

No. 719,228.

PATENTED JAN. 27, 1903.

L. E. JONES.
DISINFECTING DEVICE.
APPLICATION FILED JULY 8, 1902.

NO MODEL.

Fig. 1

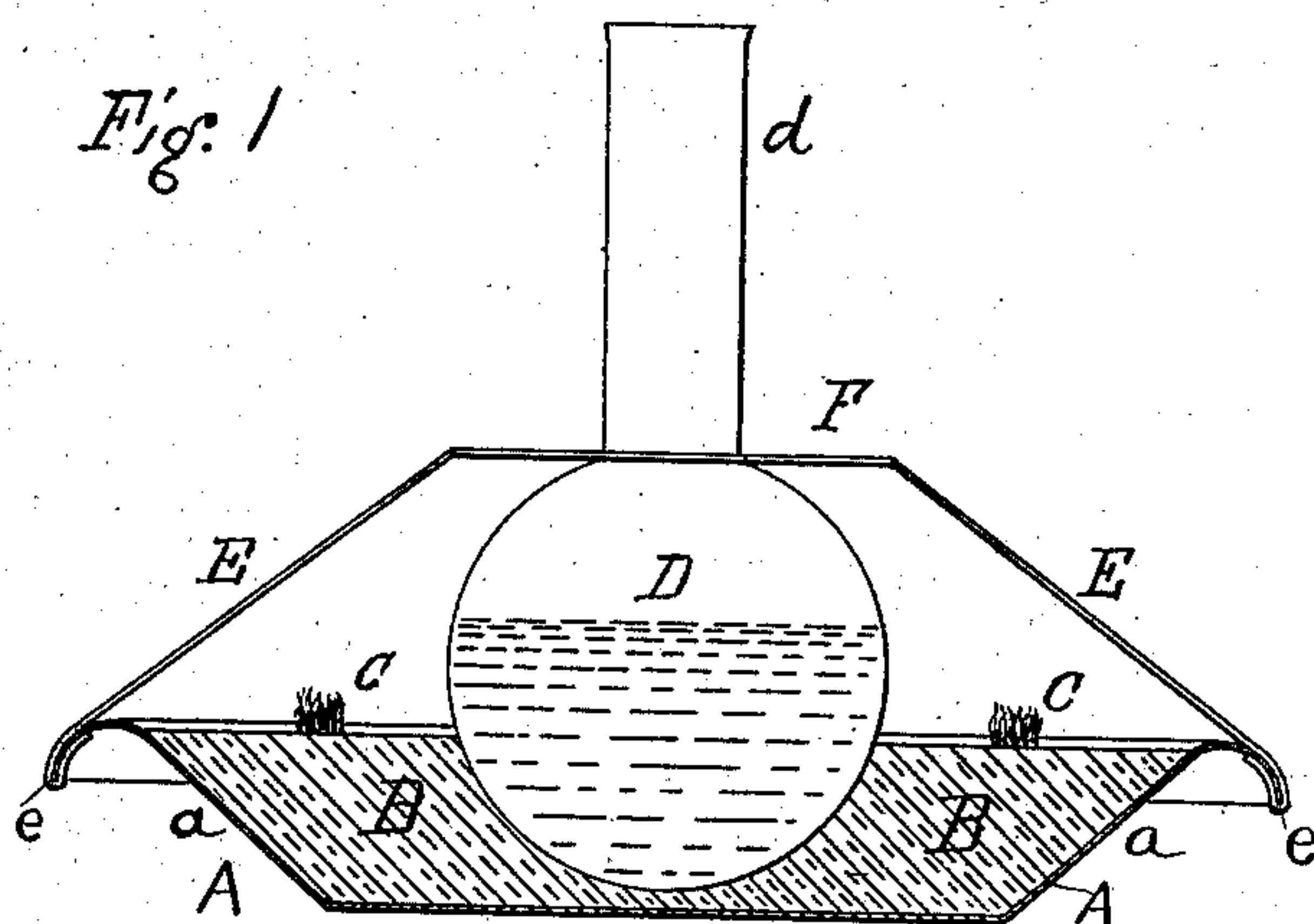


Fig. 6

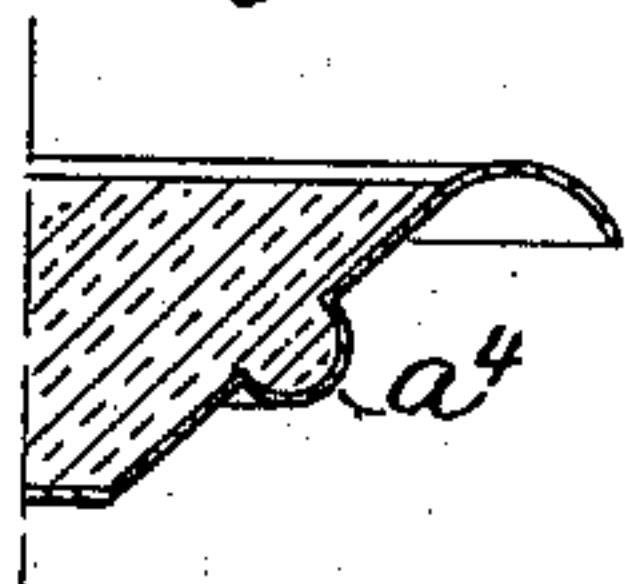


