

A. W. THOMPSON.
EARTH-CLOSET.

No. 187,991.

Patented March 6, 1877.

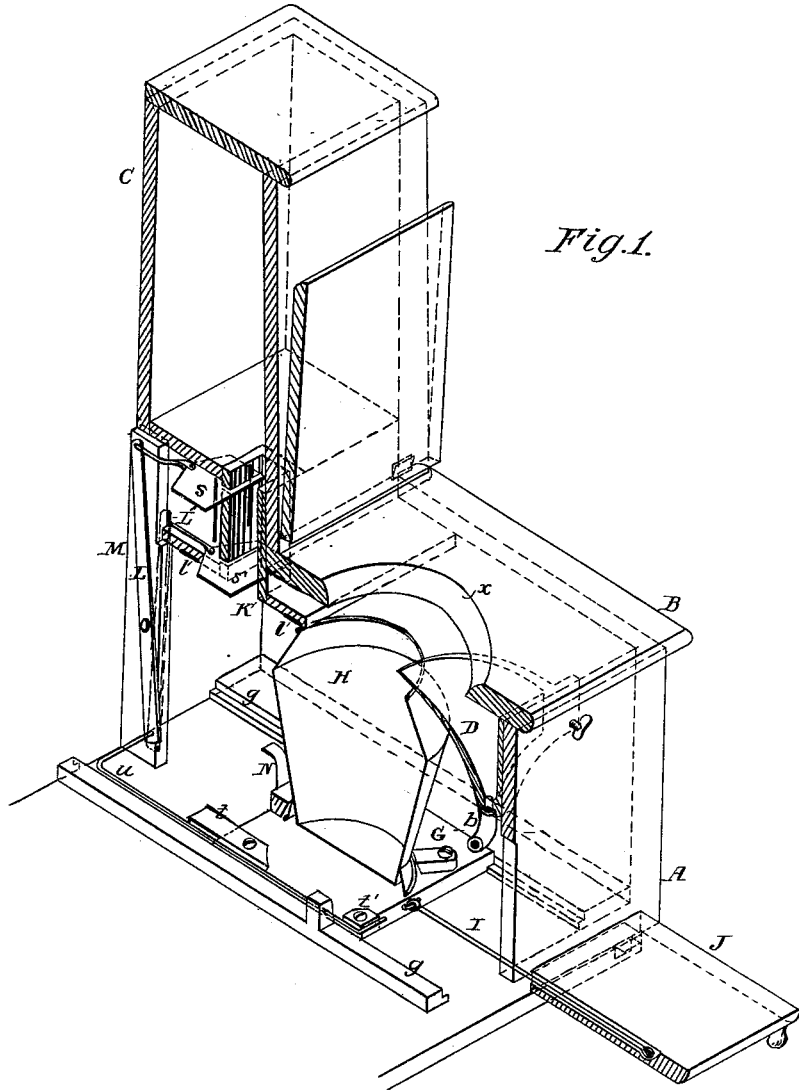


Fig. 1.

WITNESSES

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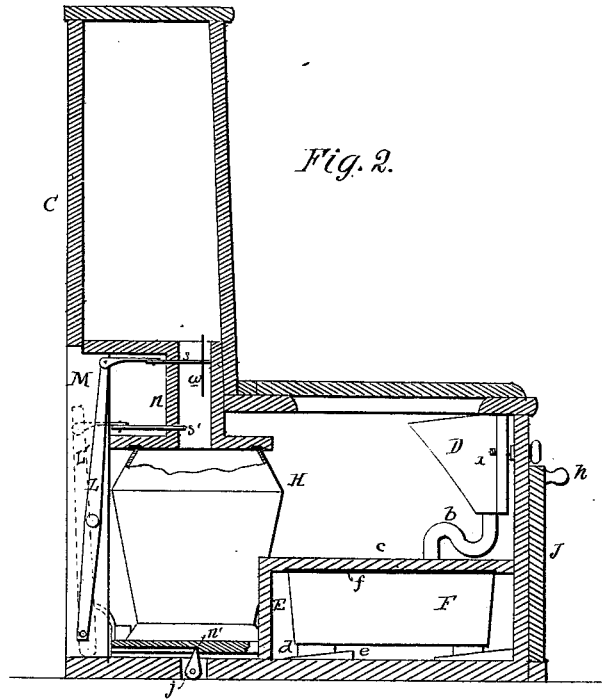


Fig. 2.

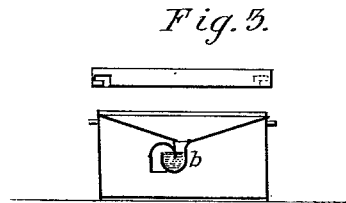


Fig. 3.

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UNITED STATES PATENT OFFICE.

AUSTIN W. THOMPSON, OF NORTHAMPTON, MASSACHUSETTS.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. 187,991, dated March 6, 1877; application filed February 5, 1877.

To all whom it may concern :

Be it known that I, AUSTIN W. THOMPSON, of Northampton, county of Hampshire, State of Massachusetts, have invented certain Improvements in Earth-Closets, of which the following is the specification :

The object of my invention is an earth-closet, constructed as fully described hereafter, to separate the solid and liquid matter, to prevent the escape of odors therefrom, and to insure the automatic deposit of the proper amount of earth after the closet has been used.

