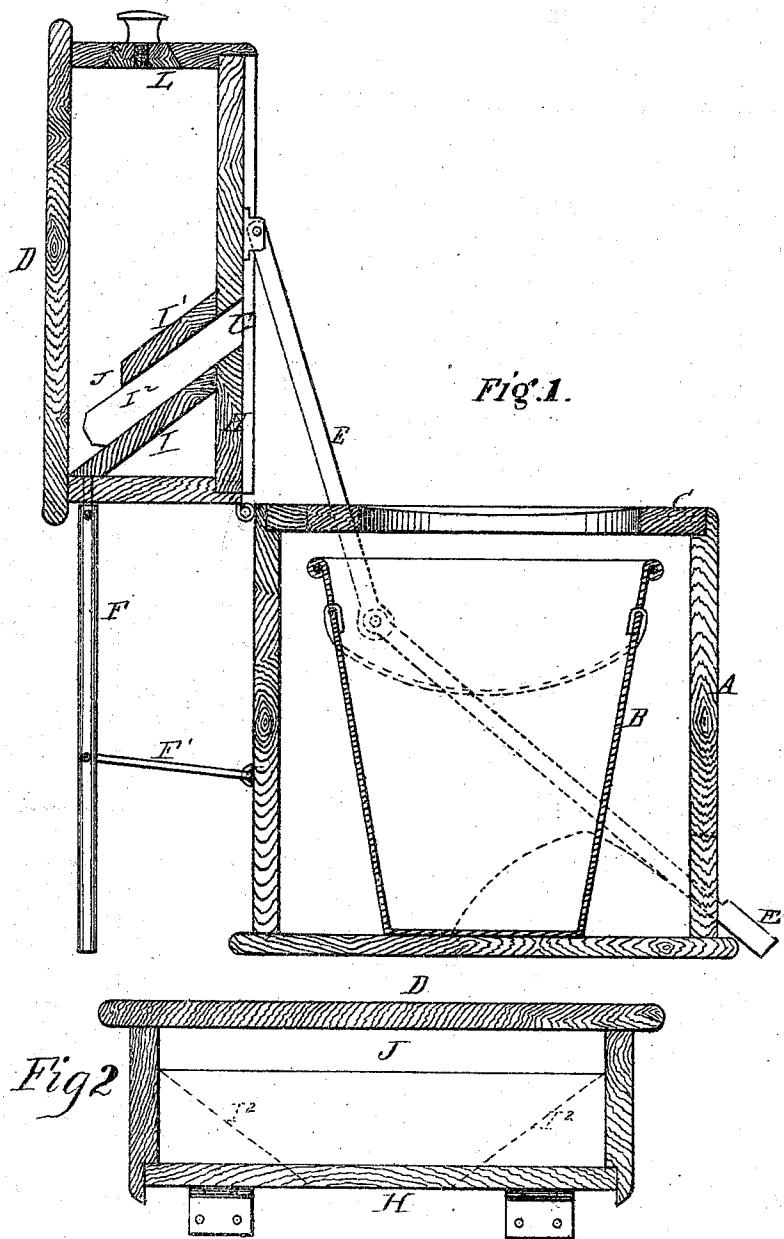


(8.)

B. L. KENT.
Earth Closets.

No. 122,727.

Patented Jan. 16, 1872.



Witnesses.
E. H. Bates
J. D. Curtis

Inventor
B. L. Kent.
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UNITED STATES PATENT OFFICE.

BENJAMIN LUNDY KENT, OF WEST CHESTER, PENNSYLVANIA.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. 122,727, dated January 16, 1872.

To all whom it may concern:

Be it known that I, BENJAMIN LUNDY KENT, of West Chester, in the county of Chester and State of Pennsylvania, have invented a new and valuable Improvement in Earth-Closets; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical section of my invention. Fig. 2 is a vertical transverse section of lid.

