W. L. CAPELL.

IODINE FUMIGATOR.

APPLICATION FILED AUG. 3, 1920.

1,427,515.

Patented Aug. 29, 1922.

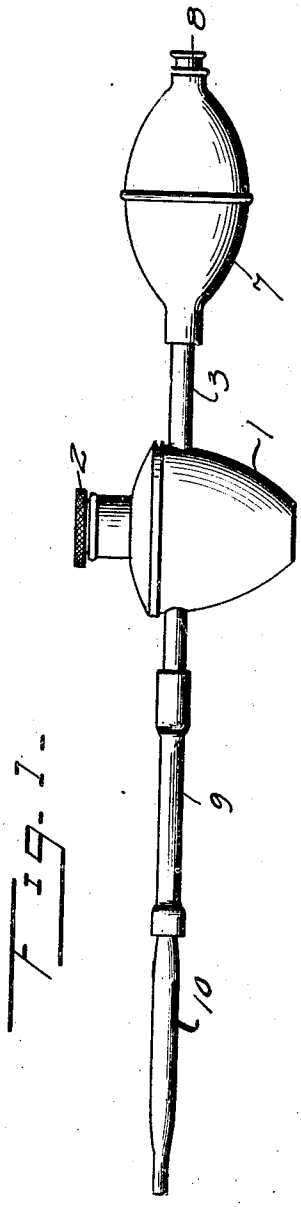

Fig. 1.

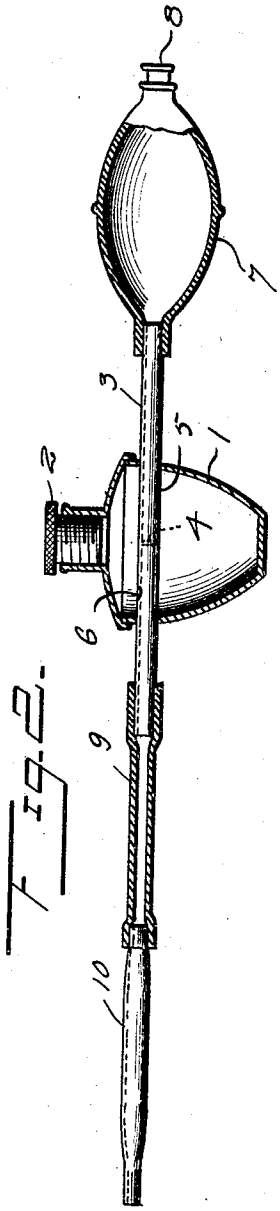

Fig. 2.

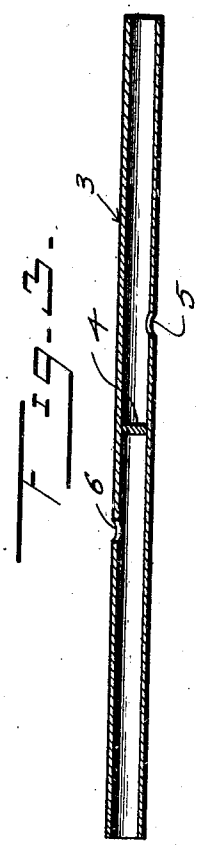

Fig. 3.

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1,427,515. Specification of Letters Patent. Patented Aug. 29, 1922.

Application filed August 3, 1920. Serial No. 401,024.

To all whom it may concern:

Be it known that I, WESTERN L. CAPELL, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Iodine Fumigators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fumigating devices, and more particularly to a fumigator specially adapted for use in connection with iodine.

One of the main objects of the invention is to provide a fumigator of the character stated of simple construction and operation by means of which iodine in vaporous form may be readily applied to a wound to be treated, the fumigator being so constructed as to effectually prevent particles of the iodine crystals from being blown into the wound and consequent irritation of the parts being treated. A further object is to provide a fumigator including a container or bowl for heating the iodine crystals and a tube through which the vapor generated by the heating of the crystals may be blown, this tube being so constructed as to effectually eliminate possibility of passage of particles of the crystals into the tube. Further objects will appear from the detailed description.

In the drawings:

Figure 1 is a side view of a fumigator constructed in accordance with my invention.

Figure 2 is a central vertical section through the fumigator.

Figure 3 is a central longitudinal section through the tube.

The fumigator includes a suitable bowl or container 1 closed by a screw cap 2 and adapted to contain the crystals to be heated by holding the container over an alcohol lamp or other heating medium for generating iodine vapor from the crystals. A tube 3 extends through the vessel 1 adjacent the upper end thereof, this tube being provided at its central portion with a disk or closure 4 fitting tightly therein and serving to divide the tube into two independent air inlet and outlet passageways. This tube is provided with an air inlet opening 5 positioned at one side of the disk and an air outlet opening 6 positioned at the other side of the disk, a rubber bulb 7 of known type being secured on the end of the tube at the side of the disk at which the opening 5 is located, this bulb being provided with a valve 8 of common construction, the bulb providing means whereby air may be pumped into the vessel 1. The tube 3 at the other end thereof may be provided with a suitable length of rubber tubing designated 9 into the outer end of which is inserted a tapered glass tube or discharge nozzle 10. As will be noted more clearly from Figures 2 and 3, the air inlet opening 5 is positioned at the under or lower surface of tube 3, while the outlet opening 6 is positioned at the upper side of the tube.

In practice, the vessel 1 containing the crystals is held over an alcohol lamp or other suitable means so as to produce iodine vapor, after which air is pumped into the cylinder 1 by means of bulb 7. This air enters the vessel through opening 5 at the under side of tube 3, and leaves the vessel through opening 6 at the upper side of the tube so as to cause the vapor to flow through the part of tube 3 at the opposite side of disk 4 from opening 5, and through the rubber tube 9 and glass discharge nozzle 10. The air entering vessel 1 will flow upwardly about the tube leaving through opening 6 at the upper side thereof, and due to the fact that this air tends to flow upwardly about the tube into opening 6 there is no flow of air current across the crystals with consequent induction of small particles into the discharge portion of tube 3, such as occurs where two separate tubes having their ends spaced apart within the vessel 1 are employed. In this manner, I insure that the iodine vapor only will be forced through the discharge portion of tube 3 and effectively eliminate all possibility of small particles of crystals being discharged through nozzle 10 into the wound being treated.

What I claim is:

1. In a device of the character described, a closed container, a tube extending through said container and provided with air inlet and air outlet openings positioned at the lower and upper portions of said tube, respectively, the tube being divided into inlet and outlet portions communicating with the respective openings, and means for causing air to flow through said tube from the inlet end thereof.

2. In a device of the class described, a

heating vessel, a closure for the vessel operable to permit insertion of the material to be heated, a tube extending through said vessel at a distance above the base thereof to permit air to be forced into the vessel and discharged therefrom, said tube including a closure and having an inlet opening on one side of the closure, and an upwardly directed air outlet opening on the other side of the closure, and means operable to pump air into said tube through said air inlet opening for discharge into the vessel.

3. In a device of the character described, a vessel, a tube extending horizontally through said vessel adjacent the upper end thereof, said tube being divided into an inlet passage and an outlet passage and having a downwardly directed opening communicating with said inlet passage and an upwardly directed opening communicating with said outlet passage, and means for forcing air into the tube from the inlet end thereof.

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

WESTERN L. CAPELL.

Witnesses:

E. N. BILLINGS,

A. M. WIND.