Fig. 2

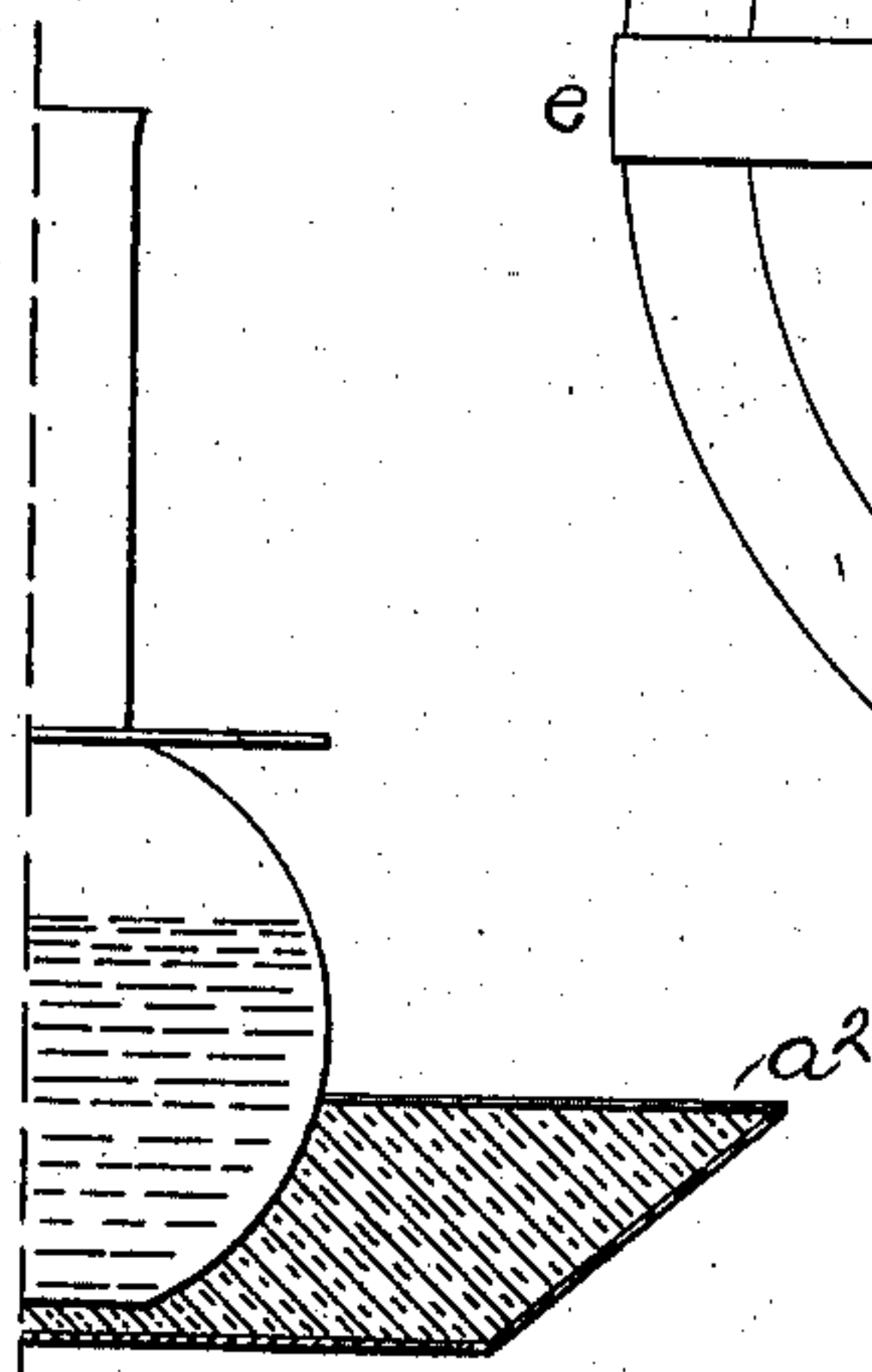
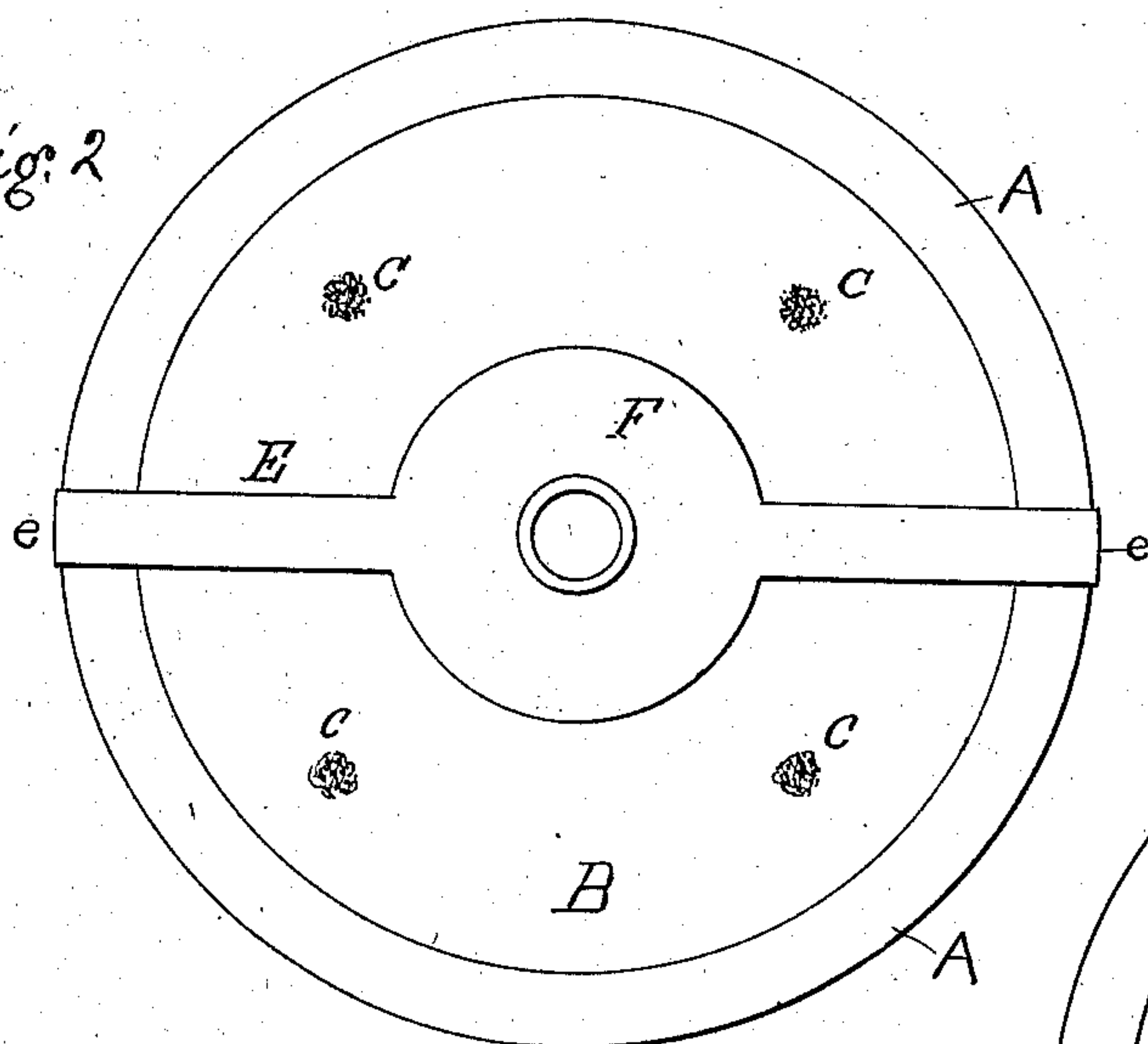


