

(No Model.)

I. W. SYLVESTER.
COMMODE.

3 Sheets—Sheet 1

No. 465,569.

Patented Dec. 22, 1891.

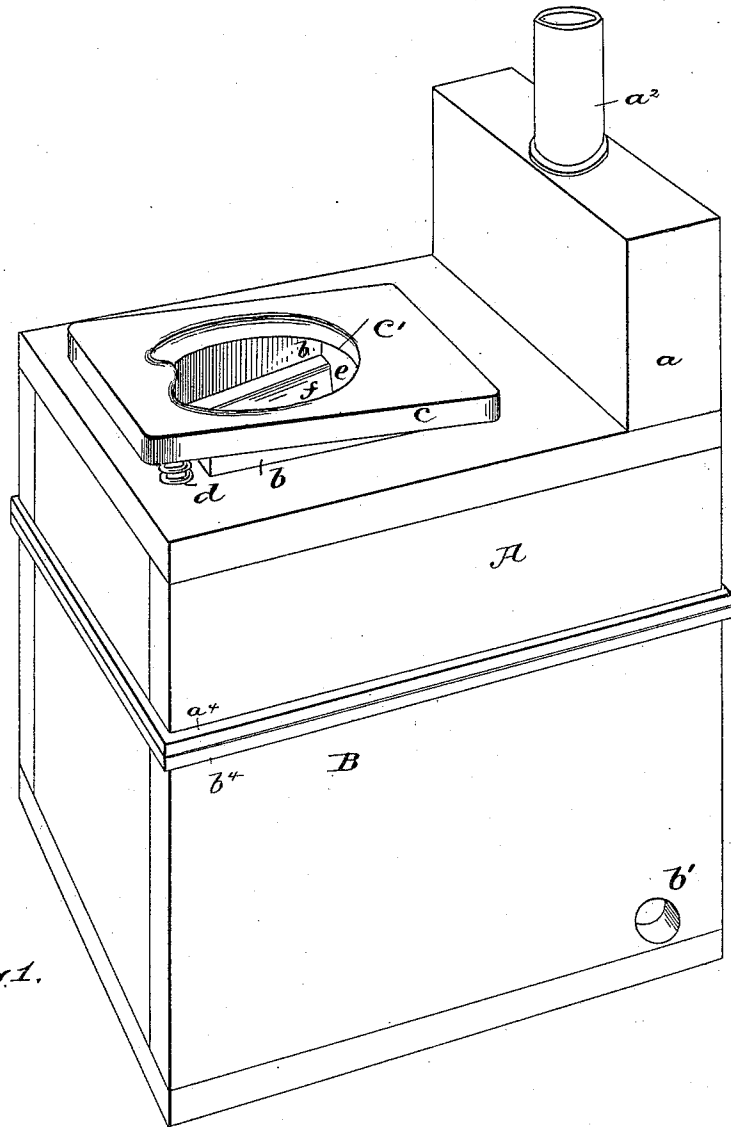


Fig. 1.

