

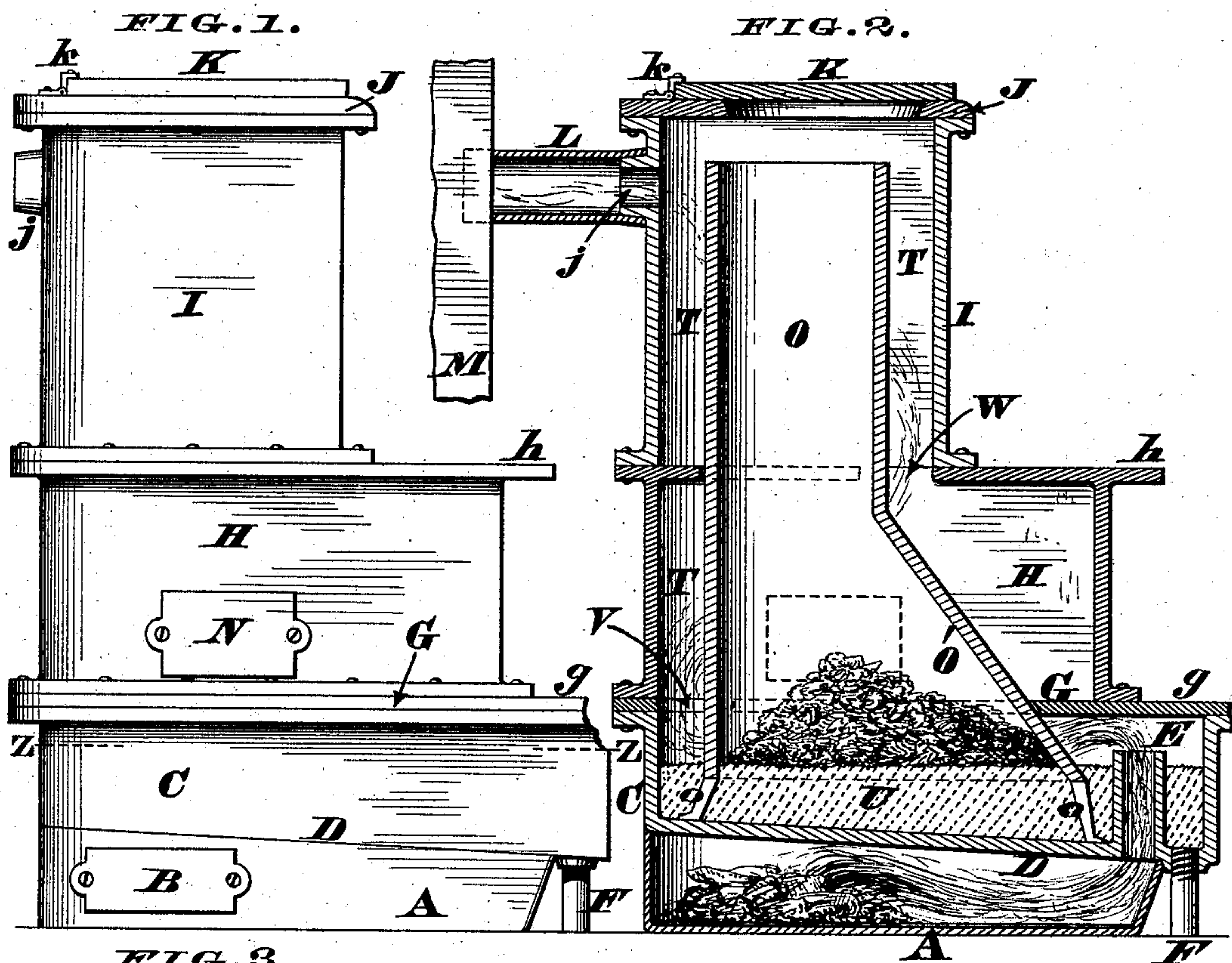
(No Model.)

L. B. ROBB.

COMMODE.

No. 372,237.

Patented Oct. 25, 1887.



UNITED STATES PATENT OFFICE.

LUCIAN B. ROBB, OF CINCINNATI, OHIO.

COMMODOE.

SPECIFICATION forming part of Letters Patent No. 372,237, dated October 25, 1887.

Application filed May 21, 1887. Serial No. 238,943. (No model.)

To all whom it may concern:

Be it known that I, LUCIAN B. ROBB, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have
5 invented certain new and useful Improvements in Commodes, of which the following is a specification, reference being had therein to the accompanying drawings.

My present invention comprises a portable
10 commode that can be readily fitted up in any room or chamber so as to communicate with the flue or chimney thereof, but preferably with the kitchen-flue, as its almost constant use insures the most effectual ventilation of
15 the apparatus. Said commode consists of an outer shell or casing, usually made of three sections placed one upon the other, the two lower sections serving as steps, that permit a person ascending to the seat, which latter is
20 secured to the top of the upper section. This seat has a suitable lid, the opening of which allows the excrements to drop directly into a receiving-chamber, which is open both at top and bottom and is somewhat less in diameter
25 than the casing, in order that an air-space may be formed between said chamber and casing, the base-plate of the latter being imperforate, except where a neck and waste-pipe are located. This casing-base is filled with sand or
30 other cheap and non combustible absorbent that will readily take up the urine, the upper surface of said bed being somewhat above the open bottom of the receiving-chamber, which latter stands upon feet or other suitable supports. The entire apparatus is mounted upon
35 a furnace, within which a fire is built at suitable intervals for the purpose of evaporating the urine and drying the excreta preparatory to burning the latter, as hereinafter more fully
40 described.