Fig. 4

Fig. 3

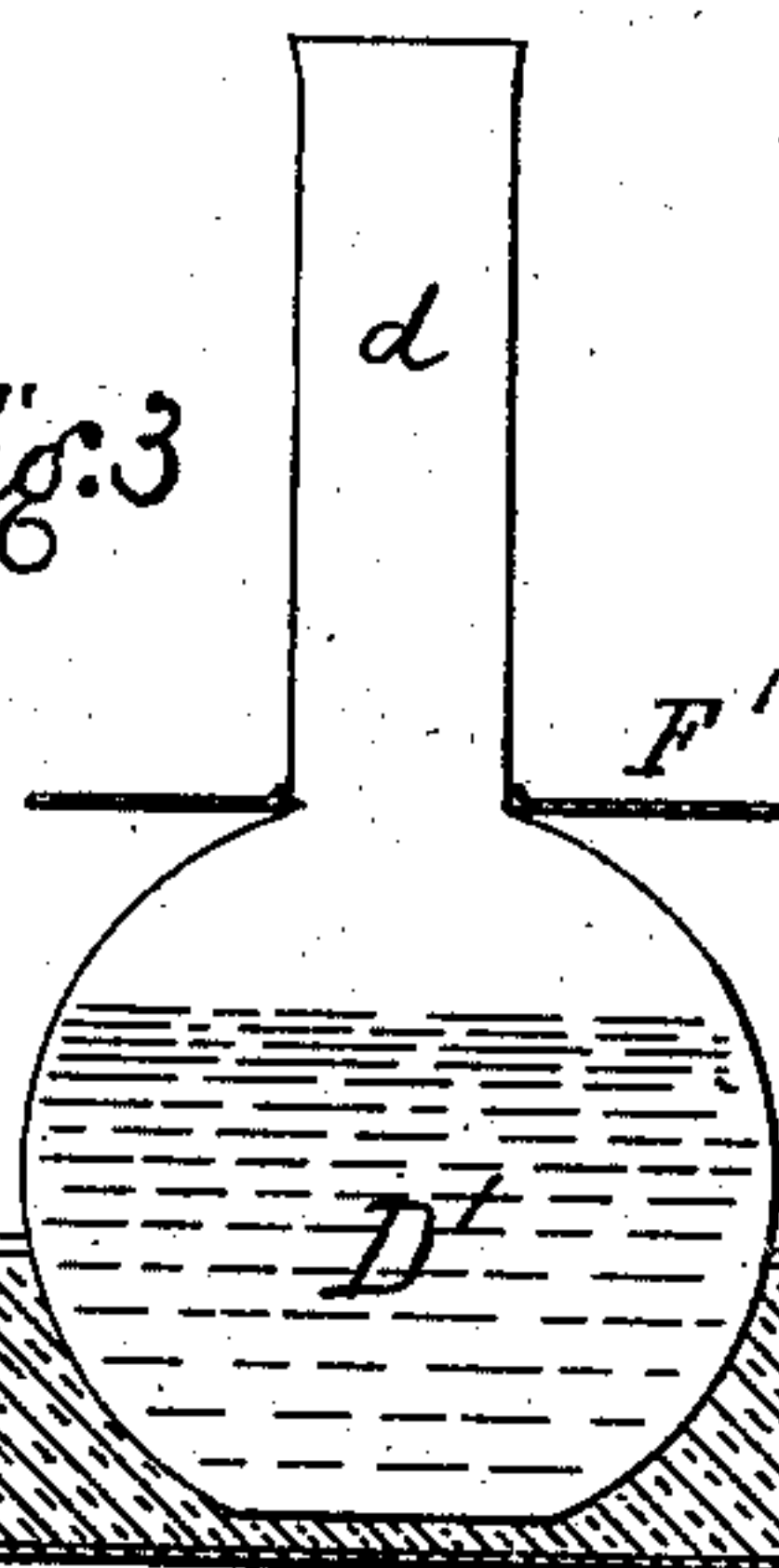