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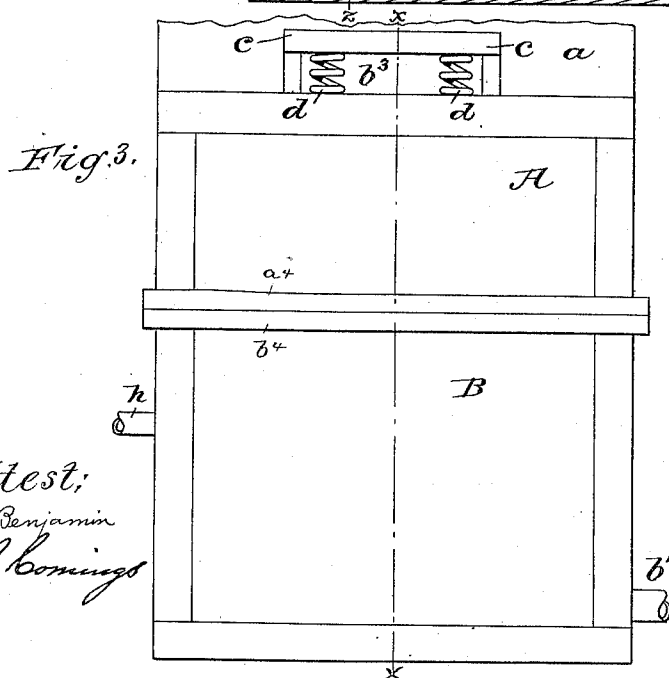
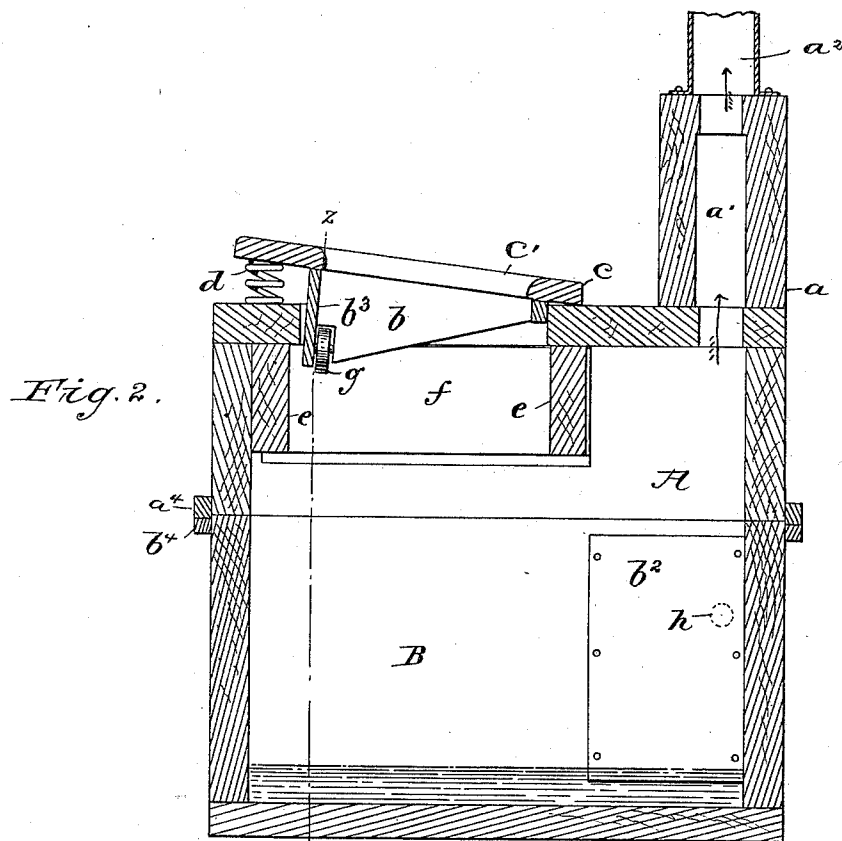
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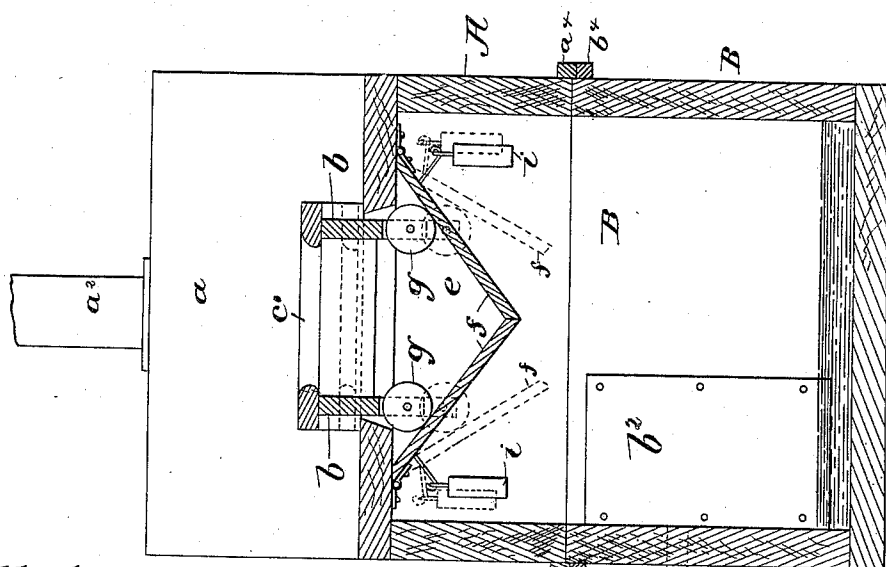
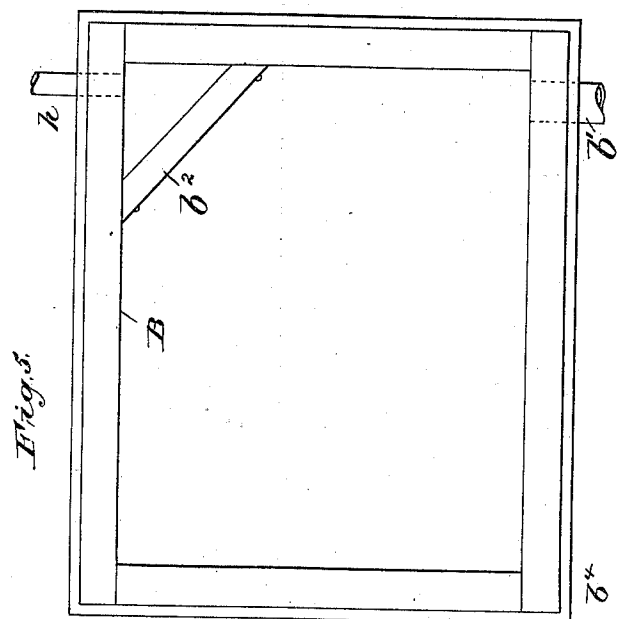
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3 Sheets—Sheet 3.

