

E. L. B. ZIMMER.
FUMIGATING ATTACHMENT.
APPLICATION FILED MAR. 15, 1909.

947,726.

Patented Jan. 25, 1910.

Fig. 1.

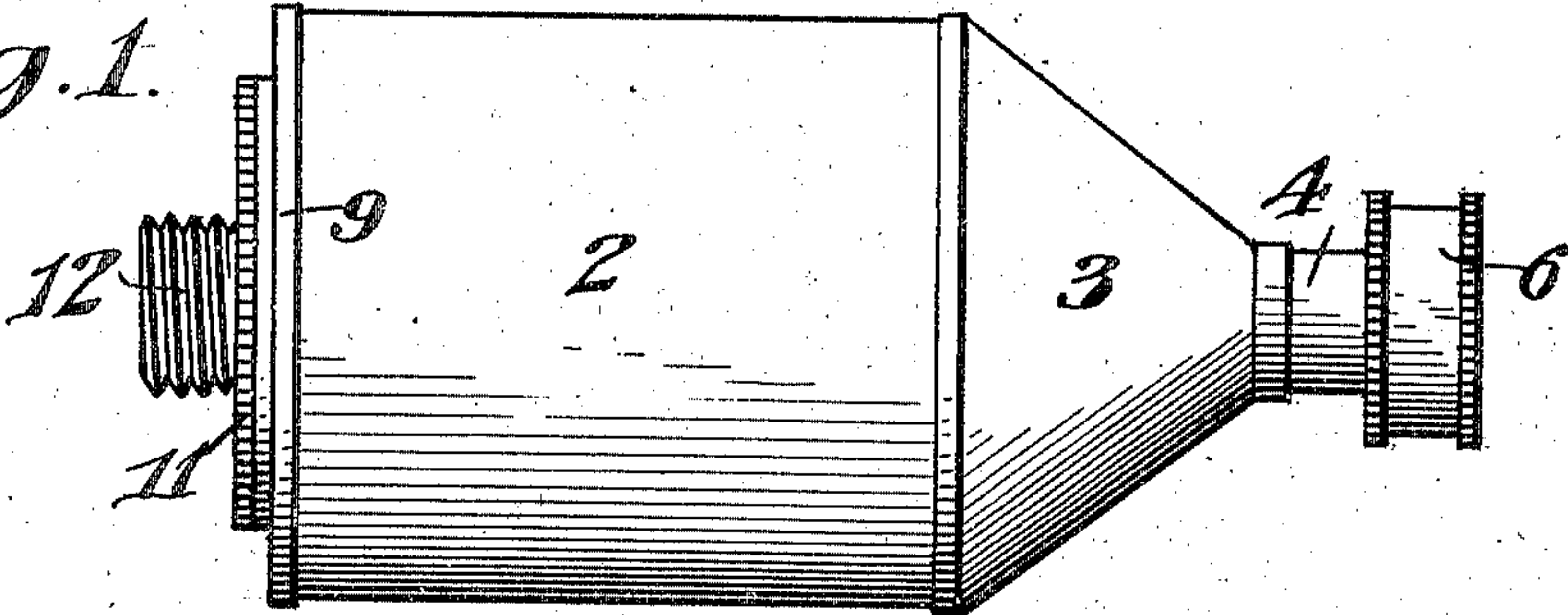


Fig. 2.