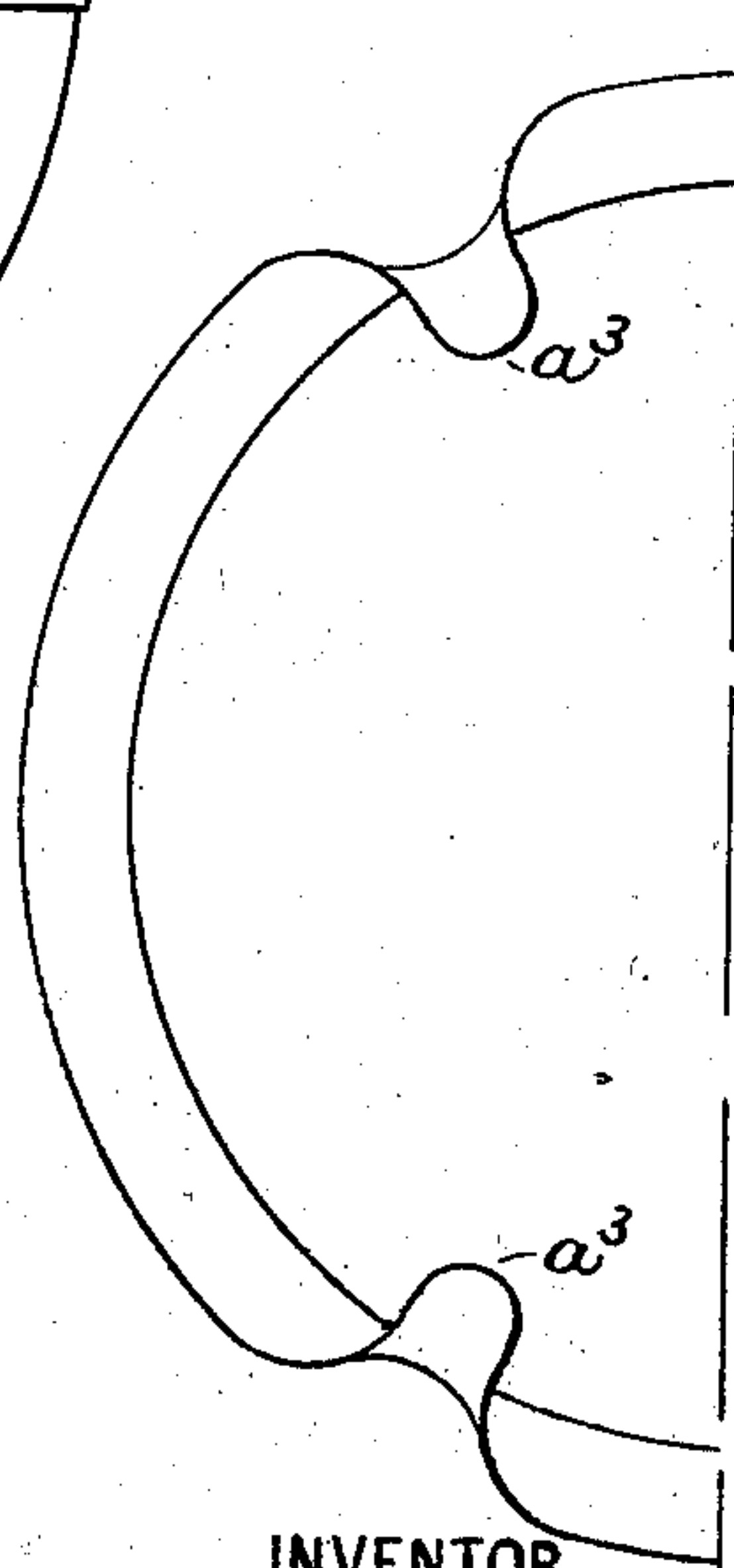


