

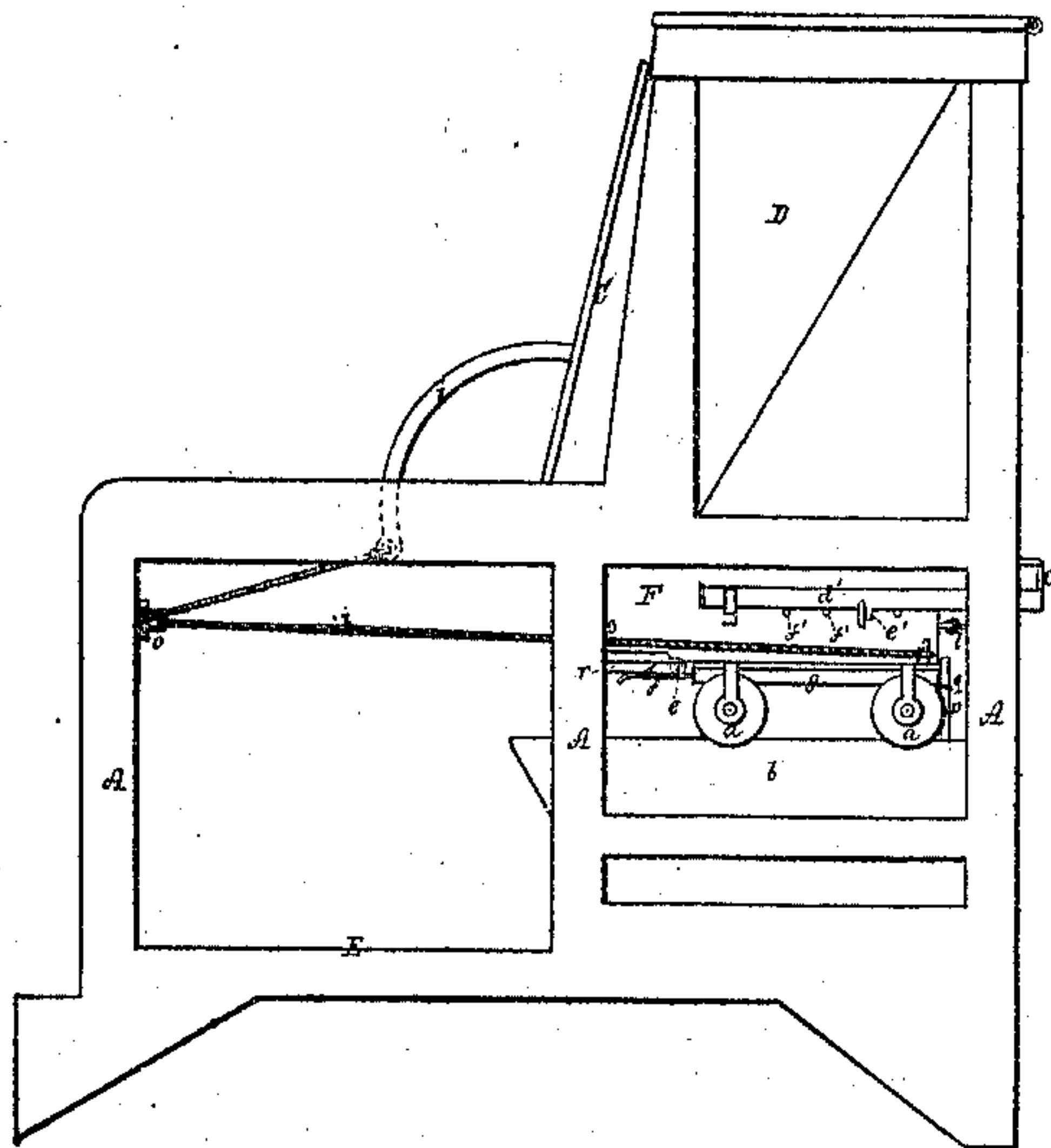
*B. A. G. Fuller,*

*Earth Closet.*

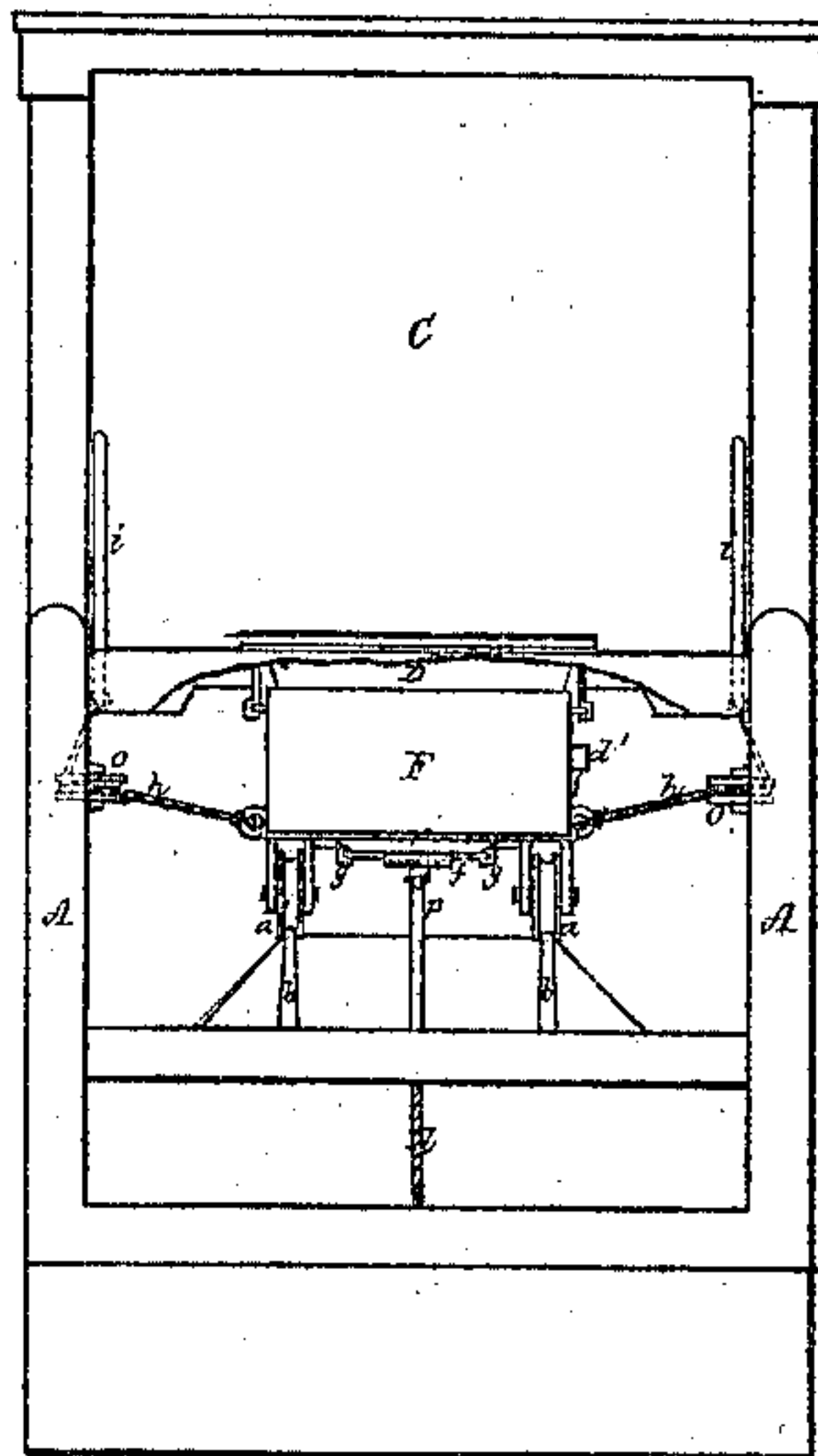
*No. 97,495.*

*Patented Dec. 7. 1869.*

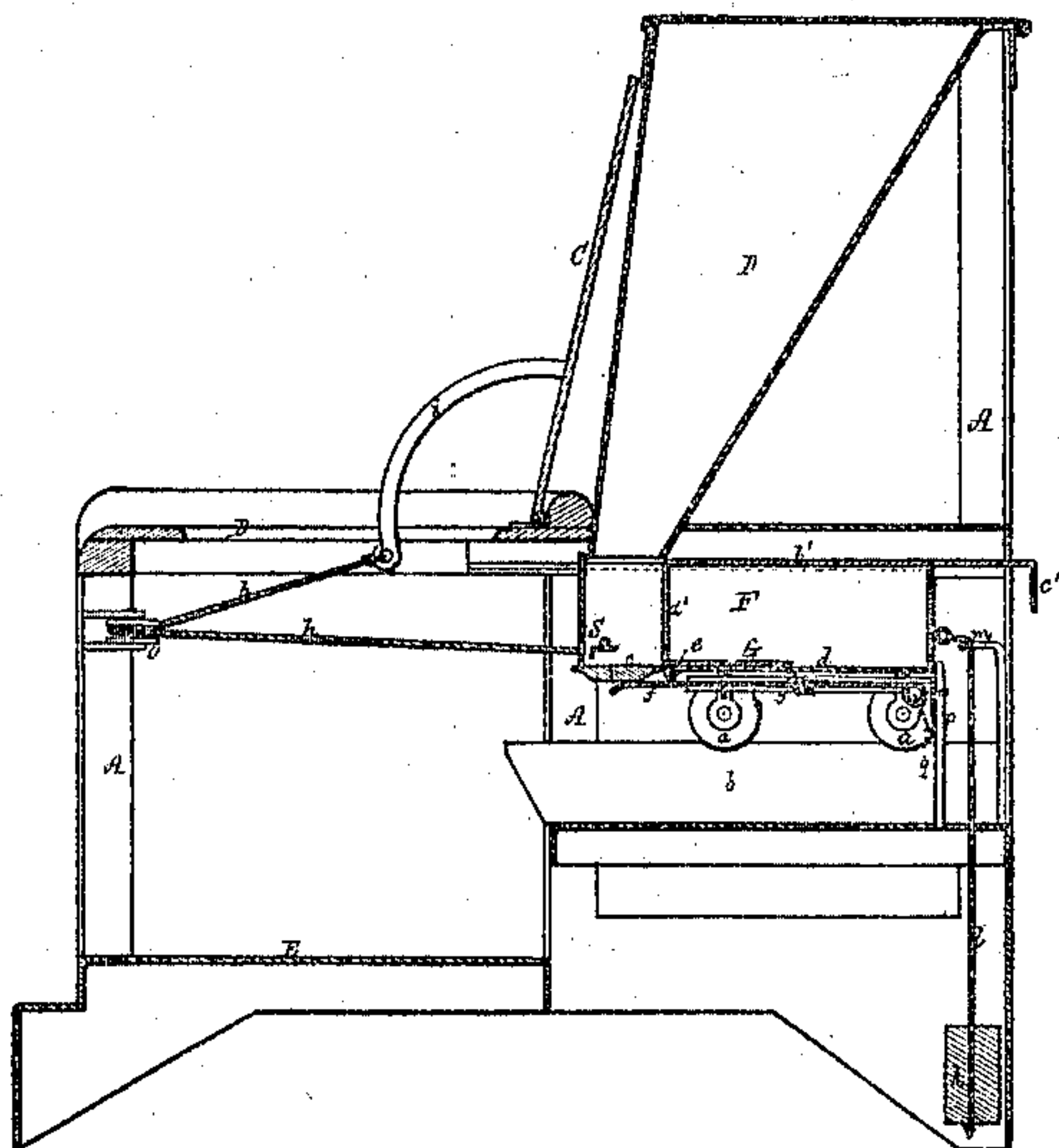
*Fig. 1*



*Fig. 2*



*Fig. 3*



Witnesses.

*S. W. Piper*  
*J. A. Snow*

B. A. G. Fuller.

by his attorney.

*R. W. Eddy*



# United States Patent Office.

BENJAMIN APTHORP GOULD FULLER, OF WEST ROXBURY, MASSACHUSETTS.

Letters Patent No. 97,495, dated December 7, 1869.

## IMPROVEMENT IN EARTH-CLOSETS.

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

To all persons to whom these presents may come:

Be it known that I, BENJAMIN APTHORP GOULD FULLER, of West Roxbury, of the county of Norfolk, and State of Massachusetts, have made a new and useful invention, having particular reference to what are termed Earth-Closets, or Commodes; 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 side elevation,

Figure 2, a front view, and

Figure 3, a vertical section of one of my improved earth-closets.

The closet hereinafter described, in its general features is analogous to the well-known earth-closet invented by Rev. Henry Moule, of Fordington vicarage, Dorsetshire, England.

Instead of the "vibrating hopper," as used by the said Moule, I employ a dumping-carriage, of a peculiar construction, such carriage being supported on rails or ways, and provided with mechanism for imparting to it, by the movements of the cover of the seat, and by a weight, rectilinear movements to and from the hopper, or earth-reservoir, as occasion may require.

In the drawings—

A denotes the frame of the closet;

B, the seat;

C, the cover thereof;

D, the earth-reservoir; and

E, the platform on which the hod or vessel for receiving the excrement and covering-material or earth is placed.

The dumping-carriage is shown at F, it being a box, supported by four wheels, *a*, upon two parallel rails, or ways, *b b*, arranged below the earth-reservoir, in manner as exhibited in the drawings.

