

L. S. LIVINGSTONE.

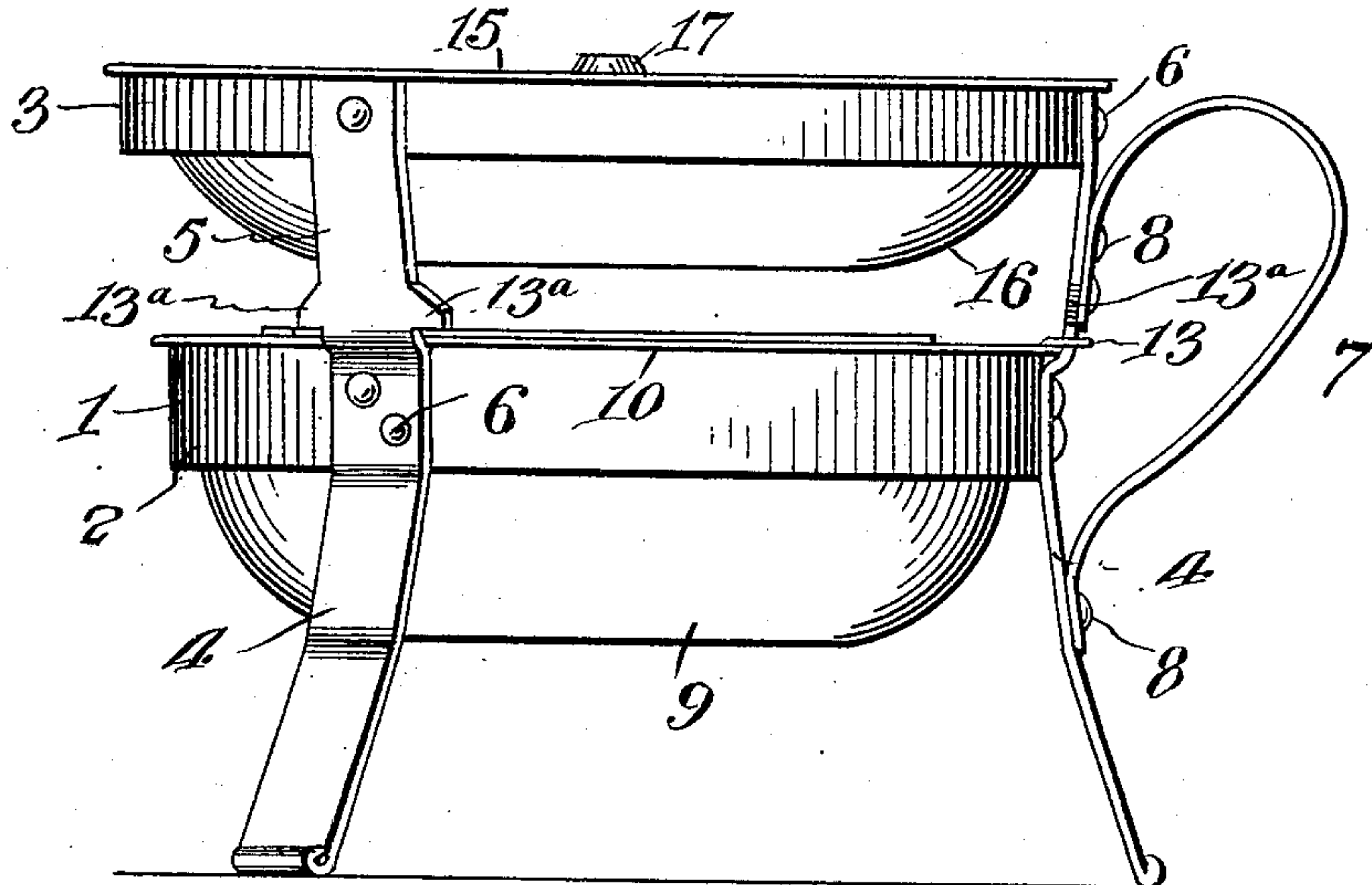
FUMIGATOR.

APPLICATION FILED NOV. 17, 1908.

