(No Model.)

J. W. BOWERBANK.

DISINFECTING DEVICE.

No. 487,979. Patented Dec. 13, 1892.

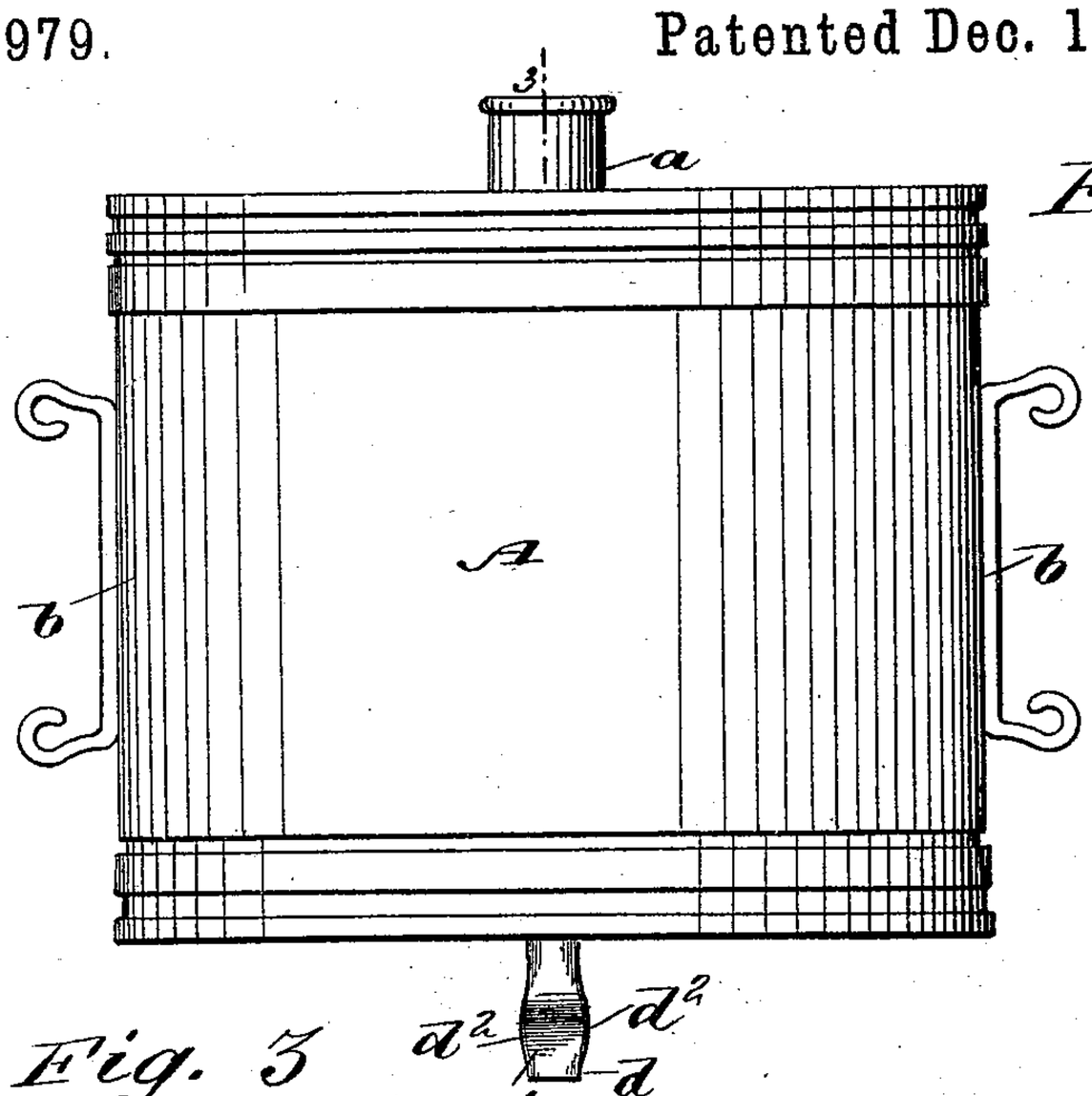


Fig. 1

Fig. 3

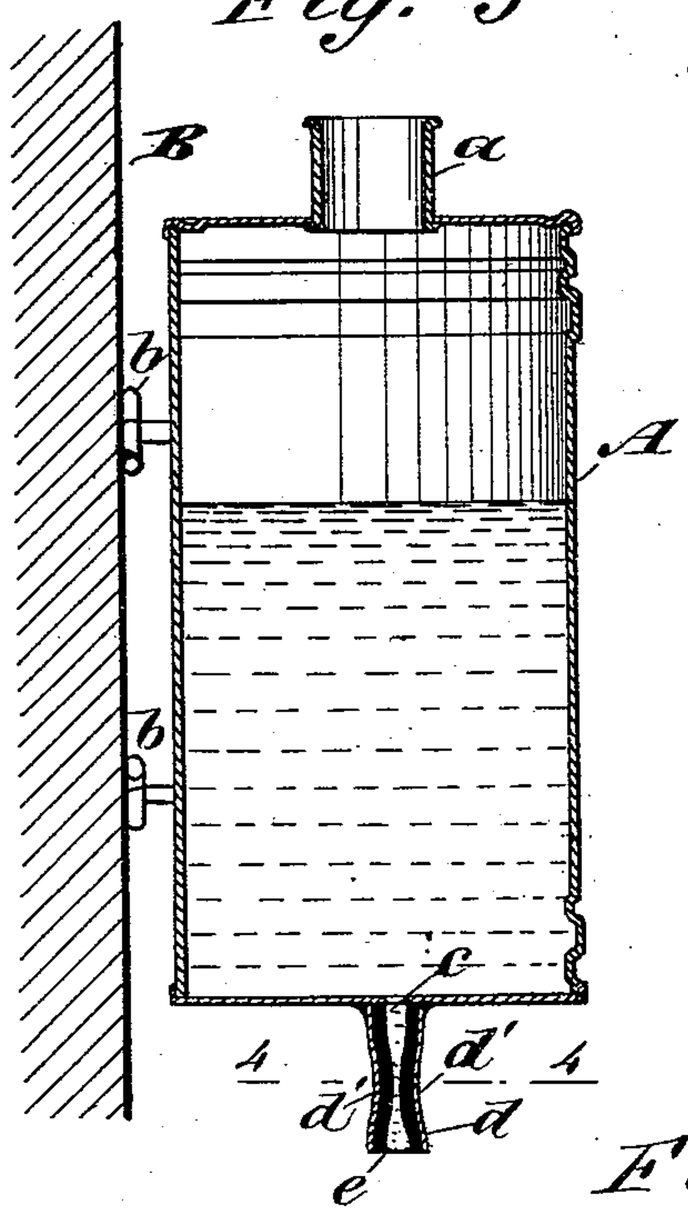


Fig. 2

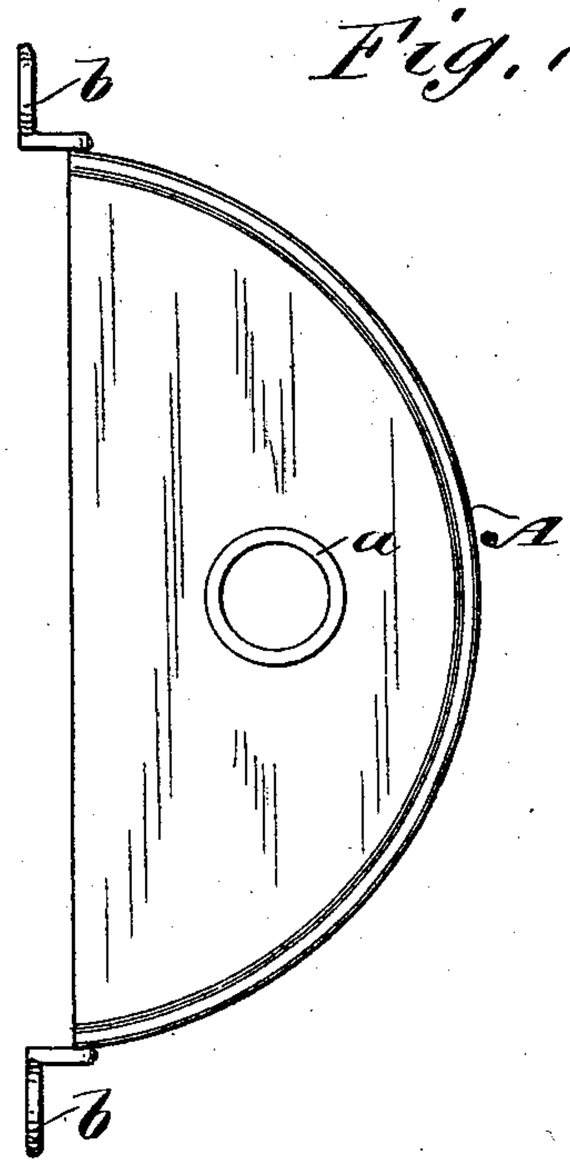
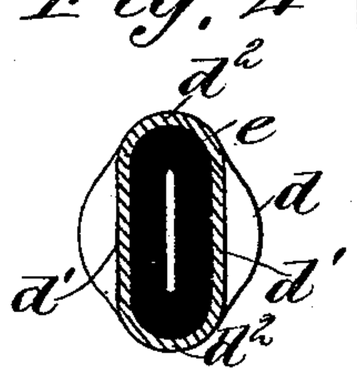


Fig. 4



WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR

J. W. Bowerbank

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN W. BOWERBANK, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO EMIL TAUSIG AND SOLOMON TAUSIG, OF NEW YORK, N. Y.

DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 487,979, dated December 13, 1892.

Application filed July 6, 1892. Serial No. 439,122. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BOWERBANK, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Disinfecting Device, of which the following is a full, clear, and exact description.

The available use of liquid disinfectants for prevention of disease or spreading of the same requires that the liquid shall be periodically deposited in minute quantities within the closet or vessel from which contagious exhalations may escape.

It is essential that the device employed to contain and regularly discharge the disinfecting liquid be adapted for exact control with regard to a periodic expulsion of the fluid by drops, and it is also essential that the apparatus be of the simplest character, non-liable to derangement, and that cannot be readily tampered with.

The object of my invention is to produce a cheap reliable device that will contain disinfecting liquid and be capable of fulfilling the enumerated requirements in an efficient manner by affording means to exactly control the dropping escape of the fluid therefrom, and yet not require a special implement to change the graduation of liquid escape.

To this end my invention consists in the peculiar construction of parts and their combination, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front view of the device. Fig. 2 is a plan view. Fig. 3 is a vertical sectional view on the line 3 3 in Fig. 1, and Fig. 4 is an enlarged plan view in section on the line 4 4 in Fig. 3.

The liquid-holding vessel A may be given various forms to adapt it to peculiar situations. Ordinarily it is preferred to construct it as represented in the drawings, consisting of a sheet-metal receptacle that is the segment of a cylinder whereon a filler-nozzle *a* is formed and holder-clips *b* are secured, these latter-named parts being, by preference, affixed to the side edges where the flat rear wall of the vessel joins the curved front wall of the same. The holder-clips *b* are adapted to receive screws for the secured attachment of the vessel A upon any stable object B that will maintain it upright. The bottom wall of the vessel A is perforated to permit an escape of the fluid contents when in service, the aperture *c* being by preference made circular and of small diameter. Concentric with the hole *c* a larger sheet-metal tube *d* is secured on the bottom wall of the vessel A, so as to depend therefrom, and within said tube or drip-pipe a piece of gum hose *e* is tightly inserted, the relative diameters of these parts being such as will cause the hose to fit closely against the inner surface of the drip-pipe *d* when in place. In its normal condition the axial orifice in the piece of hose *e* will be about equal in diameter with that of the hole *c*, so that fluid in the vessel A will flow freely therefrom through the hose, and as it is necessary to restrict said discharge so that the disinfectant liquid will drop from the pipe *d* at even intervals of time, the hole in the hose must be diminished in capacity for the transmission of fluid through it. To this end the drip-pipe *d* is oppositely compressed a proper degree, so as to press the cylindrical wall of the same against the elastic hose-piece *e* and oppositely indent it, thus producing a narrow crevice or slit, as shown in Figs. 3 and 4.

The compression of the thin sheet-metal pipe *d* can be conveniently effected with a pair of pliers having barrel jaws, such as are in common use by tinsmiths.

With a little practice the operator can adjust the delivering capacity of the drip-pipe and its lining, so as to discharge as many drops in a minute as may be desired, and to regulate the width of the discharge-slit it is only necessary to pinch the protuberant portions of the drip-pipe *d* at d^2 if the slit is to be widened, and at d' if it delivers too freely.

It will be seen that the extreme simplicity of the device will reduce the cost of manufacture to a minimum and at the same time secure the essentials of accuracy and durability.

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

1. A disinfecting apparatus comprising a receptacle having a depending metallic drip-tube provided with an inner rubber lining tube, the metallic tube being compressed transversely, thereby compressing the rubber tube and forming its bore into a narrow slit through which the liquid is adapted to drip, substantially as set forth.

2. A disinfecting apparatus comprising the vessel A, provided with attaching devices *b*, a filling-opening in the top of the vessel, a depending metallic drip-tube on its bottom having an inner rubber-lining tube, the metallic tube being compressed transversely, thereby compressing the rubber tube and forming its bore into a narrow slit through which the liquid is adapted to drip, substantially as set forth.

JOHN W. BOWERBANK.

Witnesses:
WM. P. PATTON,
C. SEDGWICK.