Fig. 5



WITNESSES:

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DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 719,228, dated January 27, 1903.

Application filed July 8, 1902. Serial No. 114,776. (No model.)

To all whom it may concern:

Be it known that I, LOUIS E. JONES, a citizen of the United States of America, residing in Conshohocken, Montgomery county, in the State of Pennsylvania, have invented an Improved Disinfecting Device, of which the following is a specification.

My invention relates to that class of fumigating and disinfecting devices in which a combustible fumigating means, such as a sulfur candle, is combined with a vessel containing a disinfectant, such as formaldehyde, vaporizable by the heat of the ignited sulfur.

My invention is particularly designed as an improvement upon the device of this character for which I have obtained United States Letters Patent No. 701,485, dated June 3, 1902, the object of my present invention being to improve the construction of the device so that the sulfur may burn more readily, that the ignition of the formaldehyde gas by the flames may be prevented, and that the formaldehyde vessel and the sulfur cake may be properly held in place.

In the accompanying drawings, Figure 1 is a vertical section of one form of my improved disinfecting device, or, as it is commercially called, "sulfur-formaldehyde" torch. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section of a modification. Figs. 4, 5, and 6 are views of modifications.

In the device of my former patent the outer vessel of metal or other material containing the body of sulfur was cylindrical and of considerable depth to hold the required quantity of sulfur to vaporize the disinfectant contained in the bottle. I have found that it is desirable to have the sulfur burn more readily than it does with the particular construction shown in my patent. To meet this difficulty, I now make the vessel A considerably larger in diameter at the top and relatively a shallow pan of any suitable material, and in order that it may contain only the right quantity of sulfur I prefer to make it with flaring side walls *a*, Fig. 1. Hot sulfur poured into a pan will on cooling shrink a little, so that with the construction of pan now described the body or cake B of sulfur

will be loose in the pan A, and therefore I provide means for retaining the sulfur cake in the pan. I have shown such means in Fig. 1 as consisting of a sheet-metal strap E, perforated at the center to be passed over the neck *d* of the bottle D and of sufficient length to have the ends *e* folded under or in any other suitable way to engage the rim of the pan A. Other means may, however, be employed for holding the sulfur in place. In Fig. 3, for instance, I have shown the pan A' as provided with indentations at *a'* in the side walls of the pan. In Fig. 4 I have shown the pan as provided with an inwardly-flanged rim *a*² for the purpose. In Fig. 5 I have shown the pan as with overturned lips *a*³, drawn from the rim. In Fig. 6 I have shown an annular rib *a*⁴, turned in the side of the pan. The sulfur has a globular body, provided with any suitable form of wicks C.

The vessel D, which contains the liquid formaldehyde or other vaporizable disinfectant, is set in the middle of the body of the sulfur and has an upwardly-projecting contracted neck *d*, the mouth of which extends above the point reached by the flames from the combustible fumigating material; but for greater certainty in the protection of the vapors from the sulfur-flames, particularly with the more readily burning form of sulfur cake here shown, I provide around the neck of the bottle a protecting-flange F, which for convenience may be a part of the securing and supporting strap E, as illustrated in Fig. 1. In the modification Fig. 3 this flange is an independent piece F'.

In the construction shown in Fig. 1 the strap E also serves the purpose of supporting the bottle D in position, and when such a supporting means is used the bottle may have a rounded bottom, as illustrated in Fig. 1. In the case where a bottle-supporting means is not used it is preferable to make the bottle with a flat bottom, as shown at D', for example, in Fig. 3.

In the following claims I use the word "sulfur" not in a specific sense, but merely as a convenient descriptive expression intended to embrace other combustible substances than sulfur.

I claim as my invention—

1. The herein-described disinfecting device, consisting of a shallow pan of relatively large diameter and flaring side walls, containing sulfur and a bottle in the latter, with means connected with the pan for retaining the sulfur in place in the pan, substantially as described.

2. The herein-described disinfecting device, comprising a pan containing sulfur, a bottle in the sulfur containing a vaporizable disinfectant and means extending from the bottle to the edge of the pan for supporting the said bottle in position.

3. The herein-described disinfecting device, consisting of a pan containing sulfur, and a bottle set in the sulfur and containing vaporizable disinfectant with a protecting-flange around the neck of the bottle, as and for the purposes set forth.

4. A disinfecting device, consisting of a pan containing sulfur and a bottle of vaporizable disinfectant in the sulfur with means secured to the edge of the pan and extending over the bottle for holding both the bottle and the sulfur in place, substantially as described.

5. A disinfecting device, consisting of a

pan containing sulfur, a bottle of vaporizable disinfectant in the sulfur and a strap passing over the neck of the bottle and secured to the edges of the pan, as and for the purpose described.

6. A disinfecting device, consisting of a shallow pan with flaring sides containing sulfur, a central bottle containing a vaporizable disinfectant and having an upwardly-projecting contracted neck and means whereby the pan and bottle are secured together, substantially as described.

7. A disinfecting device comprising a shallow pan with sloping sides, sulfur in the pan, a bottle having a globular bottom part and a long neck set in the sulfur, means for securing the sulfur in the pan, and a strap passing over the bottle-neck and resting on the globular part, the end of the strap being secured to the pan as and for the purpose described.

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

LOUIS E. JONES.

Witnesses:

M. E. WRIGHT,
JOHN L. W. MIFFLIN.