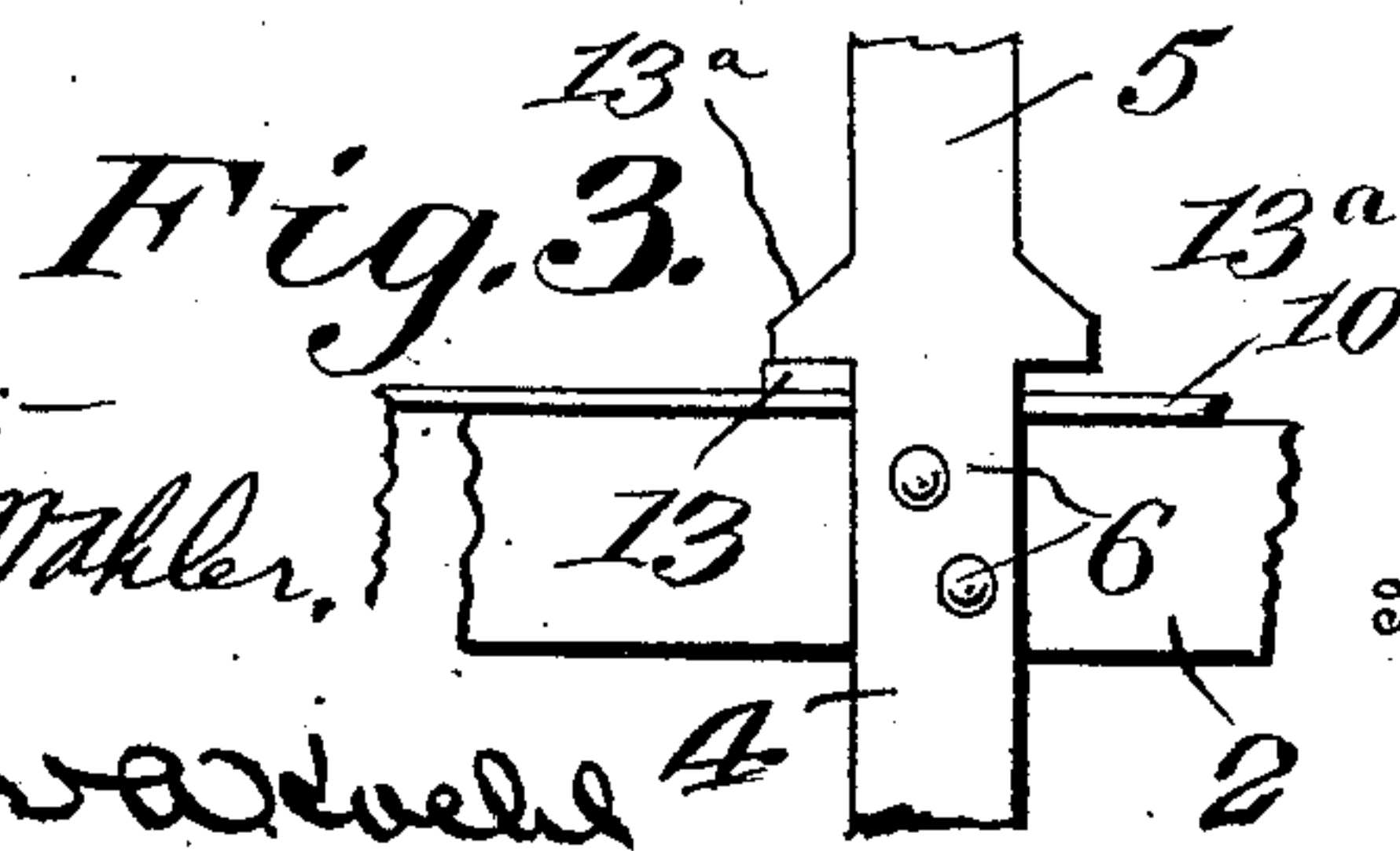
