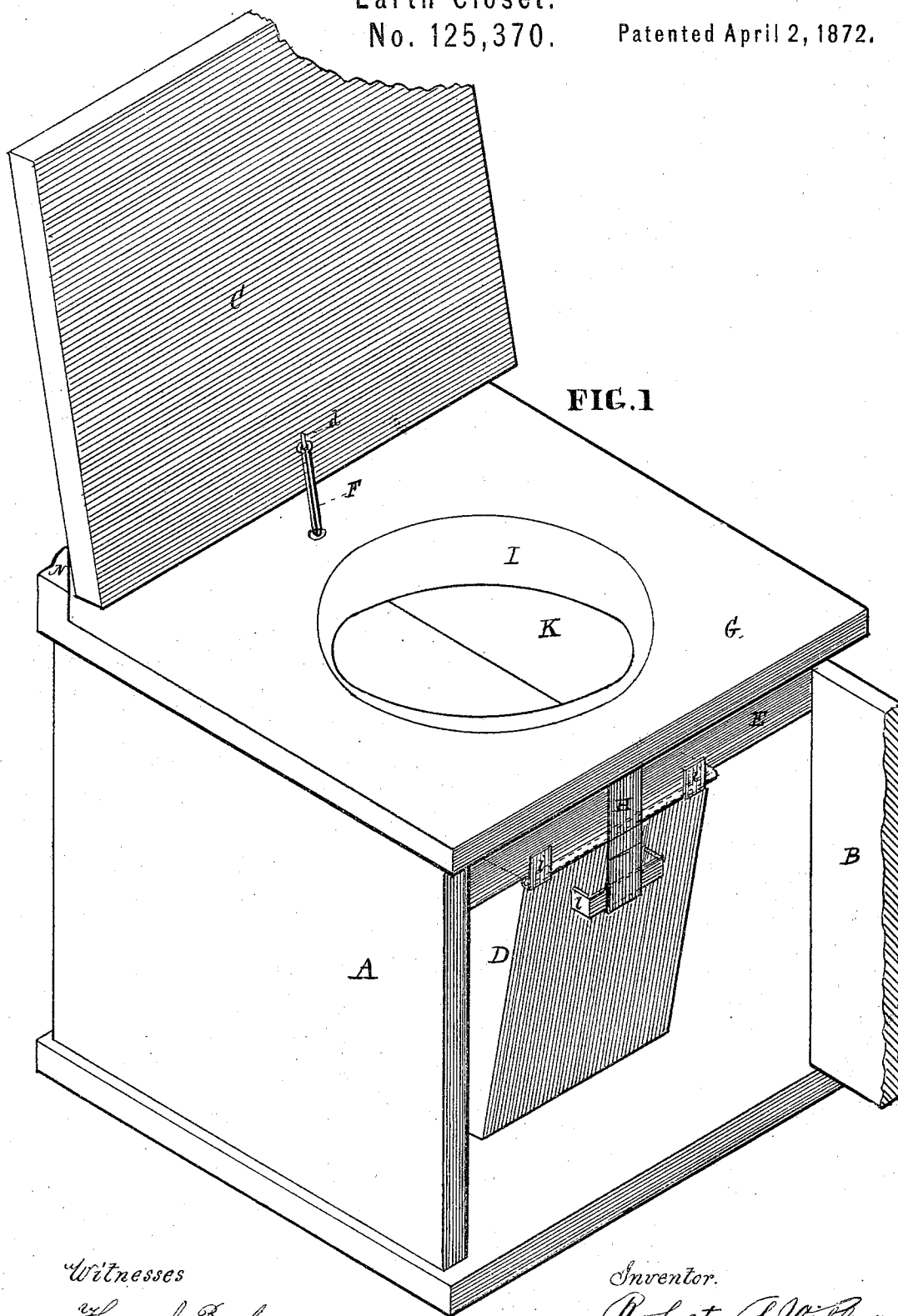


ROBERT S. WILLIAMS.
Earth Closet.
No. 125,370.

2 Sheets--Sheet 1.

Patented April 2, 1872.



Witnesses

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Isaac Tinsley

Inventor.