In the drawing, Figure 1 is a sectional perspective view of an earth-closet, constructed in accordance with my invention; Fig. 2, a side elevation in section; and Fig. 3, a modification.

A is a box supporting the usual seat B, which may be stationary, or hinged at the rear to the upright box or receptacle C, which contains the earth. Within the box A is suitably supported a funnel-shaped vessel, D, the mouth of which is below the forward part of the opening *x* in the seat B, and the said vessel may be adjustable to or from the center of the opening *x* by means of screws *a*, or otherwise; or it may rest on a shelf within the case, and may be provided with an internal trap and a sealing-cover, as shown in Fig. 3. A pipe, *b*, bent to form a trap, extends from the bottom of the vessel D, and through the top *c* of a compartment, E, in the box A, to which access may be had from the top or side for the purpose of inserting or removing a basin, F. Inclined projections *d*, at the bottom of the basin, are adapted to inclines *e* at the bottom of the compartment, so that by sliding the basin laterally, its upper edge will be forced against a rubber packing, *f*, at the top of the chamber. Any other suitable means, however, may be employed for elevating the basin.

Upon suitable ways or rails *g* within the box slides a carriage, G, carrying an urn, H, a rod, I, being connected to the carriage, and to a platform, J, which is hinged at its lower edge to a rail at the front of the box.

The platform J is provided with lugs *h*, which support it when turned down in a hori-

zontal position, so as to form a step or rest for the feet.

At the rear of the box, beneath the earth-receptacle, is a shelf, K, through which extends the earth-discharge pipe *n*, and at the under side of this shelf is a groove or a rubber packing, *l*, coinciding in size and shape with the upper edge of the urn.

Within recesses in the rails *g* are pivoted pawls *j*, which fall naturally to a forward inclined position, but strike a shoulder, *n'*, of the carriage G, when the latter is moved backward, and raise the same slightly, forcing the edge of the urn into the opening or against the packing *l*. Other appliances that will produce the same effect, as inclines, wedges, or cams may, however, be used.

Through slots in the rear side of the discharge-tube *n* extend two horizontal plate valves, *s s'*, connected to and operated respectively by levers L L', hung to opposite sides of a post, M.

A spring tends to maintain the lever L' in a forward position, and an arm, N, on the carriage G strikes the said lever L' when the carriage is moved back, and opens the valves *s'*, and an adjustable plate, *t*, on the carriage strikes a bar, *u*, of the lever L, and throws the upper valve forward. A similar arm, *t'*, on the opposite end of the carriage, when the latter is moved forward, strikes the forward bent end of the bar *u*, and retracts the upper valve.

When the upper valve is thus retracted the earth falls upon the lower valve, and when the carriage moves backward, upon the platform J being raised, the upper valve will first be closed, and the lower valve will then be opened, insuring a deposit of earth at the center of the urn.

As the carriage moves forward the spring will throw the lever L' forward, and quickly close the valve, preventing any escape or waste of the earth.

To prevent the caking of the earth within the receptacle or channel, the upper valve may carry rods *w*, which break the earth as the valve moves.

It will be seen that this construction and

the mode of operating the valves are simple, cheap, and most efficient in their results, and that by proper adjustment of the arms *t t'* N the extent of the various movements may be easily regulated.

The urn is drawn to a forward position by depressing the platform J. It will be apparent, however, that other modes of operating the carriage G may be employed. The vessel D serves to receive the liquid matter which flows through the trap pipe *b*, either into the basin F or into a pipe leading to a sink or sewer, the adjustment of the receptacle D preventing the possibility of the liquid and the solid matters being deposited in the same receptacle.

After the closet is used, water is poured into the receptacle D, and by displacing the liquid in the trap *b* prevents any odor from the urinal, and the passage of any gases into the urinal from the chamber E, or from the sewer.

It will be seen that by raising the receptacles they are sealed at their upper edges, and the escape of odors prevented.

Without limiting myself to the precise arrangement and the construction of parts described,

I claim—

1. An earth-closet provided with a receptacle for solid matter, and with a separate vessel for liquids, sealed by a trap, as described.

2. The combination of the urinal, the receptacle F and adjusting appliances, substantially as described, whereby the vessel may be raised into contact with the top of the case, as set forth.

3. The combination, in an earth-closet, of the receptacle F, chamber E, and trap-pipe *b*, substantially as specified.

4. The combination of the carriage G and hinged platform J, connected to and operating the carriage, as specified.

5. The combination, in an earth-closet, of the earth-passage *n*, the parallel valves *s s'*, and intermediate mechanism for operating each valve independently of the other, on the movement of the carriage G, as set forth.

6. The combination of the valves *s s'*, levers L L', the carriage G, and rod *u*, or its equivalent, as set forth.

7. The sliding valve *s*, provided with vertical rods *w*, for the purpose specified.

8. The combination of the movable urn H, sliding in the case A, discharge-opening *n*, and shelf K, arranged at the rear of the case to close the mouth of the urn, when the latter is below the same, as set forth.

9. The combination of the sliding urn H, earth-passage *n*, shelf K and appliances, substantially as described, for bringing the edge of the urn and the shelf in contact, when the urn is moved back and the earth is deposited, as and for the purpose set forth and described.

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

AUSTIN WHITE THOMPSON.

Witnesses:

T. G. SPAULDING,
C. E. LOVEGROVE.