This invention has relation to certain improvements in the earth-closet described in the patent of W. H. Newton, dated September 27, 1870; and it consists in the construction and novel arrangement of the inclined boards in the reservoir-cover, whereby all the available space is utilized. It also consists in the devices whereby the heavy hinged reservoir may be raised by treadle-leverage, and in the construction and novel arrangement of the guides or braces whereby the supporter is brought to the ground always in vertical position.

In the accompanying drawing, which illustrates this invention, A represents the seat-box, of rectangular form, containing the bucket B and provided with a movable seat, C. D indicates the box or reservoir, which serves as a cover for, and is hinged to, the seat-box A. F represents a post hinged to the back of the lid D near the top. When the lid is thrown up this post is designed to become a support therefor.

In the above description I have referred in general terms to the external parts which are common to my earth-closet and that of Newton above referred to. I will now describe my improvements.

The lid being of rectangular form, the primary object which I have had in view is an arrangement of inclined boards which will occupy as small an amount of space as possible and will, at the same time, form chutes properly adapted for the purpose of guiding the sand or earth, through the vibratory movement of the lid, from the reservoir to the discharging-orifice G. I have, therefore, constructed the parallel inclined boards I I' and arranged the

same so that they shall extend upward and rearward from the orifice G, one of said boards, I I', being shorter than its fellow, and both extending entirely across the full width of the box, forming the lid. Between these boards I I' are fitted the narrow strips I², extending in an oblique manner from each side of the box to each end of the orifice G. Hence it is apparent that the receiving end of the discharging-chute is as wide as the breadth of the reservoir will admit. Therefore the difference between the heights of the boards I and I' need be but small, as but little distance is required between the board and the top of the lid to admit quite a large charge to the discharging-chute. By this method of construction all the space within the walls of the lid is utilized except the space in rear of the board I. I am, therefore, enabled to form a receiver of great capacity without exceeding but little the dimensions of the rectangular box which would be required to hold the same amount of earth. The lid is raised by means of a treadle-lever, E', which rocks upon a curved fulcrum-block, Z, secured in the lower part of a narrow chamber, z', which is partitioned off from the main chamber of the seat-box A. The front end of this lever projects through a slot in the front of the seat-box, and its rear end is pivoted to a connecting-rod, E, which is pivoted at its upper end to the reservoir-lid. The connecting-rod E passes through a short slot in the top of the seat-box. The length of this slot is such that the connecting-rod has easy play, and the lever moves upon the fulcrum-block with a sliding motion, the treadle end moving vertically up and down, and not in the arc of a circle. The form of the curved fulcrum-block is such that the operating-arm of the lever is very long in comparison with the rear arm during the first part of the lifting operation, the length of the arms being relatively changed after the heavy part of the work is performed, the operating-arm becoming very short, when the reservoir-lid becomes poised on its center of gravity, as but little force is then needed to move it. F represents the supporting-post, which is hinged to the back of the reservoir-lid near its upper part. This post is designed to swing back when the lid is raised; and in order that it shall swing back just far enough to come into vertical po-

sition under the lid when the latter reaches its highest position, the pivoted guide-rod $F'F'$ is provided, said rod being pivoted at its center to the post F and hinged at each end to the rear wall of the box A . By this arrangement no danger need ever be apprehended from disarrangement of the supporting-bar. It must come to the proper position whenever the lid is raised. L represents the tapering cover or slide, which is provided to close the opening in the front of the reservoir-lid through which the sand or earth is introduced.

I claim as my invention—

1. In the hinged earth-closet lid D , the arrangement of the parallel inclined guide-boards IP , extending entirely across the breadth of the reservoir-chamber, and of the inclined slips P^2 ,

extending from the wall of said chamber to the ends of the discharging-opening, substantially as specified.

2. In an earth-closet, the combination, with the hinged lid D , of the treadle-lever, fulcrum, and connecting-rod, substantially as specified.

3. The combination, in an earth-closet, of the seat-box and hinged reservoir-lid with the hinged support F and the guides F' , substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

BENJAMIN LUNDY KENT.

Witnesses:

J. H. H. BOURS,
JOHN FITZGERALD.

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