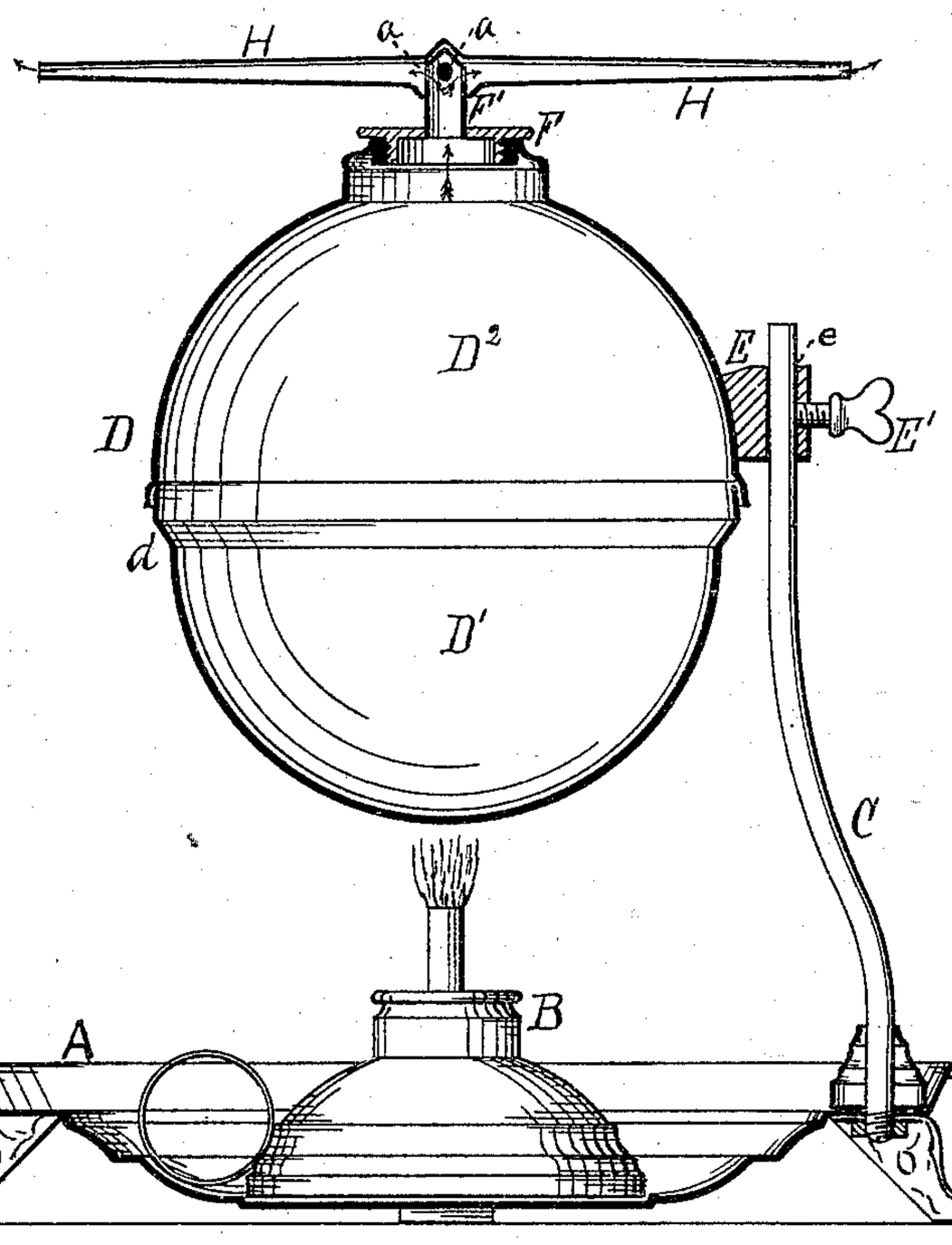
J. D. C. OUTWATER.

Disinfecting-Apparatus.

No. 147,425. Patented Feb. 10, 1874.



Attest,
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per J. E. F. Holmead,
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UNITED STATES PATENT OFFICE.

JACOB D. C. OUTWATER, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO E. H. GOUGE, OF NEW YORK CITY.

IMPROVEMENT IN DISINFECTING APPARATUS.

