

*J. Megratten,
Plumb Closet.*

No. 113,186.

Patented Mar. 28, 1871.

Fig. 1.

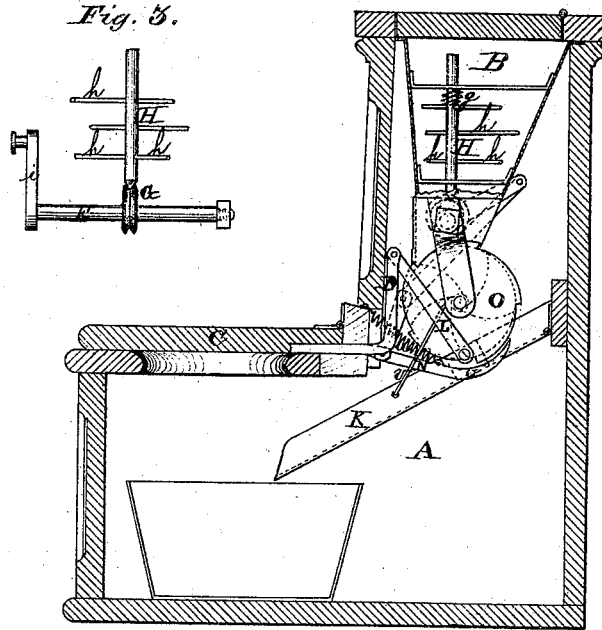


Fig. 4.

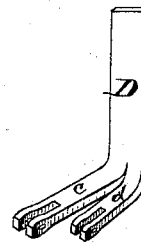
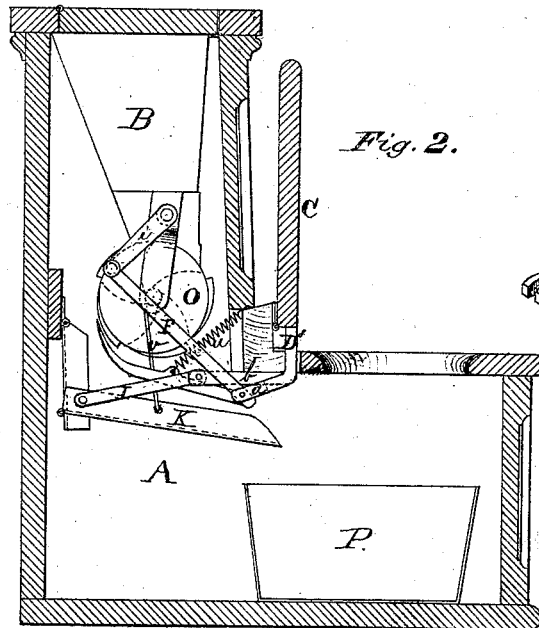


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES MEGRATTEN, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. **113,186**, dated March 23, 1871.

To all whom it may concern:

Be it known that I, JAMES MEGRATTEN, of Wilmington, Delaware, have invented certain new and useful Improvements in Earth-Closets, of which the following is a specification:

Nature of the Invention.

The first part of my invention relates to the stirrer placed in the hopper so as to prevent the earth from becoming clogged, and to the devices by which it is operated; the second part, to the revolving feeder having concavo-convex buckets, and provided with cams upon one end, so that by raising and lowering the lid a rotary movement is imparted thereto; the third part, to the hinged chute; and the fourth part, to the arrangement and combination of devices, which will hereafter be more fully set forth.

Description of Drawing.

Figure 1 is a vertical section view of my closet. Fig. 2 is a similar view, showing the devices used at the opposite side of the hopper. Fig. 3 is a front view of the stirrer and the cam by which it is operated. Fig. 4 is a perspective of the double lever.

Specification.

A represents the frame; B, the hopper, and C the lid, these parts being constructed in the usual manner. Secured to each end of the lid is a double or bifurcated lever, D and D', each of which has its inner end divided into a long and short arm, as shown in Fig. 4.

The short arm, *a*, of the lever D' is attached, by means of the intermediate lever F, to the crank *i* on the end of shaft E. This shaft extends lengthwise through the bottom of the hopper B, and has a cam or eccentric, G, secured to it near the center. Resting upon the top of this eccentric is the stirrer H, provided with a number of lateral arms, and which is forced or moved upward at each partial upward movement of the eccentric.

Placed at the top of the stirrer is a spring, *g*, which forces it downward again after being raised, and in these upward and downward movements the lateral arms *h* keep the earth constantly stirred, and so prevent the outlet-passage from being clogged. The longer arm, *b*, of the lever D' is attached, by means of the

intermediate lever I, to the double-hinged chute K.

To the longer arm, *c*, of the lever D is attached another intermediate lever, L, which is also pivoted to the chute.

To the shorter arm, *d*, is secured a dog, N, which is held against the cam on the end of the revolving cylinder or feeder O by the spring *u*.

Just under the hopper is placed the cylinder or feeder O, which is divided into a number of concavo-convex buckets or compartments, as shown by dotted lines, and which, in revolving, feeds the earth from the hopper into the chute.

Hinged to the back part of the frame A, and provided with hinges near its center, is the chute K, suspended in the rods *v*. Attached to this chute on each side is a lever, I and L, in such a manner that when the lid is raised the chute is moved back out of the way until the lid is being closed again, when it is drawn up into line, so as to receive the earth as it falls from the feeder and precipitate it into the pail.

Operation.

As the lid C is raised the long arms, *b* and *c*, of the levers D and D', operating through the intermediate levers I L, cause the chute K to fold or double back, as seen in Fig. 2. The short arm, *a*, acting through the lever F, draws the crank *i* of the shaft E downward, allowing the spring *g* to force the stirrer H downward also. At the same time the short arm, *c*, of lever D draws the spring-dog N backward, so as to catch a fresh hold on the cam placed on the end of the feeder O. As the lid is being closed the spring-dog, beginning to act on the cam, causes the feeder to revolve, and thus to empty its compartment of earth into the chute below. At the same time the levers I L draw the double-hinged chute forward, so as to precipitate the earth upon the excreta in the pail P. The short arm, *a*, acting upon the crank *i*, causes the cam G to revolve, and the cam raises the stirrer H upward, so as to move a fresh supply of earth into the feeder.

If desired, instead of using the revolving cylinder or feeder O, as described, I may substitute for it a feeder having only a single

compartment, which turns only partly around, and then is drawn back to its place by means of any suitable device.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The double-hinged chute K, the first hinge in the rear of the axis of the hopper-operating shaft, when so constructed as to be moved back out of the way and brought into line by raising and lowering the lid, in combination with the levers I L, substantially as shown and described.

2. The rotary pocket-wheel or feeder O, having curved and cutting blades, in combination with the double-hinged chute K, substantially as shown and described.

3. The shaft E and eccentric G, in combination with the vertical moving stirrer H, substantially as described.

4. The feeder or cylinder O, constructed as described, in combination with the dog N, spring u, and lever D, substantially as specified.

5. The levers D' and F, crank i, shaft E, cam G, stirrer H, with its arms h, and spring g, when all are combined as set forth.

6. Lid C, levers D, D', I, L, and F, dog N, chute K, feeder O, shaft E, cam G, and stirrer H, when all are combined to operate substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereby affix my signature.

JAMES MEGRATTEN.

Witnesses:

B. FERRIS,
ROBT. E. GREEN.