R. A. Cowell

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EARTH CLOSET. PATENTED NOV 1 1870

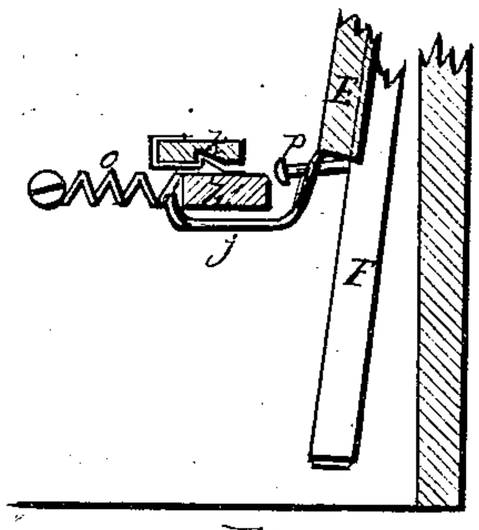

Fig. 3.

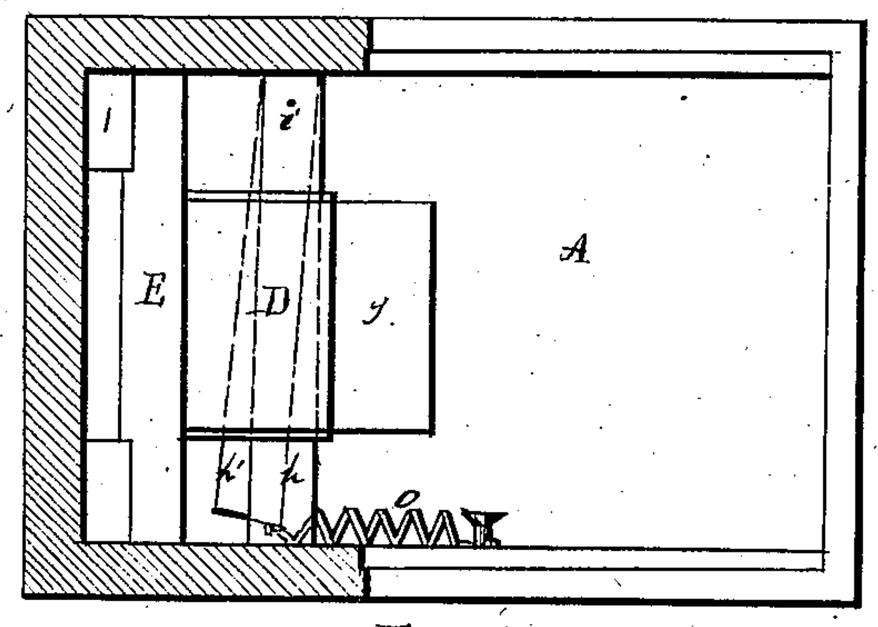

Fig. 1.

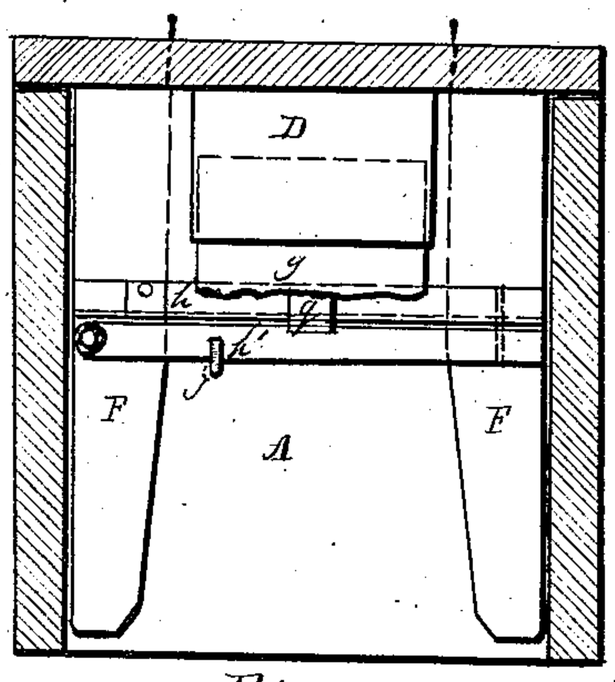

Fig. 4.