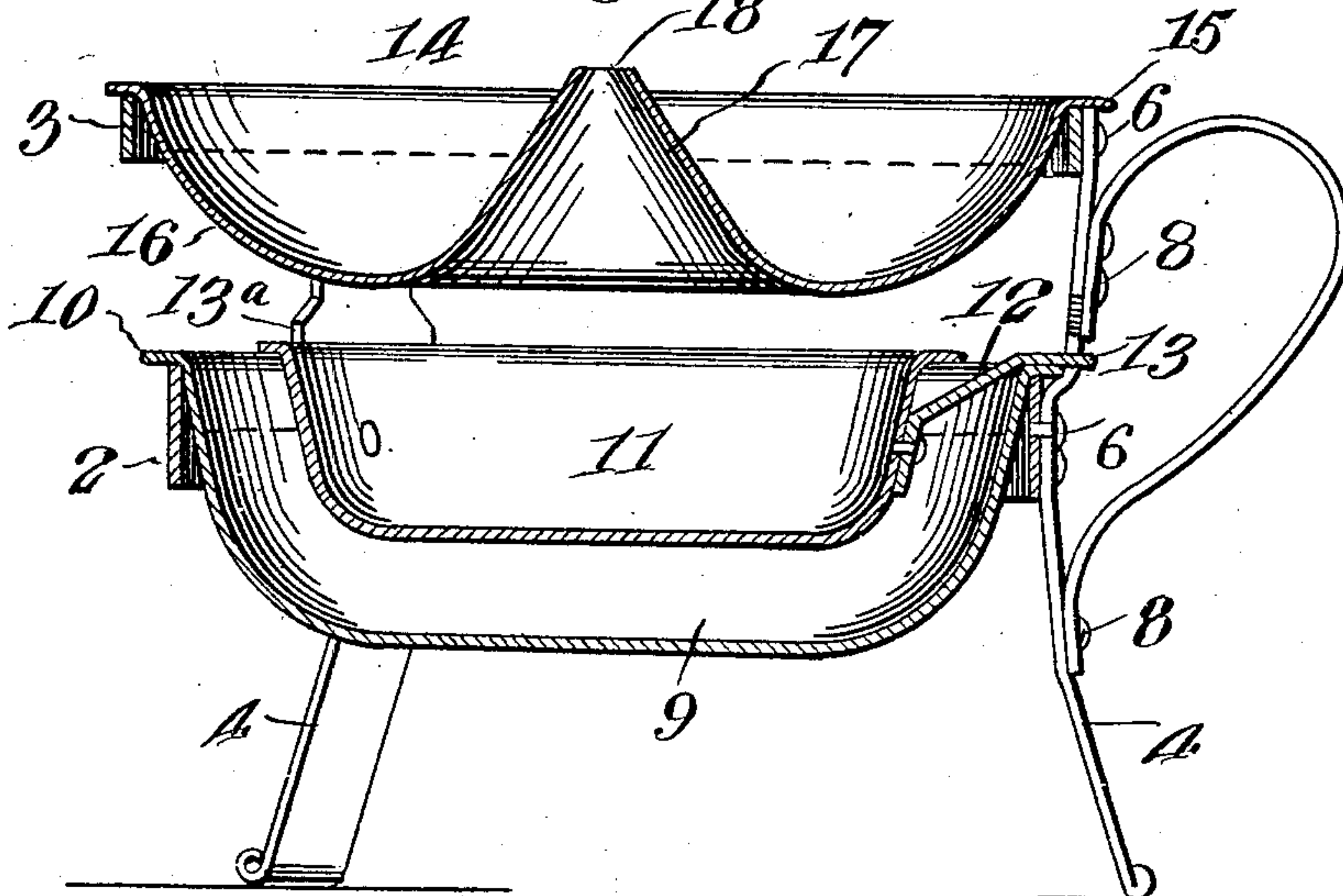
917,626.