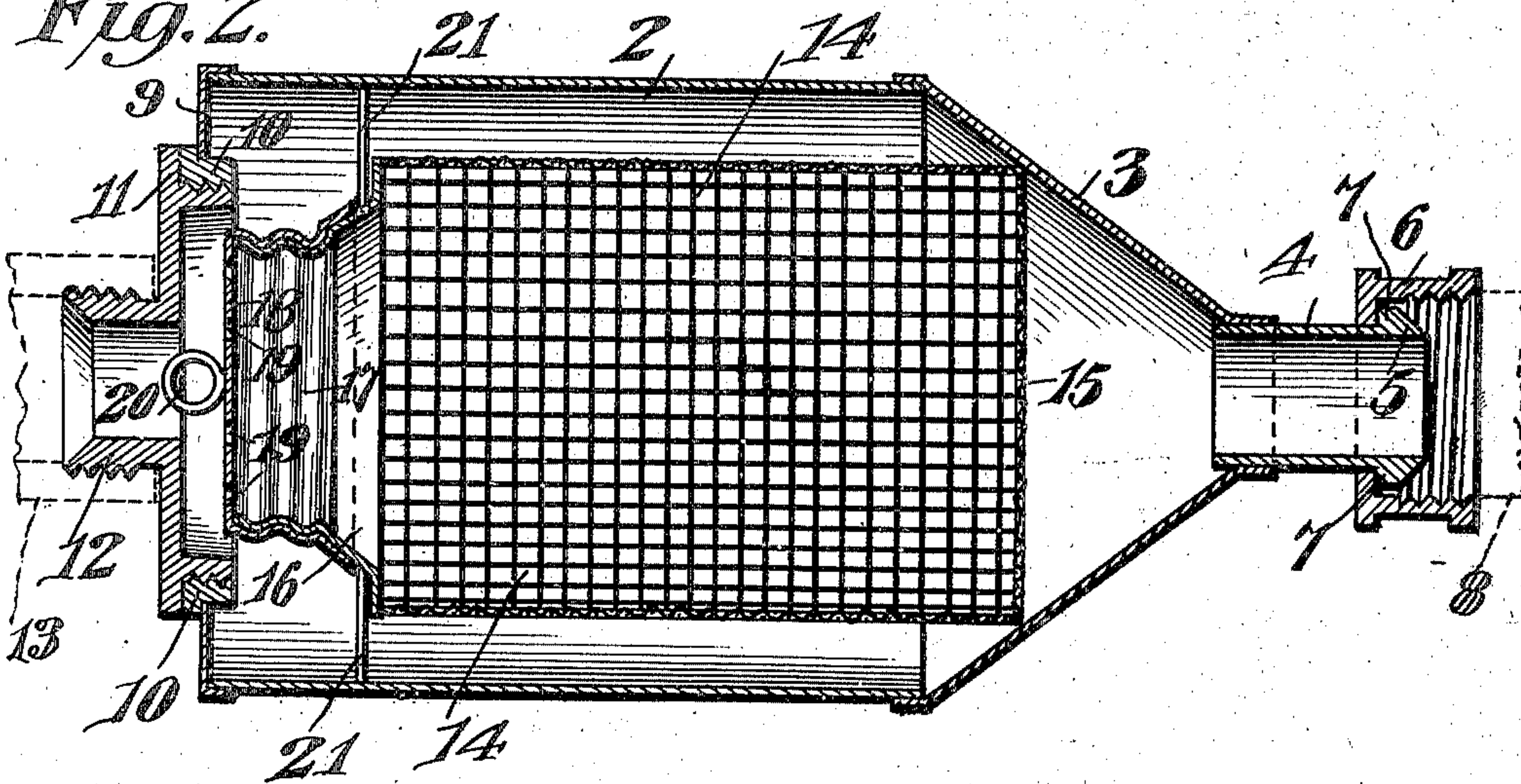
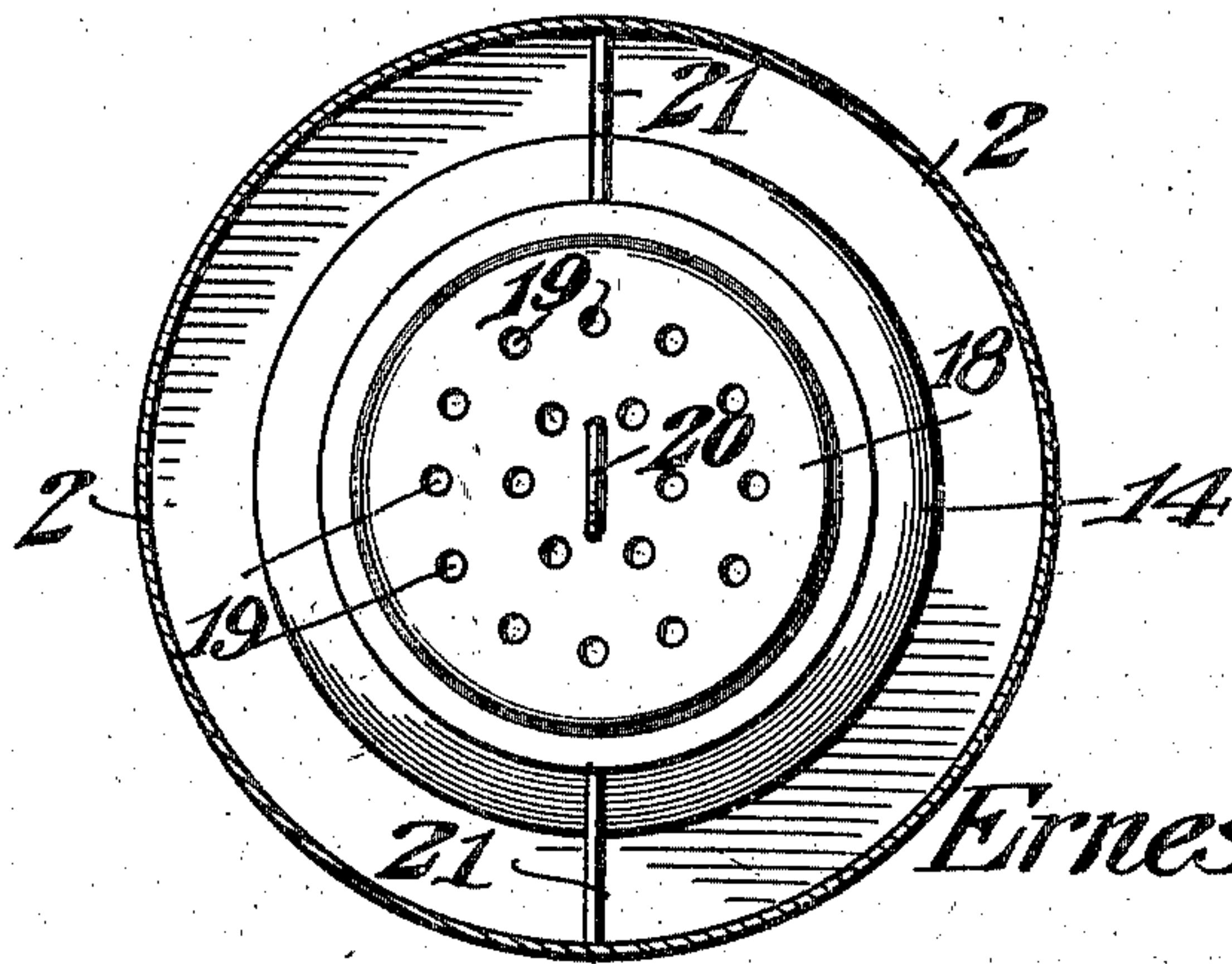


