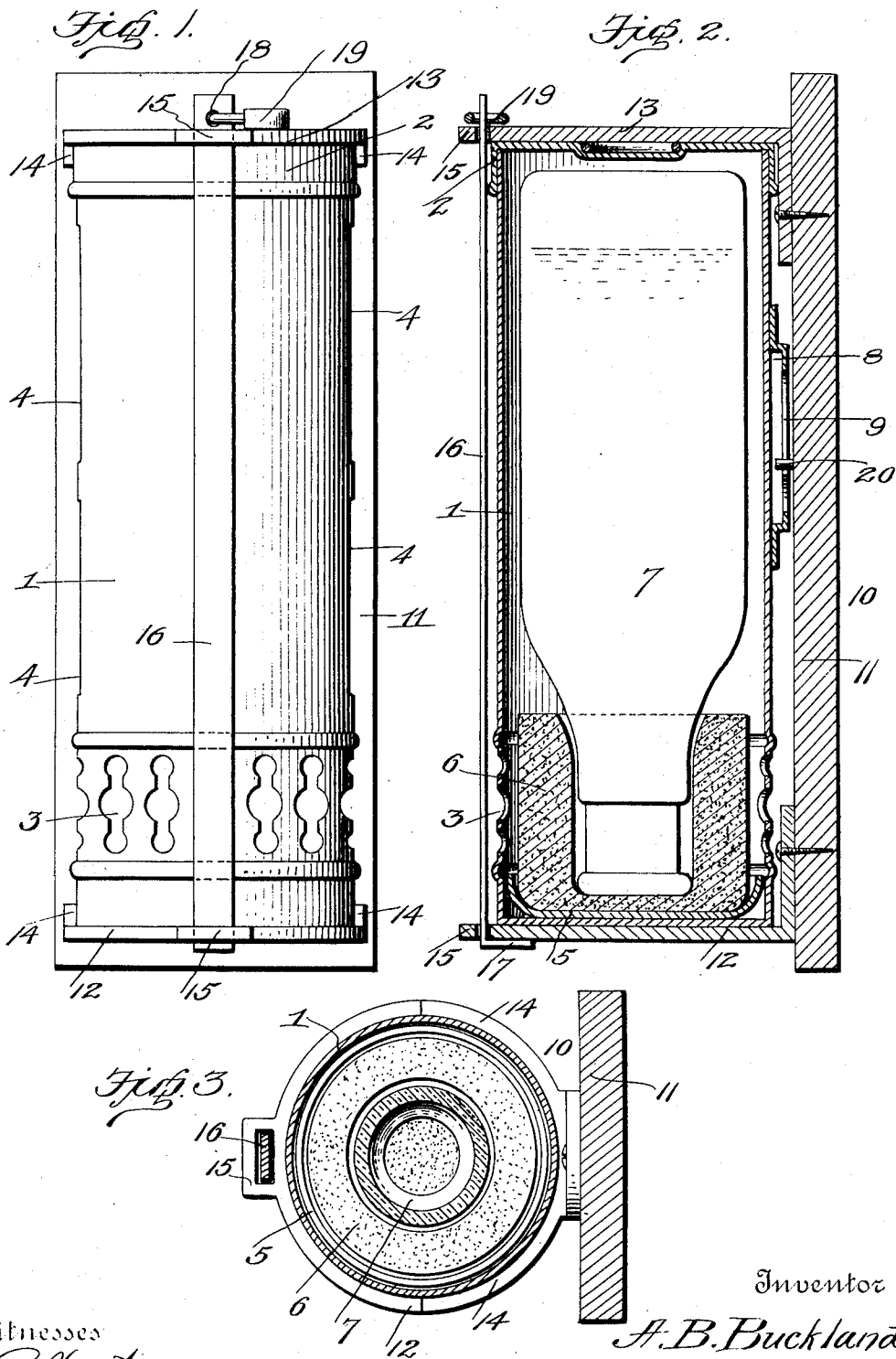


A. B. BUCKLAND.
DISINFECTING DEVICE.
APPLICATION FILED NOV. 4, 1909.

959,111.

Patented May 24, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

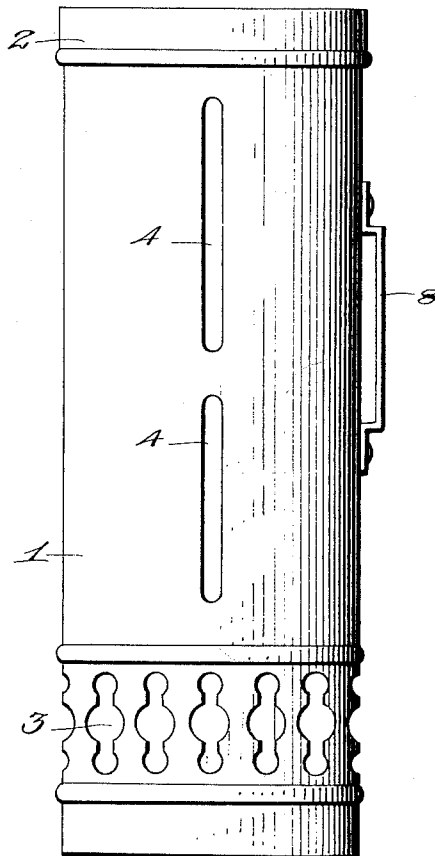


Fig. 7.