Specification forming part of Letters Patent No. **147,425**, dated February 10, 1874; application filed January 9, 1874.

To all whom it may concern:

Be it known that I, JACOB D. C. OUTWATER, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain Improvements in Disinfectors and Vaporizers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon making part of this specification, in which is represented a vertical sectional view of my invention.

My present invention is an improvement on Letters Patent No. 57,559 issued to me August 28, 1866; and has for its object the production of a disinfecting and vaporizing vessel which can be made highly ornamental, and at the same time effectually distribute the disinfecting or other liquid. The nature of my invention consists in providing the cap of the boiler or reservoir with a hollow tube, closed at its top, and having one or more holes in its upper section. The top of this tube I make cone-shaped, and fit loosely over it a series of one or more hollow arms. The nature of my invention also consists in forming the lower section of the boiler or reservoir with an inclined flange, which extends sufficiently far to protect the seam and solder which connects the sections from the flames of the lamp, or other heater, when the device is in operation.

The construction and operation of my invention are as follows: A is the plate, which holds the lamp B, and also to which is secured the standard C for holding the boiler or reservoir. This plate may be made of any suitable material, and ornamented according to the taste of the manufacturer. Instead of this plate A and standard C, a cylinder, opened at its top, may be used, the boiler fitting in the open section, and the lamp being introduced through an opening made near the base of the cylinder. D is the boiler or reservoir for receiving the disinfecting or other liquid, and may be made of any suitable material. This boiler is composed of two sections, D^1 D^2, which are joined together by a seam-joint. The lower section D^1 is formed with an inclined flange, *d*, which projects sufficiently far from the outer surface of the boiler that the flames from the lamp when at its greatest height shall be thrown off, as it were, and by this means prevent the same from melting the solder and opening the seam. The upper section D^2 of the boiler has attached to it a bearing-plate, E, provided with a socket, *e*. This socket *e* fits over and works on the standard C, and renders the boiler adjustable by means of the set-screw E′, thus enabling the boiler to be raised or lowered when exposed to the action of the lamp or other heater. The section D^2 is also constructed with an opening in its dome, and said opening is formed with female screw-threads, into which mesh the screw-threads cut on the outside of the cap F. This cap F is formed with a tube, F′, said tube being closed and cone-shaped at its top. This tube F′ is also provided with one or more holes, *a a*, through which the steam or vapor passes from the boiler or reservoir to the hollow arms. H H are the hollow arms, and are sufficiently curved to enable the vapor while passing through and escaping to cause them to revolve. The center of these arms and on their top is so raised or elevated as to form a seat or rest for the apex of the cone formed on the tube F′. The lower face of these arms H H, and opposite the seat or rest formed on their other face, is provided with a depressed opening, through which passes the tube F′. This opening is made sufficiently large that should any obstruction prevent the steam from escaping through the outlets of the hollow arms it will be forced down between the sides of the tube and the opening, striking the top of the cap F, and being deflected therefrom throw off the hollow arms, leaving the holes *a a* free for the escape of the steam, acting as a safety-valve.

The operation is as follows: The disinfecting or other liquid is poured into the reservoir or boiler through the opening in the dome of the section D^2. The boiler is then placed in position, being adjusted as desired. The cap F is then screwed on, and the hollow arms H H placed on the tube F′, the elevated portion of the arms resting on the cone of the tube. The lamp B is then placed in position under the boiler and lit. As soon as sufficient heat is imparted to the boiler steam begins to gen-

erate, the vapor passing up through the tube F′, out through the holes *a a* into the arms H H, in the direction shown by arrows in the drawing. This escape of steam through the hollow arms H H, owing to their curvature, causes them to revolve and disseminate the vapor, impregnating the atmosphere with its contents.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The hollow arms H H, seated on the cone-shaped tube F′, and formed so as to enable them to be revolved by the action of the vapor, the boiler or reservoir being held stationary, substantially as described.

2. The boiler D, provided with a tube, F′, formed with a cone-shaped head, and having holes *a a*, substantially as described.

3. The boiler D, composed of two sections, D^1 D^2, the lower section D^1 formed with an inclined flange, *d*, for the protection of the seam-joint, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB D. C. OUTWATER.

Witnesses:
EDWIN JAMES,
JOS. T. K. PLANT.