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By His Attorney,
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FIG. 2

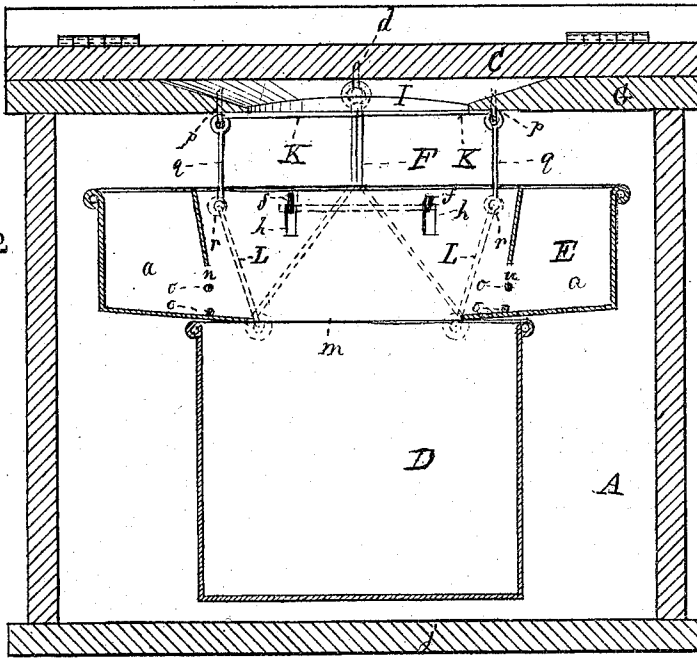


FIG. 4

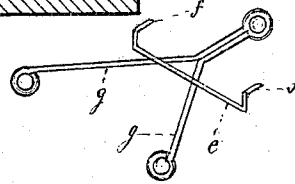
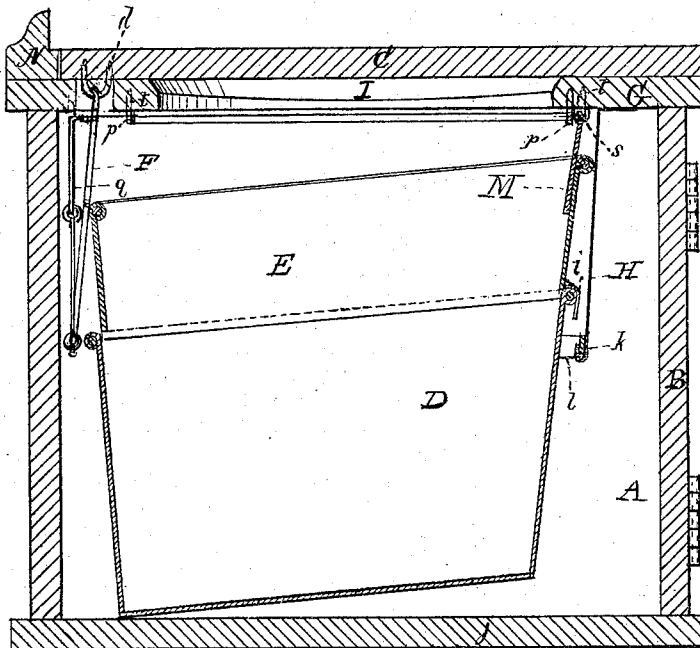


FIG. 3



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UNITED STATES PATENT OFFICE.

ROBERT S. WILLIAMS, OF NORRISTOWN, PENNSYLVANIA.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. 125,370, dated April 2, 1872.

Specification describing certain Improvements in Earth-Closets, invented by ROBERT S. WILLIAMS, of Norristown, in the county of Montgomery and State of Pennsylvania.

