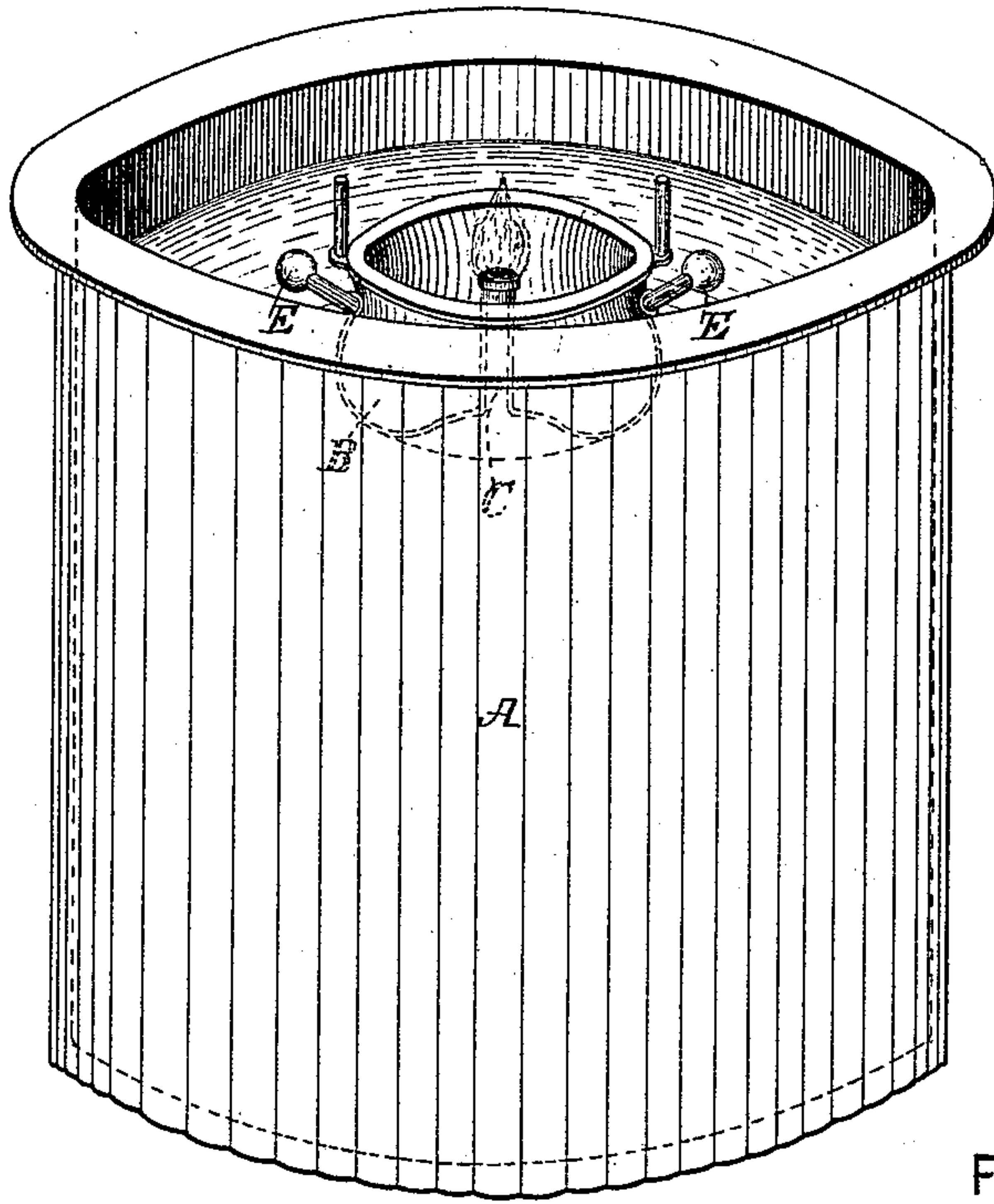


FIG. III -

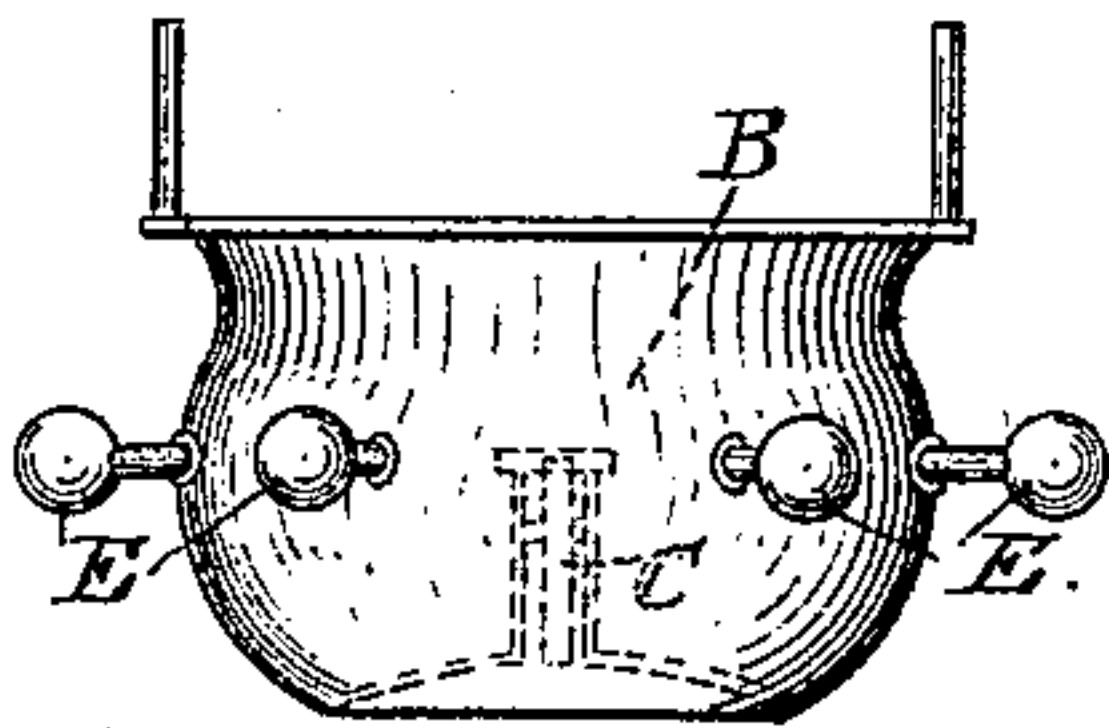


