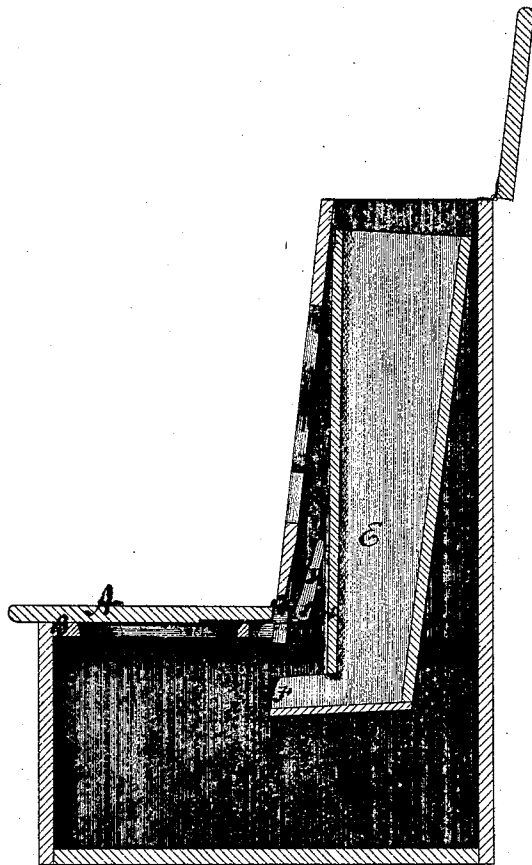


R. A. Cannell,

Earth Closet.

No. 105039.

Patented July 5, 1870.



Witnesses.

H. St. Jenkins
E. H. Levy

Inventor.

Robert A. Cannell

United States Patent Office.

ROBERT A. CANNELL, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO WILLIAM R. C. CLARK, OF SAME PLACE.

Letters Patent No. 105,039, dated July 5, 1870.

IMPROVEMENT IN EARTH-CLOSETS.

The Schedule referred to in these Letters Patent and making part of the same

I, ROBERT A. CANNELL, of New Orleans, Louisiana, have invented a certain Improved device for Operating Swinging Hoppers in Earth-Closets, of which the following is a specification.

My invention relates to a simple mechanical arrangement for operating the swinging hopper of an earth-closet, in which such a hopper is employed to hold and precipitate the deodorizing substance at intervals upon each deposit of excreta within said closet; the device being so contrived that it presses back the hopper from its normal position in equilibrio sufficiently to give it the necessary swing or momentum to effect the precipitation of the deodorizing agent in its return to that position in a gradual and gentle manner, but yet permits said hopper to swing back without interposing any resistance whatever, and therefore with all the rapidity which its gravity will superinduce.

The device may be said to be a rock-arm, in which the two members or parts that compose it are pivoted together, so that one of said parts has a prescribed measure of vibration, which said device, being secured to the cover of the seat of the closet, and properly adjusted with respect to the hopper in the most effective manner, accomplishes the object for which it is designed; but the device will be more quickly and easily understood by referring to the drawing, on which it is shown in connection with a swinging hopper earth-closet by a vertical sectional view of said closet.

A is the cover of the seat B of said closet, to which the part C of my device is secured at or near the center of its rear edge, so as to occupy the same plane with the said seat, as shown, and to project several inches behind the seat, in order to give room for the attachment to it of the part D by a pivot connection, as seen at 1.

The part D is made long enough to throw back the hopper E far enough for its gravity to swing it back to its normal position with sufficient rapidity of motion to throw out the deodorizing substance by the sudden arrest of that motion, by coming into contact with the end of part C through the opening at F.

In order to effect the gradual movement back of the hopper, and its rapid swing forward, a stopper, *a*, is secured to the part C at a point which will prevent the part D from passing a line at right angles to the cover A, and hold it in that position when its upper extremity is brought into contact with the front face of the hopper by the raising of the seat-cover A; for

it will be seen that raising the cover depresses the part D, or rather turns it down into a horizontal position, while the cover assumes a vertical one, in a gradual manner, and that hence the movement of the hopper backward, which is produced by the impingement of said part D, at the upper end of the latter, against the front face of the former, must also be gradual.

When the cover A is fully raised, the part D will occupy a position at right angles, or nearly so, to the front face of the hopper, and that, in consequence of the fact that said part D is pivoted and articulates freely on the pivot which connects it with part C, that position will be maintained when the cover is closed down again on the seat, unless some means be provided to throw it out of the same.

The means I employ to accomplish the purpose of throwing it out of this position is a stopper, *b*, which is so adjusted and fixed on part C that when the cover A is turned about two-thirds of the way from a vertical position toward the seat, in the operation of closing or covering the latter, the said stopper will strike against the part D and force it upward at its end until it comes into an inclined relation to the face of the hopper, that is sufficiently oblique to permit its extremity to slide up said face without the slightest resistance to the forward swing of the hopper, thus suddenly effected.

It will be seen that it is scarcely possible to conceive of a more simple mechanical arrangement or motion than is presented by my device, and I have demonstrated by experiment that nothing ever worked more efficiently in actual practice.

The stoppers *a* and *b* may be established by simply providing a vertical slot in the part C, in which the part D is inserted.

My device is applicable to several other purposes than that herein specified, but I do not deem it necessary to enumerate them.

I claim as my invention—

Operating the swinging hopper of an earth-closet by means of a rock-arm, composed of the parts C and D, when these parts are united by a pivot connection, and C is provided with the stoppers *a* and *b*, and is secured to the cover A, as herein described, for the purpose set forth.

ROBERT A. CANNELL.

Witnesses:

H. N. JENKINS,
EMILE H. LEVY.