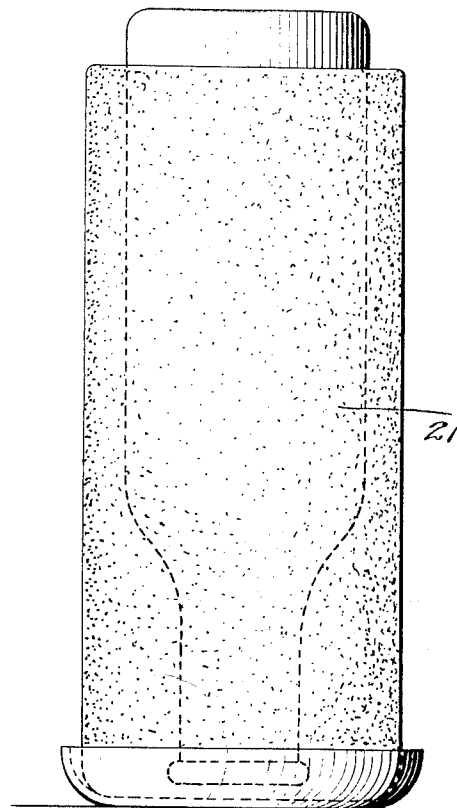


Fig. 5.

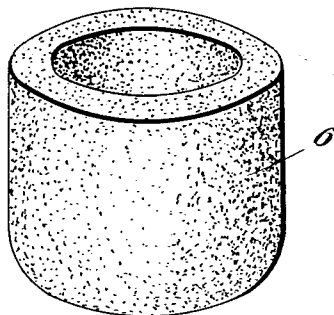
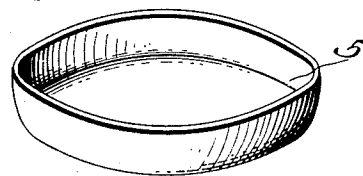


Fig. 6.



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UNITED STATES PATENT OFFICE.

AMOS B. BUCKLAND, OF ROCHESTER, NEW YORK.

DISINFECTING DEVICE.

959,111.

Specification of Letters Patent.

Patented May 24, 1910.

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To all whom it may concern:

Be it known that I, AMOS B. BUCKLAND, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Disinfecting Devices; and I do 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 improvements in automatic disinfecting devices.

One object of the invention is to provide a disinfecting device in which the disinfecting material is fed by gravity from a closed receptacle to a vaporizing medium, thus preserving the strength of the disinfecting material until it is used or entirely vaporized.

Another object is to provide a disinfecting device which may be readily taken apart for renewal or cleaning and having an improved supporting mechanism provided with means whereby the device may be locked in position to prevent tampering therewith.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front view of my disinfecting device showing the same engaged with and locked in its supporting bracket; Fig. 2 is a central vertical sectional view of the same; Fig. 3 is a horizontal sectional view taken immediately above the vaporizing cup; Fig. 4 is a side view of the holder or casing of the vaporizer; Fig. 5 is a perspective view of the porous vaporizing cup; Fig. 6 is a similar view of the tray or saucer which holds the cup; Fig. 7 is a side view of a modified arrangement of the device.

In the embodiment of the invention, I provide a casing 1 having a removable top 2 and provided with a foraminated portion 3 at its lower end, which portion may be in the form of ornamental scroll work. The purpose of this foraminated portion is to permit the escape of the vaporized disinfecting material as will be hereinafter described. In the opposite sides of the casing are also formed vertically disposed slots 4 the purpose of which will hereinafter appear. In the

bottom of the casing is arranged a saucer 5, which may be formed of porcelain, enamel or porcelain lined metal or other acid proof material. In the saucer 5 is arranged a porous vaporizing cup 6 which may be made from soft burnt clay or a composition of chalk and soap stone and in which is adapted to be inserted the neck and mouth of the bottle or other container 7 holding the disinfecting liquid. By thus arranging the bottle or container, the liquid therein will flow therefrom into the porous cup 6 and will be absorbed thereby, said cup thus becoming thoroughly saturated with the disinfecting material all of which will evaporate from the cup into the atmosphere, after passing through the foraminated portion of the casing 1. The liquid from the bottle passes through the porous cup into the saucer 5 until the latter and the lower portion of the cup is filled to a sufficient extent to cover the lower end or mouth of the bottle thus providing a seal which prevents the liquid from passing out of the bottle faster than it evaporates from the sides of the cup. By this arrangement the liquid in the bottle is kept closed and its strength retained until all of the same has vaporized or evaporated in the manner described.