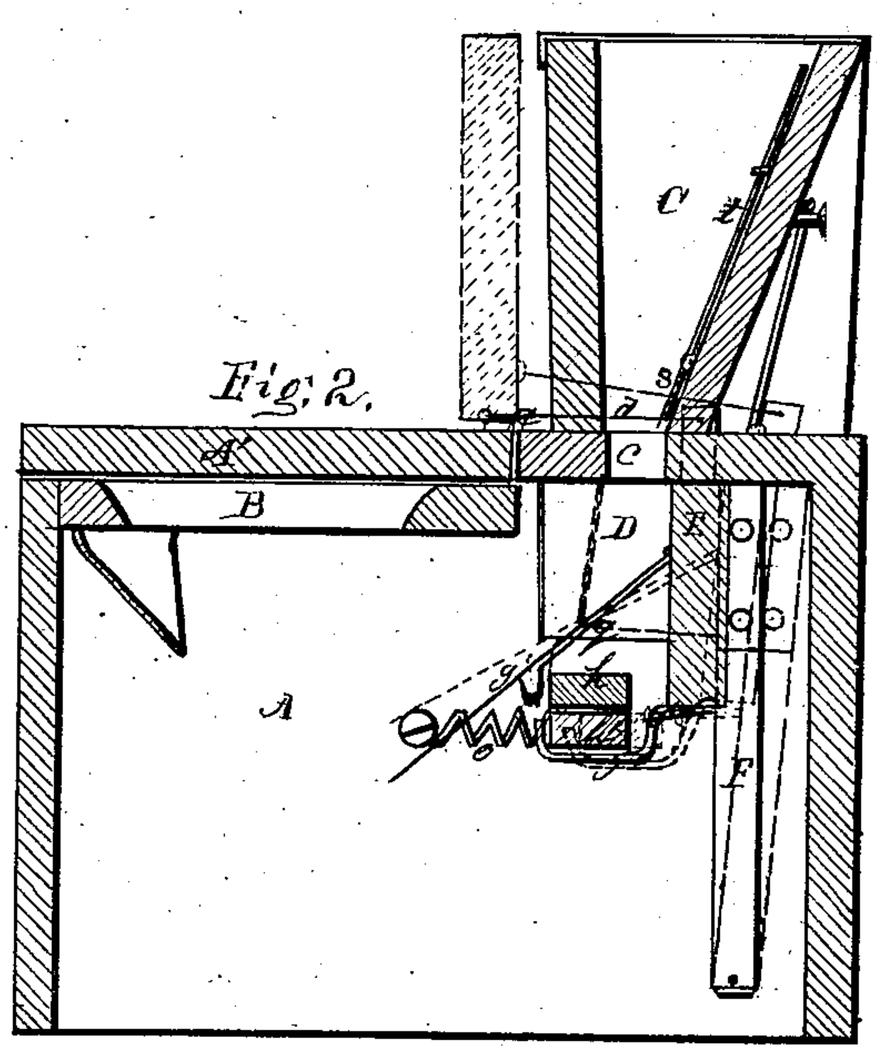

Fig. 2.

Witnesses.

C. E. Tibbitts.

J. V. Maitland

Inventor,

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United States Patent Office.

RENSSELAER A. COWELL, OF CLEVELAND, OHIO.

Letters Patent No. 108,885, dated November 1, 1870.

IMPROVEMENT IN EARTH-CLOSETS.

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

I, RENSSELAER A. COWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Earth-Closet, of which the following is a specification.

The nature of this invention relates to an earth-closet, which is operated by the raising and lowering of the lid which covers the seat, and consists of devices so constructed and operated as to make a very simple and cheap commode.

The hopper for containing the earth is made detachable, so that it can be taken off and removed to be filled with earth, thus avoiding raising dust in a room.

Figure 1 is a plan view, with top removed.

Figure 2 is a vertical section from front to rear.

Figure 3 is a detached view of the device for striking and scattering the earth.

Figure 4 is a vertical section crosswise.

A is a box made of suitable size and proportions, and is provided with a lid, A′, hinged at *a*.

The lid is connected by rods *d d* to the interior mechanism, which is operated by the motion of the lid.

Beneath the lid is a seat, B, which may be removed when desired to get at the interior of the box.

Placed on the box A, at the rear side, is a hopper, C, against which the lid rests when thrown up, and forms a back to the seat.

The hopper is made removable, being secured to the box by a hook.

In the top of the box is an opening, *c*, underneath the hopper, forming a communication with a chamber, D, consisting of a box, made of tin or other suitable material, sufficiently large to hold the required amount of earth to cover a deposit.

The chamber D is secured to a cross-bar, E, attached to two upright arms, F F, which are pivoted at their lower ends near to the bottom of the box.

The chamber D has no bottom, but there is provided an apron, *g*, suspended to the rear side of the chamber D, and lies in a slanting position, and resting on a cross-bar, *h*, secured across the box, and leaving a small space open at the front side of the chamber.

Beneath the cross-bar *h* is a second bar, *h′*, pivoted at *i*.

A wire-hook, *j*, secured to the cross-bar E, is intended to catch and draw the bar *h′* back with it when the chamber D is thrown back.

A notch, *k*, made in the under side of the bar *h*, is made to engage with a lug on the bar *h′*, and holds it from returning, when the chamber D is again thrown forward, until released by a pin, *p*, on the cross-bar E, which bears on the upper corner of the bar *h′*, and pressing it downward, when the bar will be suddenly drawn forward by the spring *o*, and cause it to strike against a strip, *q*, lying under the apron *g*, and giving a jarring motion to the apron to throw the earth off from it, and assist in scattering it over the deposit.

The top of the chamber D is covered over, and has an opening in it connecting it with the hopper when the chamber is thrown back, and when the chamber is thrown back the apron *g* is drawn backward, and the lower end upward, so as to close the bottom of the chamber, so when the communication with the hopper is closed the outlet to the chamber D is open, and *vice versa*.

The hopper is provided with a bottom, *s*, to which is attached a rod, *t*, reaching up to the top, which may be let down to cover the opening when the hopper is removed for filling, but which may be drawn up when the hopper is in place.

The operation is as follows:

The lid A′ being thrown up, as seen in dotted lines in fig. 2, the chamber D is carried backward, communication is opened with the hopper C, when the chamber will be filled with earth, the apron closing the bottom and retaining it in the chamber. Then, when the lid is thrown down, the chamber is again carried forward, closing the opening leading to the hopper, and, the apron lowering, opens the bottom of the chamber D, the earth sliding down from it is deposited in a vessel in the commode; at the same time, also, the stroke is imparted to the bar *h′*, shaking and scattering all the earth free from the apron.

I claim as my invention—

The chamber D, apron *g*, cross-bar E, arms F F, bars *h* and *h′*, hook *j*, pin *p*, spring *o*, and strip *q*, when the same are combined, arranged, and operated substantially as and for the purpose described.

R. A. COWELL

Witnesses:

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C. E. TIBBITTS.