In the annexed drawings, Figure 1 is a side elevation of my improved commode, a portion of the lower step of the same being broken off. Fig. 2 is a vertical section of the apparatus, a fire being seen in the same. Fig. 3 is
45 a side elevation of the receiving-chamber detached from the outer shell or casing. Fig. 4 is a horizontal section of the commode, taken at the line $z z$ of Fig. 1. Fig. 5 is an enlarged
50 vertical section through the closed doors of the casing and receiving-chamber.

A represents a shallow furnace having a fire-door, B, which is so fastened as not to be readily opened, said furnace being arranged to support the lower section, C, of the outer
55 shell or casing. This section, like the others composing the casing, is preferably made of cast-iron, and has a sloping base-plate, D, a short vertical neck, E, and a waste-pipe, F, which latter may communicate with a sewer
60 or other outlet. Section C preferably supports a horizontal diaphragm, G, the outer or front portion of which, g , serves as the first step of the commode. Mounted upon this diaphragm is another section, H, the upper plate of which
65 has a forward extension, h , that constitutes the second step. Section H carries the third or upper section, I, to the top of which is fastened an ordinary privy-seat, J, having a lid or cover, K, hinged thereto at k . Projecting
70 laterally from this upper section is a neck, j , to which is attached a pipe, L, that leads into a chimney, M, the kitchen-chimney being preferred, as previously stated. N is a door on the outside of the second section, H, said door
75 being secured in such a manner as not to be readily opened.

Fitted within the sectional casing or shell is a receiving-chamber whose upper portion, O, is about vertical, while its lower portion, O',
80 O', flares forwardly, in order that it may pass in under the steps of the commode, and thus increase the capacity of the chamber. Furthermore, this chamber is open both at top and bottom and is so fitted within the casing
85 as not to come in contact with the base-plate D of the same. In the drawings this elevation of the chamber is effected by feet $o o$; but the invention is not limited to such supports. Chamber O O' has a fire-door, P, in line with the door
90 N of the second section of the casing, as seen in Fig. 5. It is preferred to place a vertical partition on each side of the inner door, P, so as to form a pocket, R, to contain sand, S, for a purpose that will presently appear.
95

T is an air-space between the outer casing and receiving-chamber, and U is a bed of sand at the bottom of the latter. Diaphragm G is so arranged as to prevent any passage of fire and smoke into the second section, H, except
100 where the flue V occurs, and a similar arrangement of the upper plate, h , of said section

causes the products of combustion to pass through the flue W before entering the upper section, I. The operation of this fire-commode is as follows: In fitting up the apparatus the lower section, C, is filled with sand to a suitable level above the bottom of receiving-chamber O O', but not so high as to run down the neck E, the pocket R being also filled with sand, as at S, to prevent leakage of fecal matter through the inner door, P, and thence out at the other door, N. Waste-pipe F is connected to a sewer or other outlet, and the ventilating-pipe L is applied to the collar j, so as to establish a communication between the commode and flue M. Finally, the doors B N are securely closed to prevent them being tampered with. These precautions having been adopted, the commode is used the same as an ordinary privy, the lid or flap K first being opened to permit access to the seat J, after a person has ascended the steps g h of the apparatus. The excrements are then discharged directly into the receiving-chamber O O', and are deposited upon the sand bed U, which bed takes up the urine until the sand becomes completely saturated, and then the surplus urine flows off through the waste-pipe F. This action continues while the chamber is being gradually filled with excrements, all odors from the latter, and also from the absorbent bed U, being constantly and automatically drawn off by the draft of the kitchen-chimney M. Consequently the commode cannot occasion a nuisance in any room within which it is located. Before the receiving chamber is completely filled the lid K is closed, the door B opened, and a fire is kindled in the furnace A for the purpose of evaporating the urine from the bed U and drying the excreta within said chamber. During this operation the products of combustion first traverse the neck E and enter the lower section, C; but they cannot escape from the latter directly into the second section, H, on account of the manner in which the diaphragm G is arranged. Therefore the fire and smoke must travel back to the flue V, and then travel diagonally upward and forward to reach the other flue, W, from which point another diagonal but backward route is necessary before the products of combustion escape at the outlet j. It is apparent this circuitous passage

of fire and smoke causes a thorough drying of the excrements, and when this result has been obtained the outer door, N, is opened, the sand, S, emptied from the pocket R, and the inner door, P, is also opened. Fire is then started at the bottom of the excrements, and at the top of the same, if desired, and is kept up until said excrements are burned to ashes, in which condition they can be taken out of the commode and occasion no more nuisance than the cleaning of an ordinary stove or range. The various doors are now closed, the pocket R recharged with sand, and the commode is again ready for use; but the bed U is never disturbed, as its absorbent properties are restored the moment the urine is evaporated therefrom. It is the intention to keep the lid K normally closed, either by weights, springs, or other appliances; but if it should be accidentally left open there would be no escape of noxious gases from the commode, because of the natural upward draft of the chimney.

I claim as my invention—

1. The combination, in a commode, of an outer casing or shell, an inner receiving-chamber open at top and bottom, an air-space surrounding said chamber, an absorbent bed at the bottom thereof, an exit-pipe leading from said air-space, and means for drying or burning the contents of the commode, as described.

2. The combination, in a commode, of a casing or shell composed of a series of superimposed sections that constitute steps leading up to the seat, a receiving-chamber located within said casing, a set of partitions and flues that cause the products of combustion to circulate around the receiving-chamber, and means for drying or burning the contents of the commode, substantially as herein described.

3. A commode consisting of the furnace A, B, lower casing-section, C D E, diaphragm G, intermediate section, H, upper section, I, exit j, receiving-chamber O O', air-space T, and flues V W, said casing and chamber being provided, respectively, with doors N P, for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

LUCIAN B. ROBB.

Witnesses:

JAMES H. LAYMAN,
SAML. S. CARPENTER.