My improved disinfecting device may be supported in any suitable manner. One form of support is shown as consisting of a bracket 8 secured to one side of the casing 1 and provided with a keyhole shaped slot 9 for engagement with a nail or other suitable object whereby the casing may be hung up on a suitable support. Another form of support for the device is herein shown and described and consists of a holder or bracket 10, preferably formed of metal and comprising a back plate 11 to the outer side of which is secured a supporting plate 12, arranged near the lower end of the back plate and a covering plate 13 projecting from the front side of the back plate adjacent to its upper end. The plates 12 and 13 conform to the shape of the casing 1 of the disinfecting device and are provided upon their rear and side edges with inwardly extending flanges 14 which terminate forward of the center of the plate and leave only sufficient space to permit the casing to be disengaged from the plate at the front of the same. The plates 13 and 12 are placed at such distances apart as to closely engage the upper and lower ends of the casing 1 when the latter is ar-

ranged between the same, thus preventing the casing from being removed from the plate except through the space formed between the ends of the flanges 14 on said plate.

On the outer edges of the plates 12 and 13 at the center of the space between the ends of the flanges 14 are formed outwardly projecting slotted lugs 15 with which is engaged the locking bar 16, said bar having on its lower end a right angularly bent retaining lug 17 and having in its other end an eye 18 with which after said end is projected up through the slotted lug of the upper plate 13 is engaged a padlock or other suitable fastening device 19 which securely holds the locking bar in position in front of the casing and prevents its removal from between the supporting and covering plates of the holder thus preventing tampering with the disinfecting device.

On the inner side of the back plate 11 of the holder is arranged a laterally projecting pin or stud 20 which is engaged with the slot 9 in the bracket 8 on the casing 1 and prevents the latter from being turned in the holder.

In Fig. 7 of the drawings is shown a modified arrangement of the disinfecting device whereby the absorbent vaporizing or evaporating cup 21 is extended and surrounds nearly the entire bottle or container. This form of the invention is employed when a strong or a great amount of disinfectant is desired and in this form of the device the casing 1 will be dispensed with. By means of a vaporizing or disinfecting device such as is herein shown and described, any form of volatile disinfecting liquid or any other liquid such as perfume and the like may be evaporated into the air in the desired quantity.

As shown in the accompanying drawings, this device is of simple construction, neat and effective in design and may be employed in sick rooms or any other place where a disinfectant distributor may be used.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claims.

Having thus described my invention, what I claim is:—

1. In a disinfecting device, a casing having a foraminated lower portion, a non-corrosible saucer arranged in the bottom of the casing, a container provided with a dis-

charge neck arranged in an inverted position in the casing, and a porous cup mounted upon the saucer to receive the discharge neck of the container, whereby the contents of the container are discharged into and absorbed by the cup, and means to support the casing.

2. In a disinfecting device, a casing having a foraminated lower portion, a non-corrosible saucer arranged in the bottom of the casing, a container provided with a discharge neck arranged in an inverted position in the casing, and a porous cup mounted upon the saucer to receive the discharge neck of the container, whereby the contents of the container are discharged into and absorbed by the cup, a holder adapted to receive and support said casing and means whereby the latter is located in engagement with said holder to prevent tampering with the disinfecting device.

3. In a disinfecting device, a casing provided with a foraminated lower portion, a container provided with a discharge neck arranged in an inverted position in said casing, a porous cup arranged in the casing to receive the neck of the container whereby the contents of the latter will flow into the cup and be absorbed thereby and a non-corrosible saucer arranged to receive said cup and a portion of the contents of said container, whereby a seal is formed for the lower end or mouth of the container to prevent the contents from flowing therefrom faster than evaporated from said cup.

4. In a disinfecting device, a casing having a foraminated lower portion, a non-corrosible saucer arranged in the bottom of the casing, a container provided with a discharge neck arranged in an inverted position in the casing, a porous cup arranged in the casing upon the saucer to receive the neck of the container, and means to support the casing, said means comprising a back plate, a pair of vertically spaced supporting plates attached to the back plate to engage opposite ends of the casing, said supporting plates having vertically-alined slotted extensions, a locking bar passing vertically through the extensions of said supporting plates and having a right angularly bent portion at its lower end to engage the bottom of the bottom supporting plate and an eye in its upper end and a fastening device engaged with the eye of the locking bar to lock the casing against surreptitious removal.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

AMOS B. BUCKLAND.

Witnesses:

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JOHN H. DAILEY.