L. G. Clock,

Earth Closet.

No. 107,451. Patented Sept. 20. 1870.

Fig 1.

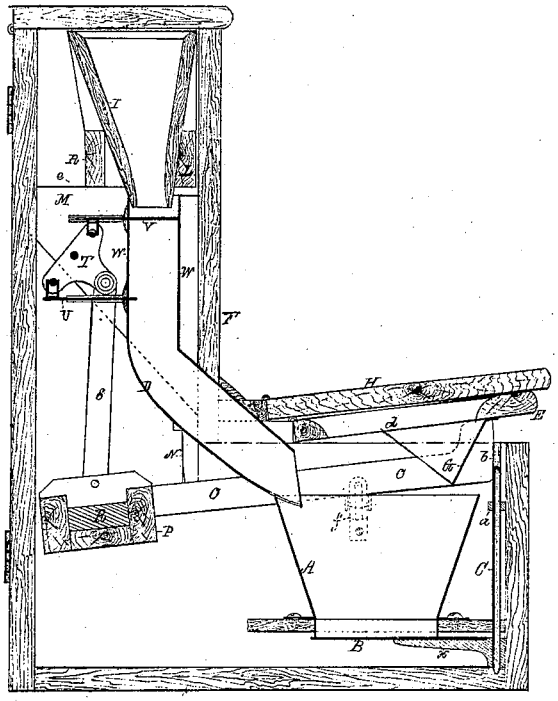


Fig 3.

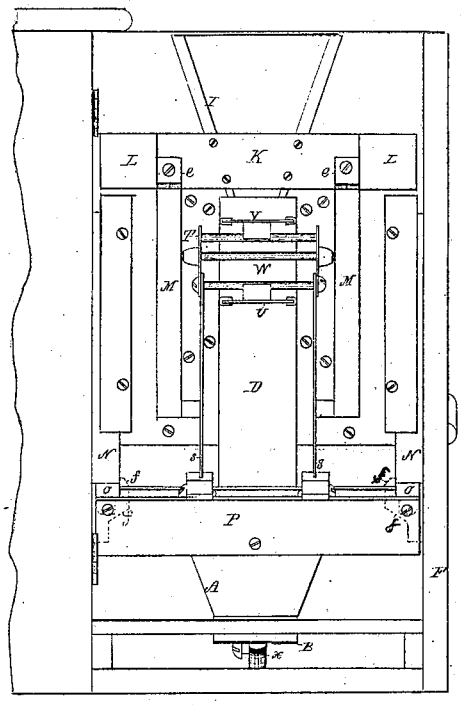


Fig 2.

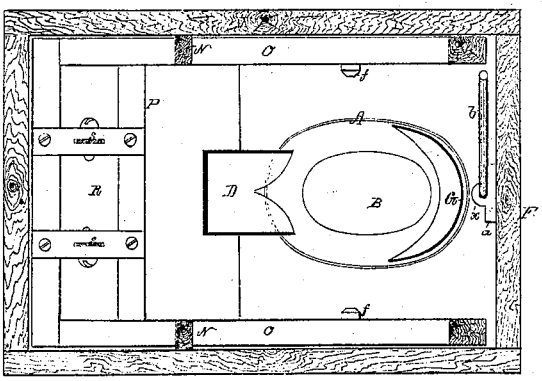
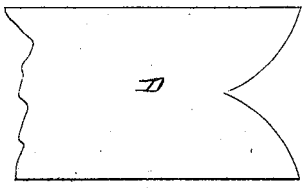


Fig 4.



Witnesses.

S. N. Piper

J. R. Snow

Lewis G. Clock

by his attorney.

R. H. Eddy

UNITED STATES PATENT OFFICE.

LEWIS G. CLOCK, OF MANCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. **107,451**, dated September 20, 1870.

To all whom it may concern:

Be it known that I, LEWIS G. CLOCK, of Manchester, in the county of Hillsborough and State of New Hampshire, have made a new and useful Invention having reference to Earth-Closets; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a longitudinal and vertical section, Fig. 2 a horizontal section, and Fig. 3 a rear elevation, of an earth-closet provided with my invention.

