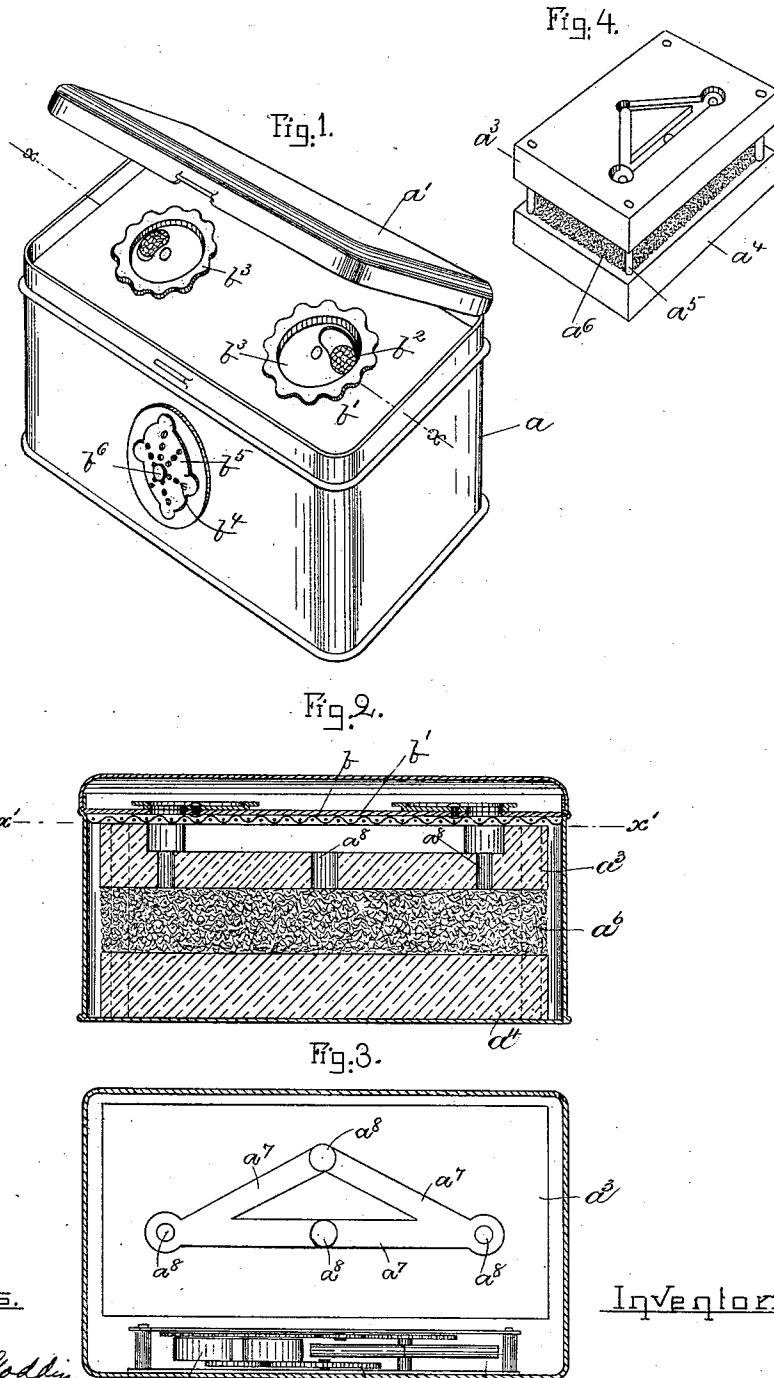


(No Model.)

E. O. ELY.
DEODORIZING DEVICE.

No. 475,547.

Patented May 24, 1892.



Witnesses.

Edgar A. Godkin
Frederick L. Emory-

Inventor.

Edward O. Ely,
by Leroy Gregory atty

UNITED STATES PATENT OFFICE.

EDWARD O. ELY, OF BOSTON, MASSACHUSETTS.

DEODORIZING DEVICE.

SPECIFICATION forming part of Letters Patent No. 475,547, dated May 24, 1892.

Application filed January 21, 1890. Serial No. 337,652. (No model.)

To all whom it may concern:

Be it known that I, EDWARD O. ELY, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Deodorizing Devices, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a novel, simple, and efficient deodorizing and antiseptic apparatus especially adapted to be used in sick-rooms to alleviate asthmatic and membranous troubles.

In accordance with my invention a box or case, preferably of tin, has placed within it an absorbent material, preferably blocks or layers of wood or other pulp, separated from each other to leave a space which may be filled with oakum, sponge, or other loose absorbent material, the top or upper layer of pulp having suitable holes for the passage of liquid. The box or case is provided with air-inlet and vapor-outlet orifices, and valves to control the passage of air into the case and of vapor out of the case, and, if desired, the said case may be provided with a small fan or blower by which the vapor may be discharged more rapidly from the case.