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No. 465,569.

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UNITED STATES PATENT OFFICE.

ISAIAH W. SYLVESTER, OF PASSAIC, NEW JERSEY.

COMMODOE.

SPECIFICATION forming part of Letters Patent No. 465,569, dated December 22, 1891.

Application filed March 19, 1891. Serial No. 385,700. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH W. SYLVESTER, of the city of Passaic and State of New Jersey, have invented a new and useful Improved Commode, designed to retain fæces and urine for some length of time without objectionable vision and odors. The following is a description of the same, reference being had to the drawings herewith annexed and made a part of this specification.

Figure 1 is a view of the commode as it stands ready for use, and it will be observed that it consists of an upper part A, containing a vertical moving seat c' , in the rear of which is an air-chamber a , all resting upon a lower part B, which is the receiver of the fæces and urine. Fig. 2 is a vertical section of both upper and lower parts. Fig. 3 is a front view showing two springs $d d$, holding the seat-board in position. Fig. 4 is a vertical section showing two ends of two horizontal shutters $f f$, one of two V-shaped projections e , two weights $i i$, hanging to arms projecting from the shutters, all immediately beneath the seat-hole, and in the corner of the lower part B a partition b^2 . Fig. 5 is a horizontal section showing the upper end of partition b^2 , a stop-cock h , entering into the corner made by partition b^2 , and a stop-cock b^4 , placed near the bottom for cleaning purposes.

The commode, as represented in Fig. 1, is box-shaped; but it may be constructed in any suitable form or dimension. I construct it of wood, and to prevent fæces or other decomposable materials from entering into the pores of the wood, as well as to preserve the wood itself, I line or coat the inside of the lower part B with coal-tar. This lower part B is shown in all of the figures, and is the receptacle of the fæces and urine. At one corner of B, I place a partition b^2 , which cuts off a small space and extends vertically to within about an inch (more or less) of the top and the bottom of B. The upper end of this partition b^2 is seen in Fig. 5. A cock h opens on the inside of the space cut off by partition b^2 , which cock is located twelve to eighteen inches from the bottom of B. It is for the purpose of drawing off the superabundant liquid with whatever the liquid may contain in solution whenever the liquid shall have arisen above the cock's level. The partition b^2 serves sev-

eral purposes. It keeps the paper and insoluble portion of the fæces, &c., within the body of the commode and from clogging the outlet h . It compels the water and urine to pass down and under its lower end before reaching the outlet h , in order that as it does so all floating materials may be left on the top of the water-column, while those things that may be heavier than water may fall to and remain on the bottom of B, only the water and whatever it may contain in solution passing down and then up between the partition b^2 and the corner of B to the outlet h , from whence it can be taken for fertilizing purposes as often as may be desired. This partition is shown in Figs. 2, 4, and 5, and taken in connection with outlet h enables one to draw off the liquid without removing from the commode any oily disinfectant lighter than water, which may be desirable to at any time use by floating it upon the top of the column of water in the body of the commode. The outlet b' is intended for the more thorough cleansing of the commode whenever it may be desirable to remove its entire contents.

The upper part A is made removable from the lower part B at pleasure, it simply sitting upon B when in use, the joint being made as tight as possible by being made smooth, and the whole kept in place by the side beading $a^4 b^4$. In this upper top part is sunk a movable frame, to which is attached the board in which the seat-hole is made.