Fig. 3.



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FUMIGATING ATTACHMENT.

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To all whom it may concern:

Be it known that I, ERNEST L. B. ZIMMER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Fumigating Attachment, of which the following is a specification.

My invention relates to a device adapted to be attached to the outlet conduit of a vacuum cleaner or in any other analogous positions whereby the air blast from the cleaner or any other source of air shall be obliged to pass through a body of material moistened with disinfectant or with perfume and forced out at the end of said device either directly into the room or into a pipe by which it may be conducted to any desired place.

The object of my invention is to provide a device of the character above which is very simple, which can be attached to the exhaust pipe of a vacuum cleaner and which can be readily opened for the removal of the used disinfecting material and the insertion of new.

In the drawings, Figure 1 is a side elevation of my attachment; Fig. 2 is a longitudinal diametrical section thereof on an enlarged scale; and Fig. 3 is an end view with the end wall of the exterior casing removed.

2 denotes a casing preferably cylindrical and having at the end a cone-shaped portion, 3, having at its apex the inlet pipe 4, the pipe being formed at its extremity with an annular head 5. A coupling 6 having an inwardly extending annular flange 7, engaging with said head, is attached to the end of the pipe 4, this coupling being screw-threaded on its interior for attachment to the exit pipe 8, of a vacuum cleaner, or to a pipe leading from any other suitable source of air pressure. The other end of the container 2 is closed by an annular end plate 9, having therein an interior screw-threaded bushing 10. A cap, 11, screws into this bushing 10 and has an outwardly projecting nipple 12 screw-threaded on its exterior for engagement with the conducting pipe 13, shown in dotted lines, whereby the air forced through the container may be carried to any desired place.