My invention relates, in the first place, to a pan, which is arranged beneath the seat, and has earth-reservoirs at two opposite sides, at right angles with the front of the closet, to contain the earth to be used. The bottom of the pan has an opening in the middle throughout its whole length, and immediately over the receptacle. Through this opening the earth is passed into the latter in sufficient quantities by the shaking of the pan, which is caused by a sudden elevation of its back end, and effected by means of a bifurcated wire, the middle part of which is hung to the lid of the closet and the ends of the prongs connected with the pan, the front end of the latter being hung by means of a strap, the upper end of which is connected with the lower side of the seat, with the front end of the receptacle beneath the end of the pan. The bottoms of the earth-reservoirs are inclined downward toward the middle of the pan to facilitate the distribution of the earth. The invention, in the second place, relates to plate-valves, which are hung beneath the seat-opening, and connected, by means of levers, with the above-mentioned bifurcated wire in such a manner that, when the lid of the closet is closed, the valves are pulled up flat against the lower side of the seat, closing the opening, and when the lid is thrown up they are swung down toward the sides of the closet from beneath the opening. The third part of the invention relates to a urine-apron or plate, hung within the open part of the earth-pan in such a manner as to protect the front part of the pan.

Figure 1 is an isometrical view of the improved closet, the lid C being thrown up and the door B open. Fig. 2 is a vertical section at the line *a b* of Fig. 1. Fig. 3 is a vertical section at the line *c d* of Fig. 1. Fig. 4 is an isometrical view of the bifurcated wire F.

Like letters in all the figures indicate the same parts.

A is the body of the closet. B is the door, and C is the lid. D is the receptacle, over which is hung the pan E, which has earth-reservoirs *a a*. F is a bifurcated wire, seen in detail in Fig. 4, the middle part B of which is passed through an opening in the seat G and

connected to the back part of the lid C by means of the staple *d*. The horizontal wire *e*, provided with hooks *f f*, has a permanent connection with the prongs *g g* of the wire F, as seen in Fig. 2. The back end of the earth-pan E is hung, by means of its slots *h h*, on the said hooks *f f*. The front end of the pan rests upon the front edge of the receptacle D, and is kept in position by means of its hooks *i i*. The front end of the receptacle is raised a short distance from the bottom *j* of the closet by means of the strap H, as seen in Fig. 1, the upper end of the strap being connected to the lower side of the seat G. The lower end has a hook, *k*, which connects with the horizontal bent strip *l* that projects from the end of the receptacle. The bottom of the earth-pan has an opening, *m*, between the reservoirs *a a*, so as to present a free passage from the seat-opening I to the receptacle D.

When the lid C is raised to the position seen in Fig. 1 it draws the bifurcated wire F upward and raises the back end of the earth-pan E. The sudden movement shakes the pan and causes a sufficient quantity of earth to be ejected from the reservoirs *a a* through the side openings *n n* into the receptacle D. Each opening has a longitudinal division by means of the wires *o o* to prevent a too rapid and continuous discharge of the earth.

K K are valves, which are hinged at their outer edges, by means of the staples *p*, to the lower side of the seat G. The back ends of the valves are provided with arms *q q*, which have a joint connection with the eyes *r r* of the bifurcated wire F by means of the connecting-wires L L, so that, when the lid is in its closed position, the valves are closed against the lower side of the seat G to protect it from dust and the odor of the receptacle D, as seen in Fig. 2. When the lid is raised, as seen in Fig. 1, the valves, by the action of the bifurcated wire F, are swung downward and outward so as to present a free passage from the seat to the receptacle D.

M is a plate, hung, by means of its rod *s* and the staples *t t*, to the lower side of the seat G, so as to cover the joint opening between the upper front edge of the earth-pan E, to protect the opening against the outward passage of the water when the closet is being used. N is a permanent strip, which projects upward from

the back part of the seat G to support the lid C when thrown up.

I claim as my invention—

1. The swinging earth-pan E, provided with side reservoirs *a a* and a center opening, *m*, the said side reservoirs having openings *n n* for the passage of the earth into the receptacle D, substantially as described.

2. The bifurcated wire F, in combination with the lid C and earth-pan E, substantially as and for the purpose set forth.

3. The valves *k k*, in combination with the under side of the lid C and the jointed wires F L L for opening and closing the seat-hole I, substantially as described.

4. The hinged plate M, in combination with the seat G and earth-pan E, substantially as and for the purpose specified.

ROBERT S. WILLIAMS.

Witnesses:

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