My invention therefore consists, essentially, in the combination, with a box or case provided with an air-inlet and vapor-outlet, of layers of blocks of pulp in said box, and a layer of oakum or loose absorbent interposed between said layers, substantially as will be described.

Other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1 is an isometric view of a deodorizing apparatus embodying my invention, the cover or lid of the box being partially opened; Fig. 2, a longitudinal section of the apparatus shown in Fig. 1 on line *xx*; Fig. 3, a transverse section of the apparatus on line *x' x'*, Fig. 2; and Fig. 4 a detail to be referred to.

The box or case *a*, provided, as shown, with a hinged cover or lid *a'*, may be made of tin or other suitable material, preferably metal.

The box or case *a* contains within it an absorbent material, preferably two layers or blocks *a³ a⁴* of wood, paper, or other pulp secured together, preferably, by four posts *a⁵*,

the said blocks or layers of pulp being separated from each other to leave a space, which is preferably filled with oakum, sponge, or other loose absorbent material *a⁶*. The upper block *a³* is provided, as herein shown, with distributing ducts, channels, or grooves *a⁷*, extended partially through the block and communicating with the space below the same by suitable holes or passages *a⁸*.

The box or case preferably contains a reticulated plate of sheet metal or wire-gauze *b*, which is preferably laid upon the top block of pulp, and the said box is provided with a plate or false cover *b'*, having vapor-outlet orifices *b²*, controlled by valves *b³*, herein shown as rotary, they being pivoted to the said false cover. The false cover *b'* is preferably made of such size as to be securely fastened in place by springing it into the box.

The box or case is provided with an air-inlet, preferably at its front side, it being provided, as represented in the drawings, with a number of openings, with which register like openings *b⁴* in a rotary plate or valve *b⁵*. The plate or valve *b⁵* is mounted on a pin or arbor *b⁶*, upon which is secured one wheel *b⁷* of a motor, herein shown as a train of clock-work operated by a spring *b⁸*, the said clock-work, when wound up, rotating a fan *b⁹*, the said motor and fan being located, as herein shown, inside the box, and effective to produce a more rapid circulation of air through the apparatus.

The layers *a³ a⁴* of pulp and the oakum interposed between them are saturated with a deodorizing liquid or medicament, either before or after being placed in the box, and after the apparatus has been used some time it may be recharged with the liquid or medicament through the valve ports or orifices *b²* in the false top, the said liquid falling into the distributing-channels and passing to the bottom of the box through the openings *a⁸*. By means of the distributing-channels *a⁷* and openings *a⁸* the absorbent material in the box may become quickly saturated.

I prefer to employ the false cover *b'* having the vapor-outlets; but I do not desire to limit myself in this respect, as the false cover might be omitted and the vapor-outlets made in the cover proper and controlled by suitable valves on the said cover, or the said cover may itself constitute a valve. So, also, I pre-

fer to employ oakum between the layers or blocks of wood pulp; but, if desired, the oakum may be omitted and the wood pulp alone used.

I do not herein claim, broadly, a deodorizing apparatus comprising a normally porous body provided with a cavity and impregnated with a deodorizing fluid, and absorbent material placed in said cavity and saturated with the deodorizing fluid, and an inclosing case provided with a vapor-outlet and a valve to control said outlet, as the same is not of my invention.

I claim—

1. The combination, with a box or case having a lid or cover and provided with an air-inlet, of an upper and lower layer or block of pulp placed in said box, a layer of oakum or loose absorbent material interposed between said layers or blocks, and a false cover provided with a vapor-outlet valve, substantially as described.

2. The combination, with a box or case having a lid or cover and provided with an air-inlet, of a lower layer or block of pulp placed in said box, a layer of oakum placed on the

said layer of pulp, a second layer or block of pulp provided with a distributing-channel and openings a^8 , and a false top or cover provided with a valve, substantially as described.

3. The combination, with a box or case provided with an air-inlet and a vapor-outlet, of layers or blocks of pulp in said box, and a layer of oakum or loose absorbent interposed between said layers, substantially as described.

4. The combination, with a box or case having a lid or cover provided with an air-inlet and an adjustable valve therefor, of a layer or block of pulp placed within said box or case and impregnated with a deodorizing fluid or medicament, and a false top or cover provided with a vapor-outlet valve, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD O. ELY.

Witnesses:

JAS. H. CHURCHILL,
EMMA J. BENNETT.