Mounted interiorly of the container is a cylinder 14, preferably of reticulated or perforated material. This is closed at one end 15 by wire mesh or other suitable perforated material and at its other end has the collar

16 preferably of sheet metal formed with a screw-threaded neck 17. A cap 18 preferably of pressed sheet metal also screw-threaded, is adapted to engage with the neck 17. The face of the cap is perforated as at 19 and the cap is provided with a ring, 20, this ring projecting out from the face of the cap and being accommodated within the nipple 12. The interior wire mesh cylinder is supported at one end by being attached circumferentially to the inner face of the cone-shaped portion 3, while the other end is supported on radial arms 21 extending outward to the inner face of the casing 2.

The operation of my invention is evident from the above description. Sponge, cotton or any other like carrier of disinfection or perfumery is placed within the reticulated cylinder 14 and the cap 18 is screwed home, closing the outer end of the cylinder 14. The device is then attached by the coupling to the discharge outlet of any generator of air pressure, or to the outlet of a vacuum cleaner, as described. The air forced through the pipe 4 is obliged to pass through the wire mesh 15 and thereby is brought into contact with the perfumery, medicament, or disinfectant, supported within the cylinder 14. The air either passes out through the walls of the cylinder into the space between the cylinder 14 and the casing 2, and so out to the front of the casing, or it is forced out through the perforations in the cap closing the cylinder 14. In either case no air can pass out of the outlet opening of the device without having first been brought into intimate contact with the disinfectant or perfume and becoming charged therewith.

My construction is very simple, has been found entirely effective in use and may be applied to any of the many forms of portable vacuum cleaners in use to-day. Its use in this connection is of particular importance as, while the cleaners and dust collectors associated therewith, remove dust and like particles from the air passing therethrough, they do not remove germs.

My device forms practically a germ collector as it might be called in contradistinction to the dust collector, and by its use the air is not only purified from dust and material particles of this kind, but also from disease germs which might otherwise pass back into the atmosphere of the room being cleaned, and be rendered even more dangerous by the fact that they were detached from

the filaments and dust particles which would otherwise hold them from floating about in the atmosphere.

Having thus described my invention, what I claim as new and desire to secure by Letters-Patent, is:

1. A fumigating attachment for vacuum cleaners comprising a casing having a conical head at one end, a centrally-disposed inlet tube secured to the head and extending outwardly therefrom, means on the tube for connecting the same with a supply pipe, the end of the casing opposite from the conical head having an opening, a cap for closing the opening provided with a nipple for connection with an outlet pipe, and a reticulated container arranged within the casing with one end disposed in the conical head and engaging entirely around the same, said container being of such transverse dimension that a surrounding chamber is formed between the same and casing, said chamber communicating through the container with the space inclosed by the conical head, said container being adapted to hold a body of material saturated with fumigating material or the like and permeable to the air passing through the casing.

2. A fumigating attachment for vacuum cleaners comprising a cylindrical casing having a conical head at one end, an air inlet device connected with the said head, an outlet device connected with the opposite end of the casing, and a cylindrical container of openwork material supported centrally in the casing, said container being of less diameter than the casing to provide an annular chamber between it and the latter and having one end projecting into the conical head with its circumferential edge engaging the internal surface of the latter to prevent the passage of air from the hollow of the head to the said annular chamber except through the container, one end of the container being supported by its engagement

with the conical head of the casing, and members extending across the annular chamber from the casing to the other end of the container for holding the latter in position, said container being adapted to hold a fumigating or equivalent substance permeable to the air entering the end of the container and passing out of the latter to the said annular chamber.

3. A fumigating attachment for vacuum cleaners comprising a cylindrical casing having a conical head at one end, an annular head at the opposite end, an internally threaded ring fitted in the said annular head, a cap screwed into the ring and having a threaded nipple for connection with an outlet pipe, an inlet tube secured to the conical head and extending outwardly therefrom, means on the tube for connecting the same with an inlet pipe, a cylindrical container having its cylindrical wall and one head formed of reticulated material, a tubular head on the opposite end having a screw thread, a perforated cap screwed on the tubular head, the said container being of such diameter as to provide an annular space around the same and the cylindrical portion of the casing and having the reticulated end disposed in the conical head of the casing to cooperate therewith to form an inlet chamber separate from the said annular chamber and communicating with the latter through the container, and supports between the casing and container at the end thereof opposite from that engaging in the tubular head to support the container in central axial position.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ERNEST L. B. ZIMMER.

Witnesses:

GEO. LAWSHER,
R. W. CHUTE.