The carriage is open at top, and has a discharge-orifice, *c*, made through the front portion of its bottom *d*.

A door, *r*, to such orifice *c*, is connected to the bottom *d*, by hinges *e*, so as to open downward.

Furthermore, there is applied to the said bottom *d*, against its under side, a slide-bar or door-supporter, *f*, such bar being arranged in guides *g g*, projecting from the bottom *d*.

While being pushed forward against the door, the slide-bar will elevate the door, so as to cause it to close the opening, and while it is underneath the door, such slide-bar will retain the door in a horizontal position.

There is within the carriage a slide, or gauge, *G*, provided with adjusting-devices, by which its distance from the front end of the carriage may be regulated

and fixed at pleasure, in order to gauge the size of the space within the carriage into which the earth is to be discharged from the reservoir.

This slide or gauge is a metallic plate, bent at a right angle, a part, *a'*, of it extending down into the carriage.

The upper or horizontal portion *b'* serves to close the lower end of the reservoir or hopper, at such times as the earth-receiving space of the carriage may not be underneath the lower end of the hopper.

At its rear, the gauge *G* is bent downward, as shown at *c'*, and has an index-bar, *d'*, projected horizontally from it, alongside of one side of the carriage.

This index-bar has a stud, or stop, *e'*, extended down from it.

A series of holes, arranged in the side of the carriage, in manner as shown at *f'*, enables a person, by means of a pin or plug inserted in either of them, and by the index-bar and its stop *e'*, to adjust the front part *a'* of the gauge *G* at such a distance from the front end of the carriage as circumstances may require.

The said carriage is to be so connected with the lid or cover *C* as to be retracted while the cover may be in the act of being raised, and by the force applied to the cover to raise it from a horizontal into an upright position or thereabout.

The connection of the carriage with the cover is also to be such as to cause the carriage to be drawn or moved forward during a depression or downward movement of the said cover.

To these ends, the carriage, by means of cords *h h*, led around pulleys *o o*, is connected with two quadrant-arms, *i i*, extended down from the cover.

A weight, *k*, suspended from a line, *l*, fastened to the rear of the carriage, and led over a guide-pulley or through a guide, *m*, serves to retract the carriage.

On depressing the cover, the carriage will be drawn forward. On raising the cover, the weight *k* will retract, or draw the carriage back to its rearmost position under the reservoir.

The slide-bar *f* is connected with a stationary stop, or standard, *p*, by means of a line, *g*. During an advance of the carriage, the slide-bar will be moved by and with it, until estopped by the rope or line *g*, by the latter being drawn taut. The carriage will continue its advance until it may have moved on the bar sufficiently to move the door or valve of the carriage beyond the said bar, in which case the door will fall into an inclined position, and discharge the load of earth from the carriage into the hod.

During a retreat of the carriage, the slide-bar *f* will be forced back against the standard *p*, and will be estopped thereby. The carriage, continuing to retreat, will force the door against the slide-bar, which



will press up and close the door, and hold it closed until the carriage may be again advanced, and the slide-bar be estopped by its line or rope.

Within the carriage F is what I term the "scatterer," S, which consists of a horizontal shaft, provided with a series of wings extended from it. This shaft is supported at its opposite ends, so as to be capable of freely revolving. During the discharge of earth out of the carriage, the scatterer S will be revolved, or will operate to separate and scatter the earth, so that in falling it may be diffused over the excrement to be covered by it. If desirable, this scatterer may have applied to it a mechanism for revolving it at the proper time.

I herein make no claim to the combination of a hopper and seat, with a rotary box, and one or more levers and a weight, combined with a "pull-up," or handle, such as is used in water-closets, such having been employed by the said Moule in his earth-closets.

I claim—

The dumping-carriage F, as made with or having

the gauge G, the opening c, and the door r, arranged as described, and as combined with the lid or cover of the seat, by means as set forth, whereby such carriage, by and during the movements of the seat, may be caused to operate as explained.

Also, the combination of the index-bar d' and its stop e', and the series of holes f, with the gauge G and the dumping-carriage, as set forth.

Also, the combination of the door-supporter f, and its operative mechanism, viz, the stop p and line g, with the dumping-carriage, combined with the hopper and seat, so as to operate therewith, substantially as set forth.

Also, the combination of the scatterer S with the dumping-carriage and the hopper, applied to the seat and its cover, and arranged to operate therewith, as hereinbefore explained.

BENJAMIN APTHORP GOULD FULLER.

Witnesses:

R. H. EDDY,  
J. R. SNOW.