The seat-hole board and seat-hole c and c' , the frame $b b^3$, the shutters $f f$, and V-shaped projections $e e$ are shown in Figs. 2 and 4.

An air-chamber a is situated in the top of A immediately in the rear of the seat-hole, which air-chamber is designed to connect the interior of the commode with any ordinary house-chimney flue or other ventilating apparatus by means of tin piping a^2 about two inches in diameter.

The seat-hole c is made in a board which is fastened to a rectangular frame $b b^3$, fitted into the top of A, so as to move freely but snugly in a vertical direction. The seat-hole board is made a little longer and broader than the frame, and two springs $d d$, fitted between the front projection of the seat-hole board and the top of A, (see Figs. 1, 2, and 3,) hold the front

end of the frame and seat-board about three (3) inches above the top of A, while the back or rear end of the seat-hole board rests directly on the top of A. This gives the seat-board *c* and frame *b* ⁵ *b*³ an inclined position when the commode is not being used; but when a person sits upon the seat-hole the springs *d d* are so adjusted as to yield to the person's weight and the frame and seat-board fall an inch or more, or until the seat-hole strikes suitably-adjusted rests placed at the sides and between the seat-board and the top of A. These springs may be placed at the sides, if preferred, and may be of any appropriate form. When the person using the commode rises, the springs *d d* immediately carry the frame *b*³ and seat-board *c* to its original position. A fall of an inch or more is thus secured, and I utilize this fall by making the front end of the frame *b*³ impinge on two horizontal shutters *ff*, hung on the under side of the top of A and immediately beneath the seat-hole, one shutter being hung on each side of the seat-hole, and both so adjusted as to close toward each other until their points meet and the two ends of each shutter strike two V-shaped projections, pointed downward and fastened on the under side of the top of A. These shutters *ff* are at right angles with the V-shaped projections *ee*, Figs. 2 and 4. The shutters would hang perpendicularly but for weights, which I use in preference to springs, although suitably-adjusted springs may be used, which weights are hung to arms extending at right angles from the sides of the shutters near that edge of the shutter that is hinged to the top of A. These weights and arms *ii* are seen in Fig. 4. The arms extend at a right angle from the shutter to a point two to four inches beyond the point on the under part of the top A to which the shutters are hinged; or, in other words, the fulcrum-point and the weights are of such gravity as to move the shutters from their otherwise perpendicular position to an inclined position and to the position at which the ends strike the two V-shaped projections *ee*, one of these V-shaped projections being at the rear end of the seat-hole and one at the front end. The opening below the seat-hole is then closed by the action of the weights.

At each of the lower front corners of the frame *b*³ I place a small wheel *g*, which, when the frame is at its most elevated position, just impinges on the shutters as they are held

by the weights against the V-shaped projections. They are placed there to save abrasion and to make the opening and closing of the shutters easy. As the frame *b* is pressed down by the weight of the person using the commode, the wheels revolve against the shutters and compel them to open by overcoming the gravity of the weights. As long as the seat-hole board and frame is held down to its lowest position the shutters remain open and the commode is made usable. When the frame rises, the pressure of the wheels against the shutters is relieved by the upward tendency of the springs *d d*, and the gravity of the weights *ii* closes the shutters against the V-shaped projections. Hence when a person is actually using the commode the shutters remain open; but when such person leaves the seat the springs *d d* raise the frame and seat-hole, and the horizontal shutters are closed so quickly by the weights that all unsightly visions of fecal matter are cut off before a person can turn around and look at it.

The upper part of the commode A is made deep enough to permit it to hold the shutters, frame, &c., and these are therefore easily removed, together with the air-chambers, and kept by themselves whenever it may be desirable to remove B and cleanse it.

The following features in my commode tend both to diminish the production of foul odors and their escape into the room: first, the submergence of the feces beneath the water and urine; second, the use of any oily disinfectant lighter than water that may be kept on the top of the column of liquid in B; third, to the ventilation through the air-chamber *a* and pipe *a'*, and, fourth, to the automatic shutters *ff*, which keep the seat-hole closed when the commode is not actually being used.

I claim as my invention—

The combination of the movable frame *b* with the seat-board attached, operated in a vertical direction by the springs *d d* or their equivalent, the V-shaped projections *ee*, and the shutters *ff*, so adjusted as to close against the V-shaped projections *ee* by force of the weights *ii* or their equivalent in springs and to open by the downward motion of the frame *b*, impinging on their sides.

ISAIAH W. SYLVESTER.

Witnesses:

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H. G. TORREY.