Patented Apr. 6, 1909.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
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# UNITED STATES PATENT OFFICE.

LORENZO S. LIVINGSTONE, OF JOHNSTOWN, PENNSYLVANIA.

## FUMIGATOR.

No. 917,626.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed November 17, 1908. Serial No. 463,057.

*To all whom it may concern:*

Be it known that I, LORENZO S. LIVINGSTONE, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented new and useful Improvements in Fumigators, of which the following is a specification.

This invention relates to an apparatus for fumigating and disinfecting rooms, halls, etc., and has for an object to provide an apparatus of this character adapted to retain sulfur and water or other suitable chemical preparations and to provide a suitable furnace for burning the said sulfur or chemicals and for simultaneously heating water so that it will be brought to a boiling point in order that steam may be mixed with the fumes of the sulfur to thus generate sulfurous acid gas.

A further object of this invention is to provide a device of the above described character which will be simple, efficient and which will produce an abundance of hot vapor to fumigate a large area at a relatively low cost.

Other objects and advantages will be apparent as the nature of the invention is better disclosed and it will be understood that changes within the scope of the claims may be resorted to without departing from the spirit of the invention.

In the accompanying drawings in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a side view of the fumigator. Fig. 2 is a sectional view through the same. Fig. 3 is a detail view of the locking means for the furnace.

Referring now more particularly to the drawings there is shown a fumigator 1 which consists of a lower supporting ring or element 2 and an upper ring or element 3 of larger diameter than the first named ring or element. As shown, the said rings are connected to each other by means of supporting legs or feet 4 which, it may be stated are so connected with the said rings or elements so that they are properly spaced from each other. The legs are preferably bent outwardly above the lower ring or element as shown at 5 and are preferably flared outwardly at their lower ends, as clearly shown. The said rings or elements are secured to the legs preferably by means of rivets or similar fastening devices 6, thus obviating the use of solder or other fusible material. A handle 7 of suitable form is riveted as indicated at 8 to one of the legs.

An evaporating pan or receptacle is shown

at 9 and is provided with an annular flange 10 adapted to rest upon the upper edge of the ring or element 2.

A furnace is indicated at 11 and is preferably of pan form and is provided with a plurality of radial arms 12. The arms 12 are provided with portions 13 adapted to rest upon the flange 10 of the pan 9, and the said arms are also adapted to be rotated upon the flange 10 so that the portions 13 can be engaged beneath locking tongues 13<sup>a</sup> carried by the legs 4 and disposed in parallel spaced relation to the upper edge of the ring or element 2. The furnace is of less diameter than the pan or receptacle 9 so that the annular walls of the furnace lie in parallel spaced relation to the annular walls of the pan or receptacle. The said furnace is also of such size that the bottom thereof is disposed in spaced parallel relation to the bottom of the receptacle or pan 9.

A vaporizing pan or receptacle 14 is disposed above the furnace and is also of pan form and is provided with an annular flange 15 adapted to rest upon the upper edge of the ring or element 3. The said evaporating pan or receptacle is provided with a curved bottom 16 which is disposed in spaced relation to the furnace and receptacle 9. At the center, the said receptacle 14 is pressed or stamped to form a frusto-conical portion 17 thus providing a contracted centrally located discharge neck 18 as will be clearly seen upon reference to Fig. 2 of the drawings and which is disposed directly above the furnace 11.

In operation, flowers of sulfur is packed in the furnace, and the lower evaporating pan 9 is placed in position beneath the furnace in a manner hereinbefore described and is filled or partly filled with water. The evaporating pan 14 is then placed in position above the furnace 11 and is filled or partly filled with water. To prevent injury to furniture or the like it is preferable to place the fumigator upon a suitable piece of metal or a pan, after which the sulfur in the furnace may be ignited and the room in which the fumigator is placed is securely closed during the operation of the device. This device, when in operation as just described generates sulfurous acid gas and will fumigate or disinfect a large area at a relatively low figure.

It will, of course, be understood that different chemicals may be used in the different receptacles and different results obtained, and the device is by no means limited in its



use as a fumigator adapted for the burning of sulfur. Any suitable non-explosive disinfecting fluid can be used in lieu of water as is obvious.

5 The receptacles and the furnace are preferably made from a single piece of sheet material and enameled to resist the action of chemicals and heat, and the said rings or elements 2 are secured as described to the legs  
10 by means of rivets, providing a strong and durable structure which will not collapse or be injured incident to heat from the furnace.

It will be seen that a simple and inexpensive fumigating device may be provided  
15 which may be used for fumigating with one or more disinfecting chemicals, and is safe and very efficient.

I claim:—

20 1. A fumigator comprising a plurality of legs, annular elements carried by said legs and disposed in spaced relation to each other,

vaporizing pans supported upon the annular elements, a pan disposed between the vaporizing pans, arms carried by the pan, and means carried by the legs for locking engage- 25 ment with the arms.

2. A fumigator comprising supporting legs, annular elements carried by said legs and disposed in spaced relation to each other, tongues carried by said legs, vaporizing pans 30 supported upon the annular elements, a pan disposed between the vaporizing pans, and arms carried by said last named pan adapted for locking engagement with the tongues upon said supporting legs. 35

In testimony whereof I affix my signature in presence of two witnesses.

LORENZO S. LIVINGSTONE.

Witnesses:

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HARRY DOERR.