FIG. II -

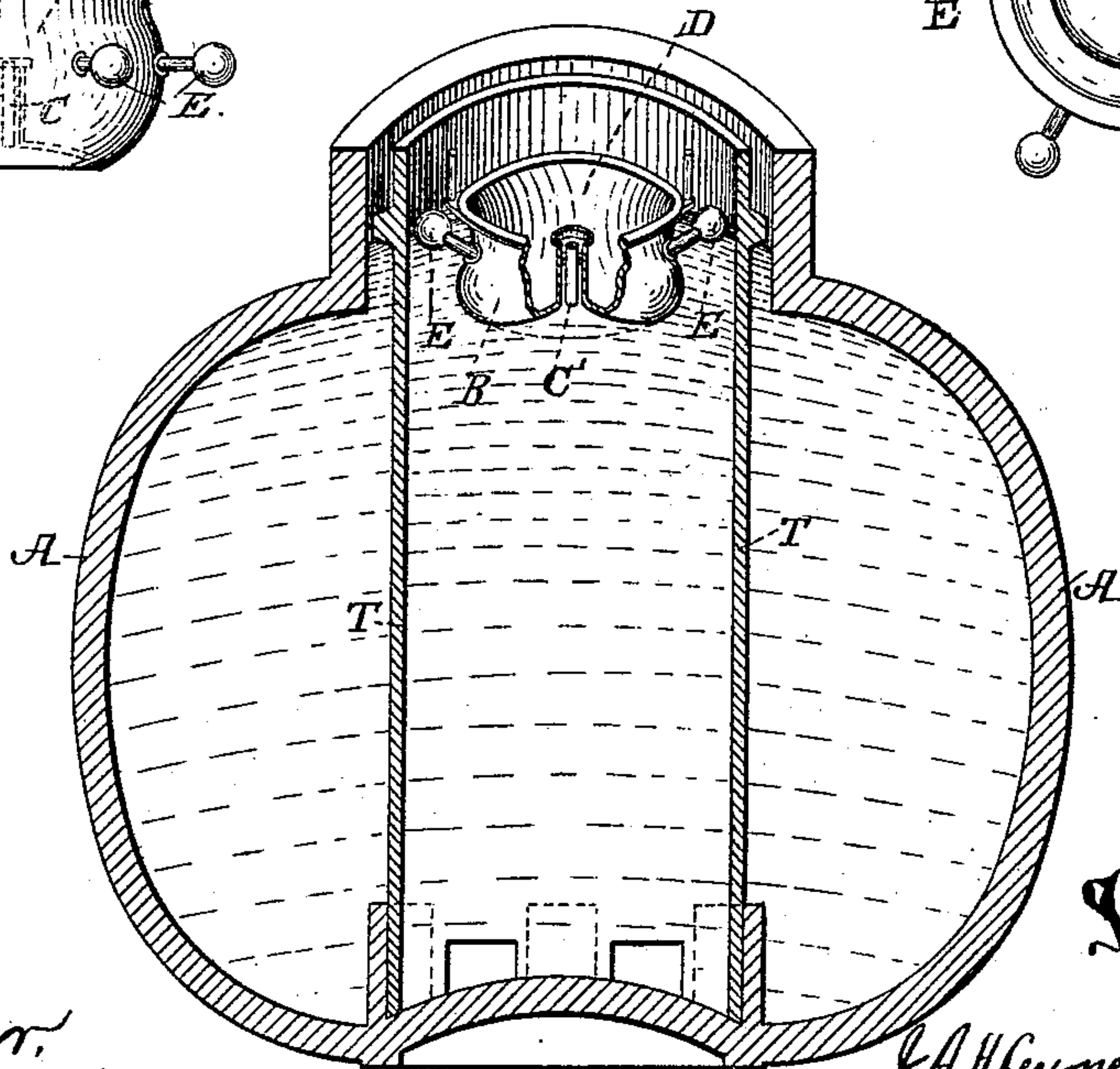
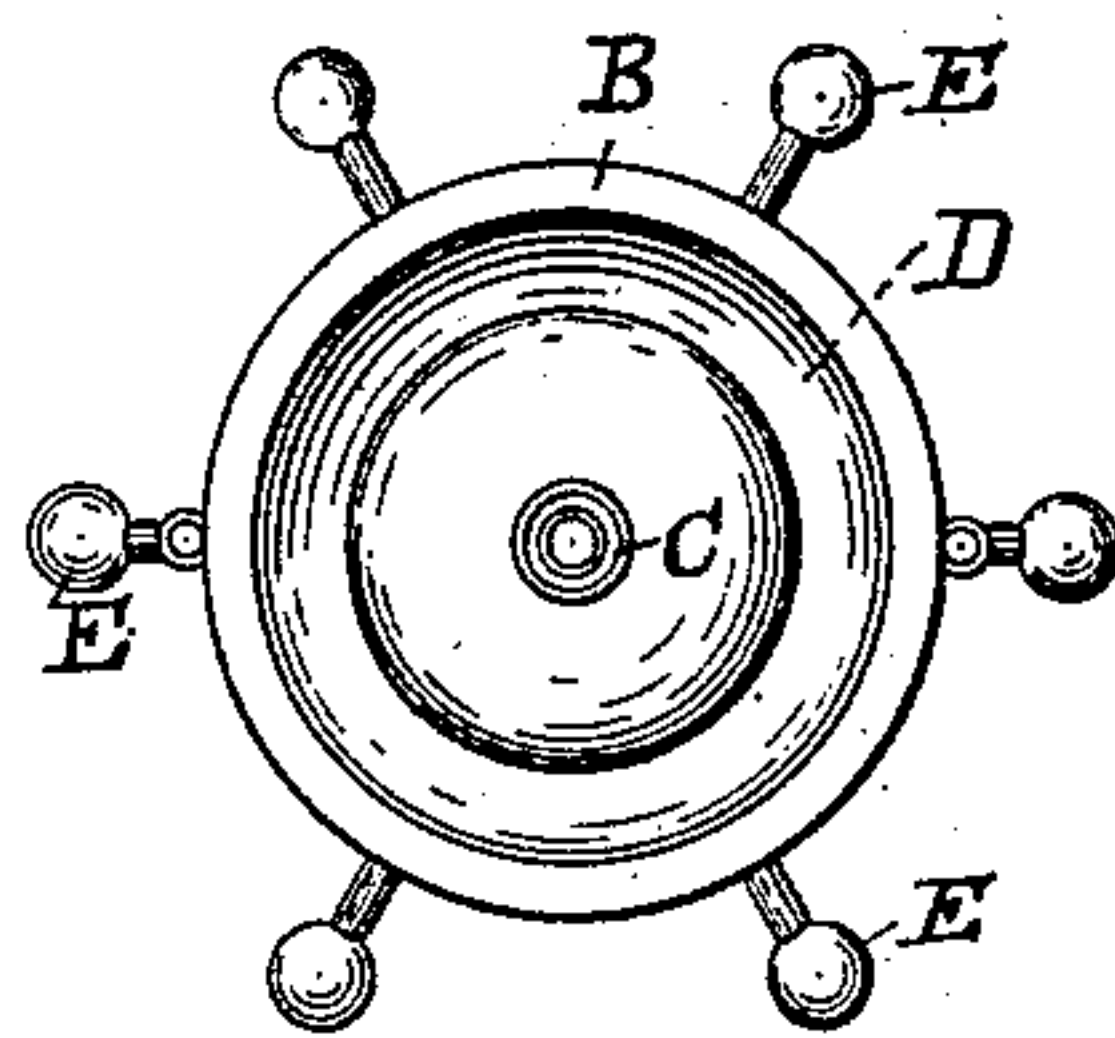


FIG. IV -



Witness:
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UNITED STATES PATENT OFFICE.