In the drawings the hod or excrement and urine receiving vessel is shown at A as open both at top and bottom, it being provided at the latter with a valve, B, which is fixed to an arm, *x*, projecting from a vertical shaft, C. The said shaft, supported in bearings *a a*, has a crank or arm, *b*, extended horizontally from its upper end. By taking hold of the crank *b* and moving it so as to turn the shaft C the valve may be moved aside from underneath the open bottom of the receiver A. Such receiver may be supposed to be arranged over a vault or a passage leading thereto, or to a proper place for the reception of the deposits made in and discharged from the vessel A from time to time.

An inclined chute or conduit, D, arranged to discharge into the rear part of the said vessel A, has its bottom, at its discharging end, furcated or notched in manner as shown at *c* in Fig. 4, which is a top view of such bottom. I have found that when the bottom is so notched the earth discharged by it will be thoroughly disseminated over the excremental deposit, or in a far better manner than will be the case when the bottom is without a notch or has a straight front end.

Over the vessel A is the seat E, which at its rear edge is hinged to the closet-frame F so as to be capable of being turned from a horizontal up into a vertical position. The seat-hole is shown at *d*, there being fixed to the seat so as to extend down from it a circuit-shaped deflector or guard, G, which, when the seat is at its lowest position, projects into the hod or vessel A, and is intended to deflect into the said vessel the urine that may be discharged from a person while sitting upon the seat, the deflector operating to prevent the urine from being ejected over and beyond the front of the upper edge of the vessel A. The cover of the seat is represented at H, it being hinged to the frame F. In the upper part of such frame F is a hopper, I, which at its rear is fixed to a horizontal bar, K, and at its front to another but longer bar, L, such bars being arranged as represented. The shorter of such bars—that is, the bar K—is connected with two stationary brackets, M M, by hinges *e e*. Beneath the front bar, L, are two vertical slides or pitmen, N N, which at their lower ends rest on the rear arms of two levers, O O, on whose first arms the seat E rests, each of such levers having its fulcrum disposed with respect to it as shown at *f*. The rear arms of the pair of levers O O are constructed so as to form a weight-box, P, for the reception of one or more weights, R.

Connection-bars S S, pivoted to the weight-box, extend upward and are jointed to a rocker-frame, T, arranged between and having its pivots supported by the brackets M M.

To the said rocker-frame two horizontal slides, U V, are hinged, they being arranged with such frame so as to be capable of sliding horizontally into and out of the vertical portion W of the chute, such vertical portion leading from the bottom of the hopper.

A person in the act of sitting upon the seat will depress it and so move the levers O O as to cause the rocker-frame to be moved in one direction in a manner to force the lower slide, V, into and across the conduit W, the slide U at the same time being drawn backward so as to allow a charge from the hopper to descend upon the slide V. On the person rising from the seat the weight in the weight-box will move the levers in an opposite direction, whereby the movements of the sliders U V will be reversed—that is to say, the upper one will be advanced and the lower one drawn back in the conduit W—in which case the charge of earth on the lower slide will be caused to fall through and out of the chute and into the vessel A. While the rear arms and weight-box of the levers O O are being thrown up suddenly by the weight of a person while in the act of sitting down upon the seat the hopper will be suddenly forced upward by the pitmen or slides N N, which being suddenly forced upward against the bar L will elevate it and cause it to tilt the hopper in order that the contents

thereof may be jarred in a manner to facilitate their escape from it.

In the above-described earth-closet I claim as of my invention the following, viz:

1. The combination and arrangement of the urinal' guard or deflector G with the seat E and the receiving-vessel A.

2. The combination and arrangement of the levers O O, the weight R, one or more connection-bars, S S, the rocker-frame T, and the two slides U V, with the pivoted seat E, the hopper I, and the chute of the latter.

3. The combination of one or more slides, N N, with the hopper pivoted to its supports, as described, and with the levers O O, arranged with the seat, pivoted to the frame, as set forth.

4. The combination of mechanism for tipping the hopper, in manner as described, with such hopper, its chute, the two slides N N, and their operative mechanism, arranged with and to be actuated by the seat and a weight, as explained.

LEWIS G. CLOCK.

Witnesses:
R. H. EDDY,
J. R. SNOW.