JEAN ANTOINE HUBERT LEYNEN-HOUGAERTS, OF BRUSSELS, BELGIUM.

LAMP OR NIGHT-LIGHT.

SPECIFICATION forming part of Letters Patent No. 397,011, dated January 29, 1889.

Application filed April 5, 1888. Serial No. 269,749. (No model.) Patented in Belgium February 28, 1887, No. 76,518; in England March 8, 1887, No. 3,532; in France July 7, 1887, No. 184,674, and in Germany July 17, 1887, No. 39,112.

To all whom it may concern:

Be it known that I, JEAN ANTOINE HUBERT LEYNEN-HOUGAERTS, residing at Brussels, in the Kingdom of Belgium, have invented new and useful Improvements in Lamps or Night-Lights Applicable for Use with Vegetable Oils, (for which no patent has been obtained in any country except in Belgium, February 28, 1887, No. 76,518; in France, July 7, 1887, No. 184,674; in England, March 8, 1887, No. 3,532, and in Germany, July 17, 1887, No. 39,112,) of which the following is a specification.

In many cases burning vegetable oils for lighting purposes by means of a wick causes various inconveniences, to obviate which is the purpose of the present invention.

Vegetable oils—such as colza, hemp, olive, nut, and the like—which do not take fire at ordinary temperatures unless they are associated with some other combustible substance, burn, on the other hand, very readily at the boiling temperature. The carrying into effect industrially of this principle constitutes the object of the present invention.

The apparatus consists, essentially, of a cylindrical or conical tube, the upper part of which may or may not be terminated by a little enlargement, and which forms one piece with a floating capsule in such a manner that the oil shall keep it constantly filled and that the heat of the flame shall maintain constantly in ebullition the portion of oil which is in the upper portion of the tube.

The apparatus is shown in the accompanying drawings, in which—

Figure I is a perspective view of the simplified form of my lamp. Fig. II is a sectional view of a modification, and Figs. III and IV are respectively an elevation and a plan of the float or cup.

A is a cylindrical reservoir for the oil. In this reservoir is placed the float or cup B, bearing the tube C, with burner D. The capsule B may be of any suitable shape and be made of any suitable material—such as metal, glass, porcelain, &c.; but I may say that the material I prefer to use for this purpose is glass.

Projecting from and communicating with the oil through the center of the bottom of

this float or cup B is a tube, C, fixed or applied in such a manner as to form an oil-tight joint with the cup. In practice the tube and cup are preferably and to the best advantage formed integrally.

The tube C may be cylindrical or conical, and terminates, preferably, in a bulb or an enlargement, D, which is used as a burner. The cup or float B floats on the surface of the liquid, and is so contrived, by means of weights or any other suitable device, that the oil in the tube is always substantially flush with the upper edge of the tube. The upper end of the tube is of a length sufficient to allow of the oil to be easily heated. The bulb or enlargement D serves to facilitate this heating.

The edges of the capsule or float may be provided with four or more projections or arms, E, preventing the edge of the capsule from coming into contact with the edge of the oil-reservoir, to which it might otherwise adhere. It is also advantageous that reservoir A should have a cylindrical form. When it is made of other shape, a bottomless cylindrical tube, T, may be placed in the reservoir, in which case the float is kept in the middle of this tube and sinks with the oil. When this double envelope thus formed is used, the reservoir can be easily fed with oil without fear of disturbing the float.

The mode of action is as follows: After the reservoir is filled with oil the float must be placed in it, care being taken that the oil reaches about to the upper edge of the burner without being able to overflow into the capsule. The upper part of the tube C is then heated until the oil commences to boil and catches fire, after which the apparatus itself maintains the heat and the oil continues to burn. Obviously the size of the flame may be regulated by increasing or diminishing the diameter of the tube, or two concentric tubes, $c\ c'$, may be used, the oil filling the annular space between them, and to these lamps glasses, shades, &c., may be attached, as with ordinary lamps.

Having thus described my said invention and in what manner the same has to be performed, what I claim is—

1. In a lamp, the combination, with a reser-

voir and float carrying the burner, of a vertical cylinder in the reservoir surrounding the float for guiding it in its upward and downward movement, substantially as herein shown
5 and described.

2. In a lamp, the combination, with the reservoir, of a float carrying the burner to be supplied by said reservoir, and arms or projections E, for preventing contact of the float
10 with the sides of the reservoir or cylinder, as set forth.

3. In a lamp, the combination, with the reservoir, of a float and two concentric tubes extending from the bottom of the float and forming an annular space in which the oil may rise 15 to be ignited, substantially as shown and described.

JEAN ANTOINE HUBERT LEYNEN-HOUGAERTS.

Witnesses:

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